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Laikipia University
P. O. Box 1100-20300, Nyahururu-KENYA
TEL: +254 (0) 20266 3505/6
           +254 (0) 713 552 761
FAX: +254 (0) 20 266 3502
Email: rec@laikipia.ac.ke
http://www.laikipia.ac.ke

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Relationship between Cost of Sugarcane Production and Cost of Maize Production among Farmers in Nyanza Region, Kenya

Ben Jack Otieno Ochieng[1]*, Samuel O. Onyuma[2]

[1]Department of Economics, School of Business and Economics, Laikipia University, Kenya
[2]Department of Commerce, School of Business and Economics, Laikipia University, Kenya
*Corresponding author.

Abstract

Despite increased demand for sugarcane as an intermediate input in animal feeds production, bioethanol and food stuff, its significance on farmers' livelihood farmers in Kenya is mixed. There are sections of farmers uprooting this cash crop in favour of maize, a staple food in order to enhance their food security status. Additionally, some policy pronouncement encourages the diversification of sugarcane by intercropping it with other food crops. Through the application of correlation research design, this paper adopted the Structural Equation modelling to analyse primary data collected from rural households in the counties of Homabay, Kisumu and Migori, in Nyanza region to establish the relationship between sugarcane and maize production from their corresponding costs of labour, land and capital. The study concludes that as sugarcane production costs increases, food production cost also increases significantly though inelastic. Hence, ad-hoc increases in cost of sugarcane production must be tamed if maize production is to be achieved.

Keywords: Farmers, maize production, structural equation model, production cost, sugarcane production

Introduction

World sugarcane production and harvest have increased overtime due to an increase in demand for industrial bioethanol, animal feeds and food stuff. This is reflected in the increase of production from 448 million tonnes on 8.9 million hectares in 1961 to over 2 billion tonnes on about 27 million hectares by 2017. The largest world sugarcane production takes place in Brazil and India and accounts for 37 percent and 18.7 percent respectively (El Chami et al., 2020).

World ranking indicates Kenya as the 31st largest sugarcane producer and the 5th in Africa after South Africa, Egypt, Sudan and Swaziland. Sugarcane production in Kenya is done on 73,065 hectares with an average yield of 72,020 kilograms per hectare. With such levels of output per hectare, Kenya occupies the 35th position worldwide (AtlasBig.com, 2021). With such yield, the trend, from 1980 to 2010, alludes to an increase in production overtime. Nonetheless, this is attributed to increases in acreage of land planted and not on the yield per acre (Kenya Sugar Industry, 2009). Kenya Sugar Board [KSB] (2012); Mati and Thomas (2019) showed that output per acre declined in the years 2000s and 1990s due to poor land management, agricultural practices, delayed sugarcane harvesting and the usage of low-quality sugarcane varieties. In 2016, total sugarcane production degenerated from 639.7 thousand tonnes to 376 thousand tonnes. This

was attributed to conversion of sugarcane plantation land in favour of production of food crops, specifically maize and soya beans (Kenya National Bureau of Statistics, 2018).

Although Kenya National Bureau of Statistics (2018) portrayed an indirect correlation between sugarcane production and food insecurity among households, given land, the general linkage between sugarcane production and food security is still controversial in other dimensions. For instance, Ramashala (2012) as well as Swinnen and Squicciarini (2012) established that sugarcane production increases households' income thus increasing households' ability to afford food. Wiggins et al., (2015) observed that with increased cash crop production, food production from the perspective of availability, had been sustained. Mendoza et al., (2014) observed that increased sugarcane production served the needs of the sugar mills and by extension, also improved the lifestyle of the farmers. Contrastingly, Terry and Rhyder (2007), Tyler (2008), Harvey and Pilgrim (2011), and Anguyo (2014) observed that adapting sugarcane farming led to food deficiencies among the small-scale farmers, especially when linked to land use. In Kenya, Masayi and Netondo (2012) and Lihasi et al. (2016) also reported that sugarcane monoculture led to a drop in food crop production among the small-scale sugarcane farmers in Mumias. In Kigali, strenuous work conditions, coupled with low wage rates in sugarcane plantations make it difficult for labourers to support their households. This situation has resulted in disaffection to the level where all year-round, labourers lament about deteriorating position and their inability to vary their food requirements since the emergence of sugarcane agriculture (Lankhorst & Veldman, 2011).

The need to study maize production was prompted by findings by Mohajan (2004), which observed that Kenya, compared to her neighbours, is the largest importer of food and other agricultural products. Surprisingly, maize, a staple food crop, also experiences a national supply deficit and has to be imported. Cited by Kenya Agricultural and Livestock Research Organization [KALRO] (2021), Food and Agricultural Organisation (FAO) indicated that 65 percent of the daily per capita cereal consumption comes from maize; besides, its production accounts for 25 percent of agricultural employment and greater than 20 percent of the total agricultural production. Notwithstanding, its production has fallen from an average of 4.4 million tonnes to about 3.2 million tonnes in 2022 (Gitonga & Snyder, 2022). This is due to climate change, increased human activities and increased spread of invasive pests and diseases from pathogen and vector evolution. From the different County Integrated Development Plans (CIDPs), it is evident that there is food insecurity concern in Nyanza region since every county government in this region has prioritized to address it within their jurisdiction (County Government of Homabay, 2017; County Government of Kisumu, 2018; County Government of Migori, 2018). Similarly, Kenya's 'big four agenda' isolated food security and committed to ensure that Kenya attains 100 percent food and nutrition security (The National Treasury and Planning, 2020).

In Nyanza region (Migori, Homabay & Kisumu), there is humid temperature (Rao, et al., 2015), which is very useful for the growth of cash crops such as sugarcane, cotton and coffee; food crops such as sorghum, millet, maize, vegetables and beans; and rearing of domestic animals such as cows, sheep and goats (Manyong et al., 2005). Given this conducive farming conditions, 55.9 percent of Nyanza's total arable agricultural lands are under sugarcane production yet farmers from this region still suffer from food shortage (Rao, et al., 2015). The compelling argument is that the financial returns from sugarcane production are insufficient to cater for the deficits in food production (Masayi & Netondo, 2012); Lihasi et al., (2016). Close to 85 percent of the households realize food insecurity for at least 3 months each year due to natural disasters, limited access to credit or lack of knowledge of credit use, lack of adequate income, presence of non-local markets to increase their agricultural outputs and high rates of HIV/AIDS (CARE, 2010). In Kisumu region

alone, 53.6 percent of the households are food insecure (Urban Futures, 2018). Moreover, donations have been pumped into these areas in order to address food insecurity (Thuita, 2016).

Although most studies indicate sugarcane production having an adverse effect on food production, it is still a highly regarded cash crop among farmers and policy confusion still amounts on its production (Ochieng & Raballa, 2018). Farmers are still encouraged to diversify their production by intercropping sugarcane with other food crops to end the perennial dependence upon sugarcane alone and increase the likely yield of the crop per unit area (Singh, et al., 2019). If this is done, the intercropped plants benefit from irrigation, fertilization and minimal weed infestation (Shamsi et al., 2003). Interestingly, Gitonga and Snyder (2022) also observed reduced maize production due to increased sugarcane production uptake.

Past literatures have shown that land, labour and capital are critical components in sugarcane production, but the most important component is land (Wiggins et al., 2015; Bernardo et al., 2019; Rout et al., 2017). Similarly O'Kane (2011), Abah and Petja (2015), Di-Marcantonio et al., (2014) and Agidew and Singh (2018) documented the importance of land, labour and capital on food production. To this end, Wiggins et al., (2015) investigated the competitive or complementarity that exists between cash crop production and food crop production since there were concerns that cash crop production in Africa would displace food production. From their findings, households' access to food due to the competing input needs from cash crop farming, may still suffer from low incomes because of lack of labour, land and capital to produce more.

Given these shifts, this study investigated the level of association between the cost of input factors used in maize production as well as cost of input factors used in sugarcane production. Further, this study investigated the overall interaction of cost of inputs in sugarcane production on the cost of input factors used in maize production.

The Reviewed Literature

Sugarcane species *(Saccharum officinarum)* belongs to the grass family *Gramineae*. Many world economies use it as inputs in the production of alcohol, yeast, sugar and other derivatives. It grows to a height of 10-20 feet with a single plant bearing many thick, solid and aerial stems, coming in different colours ranging from white, yellow, black, dark green, purple, red or violet. The stems are jointed and the inter nodes are smaller at the base and increase in length, until it terminates in inflorescence (Ramashala, 2012).

Mendoza et al., (2014) established that sugarcane production must be increased to serve the needs of the sugar mills. Such an increase also leads to the betterment of the farmers' lifestyle. As such, the value chain analysis of sugarcane in Philippines, affirmed that good land preparation, sugarcane variety, proper scheduling of planting and fertilizer application are critical in ensuring yields. In order to attract private investment and generate employment, Olukunle (2016) used both primary and secondary data to investigate the profitability and competitiveness of sugarcane enterprises in Nigeria. By using information on farm size, size of operations, equipment costs for storage, production and processing, revenues, fixed assets, labour (hired and family), prices for input and output, interest and wage rates, the Kenya National Bureau of Statistics (2018)) reported the dominance of fertilizer among overall sugarcane production costs. This was followed by the cost of hired labour, cost of renting equipment and the interest rates paid on accounts. Dlamini and Masuku (2013) investigated the determinants of sugarcane profitability in Swaziland. Results from multiple linear regression equation in the study showed farm sizes, labour and fertilizer costs as well as sucrose prices as significant in determinants of sugarcane profitability. Nazir et al. (2013) used a Cobb Douglas function to determine the factors that affected sugarcane production

in Pakistan. Results revealed costs of DAP, urea, land preparation, farm yard manure, weeding, seed application and irrigation costs, were critical in influencing sugarcane growers' returns. However, they also pointed out that sub-optimal sugarcane production resulted from high input prices, lack of capital, low output prices and late payments. Besides, technical constraints such as land preparation, deficient scientific knowledge, seeds, insecticides, pesticides, natural calamities and insufficient irrigation, also contributed to the dismal sugarcane output.

Decline in sugarcane production among smallscale sugarcane growers in South Africa prompted Zulu et al. (2019) to investigate the factors affecting sugarcane production. Using a cobb-Douglas function, the results from their study cited and indicated late harvesting, late fertilizer application and late chemical application as the fundamental challenges that affected sugarcane production. However, labour and chemical application costs were positive and statistically significant in determining sugarcane production.

Maize, *zea mays,* is a grass belonging to the *Poaceae* family, (Plant Village, n.d). It forms an important aspect of food in Kenya. Maize can be consumed in its grain form or can be processed into maize flour, vegetable oils and also into beer, after being fermented. After harvesting, its left overs can either be used as fodder or processed into silage (Greenlife Crop Protection Africa 2021). Being a part of food crop, Di-Marcantonio et al., (2014) assessed the impact of policy, governance and access to food production especially on domestic food availability. By studying agricultural inputs, urbanization and agricultural exports, ordinary least squares estimation indicated that agricultural inputs such as land, irrigation and labour, were significant in influencing food productivity.

Food production and poverty are rife in Ethiopia and these situations are made worse by the ravaging droughts and inadequate public policy. To ascertain the average daily food availability to each person, Household Food Balance (HFB) model established that family size, labour force, relief support, agro-ecological zone, farming experience as well as household head ages, were significant determinants of the rural food insecurity (Agidew & Singh, 2018).

Mwavu et al. (2018) focussed on land use to determine the contribution of sugarcane farming towards food production. From their analysis, majority of the farmers were not interested in sustaining their food production and therefore suffered from lack of adequate and nutritious food. Even though sugarcane farmers generated income, food insecurity still persisted among them. Wiggins et al. (2015) investigated whether cash crops and food crops are competitive or complementary. Given the fear that cash crop production would displace food production in Africa, concern was that small scale farmers would be exposed to market risks due to the dominance of the large firms. It emerged that households practising sugarcane farming had the risk of facing low incomes emanating from the fundamental production factors (labour, land and capital) to produce more.

In Tanzania, it was established that sugarcane growing stimulated business growth around some specific towns where it was being practised. Besides, returns from sugarcane enabled the farmers to fund other crops, build houses and educate children. However, it was noted that expanding sugarcane plantation led to land scarcity. Similarly, the costs of purchase of land also become expensive and continued expansion led to the replacement of food crops (Sulle & Smalley, 2015). On the same note, Urassa (2015) also established that education also plays a role in maize yields. However, access to fertilizers, improved seeds, chemical inputs and extension services are also important in increasing production.

With regard to the relationship between sugarcane production and food production, Intarapoom et al. (2019) used quantitative methodological approach to investigate the impact of

sugarcane farmland on rice production in Thailand. The study progressed by getting the quotient between the sugarcane planting area and the rice plantation area in the following manner; 100:0, 75:25, 50:50, and 25:75 respectively. From the report, households who considered sugarcane to rice land ratio of 100:0, had low food production level than the rest of the groups while households with sugarcane to rice land ratio of 25:75, had the greatest food production level.

Gunatilake and Abeygunawardena (2011) considered food production as a contender in studying sugarcane bioethanol economic feasibility in India. From the findings, production of sugarcane to make bioethanol compromised food production and therefore recommended non-production of bioethanol using sugarcane juice since it was neither socially desirable nor economically feasible. In their study, three different regions with different climatic conditions were studied and this led to the existence of variances in production cost. In this study, the selected regions had the same geographical zoning.

While conducting an ethnographic study in the northern region of Fiji, Carswell (2003) examined the importance of family labour in sugarcane production and the linkage between paid and unpaid labour among small scale sugarcane farms. In the study, it was concluded that labour in this region was undertaken in a gang since majority could not pay labourers to work for them because of poverty. In as much as men were being paid for offering the services, women were hardly paid. As a result, income from the husbands could not sustain the needs of the family, hence many families engaged in other economic activities to supplement their meagre incomes. For the sake of reliability, ethnographic studies are usually unreliable and hence the need have a more robust approach that is more reliable. This study employed inferential statistics with observable data to make it become more reliable.

From the aforementioned literatures, there were no studies that investigated the intra relationships that existed between the costs of different factor inputs in both maize and sugarcane production. This study addressed this intra input relationship and also the inter input relationship inherent in sugarcane production as well as in food production. Considerations were however placed upon the input costs.

Methodology

This study adopted correlational research design to examine the relationship between sugarcane production and maize production among farmers Nyanza region, Kenya. Stratified random sampling generated strata from the sugarcane and maize growing counties of Kisumu, Homabay, and Migori. The choice of this region was premised on the fact that it is the one where both the crops are cultivated in large scale in the region, and sometimes side-by-side through intercropping. The two crops also form the main source of rural households' income, thus supporting their livelihood, and most importantly, also compete for scarce available arable land (Geetha et al., 2015).

The study targeted 317 farmers above 25 years with more than five years' farming experience. Primary data was collected through questionnaires which were tested for reliability via Cronbach's alpha, content validity through experts' opinion, and heteroscedasticity using the Levene's test. In order to establish the relationship between cost of sugarcane production and cost of maize production, under the null hypothesis that cost of sugarcane production is not statistically and significantly related to the cost of maize production, this study employed the use of correlation analysis to confirm any inherent the degree of association as well as regression analysis through Structural Equation Modelling (SEM). This was meant to establish the relationships between the various constructs in sugarcane production and maize production, namely the cost labour, cost of

land and cost of capital. Given that there were a number of factors involved in generating the constructs, this study broke down the analysis of correlation into four parts. Part (1) investigated the correlation between the factors that comprised sugarcane production costs, including the costs of labour, planting, fertilizers, pesticides, seedlings, irrigation, transport and maintenance or repairs. Part (2) involved the investigation of the factors that formed the constructs in the cost of maize production. Similarly, the cost of labour, planting, fertilizers, pesticides, seedlings, irrigation, transport and maintenance or repairs used in maize production was analysed. Part (3) involved the categorization of these costs into the cost of labour, capital and land used in sugarcane production and maize production respectively. Once the sums were generated, correlation analysis depicting the cost of land, labour and capital of sugarcane production was performed on the cost of land, labour and capital used in maize production to study any inherent trade-offs. Finally, in part (4), all the costs in sugarcane production were summed together to form the overall cost of sugarcane production. Similarly, all the costs in maize production were also summed up to form the overall cost of maize production, and then the two were correlated.

Results and Discussion

In this section, there is a discussion on the correlation matrix on the cost elements in sugarcane production and the correlation matrix on cost elements in maize production. The correlation between the costs of constructs in sugarcane and maize production is also discussed, followed by the relationship between cost of sugarcane production and cost of maize production

Correlation Matrix on Cost Elements in Sugarcane Production

From the findings contained in table 1, the level of association between the constructs under the cost of sugarcane production showed that cost of renting land was significant and weakly positively correlated with the cost of labour, planting, fertilizer use and seedling. Coefficients of Correlation were *(r = 0.282, p = 0.000); (r = 0.374, p = 0.000); (r = 0.113, p = 0.044); and (r = 0.290, p = 0.000)*, respectively. This means that as the cost of renting land increases, the cost of labour, cost of planting, cost of fertilizer-use as well as the cost of seedling are likely to weakly increase.

Table 1: Correlation Matrix on Cost Elements in Sugarcane Production

		Rent	Labour	Planting	Fertilizer	Pesticide	Seedling	Transport	Machinery
Rent	P. Cor	1							
	Sig.								
Labour	P. Cor	.282**	1						
	Sig.	.000							
Planting	P. Cor	.374**	.448**	1					
	Sig.	.000	.000						
Fertilizer	P. Cor	.113*	.212**	.208**	1				
	Sig.	.044	.000	.000					
Pesticide	P. Cor	-.002	.070	.014	.407**	1			
	Sig.	.977	.213	.803	.000				
Seedling	P.Cor	.290**	.150**	.185**	.165**	.061	1		
	Sig.	.000	.008	.001	.003	.276			
Transport	P.Corl	-.027	.079	.023	.059	.024	.199**	1	
	Sig.	.637	.163	.683	.298	.669	.000		
Machinery	P.Cor	-.068	-.078	-.038	-.047	.008	-.013	-.064	1
	Sig.	.230	.163	.501	.407	.882	.813	.258	
	N	317	317	317	317	317	317	317	317

Source: Survey Data (2021)

Moreover, apart from the cost of rent, cost of labour spent in sugarcane production was positively correlated to the cost of planting, fertilizer and seedlings. The coefficients of correlation were *(r = 0.448, p = 0.000); (r = 0.212, p = 0.000); and (r = 0.150, p = 0.008),* respectively. This means that as the cost of labour increases, the cost of planting, fertilizer and seedlings are also likely to increase significantly. Given this, a percentage change in the cost of labour tended to weakly influence the cost of labour, cost of planting, cost of fertilizers and cost of seedlings. This is in line with findings by Dlamini and Masaku (2013), which also established that labour and fertilizer use were significant in sugarcane production.

Furthermore, the cost of planting is positively and significantly correlated with the cost of fertilizers, pesticides and seedlings. The coefficient of correlation was $(r = 0.208; p = 0.000); (r = 0.407; p = 0.000) \& (r = 0.165; p = 0.003)$, respectively. This means that as the cost of labour increases, the cost of fertilizers, pesticides and seedlings are all likely to increase significantly. This implies that a percentage change in the cost of planting tended to weakly influence cost of fertilizers, cost of pesticides and cost of seedlings. This is in line with findings by Zulu et al. (2019) which also observed that fertilizer and chemical applications, positively affected sugarcane production.

Similarly, the cost of fertilizer and cost of planting, cost of seedling in the study area was also significantly correlated with the cost of transport $(r = 0.199; p = 0.000)$. This means that as the as the cost of seedlings increased, the cost of transport was likely to increase significantly.

Correlation Matrix on Cost Elements in Maize Production
In this study, maize production was investigated in terms of its availability; that is, farmers' capacity to avail maize into the nearest markets for sale. To make maize become available, farmers incur various costs to produce it. These costs are on land, capital and labour. Although growing 'own food' may be a necessary condition to maize production, it may not be a sufficient condition since maize can as well be bought or sold from or to the market. Correlation test was also

performed on the cost elements that comprised the cost of maize production, as presented in table 2.

Table 2: Correlations Matrix on Costs of Maize Production

		Cultivation	Planting	Fertilizer	Pesticide	Seedling	Transport	Maintenance
Cultivation	P.Cor	1						
	Sig.							
Planting	P.Cor	.815[**]	1					
	Sig.	.000						
Fertilizer	P.Cor	.495[**]	.399[**]	1				
	Sig.	.000	.000					
Pesticide	P.Cor	-.003	-.010	.160[**]	1			
	Sig.	.962	.853	.004				
Seedling	P.Cor	-.070	-.075	.223[**]	.327[**]	1		
	Sig.	.216	.185	.000	.000			
Transport	P.Cor	.341[**]	.468[**]	.037	.016	-.005	1	
	Sig.	.000	.000	.514	.778	.934		
Maintenance	P.Cor	.217[**]	.429[**]	.013	.016	-.010	.714[**]	1
	Sig.	.000	.000	.822	.781	.861	.000	
	N	317	317	317	317	317	317	317

Source: Survey Data (2021)

The study findings as presented in table 2 indicates that there was a positive and significantly correlation between cost of cultivation and the cost of planting, cost of fertilizer; transport and maintenance *(r = 0.815, p = 0.000); (r = 0.495, p = 0.000); (r = 0.341, p = 0.000); (r = 0.217, p=0.000)*, respectively. This means that there is a strong positive association between the cost of cultivation and the cost of planting, with a corresponding weak association to the cost of fertilizer, cost of transport and cost of maintenance.

In addition, the cost of planting was significant and positively correlated with the cost of fertilizers (r = 0.399; p = 0.000), cost of transport (r = 0.468; p = 0.000) and to the cost of repairs (r = 0.429; 0.000). This means that there is a weak positive association between the cost of planting, the cost of fertilizer, cost of transport and the cost of repairs in the study area.

The cost of fertilizers was positively and significantly correlated with the costs of pesticides (r = 0.160; p = 0.000) and cost of seedlings (r = 0.223; p = 0.000). This meant that there is a weak positive association between the cost of fertilizer the cost of pesticides and the cost of seedlings. Cost of pesticides were significant and positively but is weakly correlated to the cost of seedlings (r = 0.327; p = 0.000).

Correlation between the Costs of Constructs in Sugarcane and Maize Production
Having investigated the correlations between the costs of the various factors used in both the production of sugarcane and maize, a summary of these costs was grouped into three categories; namely, cost of land, cost of labour and cost of capital. As such, these input production factors formed the ultimate constructs in the analysis on the cost of sugarcane production as well as cost of maize production, as presented in table 3.

Table 3: Correlation Matrix between Cost Elements in Sugarcane and Maize Production

		Labour(S)	Capital(S)	Land(S)	Labour(F)	Capital(F)	Land(F)
Labour (S)	Pearson Correlation	1					
	Sig. (2-tailed)						
Capital (S)	Pearson Correlation	.380**	1				
	Sig. (2-tailed)	.000					
Land (S)	Pearson Correlation	.560**	.268**	1			
	Sig. (2-tailed)	.000	.000				
Labour (F)	Pearson Correlation	.091	.180**	.060	1		
	Sig. (2-tailed)	.105	.001	.284			
Capital (F)	Pearson Correlation	.019	.075	-.014	.296**	1	
	Sig. (2-tailed)	.733	.180	.798	.000		
Land (F)	Pearson Correlation	.296**	.235**	.614**	-.057	-.072	1
	Sig. (2-tailed)	.000	.000	.000	.312	.201	
	N	317	317	317	317	317	317

**. Correlation is significant at the 0.01 level (2-tailed); (S)= Sugarcane; (F)= Maize crops
Source: Survey Data (2021)

Based on results in table 3, the cost of factors of production used in sugarcane production was correlated with the cost of factors used in maize production. The correlation results indicate that the cost of labour in sugarcane production was positively correlated with cost of capital used in sugarcane production, cost of land in sugarcane production as well as cost of land used in maize production. The coefficient of correlation was $(r = 0.380; p = 0.000)$; $(r = 0.560; p = 0.000)$ $(r = 0.296; p = 0.000)$, respectively. This, therefore, means that as the cost of labour in sugarcane production tend to increase in the study area, the cost of capital in sugarcane production also tend to weakly increase, cost of land in sugarcane production tend to strongly increase and the cost of land in maize production also tend to weakly increase.

In addition, the cost of capital in sugarcane production was significant and positively correlated with the cost of land in sugarcane production (r =0.268; p =0.000); cost of labour in maize production as well as cost of cost of land in maize production. The correlation coefficients were $(r = 0.180; p = 0.001); (r = 0.235; p = 0.000)$ respectively. This meant that as the cost of capital in sugarcane production in the study area tend to increase, the cost of land in sugarcane production also tend to weakly increase; the per unit cost of labour in maize production tend to weakly increase and the cost of per unit cost of land in maize production also tend to weakly increase.

Furthermore, the cost of land in sugarcane production was also significant and positively correlated with the cost of land in maize production $(r = 0.614; p = 0.000)$. This means that as the

cost of land in sugarcane production tend to increase, the cost of land in maize production also tends to strongly increase.

Moreover, given that the cost of labour in maize production was significant and positively correlated with the cost of capital in maize production $(r = 0.296; p = 0.000)$, it means that as the cost of labour tended to increase, the cost of capital in maize production also tends to weakly increase. The results are in tandem with the findings of Agidew and Singh (2018), which observed that labour is a significant determinant of food production.

Relationship between Cost of Sugarcane Production and Cost of Maize Production
Once correlation was established, the structural equation model was applied to regress the cost of sugarcane production against cost of maize production. The Structural Equation Modelling carried out IS shown in figure 1.
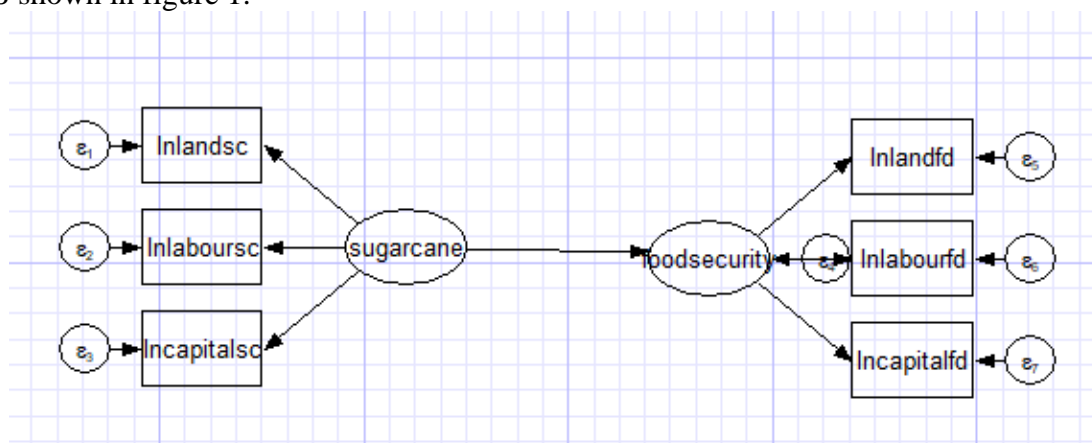
Fig.1: Relationship between Cost of Sugarcane Production and Maize production
Source: Survey Data (2021)

According to figure 1, the cost of sugarcane production contained three constructs; namely, the cost of land, the cost of labour and the cost of sugarcane. Similarly, the cost of maize production also contained the cost of land, cost of labour as well as the cost of capital as its constructs. The arrow from sugarcane to maize is the investigative indicator from the independent variable to the dependent variable. Results from the Structural Equation Model are captured in table 4.

Table 4: Structural Equation Model of Sugarcane Production on Maize production

	Coef.		OIM Std. Err.	z	P>|z|
Structural equation model				Number of obs	= 317
Estimation method = mlmv					
Log likelihood = -1305.8945					
Structural					
Maize production					
Sugarcane	.689		.219	3.15	0.002
Measurement					
lnland(sc)					
Sugarcane		1	(constrained)		
Cons	9.622		.037	258.21	0.000
lnlabour (sc)					
Sugarcane	1.465		.446	3.28	0.001
Cons	9.307		.066	141.32	0.000
Sugarcane	1.590		.381	4.17	0.000
lncapital(sc)					
Cons	9.466		.0706	134.00	0.000
lnland(fd)					
Maize production		1	(constrained)		
Cons	8.922		.042	213.23	0.000
lnlabour(fd)					
Maize production	2.810		.945	2.97	0.003
Cons	8.574		.091	94.22	0.000
lncapital(fd)					
Maize production	2.984		.857	3.48	0.000
Cons	8.600		.081	106.71	0.000

LR test of model vs. saturated: chi2 (8) =   29.95, Prob > chi2 = 0.0002; R-square =0.833 Sc= sugarcane; fd = food

Source: Survey Data (2021)

From the findings presented in table 4, the cost of sugarcane production is positive and significant in the determination of cost of maize production $(\alpha_1 = 0.689; p = 0.002)$. This implies that the level of responsiveness to changes in the cost of maize due to changes in the cost of sugarcane production is positive, significant but inelastic; that is, as the cost of sugarcane production changes (increases) by a certain proportion, the cost of maize production also changes but by less than the proportionate increase in the cost of sugarcane production. This result is in consonance with Gunatilake and Abeygunawardena (2011) who observed that production of sugarcane compromised food production. In this case, if the cost of sugarcane production increases, it inadvertently leads to increased cost on maize production which potentially reduces its production.

With regard to the cost of the constructs (inputs) required in sugarcane farming, the level of responsiveness to changes in the cost of sugarcane production due to changes in the cost of labour

is elastic, positive and significant $(\alpha_2 = 1.465; p = 0.001)$. Similarly, the level of responsiveness to changes in the cost of sugarcane production due to changes in the cost of capital is elastic, positive and significant $(\alpha_3 = 1.590; p = 0.000)$. This means that as the cost of labour and cost of capital changes in the study area, the cost of sugarcane production also changes by more than the proportionate change in the cost of labour and cost of capital, respectively.

With regard to the cost of inputs used in maize production, the level of responsiveness to cost of maize production due to changes in the cost of labour was elastic, positive and significant $(\alpha_4 = 2.810; p = 0.003)$. Similarly, the level of responsiveness to the cost of maize production due to changes in the cost of capital used in maize production was elastic, positive and significant $(\alpha_5 = 2.984; p = 0.000)$. All these findings means that as the cost of labour and cost of capital change by a given percentage, the cost of maize production changes by 2.810 times the change in the cost of labour and 2.984 times the change in the cost of capital. These findings are in line with those of Zulu et al. (2019) as well as findings by Agidew and Singh (2018) which observed that labour is significant in both sugarcane and maize production respectively.

The goodness of fit was 0.833; meaning that the overall cost of sugarcane production explained 83.3 percent variations in the cost of maize production. As such, the alternative hypothesis was accepted; that is, cost of sugarcane production significantly influences the cost of maize production in Nyanza region of Kenya.

Conclusion

This study concludes that there is a relationship between the cost of sugarcane production and the cost of maize production, with implication for food security meant for rural households. However, changes in the cost of sugarcane production positively and significantly affect the cost of maize production although this relationship is inelastic. Given that the cost of maize production is positive and significantly varies with cost of sugarcane production although inelastic, this study recommends for an in-depth analysis of the cost of sugarcane production, ceteris paribus. Policy measures should be placed to tame ad hoc increases in the cost of sugarcane production since such cost increases inadvertently results into increases in the cost of maize production, as this could affect the livelihood of the rural households in Nyanza region of Kenya. Similarly, future research should focus on the relationship between sugarcane output and maize output and consider seasonal production of both.

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Analysis of Marketing Margins for Cassava Farmers and Traders in Siaya County, Kenya

Florence Opondo,[1] Patience Mshenga,[2] Andre Louw[3]*

[1*]Department of Commerce, Laikipia University, Kenya
[2]Department of Agricultural Economics and Agribusiness Management, Egerton, Kenya
[3]Department of Agricultural Economics, Extension and Rural Development, University of Pretoria, South Africa
*Corresponding Author

Abstract
Cassava is one of the crops being promoted in response to climate change in different counties in Kenya. Siaya County in particular, has received support from various bodies because of cassava's economic importance to the region. However, there is limited information on marketing margin analysis of cassava value chain. This paper computed the marketing margins as well as analysed the determinants of the margins of cassava farmers and traders. Marketing margins were computed by comparing the differences between prices received by and paid for by actors. Multiple regression analysis was performed to identify determinants of cassava marketing margin. The findings revealed that the margins for traders were positively influenced by age, purchase times and experience of the household head. Transport and storage costs had a negative influence. Marketing margin for farmers was positively influenced by access to extension services and quantity sold. However, distance to the market had a negative influence. The study concludes that transport and storage costs reduce marketing margins of the actors.

Keywords: Efficiency, marketing margin price spread, smallholder farmer, value chain

Introduction
The agricultural sector is the main driver of the Kenyan economic performance as it accounts for about 60 percent and 65 percent of employment opportunities and exports respectively (World Bank, 2018). Majority of the Kenyan farmers are small-scale holders who form three quarter of the total population. Most of the small-holder farmers are rural dwellers who mainly rely on rain fed agriculture (World Bank, 2008). In Kenya, about 70 percent of the land lies in the arid and semi-arid land areas. These areas receive inadequate rainfall and experience high temperatures which are not suitable for most major crops such as maize and beans. In fact, there has been a decline in maize yield since 2014 (Wiggins, 2018). Changes in the variability of rainfall due to climate change has majorly contributed to the low yields. This has therefore led to the rediscovery and adoption of underutilized crops such as cassava (*Manihot esculenta Crantz*) as a way of reducing climate risks. Cassava is a drought tolerant crop and can perform favourably in arid and semi-arid regions. It is one of the most important tuber crops mainly used as a staple crop in some parts of Africa (FAO, 2009), even though it has potential industrial uses. As a food crop, cassava is used for subsistence and commercial purposes. A great proportion of production is consumed

within the households while the remaining proportion of the output is for commercial purposes (IIATA. 2013).

Production of cassava is mainly concentrated in a few geographical zones in Kenya which include; Western, Eastern and Coastal regions (Karuri et al., 2001). Cassava production quantity has been increasing even though the increment has not been stable (FAOSTAT, 2018). Farmers from other regions apart from the production zones have also started embracing cassava production (Githunguri et al., 2017). It is evidenced that production is mainly done by smallholder farmers on less than an acre plot (Opondo et al., 2017). Majority of these farmers produce cassava mainly for household consumption with the available surplus marketed in the nearby local markets. The tuber crop remains among the least exploited crops in Kenya both as a food crop and for industrial uses. On the food side, cassava is used as human food mainly in raw form or low value-added forms which include; boiled cassava, cassava chips, cassava crisps and cassava flour which is used to prepare cassava *chapati*, *mandazi* and porridge. As an animal feed, cassava is mixed with other concentrates to feed livestock such as pigs, cattle, poultry and sheep. Other than that, cassava starch is used as a derivative in most industries. Even though the cassava sector appears to have enormous business potential, there exist limited marketing activities. Most of the products are marketed mainly to the local consumers or traded in the nearby markets with limited inter-county/country trade. Furthermore, cassava marketing chain is underdeveloped with very few players along the chain and minimal commercialization (Githunguri et al., 2017; Opondo et al., 2017).

A number of studies have been conducted on the performance of the actors along cassava chain in Africa; however, these studies have been mostly done in West Africa especially in Nigeria and Ghana (Adebayo et al., 2013; Tarawali et al., 2012; Angelucci, 2013; Obetta et al., 2020). The studies have exhaustively addressed the performance of actors along various value chains and demonstrated that the value chains of cassava in these countries are developed with a number of actors actively participating along the chain (Sewando et al., 2012; Angelucci, 2013; Kabiti et al., 2016). Considering the case of Kenya, research studies on market margins, market efficiencies and price-spreads are scarce, especially for cassava marketers. There are few intermediaries participating along the marketing chain. Furthermore, most of the value chain activities are poorly coordinated and weakly linked (Mutuku et al., 2013). This could be explained by the fact that cassava is not a staple food in Kenya. In fact, it is perceived to be grown by poor households as a famine-reserve crop. Based on the prevailing opportunities, limited attention has been paid on the performance of cassava marketing actors mainly farmers and traders in Kenya and more so in Siaya County. As a matter of fact, a number of interventions have been directed towards cassava sector with an intention to increase commercialization. Still, there are low marketing activities recorded along the cassava marketing chain.

Marketing margin analysis is very paramount as it reveals the efficiency levels among the actors in the value chain and points out gaps that can possibly lead to the failure of marketing activities. Analysing economic performance of farmers and traders can be done by computing marketing margins. According to Mogaji et al. (2013), margins reveal problems that affect the availability and affordability of cassava products in the markets. Besides, it is a reflection of an aggregate processing and retailing behaviour as well as the benefits that are derived by participants along the value chain. In Kenya, cassava is mostly marketed in raw form especially at the farm gate and local markets. A few value-added products such as flour, chips and crisps are also marketed at the local and urban markets (Githunguri et al., 2017). Marketing margins vary across the cassava value chain depending on a number of factors including; prices, demand of the products, supply, and costs incurred among others. Studies on marketing margins of different

agricultural crops have yielded different findings regarding the determinants of marketing margins (Quaye, 2004; Nganga, 2010). Other studies related to cassava marketing chains have equally revealed that the determinants differ for the different actors (Chiazor & Chinwuba, 2017; Toluwase & Abdu-Raheem, 2013). The inconsistent results and arguments therefore triggered further research to establish the factors that influence marketing margins among farmers and retailers in Kenya, particularly Siaya County. It is envisaged that analysing the determinants of marketing margins would help understand the gains made by farmers and retailers and whether they are commensurate with the effort directed towards cassava value chain as echoed by (Chiazor & Chinwuba, 2017).

The Concept of Marketing Margin

Marketing margin refers to the difference between the price paid by consumers and the price obtained by marketers, considering other costs incurred along the value chain (Adeniji et al., 2013). Marketing efficiency is critical to the management of costs along the cassava value chain. According to Wohlgenant (2001), margins arise owing to the demand for marketing services. It is signified by the minimum cost of services offered by the actors over the normal profits gained. Thus, marketing margin is fundamental as it provides a measure of the actors' well-being as well the economic performance of marketing activities. In addition, it is used to examine the performance of a value chain in order to point out opportunities which can enhance cassava commercialization. By analysing levels of marketing margins and their cost components, it is possible to evaluate the impact of the structure and conduct analysis of the various characteristics on market performance (Mogaji et al., 2013). Additionally, it points out the profitability and cost-effective measures that can be developed to enhance the performance of cassava farmers and traders. Adejobi and Adeyemo (2012) recognize that minimization of marketing costs improves the levels of efficiency. In that case, an efficient value chain is one that allows technological progress, utilizes resources efficiently and transmits prices that reflect costs common indicators of performance. These may include retail prices, level of stability of farm prices and income spread of marketing margins, marginal propensity to consume, farmers' share of the consumers shilling spent on agricultural product, middlemen profit and parity farm prices.

Measurement of Marketing Margin

Margin analysis for smallholder farmers has been a challenge for many researchers for the reason that smallholder farmers rarely have proper records for the activities they undertake on the farm. Furthermore, it is difficult to delineate certain costs, especially the fixed costs, which are most commonly shared amongst many other value chain activities. This makes it difficult to collect relevant information that can necessitate the computation of costs and margins as evidenced by (Lokshin, 2004). Toluwase and Abdu-Raheem (2013) also encountered similar a challenge in their study on costs and returns analysis of cassava production in Ekiti state, Nigeria. They found that farmers use indigenous ways of record keeping and various costs are shared across the units making it difficult to apportion costs. In this case, proper identification of determinants of marketing margins could give more information on the most influential costs and the potential growth of the cassava value chain.

Margin analysis helps decision makers to choose potential investments which yield higher profits with the limited available resources. According to Cobb-Douglas production function, when the marketing costs are increased, the marketing margins are likely to be reduced. Value chain actors can achieve higher gross margins by minimizing the level of price efficiency of

resources. For instance, gross margin of cassava farmers measures the contribution of cassava production to the farms total profit. Therefore, an increase in gross margin can be achieved by efficient utilization of resources which further yields higher level of profit (Heino, 2015). Traders can also benefit from cassava trade; however, they must ensure quality and aptness of supply of cassava products while trying to understand the supply and demand needs to be addressed (Odongo & Etany, 2018).

Market performance varies based on a number of factors. For instance, an increase in the number of market participants is likely to lower prices and markups. This is because market margins decrease with an increase in competition. In most African countries, cassava marketing chain has not yet fully developed. The cassava marketing chain is fairly short since most farmers sell their cassava products to a few traders. Notably, not many farmers especially in Kenya are involved in production for commercial orientation. Therefore, the market chain is less competitive with some actors and this can lead to market inefficiencies (Enete, 2009).

According to Wohlgenant (2001), there are a number of factors that influence marketing margins of different market participants along cassava value chain. Major factors identified include; prices, tradable quantity, the location of the market, marketing and transportation costs, the forms of products, and the frequency of purchase. Ojogho and Alufohai (2009) investigated the effect of price and income changes on cassava marketed surplus. The study revealed that farmers are price and income responsive especially when the demand for the products increases subsequently increasing the quantities being marketed. A different study by Reuben Mshelia (2011) on price variation and decomposition of yam markets in Nigeria used a time series model to decompose the prices of yam. The study suggested that marketing infrastructure should be developed in order to respond to seasonal fluctuations which are inevitable. Tiri et al. (2012) assessed factors affecting marketing efficiency of orange markets in Nigeria. The study revealed that household size, cost of labour, purchase price and collective action strongly influence marketing efficiency. Maria and Oppen (2004) in their study, concluded that marketing margins differ by agricultural commodities and those with similar structures are most likely to be influenced by common factors. In that context, approaches of analysis may vary slightly.

Yakasai (2010) applied farm budgeting and regression analysis to explore the economic contribution of cassava production in Abuja, Nigeria. The study found that cassava production is a profitable venture. However, it is labour intensive since most of the work is done manually or by use of rudimentary methods. This view is also supported by Chiazor and Chinwuba (2017) in their study on factors affecting wholesalers and retailers marketing margin of yam. Similarly, they analysed the costs and returns using a marketing margin and multiple regression analyses. The study concluded that many factors account for the variation of marketing margin including the amount of cassava production. Both studies recommended that farmers should utilize their resources efficiently if they were to maximize on revenues. Conversely, Ibekwe et al. (2012) analysed the socio-economic characteristics that influence the marketing margin of garri processing actors in Nigeria where both budgetary and profit function methods were used. The study established that age, education, marital status, household size and experience positively influenced the profitability of cassava.

Methodology

The study was conducted in Siaya County, Kenya. The County lies in the south west part of Kenya characterized by low attitudes and rainfall thus suitable for drought resistant crop varieties. The County receives an annual rainfall of between 1,170 mm and 1,450 mm and experience

temperatures ranging between 15-30^{0}C. There are two planting seasons which fall between April-June and August-October. Cassava is one of the underutilized crops that has great potential to perform well in the marginal areas such as Siaya County. Many interventions have been directed towards the cassava sector in order to rediscover the potentials of the crop in the area. Still, there are limited activities along the cassava value chain. Administratively, Siaya County is divided into six sub-counties; namely, Gem, Ugunja, Ugenya, Alego-Usonga, Bondo, and Rarieda. Out of the six sub-counties, two of them, specifically Ugenya and Alego-Usonga were identified for the study. These are the traditional growing areas of cassava crop and there is a lot of support from the government and non-governmental organizations that has been directed to promote cassava production and commercialization in the areas. Furthermore, these areas have well-established cassava processing factories which were established by Red Cross in order to promote value addition and strengthen cassava value chain, yet, they are underutilized.

Two different sampling procedures were used in the collection of data from farmers and traders. A multistage sampling method was used to sample farmers. In the first stage, Alego-Usonga and Ugenya sub-counties were purposively selected while in the second stage, two locations were randomly sampled from each sub-county. The third stage involved selecting a random sample of six villages from the locations. In total, 184 farmers were sampled for the interviews. On the contrary, traders were identified through a clustered sampling procedure. This method was found appropriate because the population of traders was not properly known. The first step involved clustering of markets into market centres. These are markets that have high trading cassava activities. Eight clusters were then identified and six respondents were drawn from each cluster totalling to 52 respondents.

Data was mainly collected from primary source. The primary data was collected from both farmers and traders through interviews using well-structured questionnaires. Different questions were designed for the different actors. Data was collected between May-June 2015 from farmers who had produced cassava in the previous year and traders of cassava products. The data collection instrument was pretested in a few selected cassava growing locations and marketing centres that were not sampled in the main study. The questionnaire was filled through personal interviews which were conducted by well-trained enumerators. Questions of interest ranged from demographic information, socio-economic characteristics and cassava marketing aspects.

Different approaches and techniques can be used to analyse the marketing margin. Carambas (2005) suggests that a complete set of equations should be used to perform a comprehensive analysis of the marketing margin. Regarding the retailer margin, this study considered a relative price margin which is expressed as a percentage of the consumer price. On the other hand, the marketing margin of farmers was computed as the difference between the selling price and the product price. The functions are as expressed below:

$$(MM) Marketing Margin = \frac{Selling\ Price - Buying\ Price}{Selling\ Price} \times 100 \qquad (1)$$

$$(MM) Marketing Margin = Selling\ Price - Buying\ Price \qquad (2)$$

A multiple regression analysis was used to estimate the marketing margin function and analyse factors that influence the price differences from one market level to another or buying point and selling point. A logarithmic transformation of the variables was considered necessary in order to address the non-linearity challenge as well as skewness of the variables into approximately normality (Keen, 1995). In order to identify the determinants of marketing margin, two models;

namely, linear and double-log were fitted and a comparison of the results made. Interpretation was based on the model that made economic sense. The general linear regression function and double log functions for traders are expressed as follows:

$$MM = \beta_0 + \beta_1 \chi_1 + \beta_2 \chi_2 + ... + \beta_9 \chi_9 + \varepsilon \qquad (3)$$

The linear model is specified as follows:

$$MM = \beta_0 + \beta_1 Age + \beta_2 Educ + \beta_3 Qtysold + \beta_4 PurchaseT + \beta_5 Experience +$$
$$\beta_6 Transcost + \beta_7 Labourcost + \beta_8 MarketCh\arg e + \beta_9 Storagecost + \varepsilon \qquad (4)$$

While the double log model is expressed as:

$$InMM = \beta_1 InAge + \beta_2 InEduc + \beta_3 InQtysold + \beta_4 InPurchaseT + \beta_5 InExperience$$
$$+ \beta_6 InTranscost + \beta_7 InLaborcost + \beta_8 InMarketCh\arg e + \beta_9 InStoragecost + \varepsilon \qquad (5)$$

Where: MM = Market margin of traders

Comparably, factors influencing marketing margin for farmers were identified by use of multiple regression method which is specified below.

The reduced forms of the linear and double log models are expressed as follows:

$$MM = \beta_0 + \beta_1 Gender + \beta_2 Extension + \beta_3 Qtysold + \beta_4 Marketcosts + \beta_5 Labourcost$$
$$+ \beta_6 Dis \tan ce + \beta_7 Schoolyrs + \beta_8 Hhsize + \beta_9 Valueaddexp + \beta_{10} Valueaddindex + \varepsilon \qquad (6)$$

$$InMM = \beta_1 InGender + \beta_2 InExtension + \beta_3 InQtysold + \beta_4 InMarketcosts + \beta_5 InLaborcost$$
$$+ \beta_6 InDis \tan ce + \beta_7 InSchoolyrs + \beta_8 InHhsize + \beta_9 InValueaddexp + \beta_{10} InValueaddindex + \varepsilon$$
$$(7)$$

Results of the Study
In the presentation of results, various considerations were made. These included marketing characteristics of traders, determinants of marketing margins of traders in Siaya, results of multiple regression analysis for traders, and the marketing margin analysis of farmers in Siaya County. The marketing margin analysis further included determinants of prices for cassava products and analysis of factors affecting marketing margin of farmers.

Marketing Characteristics of Traders
Descriptive analysis was performed and the results of socio-economic characteristics of traders is presented in table 1. The findings indicate that female respondents are the majority by 86.8 percent in Siaya County. Also, majority of the traders were in the age category of 51 years and above. This is contrary to the assumption that middle age traders are economically active and should actively engage in cassava marketing activities. Additionally, a large proportion of traders in Siaya (84.9%) had attained primary level education and below while a smaller percentage (15.1%) represents the respondents with secondary and tertiary education. With reference to the marketing experience, a large proportion of traders (84.9%) had experience ranging between 0 and 10 years with the rest having more than 10 years' experience.

Table 1: Socio-Economic Characteristics of Cassava Traders in Siaya

Variables	Percentage
Gender	
Male	13.2
Female	86.8
Age	
18-30	26.4
31-40	26.4
41-50	17.0
51 years and above	30.2
Marital Status	
Married	64.2
Single	9.4
Divorced	3.8
Widowed	22.6
Education level	
None	15.1
Primary	69.8
Secondary	15.1
Tertiary and College	0
Others	0
Years of Experience	
0-10	84.9
11-20	15.1
21-30	0

Source: Survey Data, 2015

The study identified various constraining factors that hinder performance of marketing activities. These have been summarized in table 2. It is clear that 37 percent of the traders from Siaya County responded that inadequate demand for cassava products was the principal challenge which greatly led to low marketing activities experienced in the area. Other marketing challenges experienced by traders from Siaya County include; distance to the market (24.5%), lack of storage facilities (15%), and fear of poisonous cassava varieties (13.3%).

Traders obtain cassava products from different sources, ranging from marketing their own products to purchasing directly from farmers as well as other traders from the local markets. This study established five possible sources of cassava products. These include; local traders, traders from other markets, trader groups, farmers and self-production. Table 2 shows that majority of the respondents from Siaya County sourced their stock mainly from local traders (50.9%). Other than that, 22.6 percent purchased directly from farmers and 18.9 percent purchased from traders in other markets. In relation to price determination, 62.2 percent of Siaya traders majorly relied on market rates. This result has a close link with the sources of cassava products. Traders also considered some quality features when purchasing cassava products. Some of these features include; moisture content and cleanliness. These are represented by 54.7 percent and 32.1 percent respectively. From the findings, formal contractual arrangements for cassava products are almost non-existent in the county. Most of the purchases were made informally without any binding contracts with unarranged purchases taking the lead at 69.8 present.

Table 2: Distribution of Cassava Traders by Marketing Characteristics

Marketing Challenges	Percentage (%)
Poor prices	9.4
Distance to the market	24.5
Inadequate demand	37.8
Lack of storage facilities	15.0
Fear of poisonous varieties	13.3
Bulkiness	0
Sources of cassava Products	**Percentage (%)**
Local traders	50.9
Traders from other markets	18.9
Trader groups	0
Farmers	22.6
Self- production	7.6
Price Determination	**Percentage (%)**
Market rate	62.2
Farmer price	13.3
Negotiable	11.2
Group decision	13.3
Purchase considerations	**Percentage (%)**
Moisture content	54.7
Maturity	9.4
Cleanliness	32.1
Size of cassava	3.8
Contractual arrangements	**Percentage (%)**
Formal contracts	0
Informal contracts	30.2
None	69.8

Source: Survey Data, 2015

Determinants of Marketing Margins of Traders in Siaya

Marketing margin is influenced by a number of factors which could either transactional or physical (Yakasai, 2010; Wohlgenant, 2001). They include; quantity of cassava products sold, purchase times, transport costs, cost of labour, market charges, and cost of storage. Different crops have different unique characteristics which causes variation in the outcome of the determinants. A summary of descriptive statistics of some of the possible determinants of marketing margins fitted in the regression model is presented in table 3 where the statistics indicate that on average, the mean quantity of cassava products sold by traders weighed 444.23 kg while average weekly purchases of cassava products is presented by 28.75 times. On the transport side, it was observed that the mean transport cost was Kes 1264.91 which is higher than other transaction costs.

Table 3: Summary Statistics of Variables used in the Regression Model

Variables	Min	Max	Mean	Std Dev.
Marketing Margin	0	100	26.95	22.85
Age (Years)	18	58	12.75	39.19
Education (Years)	0	13	5.25	3.25
Quantities Sold (Kg)	60	2400	444.23	377.26
Purchase no.(Weeks)	4	48	28.75	16.77
Years of Experience	0	40	7.18	6.83
Transport Cost (Kes)	0	7200	1264.91	1578.26
Cost of labour (Kes)	0	5200	804.15	1521.93
Market charges (Kes)	0	3200	833.69	857.11
Cost of storage (Kes)	0	6000	730.19	1211.29

Note: Kes stands for Kenya shillings (1USD = Kes 121)

Source: Survey Data, 2015

Results of Multiple Regression Analysis for Traders
In this study, two different multiple regression models; namely, the linear and double-log models were fitted. The models were compared and the best fit model that made economic sense was used for interpretation. According to Keene (1995), there are various ways of identifying the best fit model. These could be based on the coefficient of determination (R-squared) and economic considerations such as the conformation of the estimated coefficients to the *a priori expectation* of research. In addition, relevant diagnostic tests were performed before fitting the model. A multicollinearity test was performed using Variance Inflation Factor (VIF). As a rule of thumb, multicollinearity exists if the largest VIF is greater than 10 (Chatterjee & Hadi 2012). No evidence of multicollinearity was revealed in this study hence the model was suitable for analysis. Interpretation was based on the double log model presented on table 4.

Table 4: Regression Coefficient Estimates of Determinants of Cassava Marketing Margins of Siaya Traders (Double Log Model)

Independent variable	Coefficient	T-ratio
Constant	-7.361	-1.270
Age of the trader	0.882	0.375**
Education of trader	0.631	1.270
Quantity of cassava sold	0.916	1.160
Purchase times	1.085	1.710*
Experience of household head	0.760	1.840*
Transport cost	-0.644	-3.590***
Labour cost	-0.198	-1.540
Market charges	-0.041	-0.230
Storage cost	-0.291	-2.210**
R (Coefficient of determination)	0.542	
F-Stat	6.42	
Sample size	52	

***=Significant at 1%, ** Significant at 5% and * Significant at 10%
Note: Dependent variable is marketing margin
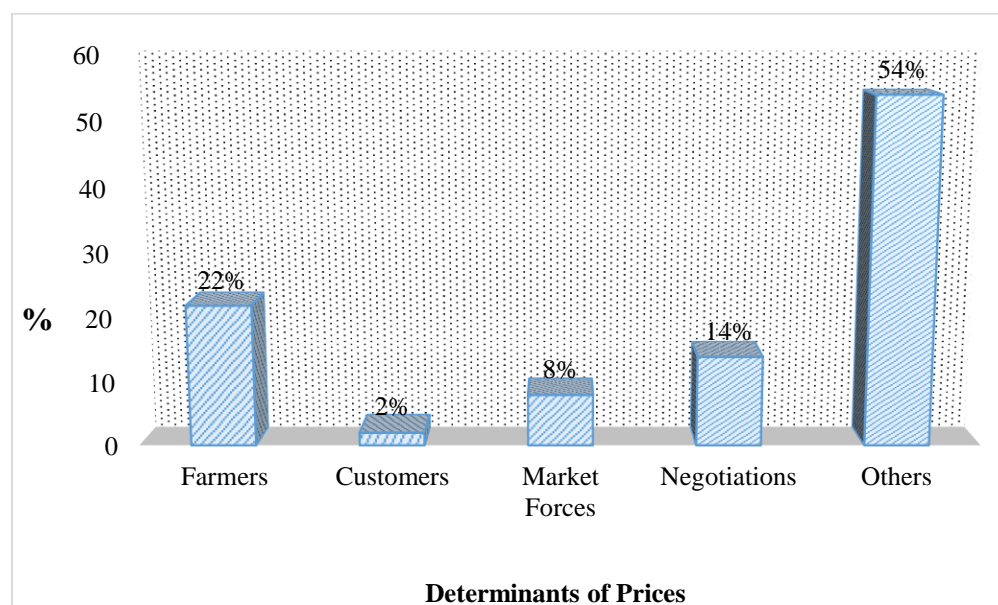
Source: Survey Data, 2015

It is inferred from table 4 that 54.2 percent of the variation in the marketing margin is explained jointly by the explanatory variables. Out of the nine variables that were fitted in the model, three of them had a positive significant influence on the marketing margin. These include; age, purchase times and experience of the household head. On the other hand, transport and storage costs had a negative influence on the marketing margin.

Marketing Margin Analysis of Farmers in Siaya County
In the marketing of margin analysis of farmers in Siaya County, two issues given consideration include determinants of prices for cassava products and analysis of factors affecting marketing margin of farmers.

Determinants of Prices for Cassava Products
Price is ultimately one of the attributes of marketing margins for agricultural products. Prices are normally set differently by different actors. However, it is expected that the forces of supply and plays a pivotal role during price settings. Factors which include; cost of production, marketing costs as well as understanding the products prices at other outlets ordinarily inform the pricing decisions undertaken by farmers. This study focused on a few determinants of prices for cassava products and the findings have been summarized in Figure 1.

Fig. 1: Determinants of Cassava Prices

Source: Survey Data (2015)

The findings in figure 1 show that the prices of cassava products were primarily determined by other factors (54%) and farmers (22%). Other factors include; quality of the products, seasonality, demand for the products and the availability of cassava products.

The respondents were asked to give their opinion concerning the price variations of fresh cassava and value-added cassava over the past five years between 2010 to 2015. As expected, prices of agricultural products vary across the year and this could be attributed to the fact that

agricultural products are perishable and seasonal in nature. The responses regarding price variations are as revealed in Figure 2.
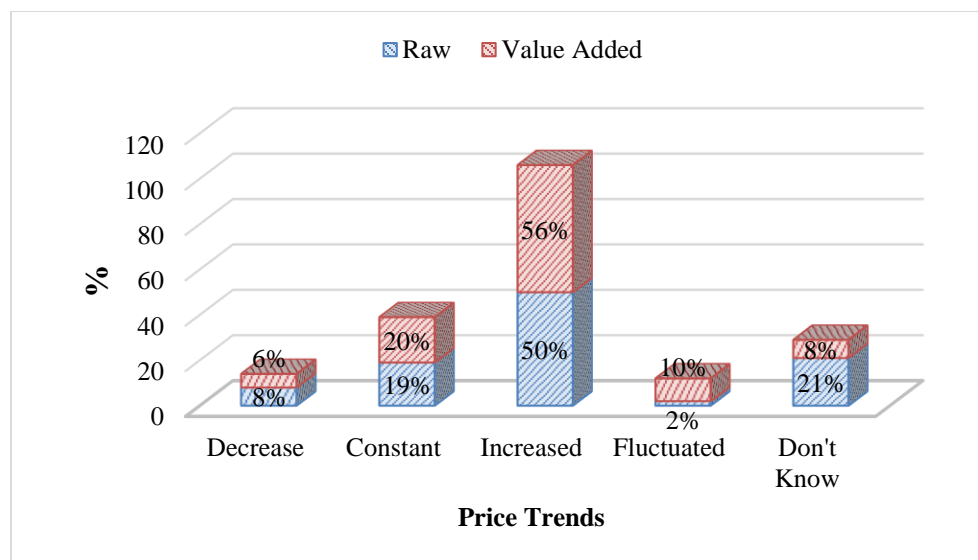
Fig. 2: Price Trend for Value Added and Raw Cassava Products from 2010 to 2015 (Siaya County

Source: Survey Data (2015)

According to Figure 2, prices of cassava products have increased from 2010 to 2015. The prices are expected to increase because of the interventions which have been directed towards the sub-sector further stimulating production and demand for cassava products. Farmers from Siaya County observed that prices of value-added cassava increased more than for raw cassava indicating that there is demand for value-added cassava. Because of the low production, the available surplus was not enough for both consumption and value-addition and only a small share of value-added cassava was available for marketing.

Analysis of Factors Affecting Marketing Margin of Farmers
Several determinants of marketing margins for farmers in Siaya County were empirically identified. The determinants were regressed on the marketing margin and mixed outcomes on the estimated coefficients were revealed as shown in table 5.

Access to extension services and quantity sold had a positive influence on marketing margin at 5 percent and 10 percent significant levels correspondingly (table 5). This implies that farmers who had access to extension services reported higher marketing margins than their counterparts.

Table 5: Estimation of Factors Affecting Marketing Margin of Farmers in Siaya County

Variables	Coefficient	T-value
Constant	0.325	0.730
Gender	0.329	1.270
Access to extension services	0.501	2.260**
Market charges (Cess and license)	-0.023	-0.870
Labour cost	0.017	0.560
Value addition index	-1.49	-1.100
Distance to market	-2.412	-14.070***
Quantity sold	0.074	1.680 *
Schooling years	0.088	0.880
Household size	-0.056	-0.360
Value addition Experience	-0.132	-1.110
R^2 (Coefficient of determination)	0.648	
F – Stat	61.54***	
Sample size	179	

Note: The dependent variable is the marketing margin and interpretation of data was on the double log functional form. Figures in parenthesis present the t-values.
***Significant at $p<0.01$, **Significant at $p<0.05$ and * Significant at $p<0.10$

Source: Survey Data (2015)

Regarding quantity of cassava products sold, the results show that marketing margin increased as the quantity sold increased. A rise in the demand for cassava products increases the quantity of marketed products. However, when production is low and the quantity of cassava demanded is high; expectedly, farmers will price their products slightly high. This is however contrary to the arguments of Carambas (2005) that economies of scale should lower marketing costs and hence reduce marketing margins.

The findings in table 5 further indicate that distance to market was negative and statistically significant ($p<0.01$). The interpretation is that a one percent increase in distance to the nearby market decreased the marketing margin by 2.41 percent.

Discussion
Female dominated the cassava value chain which was represented by 86.8 percent. This points to the fact that the cassava business is a women-oriented venture. This is similar to the findings of Okoye et al. (2016) and Olukunle (2016) that revealed that women participate in most of the activities along cassava value chain which include production, processing and marketing. Similarly, this corresponds with a study by Andersson et al. (2016) on gender dynamics in cassava leaves value chains. The study reveals that cassava value chain is dominated by women, especially in production role and marketing of cassava at the farm gate level.

Concerning education, 69.8 percent of the respondents had attained primary level education. The results indicate that there is low level of education among cassava traders in Siaya County. Education is associated with the ability to acquire and perceive information leading to rational decision making. The low level of education among traders could probably mean that those with high levels of education are perhaps engaged in off-farm activities perceived to be more

lucrative and well-paying. This is not surprising since it is an expected norm amongst the well-educated household members.

Age of the respondents was statistically significant at 5 percent level which indicate that an increase in age by one percent increased the marketing margin by 0.88 percent. This could be explained by the fact that as age increases, traders gain more experience which empowers them to handle marketing activities in an efficient manner. This finding is also supported by the descriptive statistics analysis where majority of traders were 51 years old and above. Similar outcome was noted by Mogaji et al. (2013) who found that age positively contributes to marketing margin since aged traders have strong social networks and this reduces market imperfections such as information asymmetry. The explanation however contradicts the arguments of Tiri et al. (2015) as well as Apata and Apata (2003) who posited that younger traders are more innovative than the older traders and they are likely to devise innovative marketing methods and develop efficient ways of marketing activities. We, however, find that these studies are mostly conducted in Nigeria and since scenarios differ, then contrary results are expected. Also, the number of times traders made purchases had a positive significant influence on the marketing margin. The frequency corresponds with the demand for cassava products. When the demand for cassava products is high, more supplies are needed and restocking has to be done more frequent. This then leads to increased sales which subsequently increases marketing margin. Frequent purchases could also imply that the products being sold have a short shelf-life and hence must be marketed faster. Ojogho and Alufohai (2009) examined the association between purchase frequencies and marketing margin. The study established that increasing frequency of purchases is realistic when the products are perishable in nature and the demand is elastic.

Marketing experience had a positive influence on the marketing margin. The interpretation is that an increase in the year of experience by one percent improves the marketing margin by 0.76 percent. It can be argued that a more experienced trader is likely to make a rational decision which can influence the profitability of cassava products. Besides, they have better bargaining skills because they are empowered with information as echoed by Nganga et al. (2010). Experience is also associated with efficiency. It can further be debated that a more experienced trader is likely to be more efficient in the marketing operations unlike a less experienced trader. The finding is in line with that of Okoye et al. (2016) who found a positive relationship between marketing experience and sales of cassava products. They argued that a more experienced marketer has proper knowledge of the marketing activities and can bargain for better prices for their products besides making rational decisions.

Costs also had implications on the marketing margin. Transport cost (p<0.01) and storage cost (p<0.05) had a negative significant influence on the marketing margin implying that they lowered the marketing margins. Transportation cost is a major cost component in marketing agri-food products. High transportation costs lead to market inefficiencies hence lowering the profitability of cassava business (Emokaro et al., 2010; Okoye et al., 2016; Dinesh & Sharma 2019). According to Tiri et al. (2015), direct marketing to consumers by producers would limit costs. This is because costs are in most cases passed on to consumers at the end of the transactions. This sometimes influences the reaction of buyers forcing traders to lower the prices hence lowering the margins.

Odongo and Etany (2018) and Obetta et al. (2020 also made similar observation in their study on assessment of cassava marketing margin in Northern Uganda. They concluded that transport cost is one of the main components of marketing costs which greatly reduces the net revenue earned by traders. In their study, they found that most traders do not incur costs related to

transportation to and from the market since these activities are mainly undertaken by producers. This contributes to the high margins that traders obtain. In this study, a closer examination at the results shows that the proportion of transportation cost to the overall cost was 20 percent. Comparing the cost variables, the coefficients for transport (3.59) was greater than storage (2.21) further indicating the impact of transportation cost on cassava marketing behaviour.

The study revealed that prices were not fixed since they varied from one actor to another. FAO (2004) acknowledges that pricing primarily involves a mutual agreement between a seller and a buyer even though other characteristics such as quality of the products, cleanliness, and maturity amongst others drives pricing decisions. Notably, access to extension services and quantity sold had a positive and significant influence on marketing margin. This implies that farmers who had access to extension services reported higher marketing margins than their counterparts. Extension officers offer advice to farmers which enables them to make rational decisions while undertaking production activities in an efficient and effective manner (Chiazor & Chinwuba, 2017). Furthermore, farmers who make frequent contacts with extension officers are less likely to incur costs of engaging experts and this would enable them to maximize on marketing margin.

Distance to market was negative and statistically significant at a 99 percent confidence level. This reflects the inference that distance increases transportation costs especially in the rural areas where road networks are in poor state (Zulu, 2015). Additionally, distance to the market influences market accessibility and this is likely to influence market prices. Farmers located far away from the markets are likely to incur high transaction costs compared to their counterparts who are located near the market centres. According to Ebata et al. (2015) and Graubner et al. (2011), distant markets would lower farmer prices hence influencing marketing margins. Consistent with the findings, Okoye et al. (2016) suggest that policies which include improving rural infrastructure should focus on lowering transportation costs. Most farmers from Siaya County complained of poor road networks that hindered smooth transportation of cassava products to the markets where they could fetch better prices.

Conclusion

Marketing margin analyses the efficiency and performance of a marketing chain. In Siaya County, there is no evidence of a study conducted on the determinants of cassava marketing margin for the farmers and traders. This study, therefore, filled the gap by comparing the determinants of the two actors. The study revealed that factors which influenced marketing margins for traders differed from that of farmers. This was however expected to vary since there are unique dimensions that of the two types of markets. From the statistical estimations, marketing margin responded to changes brought about by marketing factors with low relationship existing between household characteristics and marketing margin. The low profit margins for traders were attributed to the high cost of transactions incurred on transport and storage. Age, purchase times and experience of the household head positively influenced cassava marketing margin. Regarding the determinants of marketing margins for farmers, there was a slight difference in the outcome. Factors such as access to extension services and quantity sold had a positive influence on marketing margin while for traders, distance to the market negatively influenced marketing margin. Also, prices for both value-added cassava products and raw cassava had increased in the past years, indicating that the demand for cassava products was on the rise. Even though, this study did not conduct a thorough analysis to establish the scale of the price variations, the simple analysis revealed that different forms of cassava products fetch different prices. Higher levels value-added products attracted

better prices compared to raw or dried cassava products and this further contributed to the margin share difference.

In future, a more robust study should be undertaken to examine the effect of different value-added products on marketing margins. Secondly, there are various input costs and risks that could probably influence marketing margins. There is need to understand these costs and risks and establish their influence on marketing margins. Based on the above findings, this study recommends that different policies that favour the different actors of cassava value chain in order to improve performance of cassava value chain should be formulated. There is need to lower transaction costs such as transport and storage by having good infrastructural facilities in place. Also, extension officers should interact with farmers more often in order to minimize search costs for information that could influence market decisions.

Acknowledgments

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Student Satisfaction as a Precursor to Institutional Commitment: A Reflection of Educational Quality through Graduate Exit Surveys

Robert Bisonga Mwebi

Department of Curriculum and Education Management, Laikipia University, Kenya

Abstract

Graduate exit surveys in higher education institutions are a pivotal feedback mechanism with regard to the quality of educational services that are offered in an institution. Through graduate exit surveys, there is an assurance that the educational experiences proffered by the institution are able to meet the mission and vision of an academic programme on one hand and the societal requirements on the other. This study reflected on the quality of education and the satisfaction levels of exiting students of Laikipia University during the 7th graduation cycle. Anchored on the SERVIQUAL model, the disconfirmation paradigm and the expectancy value theories, the study sought to address three specific objectives; namely, to find out the views of the 2019 graduation cohort regarding the quality of education offered at Laikipia University; to examine the satisfaction levels of the 2019 graduation cohort with regard to support services i.e. library, ICT, hospitality and environment within and outside the University; and to find out the level of commitment of the 2019 cohort of graduates to the University. The findings were descriptively analysed using the mean indices to measure impression on quality and student satisfaction. The study findings revealed that the cohort graduates of 2019 had a positive impression on the quality of education offered at the university with a mean rating of 3.19. They were also satisfied with support services; library facilities (mean = 2.94), ICT infrastructure (mean =2.78), hospitality services (mean = 3.05) and the general environment within and outside the university (mean =3.11). Based on the levels of satisfaction, the graduates expressed a commitment and willingness to recommend other prospective students to pursue courses at the University. In the spirit of continual improvement in quality, the study recommends among others that the University should continue to expand the existing capacity of laboratories and studios to accommodate more students as a way of increasing access to these facilities; continuously provide adequate and up-to-date study materials; sensitize students on the existing e-resources and allow internet access within the library for ease of referencing the e-resource; expand the ICT infrastructure by having more computer labs to increase accessibility; increase the internet bandwidth for stronger internet connectivity; and increase availability of recreational services.

Keywords: Commitment, educational quality, exit survey, graduate, satisfaction

Introduction

The diminishing levels of funds from the public coffers has made it necessary for public sector institutions to be more accountable for the use of public funds to justify continued public support (Morra & Rist, 2009). Most public sector institutions have developed various strategies which are benchmarked from the private sector, to enable them meet the ever-changing societal demands. Indeed, there is a paradigm shift in accountability of the public sector institutions to the wider

society nowadays more than ever before. The focus nowadays in most institutions including government funded organizations is on customer satisfaction. There is the realization that customer satisfaction is the key towards the institutions' continued existence in this era of cut-throat competition (Schertzer & Schertzer, 2004). With this realization, majority of public sector institutions have employed ingenious strategies to enable them ascertain the levels of satisfaction of their customers as a way of being accountable to the wider public. Understanding and satisfying customers remain a key strategic focus for modern day institutions which would like to keep afloat in today's competitive business environment.

Higher education institutions have taken cue from the private sector by employing a variety of methods that can help them better understand the level of satisfaction of their customers and improve their curricula by adapting it to the needs of the society. Improving university performance, therefore, has become an undisputable issue in today's increasingly open and competitive environment. According to Rezić et al. (2014), universities have to justify their existence by being publicly accountable in order to attract resources and even potential students. Therefore, regulators of higher education quality stress on the need for universities to establish mechanisms of receiving feedback from their stakeholders including students. Maintaining and improving students' satisfaction is therefore considered an important goal of education in general and universities in particular (Orpen, 1990).

The Inter University Council for East Africa (2010) recommends that an institution must have a structured method to obtain feedback from all stakeholders as a way of measuring their satisfaction. In Kenya, the Commission for University Education (CUE) (2014) requires universities to ensure regular evaluation and review of programmes and courses in addition to putting in place a mechanism for receiving feedback from stakeholders on their programmes in order to ascertain the levels of satisfaction. Knowing about student's satisfaction helps the institution understand whether students are receiving the academic and social benefits they expect when they enrol and point out if their institutional choice is fit for purpose or not (Mwebi, 2020). Therefore, satisfaction surveys provide insights as to how institutional quality and reputation is perceived by various audiences (Schertzer & Schertzer, 2004).

The level of students' satisfaction with an institution can be measured using various ways. One of the ways that universities measure student satisfaction is through the administration of graduate exit surveys. The concept of exit interviews or surveys is borrowed from industry as a human resource management practice. In industry, the purpose of an exit interview is to assess the overall employee experience within an organization and identify opportunities to improve retention and engagement (Muller, 2020). Information collected in an exit interview can give an organization a unique perspective on its performance and client satisfaction. It is believed that people who are leaving/exiting an organization may be honest about their experiences without fear of immediate repercussions (Blunt, 2004). This is therefore the philosophy underlying the institutionalization of graduate exit surveys within the higher education sector.

Graduate exit surveys in higher education institutions are a pivotal feedback mechanism with regard to the quality of educational services that are offered in an institution. Through graduate exit surveys, one gets an assurance that the educational experiences proffered by the institution are able to meet the mission and vision of an academic programme on one hand and the societal requirements on the other (Biggs, 2001). This is the only way of ensuring that universities, being on the supply side of the economy, are meeting the requirements of the industry which is on the demand side of the economy (Mwebi & Nzioki, 2020). Exit surveys, as a feedback mechanism, can be used to improve the quality of academic programmes and help an institution plan for the

future. Findings from exit surveys are often a critical input variable in the process of programme review and development besides enabling members of faculty to improve their students' experiences in teaching, socialization, and preparation for their respective careers (Anderson & Swazey, 1998). Through the surveys, an institution can better understand its strengths and challenges students go through during their course of study. This enables policy makers to prioritize goals, allocate resources, increase student satisfaction, influence change, and improve retention among others (Kacius et al., 2015).

Collecting information from students after graduation helps the University to gain useful insights that enables it to pinpoint areas in need of improvement. Kacius et al. (2015) point out that feedback from the exit interview process is used to continually improve educational experiences and outcomes. This also enables members of the academic faculty to respond to the needs of students as they move through the academic ladder (Polson, 2003). College administrators, therefore, use satisfaction surveys to measure student perceptions of the campus experience in order to identify those areas where the institution is performing well. Conversely, colleges also use survey findings to target areas for improvement or to identify a need for new programmes. Strengthening academic and co-curricular programs forms the basis for exit surveys especially for high-achieving institutions thus contributing to institutional effectiveness and ensuring student success (Bryant, 2006).

Extant literature shows that dissatisfied students often become drop-outs (Billups, 2008) leading to lowering of enrolment, hindering institutional reputation and reducing institutional vitality (Miller, 2003). According to Miller, institutions with higher satisfaction levels enjoy higher retention and graduation rates, lower loan default rates and increased alumni support (Miller, 2003). Thus, successful institutions realize that it is better to invest at the onset to retain their students by identifying what enhances student satisfaction (Elliott, 2002). Developing a more cogent understanding of what keeps a student satisfied limits student attrition and creates a more sustainable campus environment (Elliott, 2002). Therefore, student survey results aid in strategic planning and institutional goalsetting, providing important direction for operational objectives and program planning. Institutions that use survey data to guide decision making develop an in-depth understanding of students as critical consumers and meet their needs more effectively.

Laikipia University as a higher education institution in Kenya, has institutionalized the use of graduate exit survey as part of institutional quality assurance mechanism. In every graduation cycle, the University undertakes to collect views from graduating cohorts on various aspects of the university based on experiences the students went through while undertaking their studies at the University. It is envisaged that after staying at a university for four years, students would have interacted with most of its functional areas, and therefore have a rich experience that can enable them make an informed judgement regarding services offered at the university. The aspects which are mainly of focus in the Laikipia University's graduate exit questionnaire include satisfaction with the quality of education service, quality of learning environment, and support services.

The current study therefore sought to find out views of the 2019 graduation cohort regarding the quality of education, the level of satisfaction with support services such as library, ICT, and hospitality facilities including the general study environment within and outside the University. Moreover, the study delved to find out the level of commitment the potential alumni had to the University in view of their interactive study experiences during their four-year stay at the University. The study was therefore guided by three objectives, which were to find out the views of the 2019 graduation cohort regarding the quality of education offered at Laikipia University; to examine the satisfaction levels of the 2019 graduation cohort with regard to: library, ICT,

Hospitality and environment within and outside the University; and to find out the level of commitment of the 2019 cohort of graduates to the University.

Theoretical Framework

This study was anchored on two theories of satisfaction; namely, the disconfirmation paradigm theory and the expectancy-value theory. The SERVQUAL model was also used to emphasize the importance of service quality in a university setting. A brief description of these theories, model and their relevance to the current study is explicated.

Disconfirmation Paradigm Theory

Disconfirmation theory indicates that customers compare a new service experience with a standard they have developed (Barsky, 1992). Their belief about the service is determined by how well it measures up to this standard. The theory presumes that customers make purchases based on their expectations, attitudes, and intentions (Oliver, 1980). Later, during or after consumption, a perception of performance occurs as customers evaluate the experience. The process is completed when customers compare the actual service performance with their pre-experience standard (Oliver, 1980) or expectation. The result is confirmation, satisfaction, or dissatisfaction.

The current study therefore envisions that students have a certain set of standards regarding a university which they will compare with when they have been exposed to actual performance measures. These standards constitute the factors that influence them to choose a university for study. The factors include among others, quality faculty, modern teaching and research facilities as well as impressive and functional collaborations with industry (Mwebi, 2020). How well these factors measure to the expected standard lead to students' satisfaction or dissatisfaction with the university. Exit surveys therefore provides an opportunity to gauge whether the university was able to meet the expectations of the students after the completion of a programme of study.

Expectancy-Value Theory

According to expectancy-value theory, customers often make some judgment about a product, its benefits, and the likely outcomes of using the product. People will learn to perform behaviour that they expect will lead to positive outcomes (Tolman, 1932). Their overall attitude is a function of beliefs about an object's attributes and the strength of these beliefs. In this case, students will be making judgement about the value of the degree they have obtained from a university. The benefits of the degree in terms of graduate employability and attendant benefits are critical in judging satisfaction levels of the students. Therefore, students' satisfaction level will be judged from the value addition perspective as a result of the qualification acquired in respect of a programme. For example, students who perceive themselves as likely to get a job easily are likely to express a lot of satisfaction than those who do not perceive themselves as such.

The SERVQUAL Model

The SERVQUAL model is perhaps the most widely used model to translate theories of customer satisfaction into management practice (Soutar, 2001). In this model, service quality is defined as the difference between customer expectations and customer perception of service received. The gap in service quality occurs when the perception of service received is less than what is expected (Zeithaml et al.,1990). While at the university, students are exposed to different service offerings which are comparable to others in the wider organizational spectrum. They therefore compare service delivery at the university and try to compare with other similar services in the same

industry. If the service offered at the university is better than in other institutions, then the gap is favourable, thus causing satisfaction. On the other hand, when the service is lower compared to that in a similar industry, then the gap is unfavourable leading to dissatisfaction. Students will judge every aspect of the university service delivery and indicate their levels of satisfaction based on the gaps they normally see in service delivery relative to similar service offering in equivalent institutions.

Methodology
This study relied on the descriptive research methodology. An exit survey was conducted for the 2019 graduating cohort of students during the 7th graduation ceremony at Laikipia University. Data was collected by the Directorate of Quality Assurance and Standards in the month of February, 2020 which was earmarked in the university calendar as the certificate collection period. The population of interest were students who joined university in 2015 and graduated in 2019 having completed their four (4) year course of study. A survey targeting all students (N = 2169) who graduated during the 7th graduation ceremony held on the 6th day of December, 2019 was administered to a random sample size (n= 500) of graduates selected based on Yamane (1967) formula for determining sample size at 95 percent level of confidence. This questionnaire was designed to collect data on various aspects of quality education, satisfaction with support services and the general study environment in line with the specific objectives of the study. A total of 388 questionnaires were dully filled in and returned thus representing a return rate of about 78 percent.

Results
The findings of this study were descriptively analysed using percentage frequencies and mean values and then presented in tables as discussed hereafter under the sub-topics of impression of the quality of education services, satisfaction with university services and environment, and commitment to the alma mater. In addition, analysis of Likert-type data was analysed analogously and interpreted using the weighting criteria advocated by Carifio and Rocco (2007) which indicates strongly disagree to be in the range of (SD) $1 < SD < 1.75$; Disagree (D) $1.75 < D < 2.5$; Agree (A) $2.5 < A < 3.25$ and Strongly Agree (A) $3.25 < SA < 4.0$. The scale gives an equidistance of 0.75 based on the four response categories.

Impression of the Quality of Education Services
The graduates were expected to indicate their impression on quality of education in respect of the various parameters that were designed to measure education quality. These parametric aspects were measured on a four-point Likert type of scale ranging from strongly disagree to strongly agree. Thereafter, the impression on quality was interpreted to be either positive or negative. In view of this, any mean rating of 2.5 points and below implied negative impression on quality of education while any mean ratings above 2.5 implied a positive rating on quality of education offered.

Analysis and interpretation of these educational quality aspects reveal that about 96 percent of the graduates agreed with a mean rating of 3.44, that the courses offered were useful as they pursued their studies at the university. About 92 percent of the graduates also agreed that the courses offered were well taught (mean = 3.29). In addition, about 95 percent of the graduates agreed that the field attachment component of their respective courses was useful in linking theory and practice (mean =3.43). Further, 76 percent of the graduates agreed that they had access to the

facilities needed to complete their degree although one- third disagreed with the statement. These findings are shown in table 1.

Table 1: Impression of Quality of Education Services

	SD	D	A	SA	Mean	Interpretation
The courses offered were useful to me as I pursued my degree	2.9	0.8	45.9	50.4	3.44	Positive
The courses offered were well taught	2.7	4.8	53.7	38.8	3.29	Positive
The field attachment component in my course was useful in linking theory and practice	3.4	1.9	43.1	51.6	3.43	Positive
I had access to the facilities/equipment I needed to complete my degree	7.3	16.2	54.7	21.8	2.91	Positive
The equipment/facilities I used were well maintained	4.3	12.5	56.6	26.6	3.05	Positive
Equipment/facilities I used were safe	3.0	10.2	59.3	27.5	3.11	Positive
Lecture rooms were adequate	5.7	16.9	55.6	21.8	2.93	Positive
I received the mentorship I needed to successfully complete my degree (Academic Advising)	3.0	7.0	53.7	36.3	3.23	Positive
Overall, my interactions with academic staff at Laikipia University were positive	3.0	5.1	51.3	40.6	3.30	Positive
Overall impression (Mean index)					**3.19**	Positive

From the findings, it is also noted that majority (83%) of the graduates agreed that the equipment they used while at the university were safe (mean =3.11). Furthermore, 77 percent of the graduates agreed that the lecture rooms were adequate and about 90 percent of the graduates agreed that they received mentoring (academic advising) that they needed in order to successfully complete their studies. Further still, over 90 percent of the graduates generally agreed that their interactions with the members of staff at the university were positive.

Overall, the mean rating for all the parametric aspects of quality was 3.19, implying that the students' impression regarding the quality of education services offered at the university was positive. Therefore, it can be said that the 2019 cohort of graduates had a positive impression of the general quality of education that is offered at the university. This is very important considering that Mwebi (2020) found that quality of education was one of the fundamental factors most students considered in choosing a university of study. Therefore, improvement in quality of educational service can positively contribute to the level of student satisfaction. A study by Kammur (2017) in Alrifaq private University in Libya also revealed a statistically indicative effect of quality of educational service on the level of student satisfaction.

Satisfaction with University Services and Environment
The study sought to establish the satisfaction level with regard to library, ICT, hospitality services and environment within and outside the university. Satisfaction levels were measured on a four-

point Likert type of scale with not satisfied at all=1, not satisfied = 2, satisfied = 3 and very satisfied = 4.

For purposes of interpretation of the findings, the responses were dichotomously grouped into 'not satisfied and satisfied'. Therefore, any mean rating of 2.5 points and below implied no satisfaction while mean ratings above 2.5 implied satisfaction. Similarly, percentage ratings for not satisfied at all and not satisfied were added (SD+D) to give an overall, percent score for no satisfaction while the overall percentage score for satisfaction was obtained by adding individual percentage rating for satisfied and very satisfied (A+SA). The findings regarding satisfaction levels for library, ICT, hospitality and general university environment and the interpretation thereof are as presented in tables 2, 3 and 4 respectively.

Table 2: Satisfaction with Library Facilities

	SD	D	A	SA	Mean	Interpretation
Adequacy of study materials	4.6	22.6	56.2	16.7	2.85	Satisfied
Up-to-date study materials	4.3	24.3	57.1	14.3	2.81	Satisfied
Relevance of the study materials	3.3	12.3	61.4	23.0	3.04	Satisfied
Availability of e-resources	5.7	21.9	54.6	17.8	2.84	Satisfied
Internet access within the library	6.5	16.6	56.7	20.2	2.90	Satisfied
Digital Library (computer in the library)	11.0	27.5	45.2	16.3	2.67	Satisfied
Library time (opening and closing)	1.9	6.2	56.4	35.5	3.25	Satisfied
Interaction with library staff	3.0	9.2	58.2	29.6	3.15	Satisfied
Overall satisfaction with library facilities					**2.94**	**Satisfied**

Regarding satisfaction level with the library facilities as shown in table 2, the study established that about 72 percent of the graduates were satisfied with the adequacy of study materials at the university library while one third were not satisfied with a mean rating of 2.85 implying that they were satisfied. Similarly, it was found that 71 percent of the graduates were satisfied that the library materials were up to date (mean =2.81). Majority (84%) of the graduates was satisfied with the relevance of the study materials and about 71 percent of the graduates were also satisfied with the availability of e-resources (mean = 2.84). Regarding digital library, about 61 percent of the graduates were satisfied while nearly 40 percent were not satisfied. The levels of satisfaction regarding this aspect were however high considering the mean rating of 2.67. In addition, 92 percent of the graduates were satisfied with library opening and closing time and about 88 percent of the graduates were satisfied with the interactions they had with library staff.

Overall, the 2019 graduates were satisfied with library facilities considering the overall satisfaction index was 2.94. In the university's tracer study survey conducted in 2013, the graduates were not satisfied with library facilities particularly the relevance of study materials and availability of e-resources (Mwebi & Nzioki, 2020). These positive findings therefore, imply that the university has made significant progress towards addressing students concern regarding library facilities hence increased levels of satisfaction. In a study on students' satisfaction in public universities in Kenya, Kara et al. (2016) established that quality of teaching facilities, availability of textbooks, and quality of library service were positively and significantly related to student' satisfaction.

Regarding satisfaction levels with ICT infrastructure, the study found that about 68 percent of the graduates were satisfied with the adequacy of ICT infrastructure (mean =2.71) and about 66 percent of them were satisfied with accessibility to computer labs (mean 2.73). It is also notable that 73 percent of the graduates were satisfied with internet connectivity (mean =2.86) and about 70 percent of them were satisfied with the integration of ICT in teaching (mean=2.80). Overall, it can be observed that the 2019 cohort of graduates were highly satisfied with the ICT infrastructure in place (mean =2.78) as shown in table 3.

Table 3: Satisfaction with ICT Infrastructure

	SD	D	A	SA	Mean	Interpretation
Adequacy of ICT infrastructure	9.2	22.3	56.3	12.2	2.71	Satisfied
Accessibility to computer labs	8.4	25.0	51.4	15.2	2.73	Satisfied
Internet connectivity	6.5	19.5	55.7	18.4	2.86	Satisfied
Integration of ICT in teaching	6.3	23.8	53.8	16.1	2.80	Satisfied
Overall satisfaction with ICT infrastructure					**2.78**	**Satisfied**

The findings of tracer studies for the 2013 cohort of graduates established that at that time, more than half of the 2013 graduates did not have access to ICT infrastructure (Mwebi & Nzioki, 2020). This therefore shows that the university has made tremendous progress in improving the ICT infrastructure to the current state as already seen in table 3. Erdil (2013) in a study on student support services and satisfaction in online education established a strong positive correlation between quality attributes of ICT support services and overall level of student satisfaction.

With regard to satisfaction with hospitality services, the findings discussed are also presented in table 4.

Table 4: Satisfaction with Hospitality Services

	SD	D	A	SA	Mean	Interpretation
Adequacy of recreational facilities inform of games or sports facilities/equipment	9.8	20.1	56.5	13.6	2.74	Satisfied
Adequacy of accommodation facilities (hostels)	6.8	20.5	52.2	20.5	2.86	Satisfied
Maintenance of accommodation facilities	5.8	16.2	58.8	19.2	2.91	Satisfied
Adequacy of suitable sanitary amenities	4.7	16.1	56.7	22.5	2.97	Satisfied
Maintenance of sanitary amenities	3.9	16.6	57.2	22.3	2.98	Satisfied
Adequacy of dining facilities	4.7	16.7	56.9	21.7	2.96	Satisfied
Maintenance of dining facilities	3.4	13.8	55.1	27.8	3.07	Satisfied
Provision of space of worship	2.5	7.0	55.3	35.2	3.23	Satisfied
Provision of service at the medical department	2.5	10.1	60.1	27.4	3.12	Satisfied
Provision of counselling services	4.7	11.4	60.0	23.9	3.03	Satisfied
Support of student clubs' associations	4.5	13.6	57.6	24.3	3.02	Satisfied
Involvement of students in university outreach activities such as Marathon, Health Week, Gender Week, Mentorship programs, etc.	3.3	7.2	56.0	33.5	3.20	Satisfied
Overall interaction of non-teaching staff with students	2.5	6.4	61.1	30.0	3.18	Satisfied
Overall satisfaction with hospitality services					**3.05**	**Satisfied**

As can be observed from table 4, nearly 70 percent of the graduates were satisfied with the adequacy of recreational facilities in form of games or sport facilities. About 73 percent of the graduates were also satisfied with the adequacy of hostel facilities and about two thirds of the graduates were satisfied with the maintenance of accommodation facilities. It is also important to note that nearly 80 percent were satisfied with the adequacy and maintenance of sanitary amenities. Additionally, majority of the graduates were satisfied with the adequacy and maintenance of dining facilities and about 90 percent were satisfied with the provision of space for worship as well as the provision of services at the medical department. Further, it was established that nearly 84 percent of the graduates were satisfied with the provision of counselling services. Similarly, about 82 percent of the graduates were satisfied with the support given to student clubs and associations.

Regarding involvement of students in university outreach activities such as marathon, health and gender, about 89 percent of the graduates were satisfied while 11 percent were not satisfied. With respect to the interaction of non-teaching staff with students, over two thirds of the graduates were satisfied while about one-third were not satisfied with the interactions. In general, the students were satisfied with the hospitality services that were provided at the university. These findings however are contrary to those of Mwebi and Nzioki (2020) who in the tracer study survey of 2013 cohort established that accommodation, lecture halls, recreation facilities and cafeteria were rated as very unsatisfactory by the graduates. This therefore depicts an improvement in the hospitality services offered by the university over time. A study by Njuguna (2017) on students' satisfaction in public primary teacher training colleges revealed that there was a significant

relationship between support services (for instance, Library, accommodation and medical services) and students' satisfaction.

Finally, table 5 presents the findings with regard to the graduates' satisfaction with the environment outside and within the university.

Table 5: Satisfaction Levels with the Environment

	SD	D	A	SA	Mean	Interpretation
Security within the university	3.8	9.3	67.3	19.6	3.03	Satisfied
Security in the surrounding environment of the University	4.1	13.4	61.9	20.5	2.99	Satisfied
Adequacy of fire safety measures and equipment	4.4	10.8	61.9	22.9	3.03	Satisfied
Cleanliness of the learning environment (lecture rooms and hostels)	2.7	9.0	59.3	29.0	3.14	Satisfied
Adequacy of water for use by students	1.9	5.6	59.3	33.1	3.24	Satisfied
Conducive learning environment (far from noise and other distraction to learning)	2.7	7.4	53.7	36.2	3.23	Satisfied
Conducive lecture rooms that are well-lit and ventilated	6.1	14.6	48.9	30.4	3.04	Satisfied
Overall satisfaction with environment					**3.11**	**Satisfied**

From table 5, it can be observed that most graduates (87%) were satisfied with the security within the university and about 82 percent of them were satisfied with the security in the environment surrounding the university. In addition, the study found that 84 percent of the graduates were satisfied with the adequacy of fire safety measures and equipment and about 88 percent of them were satisfied with the cleanliness of the learning environment including lecture rooms and hostels. Furthermore, 93 percent of the graduates were satisfied with adequacy of water for use by students and about 90 percent of them were also satisfied with the conducive environment for learning which in their view is far from learning distractions. Finally, majority (79%) of the graduates were satisfied with the conducive lecture rooms that are well lit and ventilated.

A study by Mwebi (2020) established that quality of education services and a conducive study environment were the main factors that influenced students in selecting Laikipia University. Kara et al. (2016) also found that the learning environment was positively and significantly related to student' satisfaction. The conducive learning environment is therefore an opportunity which the university can tap into in order to attract more students.

Commitment to the Alma Mater

Similar to organizational commitment, commitment to the *alma mater* is the students' psychological attachment to the university. Usually, commitment to an institution and satisfaction levels are closely correlated together with lower levels of intention to leave the organization (Yousef, 2017). The study therefore sought to establish whether the students had developed a sense of belongingness and commitment to the university based on their satisfaction with the university services. According to Miller (2003), when graduates are satisfied, they tend to develop a strong sense of commitment to the institution and there are lower levels of attrition. It can be argued that

when graduates develop a strong level of attachment there is an implied sense of belongingness with the *alma mater* which spans a long time after they have left the institution thus helping in establishing strong alumni associations. In view of this, the following questions were posed to the graduates;

1. If you were to begin your graduate or professional studies again, how likely would you: Choose the same field of study at Laikipia University? Choose the same field of study at another university?
2. Based on your experience at Laikipia University, how likely would you: Recommend your field of study to a prospective student; Recommend Laikipia University to a prospective student

Analysis of the findings in relation to the two questions herein above is presented in figures 1 and 2 respectively.
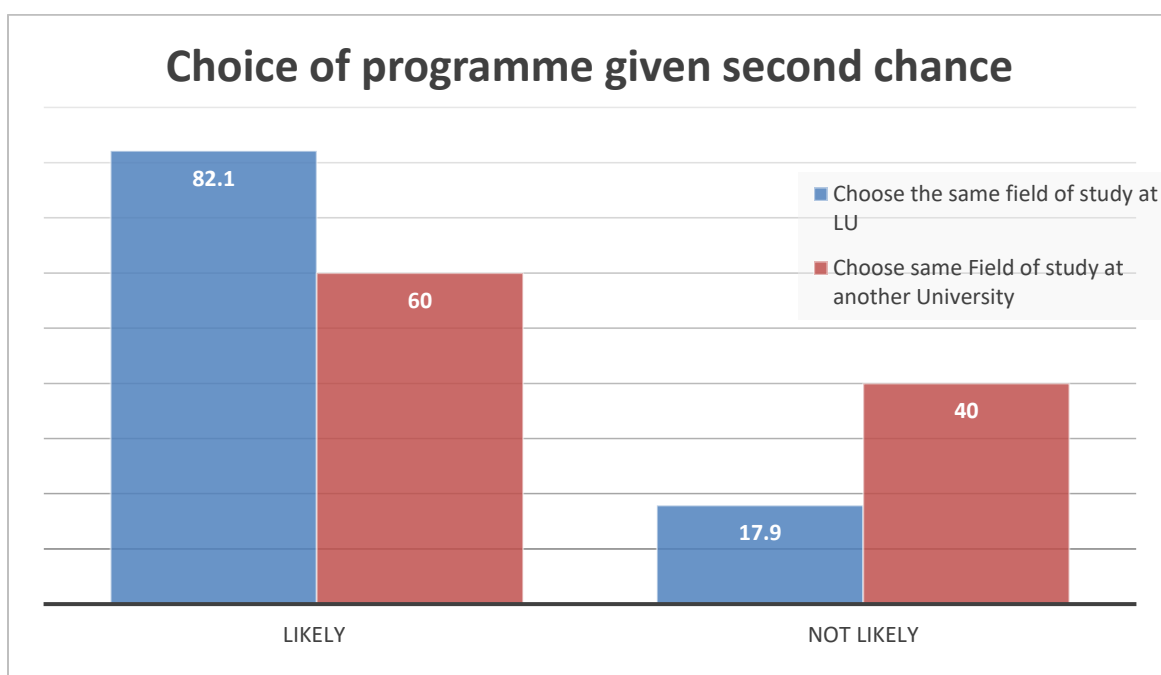
Fig. 1: Choice of Programme Given an Opportunity
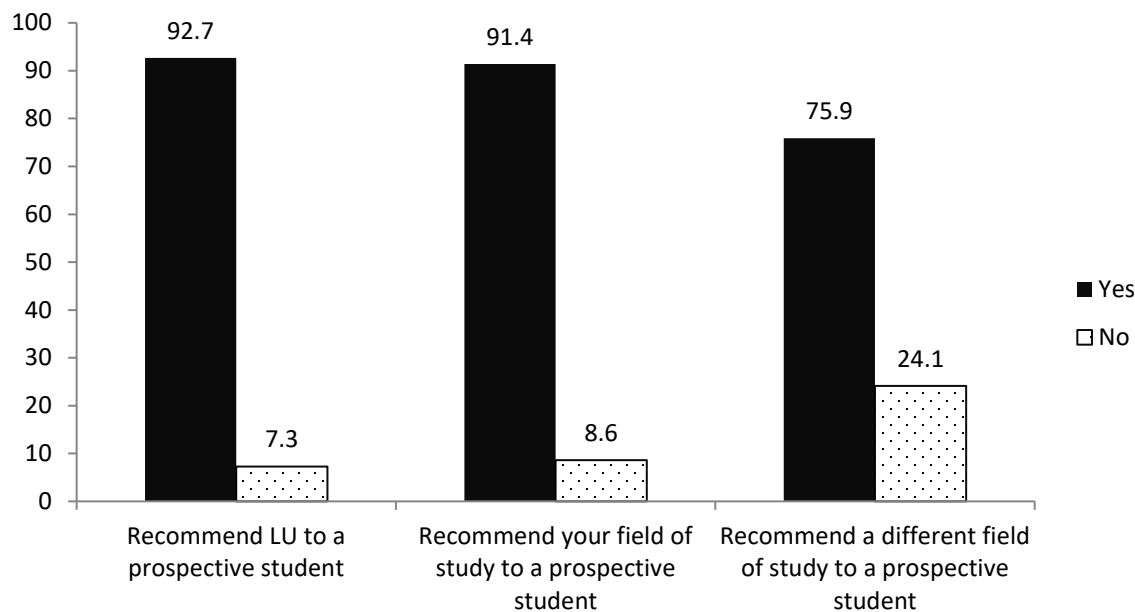
Fig. 2: Recommendations about the University

Regarding whether they could choose the same field of study at the university, 82 percent of the graduates were of the view that given an opportunity, they were likely to choose a similar programme of study at the University while 18 percent were not likely to choose a similar programme at the University. Similarly, nearly 60 percent of the graduates were likely to choose the same field of study at another university while 40 percent of the graduates were not likely to choose the same field of study at another university.

With regard to whether they could recommend other prospective students to join Laikipia University for their studies, about 93 percent of the graduates affirmed that they could recommend a prospective student to join Laikipia University. Similarly, about 92 percent confirmed that they could recommend a student to join the same field of study as theirs while about 76 percent indicated that they could recommend a different field of study to a prospective student. Bryant (2006) in a study on assessing expectations and perceptions of campus students in San Francisco found that satisfied students were able to be effective public relations agents who can market the university and enhance its reputation. Similarly, Mwebi (2020) established that students' choice of a university was influenced by referrals more than newspaper and TV advertisements.

Discussions, Conclusions and Recommendations

The study findings herein show that the graduates of 2019 had a positive impression on the quality of education offered at the university and were generally satisfied with the library, ICT infrastructure, hospitality services and the environments within and outside the university. According to Kara et al (2016), quality of teaching facilities, availability of textbooks, and quality of library service environment were positively and significantly related to student' satisfaction. Besides, they were satisfied with the quality of support services which complemented their stay at the university. Ntabathia (2013) contends that some of the most important aspects of an institution

that students like most include the reputation of the university and the nature of the programmes offered as critical aspects of educational quality.

According to Ntabathia (2013), service quality is positively related to student satisfaction. A study by Erdil (2013) revealed a strong positive correlation between quality attributes of support services and overall level of student satisfaction with the support services. The study also found that an increase in quality level of services would yield high satisfaction. Similarly, Njuguna (2017) established that that there was a significant relationship between support services (for instance, library, accommodation and medical services) and students' satisfaction. Based on their overall satisfaction with the university, the graduates expressed a commitment and willingness to recommend other prospective students to pursue courses at the university.

Mwebi (2020) found that students' choice of a university was influenced by referrals from the significant others (teachers, parents, guardians, and peers/friends). According to Bryant (2006), satisfied students can make effective public relations agents who can market the university and enhance its reputation. On the contrary, however, dissatisfied students often become drop-outs (Billups, 2008) thus lowering student enrolment and institutional reputation consequently reducing institutional vitality (Miller, 2003). High student satisfaction helps in attracting and retaining high achievers who in turn increase the reputation and standing of the university. Student satisfaction plays a critical role in selection of their preferred destination of study.

In a survey conducted among 600 students in the United States, it was established that satisfied students may have a strong influence on a university's ability to connect with and attract quality applicants (Visipoint, n.d.). This gives credence to the importance of student satisfaction as an integral component of marketing the institution. Considering that admission to universities in Kenya is currently pegged on the students' preferences, it is important as Mwebi (2020) points out that universities need to devise a client centred approach towards their programme offering in order to attract students. Universities therefore ought to continually strengthen and improve the quality of services that they offer.

Notwithstanding the findings herein, it is imperative to note that in all the parameters measured, there was no one hundred percent satisfaction level. This, therefore, calls upon the university decision making organs to explore possible strategies and mechanisms for improvement of all the aspects in order to have complete student satisfaction

In view of the discussions and conclusions arrived at in this study, recommendations are hereby suggested for improvement in education and service quality at the University. Regarding the impression on quality services, this study recommends that the University looks for ways of expanding the existing capacity of laboratories and workspaces to accommodate more students as a way of increasing access to these facilities. Also, the current construction of lecture halls should be expedited to allow adequate space for lecturing purposes. As for the library, the study recommends the need for the University to continually work on modalities to stock adequate and up-to-date study materials and sensitize students on the existing e-resources besides allowing internet access within the library for ease of referencing.

When it comes to ICT, the study recommends that the University continually works towards improving the ICT infrastructure by having more computer labs in order to increase accessibility but also increase the internet bandwidth for stronger internet connectivity. The University should also explore ways of encouraging lecturers to integrate ICT in teaching. Additionally, the ICT infrastructure should be expanded to allow online education through blended teaching methodologies. As for the hospitality services, the study recommends that the University increases availability of recreational services such as games, sport facilities and equipment in addition to

providing adequate accommodation facilities and ensuring that they are well maintained. Further, the University should provide adequate sanitary amenities and ensure they are well maintained in addition to providing adequate dining facilities.

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Kamĩrĩĩthũ and Ngũgĩ's Innovative Aesthetic in Devil on the Cross (1982)

Nicholas Kamau Goro

Department of Literary and Communication Studies, Laikipia University, Kenya

Abstract

Ngũgĩ wa Thiong'o's work with the Kamĩrĩĩthũ people on an interactive community theatre project in the Gĩkũyũ language has been acknowledged as an important threshold in his development as a writer. This paper takes recourse in postcolonial theory to show how the author's experimentation with peoples' theatre in his mother tongue awakened him to the potential of Gĩkũyũ as a literary language culminating in his decision to henceforth write in his mother tongue. This was a significant aesthetic shift which turned the author into the foremost advocate of writing in indigenous languages in the postcolonial world. However, the paper argues, it remains relatively unappreciated how Ngũgĩ leveraged on the experience of working with the people on the popular theatre in their own language to craft his first post- Kamĩrĩĩthũ novel, *Caitaani Mũtharaba-inĩ* (1980). Later translated into English as *Devil on the Cross* (1982), the novel is significant because it is the first modern novel in the Gĩkũyũ language. This paper reads the Gĩkũyũ original alongside its English translation with a view to showing how through the use of the linguistic and aesthetic codes of his indigenous language, Ngũgĩ jettisons European literary conventions to create an innovative novel whose inspirations and aspirations might rightly be described as African in both spirit and form.

Keywords: Aesthetic(s), innovation, Kamĩrĩĩthũ, Ngũgĩ wa Thiong'o, postcolonial

Introduction

Postcolonial literary scholars postulate that the dominance of European languages, cultural and literary ethos complicates the writer's attempt to develop an authentic literary tradition. Owing to its historical, aesthetic and ideological links with imperialism, African novelists in particular see the European model of the novel as historically and culturally 'contaminated'. This is because in the view of many postcolonial scholars and writers, the novel is 'distinctively European in its values' and arose to consolidate certain vested interests (Innes, 2007, pp. 42, 119-120). These include class and racial interests which are mostly inimical to postcolonial African interests. Indeed, for Ngũgĩ, the novel especially in English is an alienated and alienating form not only because of its genealogy in Western culture but also because of its inaccessibility to the ordinary people who cannot not read English (1986, p. 72). The problems associated with the novel as received from the West present writers seeking to liberate their literature and cultures from imperial domination with a considerable challenge. The challenge, however, is not insurmountable. As Patrick Williams observes; postcolonial writers have been able to appropriate the dominant languages and forms of the Western novel 'in resistant or oppositional ways' and in so doing to reclaim the novel 'for African ends' (1999, p. 18).

Ngũgĩ wa Thiong'o is one of the most experimental and innovative writers in African literature. As far back as 1967 when he published *A Grain of Wheat* the author had expressed doubt about the efficacy of the novel in the English language. He lamented that although he knew who he was writing for, the peasants and the workers whose experiences fed the novel would never read his novel (Marcuson, et al. 2006, pp. 32- 33). Thus, even this early in his career, Ngũgĩ had identified language as the key handicap in his aesthetic praxis. In *Petals of Blood* (1977), the author attempted to appropriate the novel as a form through the codes of his Gĩkũyũ literary tradition, Kenyan history, and popular culture in an attempt to indigenise the novel. By this time as Balogun notes, 'a crusading Marxism had completely taken over' Ngũgĩ's praxis (1997, p. 21), giving a sense of urgency to his critique of post-colonial culture.

Inspired by his reading of works like Frantz Fanon's *The Wretched of the Earth* (1968), Ngũgĩ was disillusioned by the direction in which the ruling elite was steering the newly independent African countries and became an advocate of the writer's participation in political revolution (Ambrose, 1995, p. 193). Ngũgĩ's call on fellow African writers to join the 'revolutionary' struggle of the 'masses' was of 'epochal significance' in the development of a 'radical aesthetic' in African literature. But for the revolution to succeed, Ngũgĩ was convinced that the writer must not just speak for the people but also speak' 'in their idiom' (Lazarus, 1995, p. 19). As a writer who espouses the cause of the oppressed, Ngũgĩ came to see the main weakness of his English-language writings not as a failure of ideology but of language. This culminated in him taking the most decisive step in his career as a writer when in 1976 he decided to move back to his home village of Kamĩrĩĩthũ to directly work with the peasants and workers on a community participatory theatre project in the Gĩkũyũ language.

The shift to theatre was an important threshold in Ngũgĩ's development as an intellectual, a social thinker, and a writer. This is because drama and theatre provided a more interactive form in which, unlike in the novel, political action could freely be represented through performance. Embracing community theatre was therefore a sign of a writer who was seriously rethinking of the epistemology of literary expression.

Kamĩrĩĩthũ, Language, and Aesthetics: Staging Neo-colonialism in Kenya
Ngũgĩ has described himself as 'primarily' a novelist who has reluctantly been 'drawn' to drama and theatre sometimes (Wilkinson, 2006, p. 199). But after his first 'apprentice' plays that were written while he was an undergraduate at Makerere University, *This Time Tomorrow* (1970) and *The Black Hermit* (1968), it was not until the late 1970s that he returned to drama when he teamed up with Mĩcere Mũgo to write *The Trial of Dedan Kimathi* (1976). By this time, Ngũgĩ had already established an international reputation as a novelist with his novels, *The River Between* (1965), *Weep Not, Child (1964),* and *A Grain of Wheat* (1967). Ngũgĩ's fourth novel, *Petals of Blood* is arguably one of the most powerful political novels in African literature. This is borne out by the heated debate in literary circles that met the novel when it was published in 1977. Generally, Western critics projecting the Western discomfort with the blatant indulgence of politics in art riled against what they saw as Ngũgĩ's promotion of the Marxist ideology in *Petals of Blood* (Mclaren, 1995, Pp. 73-91). For most African critics, however, the novel was Ngũgĩ's crowing literary achievement. This view was best expressed by Chidi Amuta who argued: 'against the timid imputations of bourgeois critics, the decisive ideological thrust of *Petals of Blood* does not weaken its artistic identity' (1989, p. 148). The Western critics' discomfort with the powerful political message in *Petals of Blood* is important in that even before he went to Kamĩrĩĩthũ, Ngũgĩ was

already moving in a direction that would bring him into contestation with the edifice that is the Western literary tradition and its aesthetic assumptions.

Indeed, the *Petals of Blood* authorises Ngũgĩ's dissatisfaction with what Aizenberg calls 'the quietist-realist work' in the Western mode (1992, p. 90). Re-imagining the novel as an aesthetic agent of radical social change, the author boldly documents the political realities of postcolonial Kenya in the novel as a strategy of combating and even delegitimizing the nation. Ngũgĩ clearly drifts away from the ethos of the modernist novel where the writer is supposed to represent reality in a 'truthful' and 'objective' manner (Balogun, 1995, pp. 350-352). By so doing, the author rejects the universalising tendency of Western aesthetic assumptions and seems to be insisting with Schipper that in different times and cultures, 'reality is experienced and expressed by artists and writers in different ways' (1985, p. 559). In other words, for Ngũgĩ, realism is not an abstract aesthetic concept but is about the concrete realities of life as experienced by the people.

Still, the author was dissatisfied by the realisation that owing to the linguistic medium, his putative audience of peasants and workers would never read his novel in English. It is in this context that Kamĩrĩĩthũ was such a significant shift in Ngũgĩ's quest for an accessible and more inclusive aesthetic when in the late 1970s he decided to turn to theatre in the Gĩkũyũ language. In the living context of community theatre, his audience would now be tangible and immediate. Further, Ngũgĩ's resolve to write in the Gĩkũyũ language enabled him to close the class gap that had existed between him as an intellectual and the ordinary people whose experiences and realities he wrote about. In essence, Ngũgĩ's choice of language was first and foremost a strategic move that embodied his political allegiance to the oppressed. The choice of language was not simply the choice of a linguistic medium. It also authorised alternative literary codes and epistemologies embedded in the indigenous language. This is evident in the Kamĩrĩĩthũ play, *Ngaahika Ndeenda* (1980) translated into English as *I Will Marry When I Want* (1982). The play's innovative aesthetic resides in the fact that as Ndĩgĩrĩgĩ aptly notes, it is embedded in the Gĩkũyũ 'notions of art that had both educational and entertainment values' (2007, p. 4). Consequently, popular art forms such as politically charged symbolic stories, oral poetry, drama, songs, dance as well as contemporary music became an indispensable part of the dramaturgy of the play.

By embracing these popular and traditional forms, *Ngaahika Ndeenda* represents Ngũgĩ's most radical break with the neo-colonial culture. The play is replete with the undertones of the works of contemporary popular musicians such as Joseph Kamarũ, Daniel Kamau (simply known as D.K.) and C.D.M. Kĩraatũ who Ngũgĩ acknowledges as cultural icons and sources of inspiration alongside the Gĩkũyũ author, Gakaara wa Wanjaũ. Indeed, the play derives its title from 'Ngarua Ndeenda' (I Will Get Circumcised When I Want), a popular song by Daniel Kamau who was one of the leading lights of Kenya's popular culture in the 1970s. This period is widely regarded as the heyday of Kenya's cultural revival in which artists saw themselves as part of a distinct and active social and cultural movement. Inspired by the revivalist ethos of the time, Ngũgĩ found an innovative code which was centred on 'the use of dramaturgy to engage in aesthetics of resistance as a means for political freedom' in neocolonial Kenya (Waswa, 2021, p.30). This allowed him to indulge his radical politics as he shone a spotlight on the plight of the oppressed in postcolonial Kenya; their lives, history, struggles, songs, experiences, fears and aspirations.

In *Ngaahika Ndeenda*, the central character, Kĩgũũnda, is a farm labourer employed by a rich farmer and former colonial loyalist Aahabu Kĩoi Kanoru. By manipulating Christianity, Kĩoi swindles Kĩgũũnda of his small piece of land. Kĩgũũnda's daughter, Gathoni, who also works as a casual farm labourer is impregnated by Kĩoi's son. The play focuses on the emasculation of Kĩgũũnda who is reduced from a proud land-owning peasant into a degenerate alcoholic at the end

of the play. Ngũgĩ's venture into popular theatre came with a renewed appreciation of the potential of Gĩkũyũ as a literary language. The peasants who were effectively co-authors with him of the Kamĩrĩĩthũ play were critical in teaching him his mother tongue anew. Organic speakers of the mother tongue, the peasants 'fed him [the author] the right line ... modified Ngũgĩ's clumsy sentences ... and replaced stilted vocabulary with more fluid verbiage' (Peterson, 2004, p. 1). This experience culminated in the author's famous decision to henceforth write all his creative works in Gĩkũyũ (Ngũgĩ, 1986, p. xiv). It would therefore be instructive to reflect on how this significant aesthetic shift by a writer who had already established himself as one of the icons of the African novel in English impacted on his subsequent novels in the Gĩkũyũ language.

Reconfiguring the Novel: Ngũgĩ's Innovative Aesthetic in *Caitaani Mũtharaba-inĩ* (*Devil on the Cross*)

The challenge Ngũgĩ faced post-Kamĩrĩĩthũ was foremost how to turn the novelistic genre into an interactive aesthetic form that his 'unsophisticated' audience of peasants could relate to. While acknowledging that the novel is an important 'invention', he nevertheless rejected the notion that the novel as imported into the postcolonial world is a 'completed form' into which all an author has to do is pour artistic experience. In his view, the origins of such an important invention should not determine the use to which it is put to by its inheritors (Ngũgĩ, 1986, p. 68). As such, Ngũgĩ's innovative intervention seeks not to re-invent but rather to reconfigure the novel from a form that is characteristically European in its values into one that could mediate African realities and values. He strives to retool the genre in such a way that it can freely express his political vision while deflecting attention from the novel's traditional elitist consumers to a different sector of social agents – the non-speakers of English and the oppressed ranged against an avaricious economic and political elite.

Western discourses on African literature assume a fundamental distinction between 'traditional' – oral and verbal arts – and 'modern' literature. The former are generally associated with African languages while modern literature is seen as that written in ex-colonial languages and influenced by Western traditions of writing. This simplifies the complex relationship between the oral and the written, and between tradition and modernity in African literature. But according to Mikhail Bakhtin, one of the most influential scholars of the novelistic discourse, the novel in the Western tradition has its antecedents in folkloric genres. From these beginnings the genre evolved, generating a 'fundamentally new attitude toward language and toward the word' – an attitude characterised by ambivalence, parody and the travesty of old genres and languages (Bakhtin, 2004, p. 21). For Ngũgĩ who seeks to liberate culture and literature from colonial and imperial influences, the question is simple. If the novel in the Western tradition has its antecedents in folklore, why would it be illegitimate for the African novel to seek its inspiration from the dynamic African indigenous traditions of literature?

There seems to be no legitimate reason why the African, and the postcolonial novel, in general cannot tap into the dynamic oral traditions of the indigenous cultures. As noted, postcolonial writers see the novel as historically contaminated owing to its aesthetic and ideological link with imperialism. Also, as Omotoso has argued in relation to the English language, the ex-colonial languages in which the postcolonial novel is expressed are laden pejorative significations that complicate their ability to represent the postcolonial experience fairly and objectively (1988, pp. 58-59). As such, recourse to the indigenous languages and the oral traditions would allow postcolonial authors to inject a new aesthetic timbre to the novel which they see as subservient to Western literary values. Thus, in his contestation with Western assumptions about

the novel, Ngũgĩ sets out to demolish the false dichotomy between oral and written literature. The mother tongue reconnects him with an alternative literary tradition based on Gĩkũyũ orature. In *Devil on the Cross*, the author's appropriation of the genre becomes a kind of a negotiation between the novel as received from the West and the author's indigenous oral literary tradition. In this negotiation, the author does not transact from a vacuum. Through the aesthetic codes embedded in the author's indigenous language, the form of the Western novel is relativised, resisted, and creatively modified. In other words, Ngũgĩ's recourse to the forms and language of Gĩkũyũ orature and popular culture is not merely nostalgic reversion to 'traditionalism' for its own sake (Desai, 1990, p.66). Rather, in the complex meld of aesthetics and politics in Ngũgĩ's praxis, the recourse to indigenous literary codes is a major political intervention. The author appropriates those elements of the indigenous literary tradition and popular culture that lend themselves to exactly the kind of didactic writing that is frowned upon in the Western novel.

While *Devil on the Cross* features some radical innovations in form, the kind of the remaking of the genre that the author embarks on represent more of a continuation rather than an abrupt innovation in his experimentation with the novel. Whereas Ngũgĩ has always used indigenous myths and other elements of orature in his fictions, *Devil on the Cross* stages a more deliberate and radical re-appropriation of the oral and popular aesthetic codes. For Ngũgĩ, orature and popular culture authorises the epistemologies of the indigenous culture and helps articulate the people's viewpoints in their own idiom. The assumed familiarity of his putative audience with these codes is expected to make communication between the writer and the people easier thus making the novel more accessible to his putative audience.

Written in prison after the abrupt banning of *Ngaahika Ndeenda* and the author's incarceration, *Devil on the Cross* resonates with the Kamĩrĩĩthũ play in that it tells the story of the rabid exploitation of peasants and workers in postcolonial Kenya by an avaricious and heartless cabal of indigenous capitalists working in cohorts with the Western capitalist class. The novel extends the theme of the proletariazation of the peasantry after being dispossessed of their land which the author first explored in *Petals of Blood*. It shows how the capitalist class deploys the coercive instruments of the state and religion to ruthlessly exploit the peasants and workers. But the novel goes beyond the mere documentation of the social-economic and political problems of the postcolonial state. Through his principal characters – Warĩĩnga, Mũturi, Wangarĩ, and Gatuĩria, Ngũgĩ is also keen to show how such problems may be resolved.

In writing *Devil on the Cross*, Ngũgĩ takes advantage of the formal and aesthetic malleability of the novelistic genre to parody other genres and texts to the extent that 'the conventional languages of strictly canonical genres begin to sound in new ways' (Bakhtin, 2004, p. 5, p. 7). These canonical genres are not just 'Western' but also include the oral genres of his indigenous literary tradition. The author deploys the discursive strategies of Gĩkũyũ orature to reconfigure his novel as oral-aural narrative which beside the reader features a lively listening textual audience who engage the narrator of the story. Canonical conventions of the novel such as realism are dispensed with as the writer mines orature for alternative modes of representation while the indigenous language and the oral genres that frame the story are themselves recreated and upgraded to represent the contemporary realities of the postcolonial state.

Devil on the Cross contains a montage of diverse aesthetic forms and languages. The novel displays the complex union of writing and orality where new genres like the novel which were introduced through writing interact with the vigorous oral literary traditions of the African popular culture. One of the most innovative features in the novel is the way in which its form is shaped by the oratorical framework of the *gĩcaandĩ* oral poetic genre. An ancient and unique genre in Gĩkũyũ

verbal arts, the now almost extinct *gĩcaandĩ* is a dialogic art form. It is characterised by a highly poetic recitation in which two singers duel in what is 'essentially a competitive, yet cooperative, riddle-like poem and poetic exchange' (Njogu, 1997, p. 47). The deployment of the *gĩcaandĩ* structure and the mimicking of its aesthetic in the novel allows the author to employ traditional metaphors so that the text "speaks" in the organic idiom of the ordinary people.

As one of those oral genres that were banned by the British in the 1930s because they were seen as subversive of the colonial project, Ngũgĩ's novelisation of the *gĩcaandĩ* demonstrates his determination to restore the connection between contemporary African experience and the traditional gnosis that was almost severed by the colonial experience. In view of his aesthetic and political commitment to the liberation of both culture and literature from Western dominance, Ngũgĩ's recuperation of the *gĩcaandĩ* demonstrates the capacity of such traditional domains of knowledge, language, and aesthetics to construct a counter-discourse that challenges dominant colonial and neo-colonial discourses (Njogu, 1999, p. 56). The recuperation of *gĩcaandĩ* poetics whose nuances are most audible in the original Gĩkũyũ text make the novel a strikingly innovative work of art.

Reading the English text against the Gĩkũyũ original, one major difference stands out. The Gĩkũyũ text features a prefatory statement, more like a literary manifesto, in which it is patently clear that Ngũgĩ is seeking to distance his novel from the European tradition and the readerly assumptions that underlie the novel in the West. In the preface which interestingly has been erased from the English translation, the author directly links *Caitaani Mũtharaba-inĩ* to the Gĩkũyũ indigenous oral tradition. This being the first modern novel in Gĩkũyũ, the author uses the preface to familiarise the text to his new Gĩkũyũ readership by pointing out its nexus with the familiar oral narrative tradition. He insists that just like orature; the modern African novel is or should be both entertaining and instructive.

Ngũgĩ's utilitarian views on literature as expressed in the preface justify the didacticism underlined in the novel. However, the author also comes up with innovative strategies to soften the didactic content and aesthetise his novel. In doing this, the interactive framework of the traditional storytelling session provides an imitable model. Mimicking the oral storytelling moment, the author uses the opening formulas conventionally used in the Gĩkũyũ oral storytelling tradition. The formulaic expression 'Uga ĩĩtha!' (Say yes to the story) in Gĩkũyũ text signals the author's intention to link his novel to the indigenous oral story telling tradition. It implies that this is a story that the audience is also supposed to be listening to.

As the author-translator of the novel, Ngũgĩ's decision not to translate the preface and the storytelling formulas suggests something about his imagination of publics for the original text and the translation. Graphologically, *Devil on the Cross* is presented as any other conventional novel. With the preface and the storytelling formulas elided, the novel leaves the presumably more sophisticated English reader to figure out its oral and performative context from the structure and style of the novel. In contradistinction, the preface and the formula emphasise the orality of the Gĩkũyũ text. These elements also serve to familiarise the novel to a Gĩkũyũ audience supposedly still steeped in orality and which may be unfamiliar with the modern novel. Both texts, however, do evoke the orality of the story to various degrees. The *gĩcaandĩ* narrator for instance is engaged in discourse with a participatory and lively listening textual audience. Some of his interlocutors plead with him to tell Warĩĩnga's story while others caution against exposing communal dirty linen in public.

That Warĩĩnga's story should be the centre of so much public interest signifies the Ngũgĩ's shift from the individualistic ethos of the European novel in favour of the egalitarian and

communal ethos of the African/Gĩkũyũ traditional society. As a member of the IImorog community, the narrator feels obliged to protect the dignity of the community. Also, as he weighs the consequences of telling the story, proverbial wisdom cautions reticence. The narrator is wary of becoming what the Gĩkũyũ text calls 'Kanua werĩire' (the mouth that ate itself). This proverb warns that what one says can come back to haunt him in future. The narrator remembers another proverb that counsels that the 'antelope' hates not he who sees where it is hiding but the one who alerts others to its presence. These proverbs hint at the possibility of unwelcome reprisals from those who might not like the story. Through this kind of organic language which stems directly from the indigenous language and cultural ethos, the author nuances the English language in a manner that distances it from its colonial and imperial ethos.

Tymoczko asserts that the author's culture and tradition serve as a metatext that is explicitly or implicitly re-written as both background and foreground to the text (1999, p. 21). In this respect, one of the effects of Ngũgĩ's decision to write in Gĩkũyũ was that it brought the metatext of his indigenous culture to the fore of his aesthetic practice. This is evident in *Caitaani Mũtharaba-inĩ* where it is evident that the author is privileging the literary nomenclature, conventions, and the worldview of the Gĩkũyũ culture whose perspectives have been muffled by a transcendent modernity and its Englishness. But while the author in the Gĩkũyũ text seems determined to recuperate the minute details of the indigenous language and culture, the author-translator seems disinterested in conveying the flair and impress of the original language in *Devil on the Cross*. Ngũgĩ has admitted as much arguing: 'I don't need to prove anymore that the character is really speaking an African language, that the character is really an African peasant' (Wilkinson, 1992, p. 207). This is not surprising from the perspective of an author who is also a promoter of African languages. It just shows that Ngũgĩ is not too keen to mute the indigenous in his text. In any case, translation has often been a one-way traffic with African and other postcolonial languages being translated into the dominant European languages. By refusing to translate certain elements, Ngũgĩ is contesting the West's expectation of the full translatability of African languages. The result of this is that *Caitaani Mũtharaba-inĩ* is linguistically and stylistically richer than the translation.

However, as Tymoczko points out, there is always more than one language or culture that 'stands behind a writer's work' (1999, p. 20). This is particularly so in the polyglot world of postcolonial Africa. This is a dynamic space where indigenous languages, narrative traditions and such traditional genres such the *gĩcaandĩ* exist side by side in a relation of mutual inter-illumination with the languages, literary traditions, genres, and texts introduced into Africa through colonialism. In *Caitaani Mũtharaba-inĩ*, the *gĩcaandĩ* narrator captures a bit of this multi-voicedness of postcolonial cultures in his self-profiling as a composite figure of both the traditional *gĩcaandĩ* artist and the Old Testament prophets. Thus, faced with the contesting demands made on him by the public and wary of the story he must decide whether to tell or not, the *gĩcaandĩ* narrator seeks divine guidance. He fasts for seven days during which, like the Biblical Daniel, he goes through a moment of atonement and charismatic revelation. He then receives a kind of divine commissioning when he hears a loud voice – presumably the voice of God – demanding of him: 'Who has told you that prophecy is yours alone, to keep? Why are you furnishing yourself with empty excuses? If you do that, you will never be free of tears and pleading cries' (*DOC*, 2). The use of Christian and Biblical idioms, tropes, and allegories is one of the most abiding features of style in Ngũgĩ's oeuvre. The additive style in which the *gĩcaandĩ* narrator's divine commissioning as a 'Prophet of Justice' is couched hearkens to the oral genealogy of the Old Testament. It is reminiscent of the traditional *gĩcaandĩ*'s arcane language and elegiac mode of delivery. More significantly, the additive style of the narrator's commissioning is characteristic of the formulaic

expression of thought in oral traditions (Lord, 1987, p. 54). This shows how much the author has been influenced by orality.

Ngũgĩ theorises the use of indigenous languages as a step towards a liberatory aesthetic for African literature. *Caitaani Mũtharaba-inĩ*, however, shows that writing in the indigenous language does not mean that there is a pre-existing cultural and linguistic space to which the author may return for a 'pure', uncontaminated idiom of representation. In reality, the indigenous language is inflected by the languages, cultures and texts it comes into contact with just as it inflects the 'foreign' European language. Apart from the idiom of Biblical and Christian discourse which is the most pervasive of the multiple languages in the text, the novel also features a lot of ostensibly Gĩkũyũ lexical items like Caitaani (Satan) and *Mũtharaba-inĩ* (Msalabani) which are in reality English or Kiswahili terms that have been phonologically 'translated' to sound like Gĩkũyũ. These terms blur the line between the indigenous and the 'foreign' language.

That the narrator is able to speak in the organic idiom of what might pass for 'pure' Gĩkũyũ and in the idiom of the Old Testament alongside all these other languages is a pointer to the polyglot nature of postcolonial culture. As Bakhtin postulates, one can take any language but one can make it his own 'only when' he 'populates it with his own intention, his own accent, when he appropriates the word, adapting it to his own semantic and expressive intention' (2004, pp. 293-294). In a similar manner, Ngũgĩ appropriates the supposedly 'foreign' languages, discourses, and texts. By inflecting them with his own aesthetic or even ideological intention, he retools them into a counter-discourse of contestation with postcolonial public culture. An example of this kind of retooling which is a hallmark of the author's innovative aesthetic in *Devil on the Cross* is his radical reversal of Christian discourse. From an Other-Worldly religion mostly concerned with sacral matters, Ngũgĩ turns Christianity on its head and forces it to mediate temporal concerns. In the process, he reconfigures religion as a discourse that can prophetically intervene in the public sphere of the postcolony.

When the *gĩcaandĩ* narrator decides to tell his story, he begins by summoning all to 'come and reason together' before passing judgement on our children. The plural 'children' reinforces the symbolic nature of the story and Warĩĩnga's role as an exemplar of the plight of a much larger public. The narrator's language echoes the Bible where the Lord calls on the Israelites to reason with Him with the promise of forgiveness for their 'sins', which though they are 'like scarlet, they shall be as white as snow' (Isaiah, 1: 18). In the novel, the notion of 'sin' is transposed from a sacral to a secular reference to oppression. The devil and his followers who are accused of being responsible for the suffering of 'our children' are to be excluded from the public 'reasoning' because one of the issues to be discussed is how to punish them.

Finally, the story which the narrator describes in the decidedly mantic idiom of an Old Testament Prophet as an account of 'what I, Prophet of Justice, saw with these eyes and heard with these ears' (*DOC*, 2), dramatically commences with an account of how one Sunday morning, 'the devil appeared to Jacinta Warĩĩnga on a golf course in Iciciri, IImorog town and told her … ' (DOC, 4). As an oral storyteller, the narrator in a gesture that mimics spoken narration realises this is a false start and immediately corrects himself. Acknowledging that Warĩĩnga's troubles did not start in IImorog, he addresses the audience directly: 'Reke tũrutie mbaara nginyo…' (Let us start from the beginning) (*CM*, 4). The use of the pronoun 'us' implies that the telling of the story is an interactive moment which involves both the narrator and the listeners as direct participants in the story. This, as Lovesey notes, indicates that the novel anticipates a reception that is 'collective and communal' (2000, p. 61). This is a significant departure from the readerly assumption conventionally associated with the novel where reception is private and individual.

Remapping Gender: Recuperating Female Agency in *Devil on the Cross*

Even as he strives to recuperate the communitarian ethos of an inclusive traditional culture now under pressure from capitalistic individualism, Ngũgĩ is acutely aware that such genres as the *gĩcaandĩ* which was conventionally a male art form runs the risk of authorising the patriarchal ideologies of the traditional society. His aesthetics therefore involves not just the travesty of 'foreign' texts such as the Bible but also, and equally important, the upgrading of indigenous oral genres to reflect contemporary realities. Thus, in a strategy of extrapolation and feminisation of the *gĩcaandĩ* narrator, the author co-opts Warĩĩnga as one of the co-narrators in part two of the novel. In a story within-a-story which mimics her real life story but is ostensibly not her story, Warĩĩnga tells the story of the deflowering of a young woman by the name Mahũa Kareendi (*CM*, 11-23). The way she begins the story lacks the subjectivity and authority of one telling a personal story: 'Take a girl like me …. Or any other girl in Nairobi … Let's assume she was born in the countryside …' (*CM*, 11). The name of Warĩĩnga's fictive persona masquerades as a proper Gĩkũyũ name. However, 'mahũa' means 'flowers' while 'kareendi' is an affectionate and diminutive form of the English term 'lady'. This suggests that the story Warĩĩnga narrates has a wider significance as an as an allegory of the predicament of the poor and oppressed women in Kenya.

As a co-narrator, Warĩĩnga proves to be quite well versed in her mother tongue. She therefore becomes a useful agent in Ngũgĩ's literary project of recuperating the indigenous language, its literary codes, and genres. As her story unfolds, Mahũa Kareendi finds herself a new lover, a progressive university student who accepts Kareendi despite her having a child with another man. In the story, Warĩĩnga describes the young man as 'kamoongonye ka mwanake' (handsome young man) (*CM*, 14). The description alludes to a Gĩkũyũ oral ballad about a girl who rebels against her father who wants her to marry 'Waigoko' (elderly man) with a hairy chest. Warĩĩnga's narrative illustrates how Ngũgĩ seeks to aesthetise his novel through codes of the oral literary tradition. It also shows how the author upgrades traditional genres in his remapping of gender in the novel. These genres lie just beneath the surface of the text. They are so subtly recovered that it would be easy for a reader who is not conversant with Gĩkũyũ orature to miss them. Similarly, the reader of the English translation would need some kind of cultural indexing to be able to access these genres.

Like that of the fictional Mahũa Kareendi, Warĩĩnga's story is also full of pathos. Her ambitions are dashed when as a school girl, she is impregnated by the Rich Old Man from Ngorika. Forced to drop out of school she becomes a secretary in Nairobi. She soon loses the job when she turns down the sexual advances of her employer, Boss Kihara. Abandoned by her university-student boyfriend and unable to pay for her room in the city which is small as a bird's nest, Warĩĩnga is evicted by the landlord's agents – a thuggish gang who call themselves the 'Devil's advocates: Private Businessmen'. The name of the gang provides the first hint of the identity of the devil referred to in the title of the novel. As a signifying text, the cover illustration on the Gĩkũyũ text which is targeted at the 'unsophisticated' Gĩkũyũ reading/listening audience graphically represents the devil. It depicts an ageing, rich man hanging on the Cross which is adorned with the imprints of the currencies of the major Western capitalist countries. This symbolises the alliance between Western capitalists and their local lackeys whose corruption and moral depravity is held responsible for Warĩĩnga's predicament and for the persistence of oppression in Kenya's post-colonial public culture. More revelations of the devil's identity come

in the narrator's account of a recurrent nightmare that has plagued Warĩĩnga since she was a young girl.

In the nightmare, the devil who wears a silk suit is a grotesque personage with seven horns and seven trumpets for sounding his self-praises. Tellingly described as 'hymns', the devil's songs of self-glorification show the nuanced ways in which the author is retooling Christian discourse. But the devil also has affinity with the ogre in Gĩkũyũ folktales. Like the ogre, he has two mouths, one on the forehead and the other at the back of his neck. A crowd of peasants dressed in rags crucify him despite his promises never again to build 'hell' for the people on Earth. Here, hell is transposed into a temporal entity. However, after three days, the devil's followers come and lift him from the Cross. They pray him to give them some of his robes of cunning upon which their bellies also begin to swell with all the evils of the world (*DOC*, 7-8). Psychologically, the fantastical world of Warĩĩnga's nightmare can be read as an expression of the suppressed anxieties that has haunted her life since her youth. One cannot fail to see the link between Warĩĩnga's oppression and the occurrence of the nightmares.

In the *matatu* to Ilmorog, Warĩĩnga learns more about the devil when she is told about the Devil's Feast in her hometown. She is invited to attend is about a feast in which Kenyan capitalists are gathering for a 'Devil-Sponsored Competition' to choose seven experts in theft. *Devil on the Cross* presents an uncomplicated moral world in which, like in the traditional folktale, the divide between 'good' (the oppressed peasants and workers) and 'bad' (the oppressor class of local capitalists and their foreign allies) is clearly delineated. The folktale provides an imitable model that is supposed to be more accessible to Ngũgĩ's ideal reader of the simple, unsophisticated individual who may not be familiar with the complexities of conventional novel. Ngũgĩ's utopia is equally simple. He imagines a situation where through conscious political action, the oppressed can engineer a radical transformation of society in their favour. However, in order for them to be able to readjust the social, economic and political realities of Postcoloniality in their favour, the oppressed must raise their political awareness.

Consequently, one of the most uplifting narratives in *Devil on the Cross* is the story of Warĩĩnga's transformation from a teenage victim of oppression to an agent of revolutionary change. Her story brings to the fore the innovative ways in which Ngũgĩ forges a liberatory aesthetic out the spectrum of the life of an oppressed woman and the diversity of languages and texts that articulate culture in Kenya's postcolonial public sphere. In narrating Warĩĩnga's conversion from a victim to a change agent, Ngũgĩ takes recourse in the journey motif. In the company of characters that she meets in the *matatu* – Robin Mwaũra who is the driver, Wangarĩ, Mũturi wa Kahonia Maithori, Mwĩreri wa Mũkiraĩ, who is one of the contestants in the devil's feast and Gatuĩria who later becomes her fiancée, Warĩĩnga attends the devil's contest in IImorog.

The deployment of the *matatu* as the mode of transportation though seemingly innocuous is ideologically and aesthetically significant. An icon of Kenya's popular culture, the *matatu* is a common form of transportation for the poor. The *matatu* can therefore be read as a non-bourgeois public sphere. Unlike in the bourgeois, neo-liberal public sphere where 'private' people come together to discuss matters of mutual concern (Habermas, 1989, p. 27), the *matatu* functions as an alternative space where ordinary people meet as a 'community' to share ideas on matters of public interest. Here, discourses suppressed in the postcolonial public sphere are ventilated. Adorned with an inscription that lures travellers with the promise of 'true' gossip and rumours, the *matatu* functions as a site of contestation in which the discourses of the people are poised against those of the power elite. The promised rumours and gossip are however nuanced and turn out to be a reflection of the truths of a nation reeling under the weight of injustice, inequality and blatant abuse

of human rights (*DOC*, 26). They provide an overarching glimpse of the oppressive environment in which the people live.

The journey motif dominates *Devil on the Cross* and controls the life of Warĩĩnga who ultimately emerges as the heroine of the story. As always in Ngũgĩ's fictions, the urban space is presented as a dystopic site of alienation while the village is the 'home' that provides an antidote to the disorientation of the city. After her traumatising experiences in the city, Warĩĩnga's journey by *matatu* to IImorog unfolds on two planes. The physical journey gives the reader an insight into the spatial and temporal geographies of the postcolonial state. From Nyamakĩma, the hub of 'workers and peasants' in downtown Nairobi, we get glimpses of the countryside golf clubs (*DOC*, 31), as the *matatu* proceeds to IImorog where the great confrontation between the two classes of oppressed and the oppressors which are vying for the supremacy in the state is set to take place. At a more nuanced level, the journey is allegorical and stages Warĩĩnga's political transition as she evolves into a revolutionary and an agent of change.

One of the outstanding features of Ngũgĩ's aesthetic in *Devil on the Cross* is the creative way in which he appropriates 'Western' canonical texts. As stated above, Ngũgĩ does not negotiate with Western culture from a vacuum but comes armed with his indigenous language and the arsenal of aesthetic codes embedded in it. Further, besides the novel as a genre, he is heir to Western cultural forms and iconic texts such as the Bible which are part of his formation as a postcolonial subject. The ways in which Ngũgĩ transacts with and makes use of these texts is another hallmark of his innovative aesthetic in *Devil on the Cross*. According to Devey, the authorised translation of the Bible into English, the King James Version, was one of the most 'revolutionary events in the history of English style'. It was the chief means by which protestant England 'sought the recovery of the original spirit of Christianity' (Devey, 1999, pp. 82, 182).

Another key text in this respect was John Bunyan's, *The Pilgrim's Progress*. Written in the homely and dignified prose of the Bible, *The Pilgrim's Progress* became a key evangelical text in the nineteenth-Century protestant mission movement. The missionaries found its portability and simple linear style less theologically problematic than the multiple narratives of Christ in the gospels and widely used it to spread the 'spirit' of Christianity in the postcolonial world. Ultimately, the text was appropriated into the discipline of English literature where Bunyan was canonized as 'the father of the English novel' (Hofmeyr, 2004, p. 1). Postcolonial writers like Ngũgĩ encountered Bunyan's text both as a theological text and also as part of the canon of English literature in mission schools and colonial universities.

An allegory of the Christian life, *The Pilgrim's Progress* narrates the symbolic vision of the good man's pilgrimage through life. The story is presented as the author's vision of the trials and adventures of Christian (an everyman figure) as he travels from his home, the City of Destruction, to the Celestial City of salvation. Christian seeks to rid himself of the weight of his sins that he feels after apparently reading the Bible. Along the way, he meets characters such as Christiana, Hopeful, Mr Worldly, Wiseman, Mercy and the Giant Despair, all of whom either aid or try to hinder Christian on his journey. He also meets evangelists who constantly point him to the narrow, rugged path which is the only way to salvation. A Puritan conversion narrative, the text which has been existent in Kenyan in both Kiswahili and Gĩkũyũ languages since 1888 and 1931 respectively has some of the qualities of a folktale. This made it easy for it to be 'naturalised' as part of the Kenyan popular oral tradition.

As a product of the mission school and the colonial university where he was educated in the so-called 'Great Tradition' of English literature, Ngũgĩ has a more than cursory familiarity with *The Pilgrim's Progress*. In his first novel *Weep Not Child,* he resorts to Bunyanesque allegory to

present Kenya's predicament under colonialism imagining the struggle for independence as a journey from the darkness of colonial bondage to the Celestial city of freedom. *Devil on the Cross*, however, is the apogee of the author's literary appropriation of Bunyan's text. Ngũgĩ depicts Warĩĩnga's as a journey from the City of Desolation to the Celestial City: from the 'darkness' of political ignorance to the 'light' of political awareness and revolutionary consciousness. In remapping gender in the novel, Ngũgĩ depicts Warĩĩnga as a female Christian. She is assisted in her 'journey' by her co-travellers in the *matatu* who like the Evangelist in *The Pilgrim's Progress* guide her towards gender and political consciousness. Her political conscientisation reaches a peak when Mũturi, the worker, gives her a small gun which he describes as her invitation to the 'workers' feast' to be held sometime in the future (*DOC*, 211). The gun fosters Warĩĩnga's self-confidence hastening her transformation from a political neophyte to a revolutionary. By the time the *matatu* arrives in IImorog, the reader has imbibed the central message of the novel. In the idiom of *The Pilgrim's Progress,* the message is that to enter the 'heaven' of a workers' state, the oppressed will have to travel the narrow way of revolutionary armed struggle.

The fantastical spectacle at the cave in IImorog unfolds as an allegory of the confrontation between the oppressor and the oppressed classes in Kenya. Ngũgĩ melds Christian discourse with elements of Gĩkũyũ popular culture to inflect the language of his novel. He transposes Biblical tropes such as the Parable of Talents and the Christian testimonial into secular tropes. In a language that evokes the famous parable, the wiles of the capitalist class are presented as 'talents' (*DOC*, 78-79). In a similar vein, *Caitaani Mũtharaba-inĩ* describes the capitalists' bragging about their skills in thievery is in a distinctly Christian idiom as 'ũira' (testimony). The oppressors who bear epithets for names symbolising the parasitic nature of the capitalist class are depicted as ogre-like characters. Ngũgĩ satirises the workings of international capitalism as he reveals the links between capitalism and the persistence of oppression in the postcolony. In a nutshell, the Devil's feast turns into a performance in which the audience is instructed on the moral bankruptcy of the capitalist ideology. The audience – both readerly and textual – is expected to see through the charade and take action to end the kind of corruption and moral debauchery depicted here. This explains the attempt by Warĩĩnga, Wangarĩ, Mũturi, and Gatuĩri who represent the oppressed to disrupt the devil's feast.

In nationalist narratives, women were generally relegated to the role of a supporting cast in nationalist struggles. In *Devil on the Cross*, the author makes a deliberate attempt to combat patriarchal notions of culture. In narrating Warĩĩnga's political transformation, he interrogates and critiques the gendered discourses of the colonial and post-colonial public spheres. His inversion of the evangelical aspect in *Pilgrim's Progress* is intertwined with the inversion of the text's gendered discourse. In place of Christian, Ngũgĩ writes Warĩĩnga as Christian's female equivalent. This enables the author to subvert the protestant masculinities of the mission – and colonial enterprises – as well as those of African culture in which the female is either demonised or idealised as the repository of value in patriarchal societies, (Boehmer, 1992, p.   233). Thus, although the novel seems to repeat certain circumstances from *Petals of Blood*, his last novel in English, the two works depict women quite differently. Unlike Wanja in the earlier novel who turns to prostitution and becomes an oppressor of women as a brothel owner, Warĩĩnga accepts her feminist agency. This culminates in her shooting to death the Rich Old Man who ruined her life.

Warĩĩnga's shooting of her tormentor has attributes germane to both the moral fable in Gĩkũyũ orature and the trickster narrative. That she finally avenges the injustices meted to her affirms the viability of the simple moral world of the folktale in which the forces of good often overcome the forces of evil. The killing also has resonance with the trickster narrative in which a

little character (in this case Warĩĩnga) outwits a stronger foe (The Rich Old Man). In this rather understated and subtle manner, *Devil on the Cross* suggests that the solution to the problems of oppression in the post colony lies in armed resistance.

Conclusion

This paper has attempted to illustrate the ways in which Ngũgĩ leveraged on the experience of working with the Kamĩrĩĩthũ people on popular theatre in their own language. It shows how the author forged an aesthetic out of his newfound appreciation of the potentiality of Gĩkũyũ as a literary language. Whereas the author had previously used orature in his work, writing in Gĩkũyũ led him into a more fundamental appropriation of the literary codes of his indigenous language making orature the centrepiece of his aesthetic in *Devil on the Cross*. But as is evident in the paper, writing in mother tongue does not mean recourse to a site of 'pure' linguistic or cultural identity. On the contrary, the linguistic and cultural codes of the indigenous culture exist in mutual interrelationship with the literary codes of other cultures that in various ways nuance the indigenous culture. The ingenious ways in which Ngũgĩ appropriates and domesticates the apparently 'foreign' is one of the hallmarks of his innovative aesthetic in the novel. The result, this paper shows, is a novel that might rightly be described as truly African in its spirit and form.

Abbreviations
CM   Caitaani Mũtharaba-inĩ
DOC   Devil on the Cross

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Impact and Gravity of Spoken Language Errors on Communication among Kimeru Learners of English as a Second Language in Kenya

Isaac Simiyu Juma, *Vicky Khasandi-Telewa, Nelson Ndiritu

Department of Literary and Communication Studies, Laikipia University, Kenya
*Corresponding Author

Abstract

Speaking effectively, clearly, and confidently is the desire of any language learner. A learner would make a lot of effort to develop their vocabulary, improve their grammar and pronounce words correctly when learning a new language to achieve a native-like spoken mastery of it. Many learners only put to test their writing skills in that new language later. This means that learners rate their ability in spoken language based on their improvement levels in speaking. Therefore, speaking forms a major part of language learning. However, English as a second language (ESL) learners experience many communication challenges in their spoken language. Their speech is riddled with many errors, which hinder the intelligibility of their communication. This paper explores the ESL spoken errors among Kimeru L1 English learners by answering questions on the major types of learner errors, the possible causes of these errors, and how the errors affect communication. The gravity (local or global) of errors was assessed by the extent to which communication was affected. The causes and sources of these errors were investigated and classified as interlingual, intralingual, or unique errors.

Keywords: Communication, errors, intelligibility, language learner, new language, speaking

Introduction

The use of English in oral communication is one of the most emphasized skills, and as a result, there is a need to take cognizance of the pronunciation errors committed by English as a second language (ESL) learners in secondary schools in Kenya. For ESL learners, the demands are even higher. This is because the English language is one of the main languages in the world that is used for communication as well as for educational purposes (Mashoor *&* Abdullah, 2020). For effective communication, the correct pronunciation is key.

Pronunciation is a way in which a language or particular word or sound is spoken. In language learning, pronunciation is used as the production and perception of the significant sounds of a particular language in order to achieve meaning in the context of language use. It is important to master spoken language skills in order to communicate effectively with those around us. While most speakers of English produce spoken language which is syntactically very much simpler than written language and whose vocabulary is usually much less specific, highly literate speakers may produce utterances with complex syntactic structures, a good deal of subordination, and a confident marking out of what they are going to say.

Literature Review

Changes in the second language learning process from early research to the most recent developments indicate that spoken language errors such as pronunciation have a great impact on communication. The literature reviewed was majorly based on spoken language errors.

Studies on Learners' Language Errors

Errors are part and parcel of language learning. Errors help to point out the linguistic strategies that learners employ in the process of acquiring a new language. As educators and trainers, teachers of the English language should acknowledge errors made by their learners as strategies in language acquisition. Error correction should be put off until the end of the interaction or exchange to avoid interrupting communication exchanges unless in situations requiring immediate attention where there is communication breakdown due to linguistic or sociolinguistic difficulty.

In acquiring a second language, it was believed that there is interference between L1 and L2, a view held by Contrastive Analysis Theory (CA). However, this view could not account for all the errors made by learners. As a result, Error Analysis (EA) emerged. According to Shastri (2010), EA accepts many sources of errors such as intralingual interference, overgeneralization, misteaching, and the role of the variables of age, attitude, aptitude, and motivation. Yang (2010) states that EA evolved to become the process of determining the incidence, nature, causes, and consequences of unsuccessful language. Errors were not only predicted but mainly observed, analysed, and classified. In addition, Shastri (2010) reports that the process of error analysis deals with the identification, description, and explanation of errors.

Yaseen (2018) states that besides lacking linguistic knowledge, the students also lack self-confidence because of their lack of practice and exposure to using English. They also have little knowledge of different cultures which in turn increases their anxiety level in speaking English. There are several other causes of the students' spoken errors including teaching techniques, poor vocabulary, lack of motivation, and lack of practice (Mashoor, 2020).

The affective filter emphasizes that there are things that can hinder input necessary for the acquisition of languages such as anxiety, motivation, age, and one's self-confidence. Implying that for acquisition to take place, the input must be achieved in low-anxiety contexts, free from the aforementioned factors to enable the second language learner to receive more input and interact freely (Mekonge, 2017). Learner errors are significant in three ways: they serve a research purpose by providing evidence about how languages are learned; they are proof that learning is taking place; and that errors can serve a learning purpose by acting as devices by which learners can discover the rules of the target language by obtaining feedback on their errors.

Communication and Meaning

Human communication is a complex process. In research carried out by Pourhosein (2016), the findings indicate that people need communication in saying or transmitting information. In this process of communication, meaning then becomes essential if the speaker has to achieve their goals. This means that for effective communication to take place, the speaker is expected to apply language that is relevant to the goals to be achieved and act both as speaker and listener at the same time.

In second language learning, speaking forms the central part. However, this component of language learning is most of the time ignored or given little attention by language teachers even in secondary schools and higher institutions of learning, yet in learning a new language, human beings inherently have a tendency to speak before learning how to read and write. In many

circumstances, individuals interact and practice with language orally, then thereafter use it in its written form. Human beings as social beings prefer oral conversation to written communication. Since people speak everywhere and every day, Efrizal (2012) termed speaking as of great significance for people's interaction. Speaking is considered a collaboration of two or more individuals sharing time and context.

Pronunciation versus other Aspects of Language

There have been more ESL error analyses research on writing and other aspects of language such as vocabulary, syntax, and semantics compared to researches in spoken language. In Saudi Arabia, Alahmadi and Kesseiri (2013) studied language transfer speaking errors among Saudi students. The study explored various grammatical errors made by thirty Saudi students having been exposed to six years of studying English. The study revealed errors such as unmarked forms of verbs, wrong use of third-person pronouns, interchanged singulars and plurals, misuse of articles, sentences with no verbs, and repetition of pronouns in sentences. These errors were further categorized as L1 interference and ascertained to have been occasioned by cases of generalizations.

Alahmadi (2014) in the subsequent research, analysed grammatical errors and had similar outcomes as those of the previous studies. The errors ranged from unmarked forms of verbs, and wrong tenses, to pronoun copying. These errors were termed as those occasioned by interference, others as intralingual, and yet others as unique. Interference errors comprised interchanging singular noun forms with plural noun forms, misuse or lack of the definite article, and deletion of prepositions. Examples of intralingual errors were misuse of singular and plural noun forms and third-person pronoun errors. The incorrect addition of definite articles was considered a unique error, the same as preposition redundancy. From the above studies, it was generally observed that most of the errors were cases of L1 interference.

Studies on Learners' Pronunciation Errors

Lack of attention to the proper pronunciation of words while speaking may lead to unintended meanings and misunderstanding leading to occasional communication breakdown. Pronunciation errors can be made at three levels; sound level, syllable level, and word level. According to a study by Enaibe (2012), these pronunciation errors can therefore be classified as segmental or supra-segmental and thus regarded as L1 interference since the sounds in the target language may not exist in the learner's L1. Segmental pronunciation errors are best distinguished by setting up minimal pairs while supra-segmental pronunciation errors can be understood in terms of prosodic features such as stress, pitch, intonation, tone, and tempo among others.

Research by Bozorgian (2012) shows the relationship between listening skills and other language skills. It was found that the more effective learners listen, the better they speak. In this case of classroom communication, the ability of the learner to listen comprehendingly can greatly enhance their oral communication. Students need to be confident and motivated to use English inside and outside classrooms; and teachers should encourage them to participate in oral activities and tasks by utilizing modern teaching strategies (Mashoor & Abdullah, 2020).

The above findings were further reinforced by Urrutia and Vega (2010) when they demonstrated that learners' oral performance was influenced by their lack of vocabulary, confidence and fear of stigmatization. Tuan and Mai (2015) observe that learners face a lot of challenges speaking in the classroom and urge teachers to help learners overcome the problems of inhibition, lack of topical knowledge, low participation, and mother tongue use. The problem is

even compounded in situations where some learners share the same mother tongue and they try to use it in the classroom because they find it easier.

According to Bandar (2018), anxiety has a negative effect on the learning process and learners who suffer from language anxiety feel that speaking another language is a stressful experience. This experience hinders learners and makes them avoid or withdraw from active oral interactions. Speakers also worry about how listeners evaluate and view them. However, as Ombati and Kirigia (2020) puts it, the errors that learners commit are ineffective and are a result of their ignorance because they are experimenting with a linguistic form not yet acquired.

Causes and Sources of Errors and other Factors that Affect the Level of Spoken English
According to Mashoor and Abdullah (2020), a variety of factors ranging from poor teaching techniques, poor vocabulary, no practice in the use of the language, lack of enough time to study materials related to the language, or just lack of interest in the part of the learner, may cause errors. This view is shared by Diani et al. (2019) who say that teachers should discourage faults and model a remedial strategy of minimizing mistakes made by the learner. Another cause of error in spoken language according to Hartinah et al. (2019) is language transfer. The author outlines two types of language transfer: the positive transfer facilitates learning especially when both the native language and the target language have the same form; and the negative transfer also called language interference, hinders the full acquisition of the target language (Richards & Richard, 2010).

Error Gravity
Within the error data, not all errors are of the same gravity. Johansson (1978) carried out a study on the gravity of errors in communication, and the results revealed that phonemic errors were more serious and had a global effect than subphonemic errors which only had a local effect. This observation was further reinforced by Cichocki et al. (1993) while analysing errors of French consonants by Cantonese speakers in Hong Kong where they reported that some variants of speech errors were found to be more acceptable than others. Therefore, when planning for the remedial and therapy stage in an error analysis class, the notion of error gravity should be considered.

Theoretical Framework
A theoretical model which is eclectic in nature was adopted. The eclectic method was advocated in the 1990s and has become popular presently. Freeman (2011) used the term 'principle eclecticism' to describe a desirable, coherent, pluralistic approach. From a contrastive point of view, it is noted that since phonotactic rules determine which sounds are allowed and which ones are not, in each part of the syllables of English, the application of the syllable structure of Kimeru on some segments of English words gave rise to errors in pronunciation. Error Analysis on its part, provided a methodology for investigating the language learning process on the basis of errors committed, while the Lingua Franca Core grounded the fact that the central factor for intelligibility is pronunciation. As indicated, most ESL learners avoid conversing with other speakers of English except with those who do not share their L1. This is because in situations where they share L1, they are most likely to use their L1 than English.

Research Methodology
A descriptive research design was adopted in describing the existing error phenomenon in general communication in line with the observations of Donald (2010) that the descriptive method

describes events as they naturally occur. Purposive sampling was used to select four day schools in Meru Municipality, while random sampling techniques were applied to pick thirty learners whose first language is Kimeru.

Data was collected through observation, interviews, Focus Group Discussion (FGD), and audio recordings. The data collected was then transcribed for analysis. The behaviour and acts of students such as shyness, nervousness, smacking of lips, and fidgeting, as they talked and interacted with each other in their natural settings and their unmonitored conversations were observed. Any relevant behaviour or acts in line with errors made were noted down whenever it was expedient to do so as guided by an observational checklist. Interviews were conducted to provide additional information and reinforce what was observed regarding the general impression of how well the learners could speak. According to Dornyei (2010), interviews create a relaxed atmosphere in which the respondent may reveal more than they would in formal contexts.

FGDs were used to elicit complementary and useful data either through debates or group discussions. Spontaneous data was collected from the group as they engaged in topics such as politics, sports, and religious issues. Learners' utterances were recorded during the interaction sessions using mobile phone devices as they read the lexical items on the flashcards and the passage provided.

The recorded spoken data was then transcribed in notebooks and classified according to error types. Transcription entailed creating a text-based version of any original audio or video recording. This study employed normal orthography in transcription which consists of rules for mapping spoken words onto written forms as prescribed by the orthography of a given language, which in this case is English. This convention was more convenient given that meaning-related aspects of spoken language were being investigated.

Data Analysis

The data was analysed using Statistical Package for Social Science Research (SPSS) and classified as interlanguage, intralanguage, and unique. The emerging errors were regarded as pronunciation errors and their effect on communication was assessed. The analysis revealed basic observations and patterns that mirrored the objectives of the study. Coding or indexing was developed and data was organized to answer the research questions.

The data collected and documented in the form of texts, transcriptions, and audio recordings were analysed to evaluate certain speech patterns that were common in a majority of the respondents. To answer the question on the major types of English language spoken learner errors in Kimeru speakers, the texts were coded, summarized into categories, and tabulated to calculate the frequency of specific spoken errors.

By focusing on establishing patterns of meaning in the different sets of data collected during interviews and FGDs sessions as shared by learners, the data effectively answered the question of how spoken learner errors in Kimeru speakers affect communication. In addition, inferential analysis was used to show the relationship between pronunciation errors and how such errors lead to communication breakdown. A distinction was made between receptive and productive errors, and also between errors and mistakes. The correlation method was used to describe the relationship between pronunciation errors and communication breakdown, and determine whether the error was local or global.

Findings and Discussions
Learners were given a list of sixty (60) lexical items and a short passage which they were required to read loudly by clearly articulating every item. The output was recorded and later transcribed, and the spoken language samples of ten (10) learners were extracted and tabulated as shown in table 1.

Table 1: Learners' Pronunciation

Respondent	Help	Hen	Girl	Late	Desk	Arm	Painted	Corps
1	[heǀp]	[en]	[gɜːl]	[let]	[desk]	[hɜːm]	[peintid]	[kɔps]
2	[heǀpu]	[hen]	[gəl]	[let]	[deski]	[haːm]	[peintid]	[kɔmps]
3	[heǀp]	[hen]	[gəl]	[let]	[ndesk]	[aːm]	[peinted]	[kɔps]
4	[heǀpu]	[hen]	[gɜːl]	[let]	[desk]	[hɜːm]	[peinted]	[kɔps]
5	[hɛǀp]	[hɛn]	[ngər]	[leit]	[desk]	[ham]	[peinted]	[kɔps]
6	[hɛǀp]	[hen]	[gɜːl]	[lɛt]	[desk]	[aːm]	[pɛinted]	[kɔps]
7	[hɛǀp]	[en]	[gəl]	[rɛt]	[deks]	[həːm]	[peinted]	[kɔps]
8	[heǀp]	[en]	[gəl]	[lɛt]	[desk]	[həm]	[peinted]	[kɔps]
9	[heǀep]	[hen]	[gəl]	[let]	[desk]	[həm]	[peinted]	[kops]
10	[heǀp]	[hen]	[gəl]	[lɛt]	[desk]	[aːm]	[peinted]	[kɔps]

Identification of Errors
From the table, the following Kimeru consonantal processes were observed;
1. There is the addition of a sound segment, mostly a vowel, between two successive consonants to break the consonant cluster, for example, *helep for *help*
2. A consonant sound segment is added at the word-initial position especially in some words that begin with vowel sounds, for example, *harm for *arm* *hare for *are*
3. Some consonant sounds are omitted especially at word-initial positions, for example, *en for *hen,* *and *had for *hand*
4. Nasals are added to other consonants such as plosives at the beginning, in the middle or at the end of words in the process of pronouncing some words, for example *ngirl for *girl* *bendroom for *bedroom*
5. Certain consonant sounds are substituted for others, for example *rate for *late* *ribrary for *library*
6. In some words, two or more segments are interchanged in their order ending up with a totally different word. An instance was in the word 'kiosk' which was pronounced as *kioks* and the word 'desk' pronounced as *deks*
7. Morphemes being regularized and realized differently without regard to phonetic conditioning and the nature of the word especially in past tense, plurals and stridents. For example, the [-ed] in the word 'packed' is realized as [-t] same as in the word 'walked'. The [-ed] in the word 'painted' is realized as [-id]. Therefore, when a learner

regularizes by pronouncing the word without considering the phonetic environment of some sounds will result in spoken error, which might not be the case with writing.

Also, in the formation of plurals, learners are aware that one simply adds an [-s] or [-es] to the noun. Whereas that is correct with written forms, spoken forms are realized differently depending on the nature of the word. The [-s] in the word 'bags' is realized as [-z] while the [-es] in the word 'churches' is realized as [-iz]. Words like 'churches' and 'bushes' contain sounds that are referred to as stridents.

8. Some words are pronounced as they appear in their graphemes (letters) without considering silent letters or diphthongs for vowel sounds, for example *\/lamb/ for /læm/ *\/kops/ for /ko:z/

Explanation and Classification of Errors

The consonantal processes observed above were described as follows: if a segment (a vowel sound or a consonant sound) was added to break consonant clusters or a consonant sound produced before another consonant, particularly a plosive, such errors were regarded as errors of addition and were classified as errors involving vowel insertion, prenasalization or consonant addition. On the other hand, if a respondent pronounced a lexical item with sounds in reversed order or interchanged in position, these were regarded as errors of ordering and classified as metathesis.

In cases where respondents systematically replaced one phoneme for another to conform to consonant sounds in their mother tongue, this error was classified as consonant substitution. Some instances involved morphemes being realized in a regularized manner despite their nature and phonetic conditions. This was commonly observed in English past tense, plurals, and in words with strident sounds. Such errors were termed as the regularization of morphemes in past tense and plural allomorphs. It was also observed that some respondents simply omitted consonant sounds in word-initial or word-final positions, and these errors were classified as consonant deletion. Another instance involved respondents attempting to pronounce words as they appeared in their graphemes (letters) without exception to silent letters or considering diphthongs. The respondents erroneously ended up mispronouncing those words, and these errors were classified as errors of spelling pronunciation.

1. **Vowel insertion**

   A sound segment (a vowel) was added to break consonant clusters. The possible cause of these errors is mother tongue conditioning since Kimeru has an open syllable structure and learners would therefore break the consonant clusters in English words by adding a segment between two successive consonants.

   For example,*[helep] for *help* *[tirip] for *trip* *[milik] for *milk* *[bediroom] for *bedroom* *[kiosik] for *kiosk.*

2. **Prenasalization**

   A consonant sound was produced before another consonant particularly a plosive and the combination was pronounced as a single phonological unit. Prenasalization majorly occurred in homorganic sounds. For example, the voiced alveolar stop /d/ pronounced in error and its voiceless counterpart /t/ were preceded by an alveolar nasal /n/ in words such as 'dinner' and 'take'. These errors were interlingual in nature as they were occasioned by mother tongue influence.

For example, *[ngirl] for *girl* *[bendroom] for *bedroom* *[ngate] for *gate* *[mboy] for *boy* *[degree] for *degree*

3. **Consonant addition**
   A sound segment (the glottal fricative "h") is added at word-initial position of words beginning with vowel sounds. This addition is phonemic in nature and completely changes the meaning of a word. Its cause is mother tongue conditioning.
   For example, *[harm] for *arm* *[hare] for *are* *[holt] for *hot*

4. **Consonant deletion**
   A sound segment is omitted at word-initial position or word-medial position. Consonant deletion was deemed to be caused by mother tongue conditioning as Kimeru speakers inadvertently and without knowledge omitted the glottal fricative /h/ at the beginning of words or omitted the nasal /n/ in word medial positions
   For example, *[en] for *hen* *[had] for *hand* *[at] for *hat* *[mik] for *milk* *[ouse] for *house.*

5. **Consonant substitution**
   A phoneme is systematically replaced with another. In Kimeru, the lateral liquid /l/ in English is replaced by the post-alveolar /r/ in most instances. Or, the substitution of voiced alveolar fricative /z/ with the voiceless /s/, and /ʒ/ being replaced by the palato-alveolar /ʃ/ or even /s/ being replaced by the palate-alveolar /tʃ/. Consonant substitution was a result of both mother tongue conditioning and incorrect application of the rule in pronouncing English words. For instance, the occurrence of the alveolar fricatives is phonetically conditioned but some respondents could not make that distinction thus leading to errors. Consonant substitution errors were therefore both interlingual and intralingual. For example, *[rate] for *late* *[ribrary] for *library* *[soo] for *zoo* *[check] for *shake* *[sebla] for *zebra.*

   The learner is unaware of the exceptions to the rules. For example, the learner is aware that the combination [-sure] in a word like 'pressure' is realized as [ʃ] and applies the same realization to every word that has [-sure] such as 'measure' and 'pleasure' without knowing that the [-sure] in 'measure' and 'pleasure' is realized as [ʒ].

6. **Regularization of morphemes in past tense and plural allomorphs**
   The learner is aware that to form a simple past tense of a regular verb one simply adds [-ed] to the base form eg. *Brush = brush + -ed = brushed.* However, for some reason, unlike in written forms where it is clearly seen, in speech the realization is different because of phonetic conditioning. For example, the [-ed] in the word 'packed' is realized as [-t] same as in the word 'walked'. The [-ed] in the word 'painted' is realized as [-id]. Therefore, when a learner regularizes by pronouncing the word without considering the phonetic environment of some sounds will result in spoken error, which might not be the case with writing.

   Also, in the formation of plurals, one simply adds an [-s] or [-es] to the noun. Whereas that is correct with written forms, spoken forms are realized differently depending on the nature of the word. The [-s] in the word 'bags' is realized as [-z] while the [-es] in the word

'churches' is realized as [-iz]. Words like 'churches' and 'bushes' have sounds that are referred to as stridents because of their loud, shrill, piercing, high-pitched rough-sounding. The errors were intralingual, that is, occurring within the target language itself.

7. **Spelling pronunciation**
    These are errors occasioned by the learner's attempt to pronounce words as they appear in spelling (graphemes).

    The learner is not aware that some words in English have no direct relationship between their spelling and their pronunciation. Some letters are not verbally realized but remain silent during pronunciation. Kimeru speakers learning English as a second language experienced a lot of difficulties in pronouncing some of the English words because they attempted to pronounce those words as they appeared in spelling. This caused them to make errors of spelling pronunciation. However, these errors were intralingual rather than interlingual because they are errors occurring within the target language.

    For example, * [lamb] for /læm/ * [kops] for /ko:z/, and * [wumb] for /wu:m/

8. **Metathesis**
    This error involved interchanging the order of some letters in a word. It ended up producing a totally different word from the one targeted. For example, the word 'kiosk' was pronounced as *[kioks] and the word 'desk' was pronounced as *[deks] by some respondents. The error was considered unique since it was neither interlingual nor intralingual.

    Other unique pronunciations were: *[nəis] for the word 'lice', *[maus] for the word 'house', and [brid] for the word 'bread'. However, these pronunciations were later treated as outliers to the study.

Error Gravity and its Effect on Communication
As stated in the literature review on error gravity, not all errors are of the same gravity. For example, phonemic errors (global errors) are more serious than subphonemic errors (local errors). Phonemic errors come about when there is a difference between sounds bringing a change in the meaning of words in a language while subphonemic errors do not. Applying the notion of global and local errors, this paper assessed the effect of spoken learner errors on communication among Kimeru ESL speakers.

1. **Vowel insertion** – the occurrence of the error had only a slight impact on communication since one could still decipher what the respondent intended to say. For example, if a respondent said *[helep] for 'help', one could still understand. The overall effect of the error was therefore local since it did not hinder intelligibility.

2. **Prenasalization** - For example, *[mboy] for 'boy' or *[bendroom] for 'bedroom'. These patterns were phonologically acceptable in Kimeru and the respondents tended to carry them over to the target language. Communication could still be understood in context. The error was local because it did not hinder intelligibility.

3.　　**Consonant substitution** - For example, *[rate] for 'late'. These errors greatly affected communication and hindered intelligibility. The impact was therefore considered to be global.

4.　　**Regularization of morphemes in past tense and plural allomorphs** - The effect on communication was local, meaning that communication could still be understood despite the presence of errors. For example, *[bags] for /bagz/.

5.　　**Consonant deletion** - This changed the meaning of words, making communication unintelligible. For instance, *[arm] instead of 'harm'. These errors had a global effect on communication.

6.　　**Consonant addition** –The glottal fricative /h/ was added at the beginning of words starting with a vowel sound. For instance, *[harm] for 'arm' and *[hare] for 'are'. These errors greatly affected communication and their effect was therefore global.

7.　　**Metathesis** – It involves the trans-positioning of sounds within a word. For example, the word 'desk' was pronounced as *[deks]. It totally caused a communication breakdown as one was left guessing what the respondent had meant. Its gravity was global.

8.　　**Spelling pronunciation** – Some respondents pronounced words as they appeared in their spelling resulting into error. For example, the word 'corps' was pronounced as *[kops] instead of /ko:z/. The effect of the error was both local and global as it affected intelligibility in one context but not in another.

Conclusion

This paper concludes that learners of ESL made many spoken language errors ranging from vowel insertion, prenasalization, consonant substitution, and metathesis, regularization of morphemes in past tense and in plural allomorphs, consonant deletion, consonant addition, and errors of spelling pronunciation. The possible causes of these errors comprise a variety of factors ranging from no practice in the use of the language, lack of enough time to study materials related to the language, or just lack of interest on the part of the learner. These errors affected communication and hindered intelligibility as they had varied levels of gravity. Some errors had a global effect resulting in a total breakdown in communication while others had a local effect. The differences in the language systems of Kimeru and English posed a great challenge to the learners' pronunciation. Several factors affecting the ability to speak effectively include shyness, absence of motivation, using L1 frequently, and failure to practice English. This study recommends that ESL learners be exposed to activities that encourage language practice such as group discussions, debates, and public speaking where they will freely express themselves and build self-confidence and communicative fluency.

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Pronominal Choice in The Positive Self and Negative Other Representation of Hate Speech in Selected Kenyan Political Speeches

*June Chebet Chelule, Jacinta Ndambuki, Evelye Mahero
Department of Literary and Communication Studies, Laikipia University, Kenya
*Corresponding Author

Abstract
Politicians often employ the pronouns 'us' to show solidarity which is contrasted with 'them' used to exclude or to portray the out group(s) often in a negative way. All pronominal choices can be interpreted to give diverse meanings. The objectives of this qualitative study were to identify instances of hate speech in sampled Kenyan politicians' speeches on the YouTube platform and to interrogate pronominal choices in the political speeches considered as hate speech in Kenya. This study identified pronouns as a discursive strategy on hate speech. A purposive sampling of data was carried out and a total of ten political speeches were collected between the period 2015 and 2020. The speeches were transcribed and translated then thematically analysed guided by the Critical Discourse Analysis (CDA) framework; in particular the Foucauldian theory and Discourse Historical Analysis (DHA) approach, and Relevance theory. This paper focuses on pronouns and how the speakers advance the positive self and negative other representation in ten sampled speeches. The findings on pronouns reveal that the speakers intentionally select pronouns and use them to achieve exclusion, solidarity, authority, opinions and collectivization among other functions. Pronouns reveal the speakers' intentions which enable understanding in order to mitigate the risks of hate speech. The findings are useful to politicians in making informed speech choices, educating listeners to be discerning and to policy makers in understanding and controlling hate speech.

Keywords: Critical discourse analysis, discursive strategies, hate speech, political discourse, pronominal choice

Introduction

This study aims to interrogate pronominal choices as a linguistic strategy in Kenyan political speeches particularly as it relates to hate speech. In Kenya, the National Cohesion and Integration Commission (NCIC) was created by the government with a mandate to control the practice of hate speech (GoK, 2008). The NCIC Act (2008) Section 13(1) specifies the parameters of hate speech in their definition. 'A person engages in hate speech in use of threatening language, insulting words or behaviour or displaying, publishing or distributing any written material, or visual images with intent to stir up hatred based on race, ethnicity, religion, gender, age, language and nationality'**.** Generally, hate speech refers to utterances that incite against and exclude others based on their identity. The speech may be construed as a call for action against these groups and may lead to hate crime. This study explores the ways in which pronominal choice is used to talk about hate speech in YouTube.

Scholars who have carried out studies on pronominal choice include; Levinson (1983), De Fina (1995), Fairclough (2003), Ndambuki and Janks (2009). They observe that pronouns demonstrate and display critical aspects relating to identity, power, solidarity and representation among others. De Fina (1995) argues that pronominal choice in political discourse reflects differences in the way in which speakers present themselves with respect to other individuals and groups in the political arena and in relation to the situation in context.

The phrase 'hate speech' became more noticeable than before in Kenya after the 2007/8 Post Election Violence (PEV) and the International Criminal Court (ICC) cases of key Kenyan political personalities. In Kenya, there have been instances of discourse considered as hate speech in political speeches and it is often heightened during campaigns. This is a common pattern every election cycle (i.e., every five years in the country). This study perceives the term 'politics' in the sense in which Chilton and Schaffner (2002) define it as 'a struggle for power between those who seek to assert and maintain their power and those who seek to resist it'.

Political discourse (Fairclough, 1992; Wodak, 2001) is one of the main areas of enquiry for Critical Discourse Analysis (CDA). Chilton (2008) defines political discourse as 'the use of language to do the business of politics. It includes persuasive rhetoric, the use of implied meanings and euphemisms, the exclusion of references to undesirable reality, the use of language to arouse political emotions and the like'. Yieke (2008) observes that language could be the missing link in resolving political conflicts. Mediation can be used to avert crisis witnessed in the country, the region and the world. Therefore, the study of pronouns contributes to the discussion on language in politics.

Conflict is part of discourse, and in its solving, harmony might be achieved in the society. Ndambuki (2013) observes that Africa has experienced conflict and crisis which is often seen to be synonymous with the region. The current study revisits the utterances by Kenyan politicians on YouTube perceived as hate speech, how the speakers revealed the grievances and if they led to ultimate resolution of the crises created by conflicts. Although there is legislation on hate speech, the practice is still rampant in Kenya. This means further research on the concept is needed to understand it better.

In this study, the underlying socio-political environment is explored in relation to the positive self and negative other representation. Social media makes it easy for content creators to share their content with a large audience. In Kenya, YouTube had 9.29 million users in early 2022 which is approximately 16 per cent of the population. The cyberspace is of interest since it is a vibrant site for fast spread and relatively permanent archive of hate discourses that can be retrieved and shared several times.

The Problem

This study sought to give an insight into the problem of hate speech by analysing the manner pronouns are used by speakers; notably political leaders. The use of pronouns in engaging in hate speech is of interest since there is need for further research to demystify the concept of hate speech in order to avoid its negative effects. This study aimed to explore pronominal choices in hate speech and fill in the existing gaps from an applied linguistics perspective. As one of the discursive strategies, pronouns are powerful and understanding them can reveal the intentions of the speaker and the expected reactions of the audience. A number of studies have been done on hate speech and they have been reviewed to identify gaps. The gaps are in the understanding of what exactly constitutes hate speech and how utterances can be interpreted or misinterpreted by the listeners.

Review of Related Literature
In this study, pronouns are identified as a discursive strategy in the sampled speeches. Other studies have been done on political discourse and they have been reviewed in this section to identify the gaps. According to Fairclough (2003), the choice of pronouns may be tied to relations of power and solidarity. Pronouns appear to be useful tools for positioning of subject in either the in-group or the out-group. The construction of the in-group simultaneously means construction of the out-group (exclusive reference), either by implication or through direct use of pronouns such as 'they', 'them' and 'their' as well as the deictic reference expressions such as 'there', 'that' or 'those'. This construction of different groups is what Derrida (1981) calls the process of 'Othering', which he argues is very essential in the construction of the Self. This establishes how social class ideologies or perceptions are embedded in the features of discourse.

Pronouns and Contexts
Socio-pragmatics as advanced by Leech (1983) focuses on the relationship between linguistic action and social structure and is concerned with the influence of socio-contextual factors in language as social action. After identification of the specific topics of a discourse, the discursive strategies are investigated. The linguistic means of the discriminatory stereotypes are then studied. The current study is guided by these approaches.

Among the thematic concerns in hate speech is the struggle for power in the country. Chelule et al. (2022) observe that the presidential position is hotly contested in the country. Their study reveals that the thematic concerns in the sampled discourse include negative ethnicity, xenophobia, class struggle and political intolerance. Irimba (2021) observes that Facebook and Twitter provide an active cyberspace in which hate speech is rampant. He observes that the comments revolve around ethnic profiling and political intolerance, defamatory slander, incitement, gender stereotype and extremists' sentiments. He identified pronouns in the sampled comments and memes in the cyberspaces. He observes that the participants are driven by hateful slander and use pronouns to exclude others based on their identity.

This has been observed in the current study on the pronominal choice in the positive self and negative other representation of hate speech in selected Kenyan political speeches.

Discursive Strategies
Inclusive and exclusive reference refers to use of various deictic expressions that show the spatial difference aspect of referents. Pronouns such as; 'we', 'us', 'our' and deictic expressions such as 'here', 'this' and 'these' were frequently used in the construction of the in-group. Yieke (2008) documents how in Kenya, utterances that urged people from particular ethnic groups to return to their region of origin expressed 'politics of inclusion and exclusion' that related directly to longstanding land disputes and the movement of ethnic groups prior to the 2007 post-election violence. Negative labelling, markedness and 'us' and 'them', ebonics and languages other than the lingua franca are strategies associated with negative ethnicity and hate speech identified in her study and which are identified in the current study.

Barasa (2014) employs CDA in analysing the discourse of the co-principals in the 2008 coalition government and their efforts at peace keeping. In the communication between His Excellency (the late) President Mwai Kibaki and former Prime Minister Raila Odinga, she observes that pronouns are used to index the speakers' roles and for referencing. Both studies aim to identify strategies that achieve a certain effect in political discourse with the current study being on YouTube data with focus on hate speech.

In their study, Ndambuki and Janks (2009) represent the mismatches in representation of women's voices by examining the discursive strategies, of which among them were pronouns. They argue that the women use the collective pronouns *tu* (we) and the impersonal third person plural suffix *ma* (they) to present inferior power relations. The leaders also use the same deficit discourse to portray women as having a lower place in society than the men. Using the plural 'we', they portray themselves as a 'suffering community' in need of a leader to give them direction. Their suffering is foregrounded more than the actions which sustain their families. In this study, the choice of the collective pronoun is also observed. It serves as a form of solidarity between the speakers and their audiences.

Theoretical Framework

Critical Discourse Analysis (CDA), Foucaldian and relevance theories provided the theoretical underpinnings for this study. CDA examines ideologies and power relations involved in discourse. Language connects with the social through being the primary domain of ideology, and through being a site of, and a stake in struggles for power. Ideology has been called the basis of the social representations of groups, and in psychological versions of CDA developed by van Dijk (2008) as well as Fairclough and Wodak (1997). The historical dimension in critical discourse studies plays an important role.

The analytical framework for Critical Discourse Analysis of 'the communicative event' that can be categorized into three dimensions:

      Text

      Discourse Practice

      Sociocultural practice.

In the framework for CDA, Fairclough provides a clear distinction between the three main elements of the communicative event as text, discourse practice and sociocultural practice.

Foucault (2002) adopted the term 'discourse' to denote a historically contingent social system that produces knowledge and meaning. He noted that discourse is distinctly material in effect, producing what he calls 'practices that systematically form the objects of which they speak'. Discourse is, thus, a way of organising knowledge that structures the constitution of social (and progressively global) relations through the collective understanding of the discursive logic and the acceptance of the discourse as social fact.

The relevance theory is also utilized in this study. In 1987, Sperber and Wilson used Grice's idea that communication is based on intentions and interpretations to propose a framework for looking at communication from a cognitive perspective, starting with the assumption that people tend to pay most attention to what they perceive as most relevant in a given situation (Sperber & Wilson, 1986; 1995, p.156). Instead of the simple process of encoding and decoding information, Sperber and Wilson postulate that the very act of sending a message implies that the sender assumes that the message is relevant. In other words, when someone says something, they must think that what they have to say is important enough to try to communicate it. This is relevant in this study particularly in exploration of hate speech in political speeches because once an utterance is made, it creates an expectation of being relevant and it should capture the hearer's attention in order for it to fulfil the role of being maximally relevant.

Research Methodology

The study is largely qualitative and the data was collected from online Kenyan political discourse However, the quantitative design was employed in assigning numerical value in some data, for

example, in the frequency counts of pronouns. A combination of both qualitative and quantitative methods is inevitable in research as argued by Silverman (2013).

The discussion focuses on Kenya but other countries may be mentioned for comparative purposes. After purposive sampling, the main data was collected from YouTube. Ten speeches delivered between 2015 and 2020 were collected, and the frequency counts of strategies occurrences were carried out and the findings presented in table form. Data was collected through electronic searches on the YouTube platform following Barasa (2014), Mwithi (2016) and Irimba (2021). Irimba (2021) noted that the internet is a site for hate speech. It was therefore an appropriate area for data collection. Library research was also conducted from primary and secondary sources.

Following guidance for thematic analysis by Braun and Clarke (2006), the researcher familiarized herself with emerging data then manually developed initial codes from the data. Next, the related codes were collated and merged then used in searching for themes. Finally, the emerging themes were reviewed and defined. The pronouns were identified from the sampled speeches, counted and discussed as used in the contexts. The use of pronouns, their contexts and the impacts are reported in this study. In the data, the ten names have been replaced by L1, L2, L3, L4, L5, L6, L7, L8, L9 and L10 where L represents the specific leader and the number (1, 2, 3, etc) represents the oldest to the most recent at the time of data collection; 10. This aimed at maintaining the confidentiality and anonymity of the speakers due to ethical considerations.

Pronoun Use in Speakers' Utterances

Traditional grammarians grouped words into parts of speech (Quirk, 2010). They defined pronouns as word classes used instead of nouns. Pronouns are grouped according to person and number. The speakers often employ 'we' *(sisi)* versus 'them' *(wale)* pronouns that aim to give a sense of belonging with the listeners and to exclude those they are criticising. They also ask rhetorical questions to portray that what they are saying is agreed to by the audience.

The frequency in the overall use of pronouns in each speech is summarised in table 1 where the pronouns are identified and the ten speakers are listed with the frequency of use for each presented in numbers. There is a high frequency of use of second person 'You' which brought out the direct address strategy. Similarly, the self is well contrasted with the other(s) and the positive and negative is brought out through the first person contrasted with the third person voice.

Table 1: Frequency of Ocurrence of Pronouns

Pronouns	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10
I	4	11	7	7	7	10	10	9	16	12
You		29	13	22	9	16	6	11	12	35
He	3	11	4	8		1	1	12	6	3
She	0	0	0			0	0		0	0
It	4	1	2	10		4	3	20	4	4
We	13	8	4	52	3	10	11	30	12	11
They	1	2	6	20	7	3	4	20	11	5
Them	1	2		3		3	8	5	1	2
Us	1	1	3	6	1			7	7	9
Him	3	4		1				4		3
Her	0	0								
Me		2	4	1	1	7	1		4	
Yourself										
Myself										
Whoever/ Anyone		1								1
Themselves					1					
Nobody									1	
Himself				2						

Source: Authors (2022)

A detailed analysis of the pronouns as a strategy for discursive construction of hate speech are provided in the next sections. In a thematic analysis of the findings, the pronouns have been identified from the speeches and discussed under sub topics. The contexts are briefly discussed to enable understanding. Pronouns such as 'we', 'us', 'our' and deictic expressions such as 'here', 'this' and 'these' were frequently used in the construction of the in-group. The leaders made conscious choices in their use of pronouns in order to achieve desired effects. They often use the phrase *hawa watu* (these people) when they refer to their opponents, and *sisi* (we) to show inclusion and solidarity. The subject pronouns 'I', 'we', 'you', 'he', 'she' and 'they' and the object 'me', 'us', 'you', 'him', 'her' and 'them' are used. The possessive 'mine', 'ours', 'yours', 'hers', 'his' and 'theirs are also common.

Pronouns for Authority
Among those who speak in the first person singular, L2 shows his support of the government at a rally in Mombasa. He refers to the official leader of opposition as the devil among other personal attacks.

Text 1:
    L2 - *nawajua* (I know them) to convince the listeners that he knows much about the opposition.

The choice of the first person is for authority and persuasion.
    In a public holiday celebration audience, L1 addresses those who do not respect his party leader Raila Odinga, and claims that a few people must die for Raila to be president.

Text 2:

    L1 - *nami* (I) to show that what he is saying was his idea.

He tells the named individuals who include Moses Kuria and Aden Duale to stop acting like mad people and mentioning Raila his party leader. Moses Kuria was then the Member of Parliament (MP) for Gatundu South and Aden Duale the MP for Garissa Township Constituency.

    In his speech against the government and the Cabinet Secretary for Internal Security and Coordination of National Government, Fred Matiang'i, L3 shows his authority.

Text 3:

    L3 - *mimi* (I) to show he is speaking his mind.

L7 engages in xenophobia when he gives notice to foreign traders to leave or they will be forcefully ejected. He discriminates against this group due to their nationalities.

Text 4:

    L7 - *Mimi* (me or I) he selects the first-person pronoun to show that he speaks with authority and he is personally involved. He takes credit for solving local traders' problems. He claims to know the challenges of the local traders.

    L7: ***na****taka* (I want) is a first person he uses to show his authority and plans.

    L7 *najua* (I know).

langu (mine) shows that L7 takes responsibility to do the duty he promises of protecting local traders.

    Engaging in ethnic exclusion, L9 addresses his perceived threats to his community. He argues that non locals should not seek leadership positions. He uses the first person singular to articulate his expectations and to show authority and leadership.

Text 5:

    L9 - *mimi* (me) to show he speaks on his behalf and with authority.

    L9 - *nimesema;* I have said. He speaks on behalf of his people; the Maasai as he feels that he has authority and power to represent the group.

    In an attempt to seek a collective voice, L4 asks Nairobi residents if they are of a similar opinion. He then asks whether they voted the gentleman; *huyu* (This one) pointing at Uhuru Kenyatta. This is a demonstrative pronoun used in the close proximity. He intentionally uses the second person pronoun when he asks them if they decided *muliamua* (You decided) and *mulisema* (You said). He wants to portray that the choice was made by the people he is addressing. This creates a sense of belonging. He is confirming that the audience voted and his preferred candidate is more popular than their opposition.

    The leader refers to Raila Odinga as *yule* (that). This excludes him as he is shown to be removed from the group. He also says the plural form *wale* (them). This creates a feeling of us

versus them. He asks questions that suggest the listeners agree with him and support them. He says *yenyu* (yours) on the voters' decision, when he claims that their will was subverted by the supreme court. The leader portrays the out group when he says *wa-lienda* (**they** went) when recalling how the opposition went to court. He says s*isi* (we) when speaking on behalf of the Jubilee party. He addresses the supreme court and the chair of IIEC Chebukati as 'you' in a threatening tone. He uses the plural pronoun ''us when he is speaking for Kenyans. As he dares the opposition leader, he says **na-***taka* (I want) and *tu-namwambia* (**we** are telling) we being either the Jubilee party or the government. He is referring to Raila. He tells him the exams will not be postponed and the polls will proceed as planned. He uses the first person singular to show his power, authority and personal opinions.

Pronouns for Solidarity

The collective pronoun 'we' is used more than the singular first-person pronoun. This is an attempt to identify with the audience and to show solidarity.

Text 6:

   L1 - *sisi* (we) in reference to Western region inhabitants. He assures they are in support of Raila Odinga.

   L1 - *Sisi (*We) refers to his party Orange Democratic Movement (ODM). He suggests he is speaking for his preferred presidential candidate. This shows solidarity.

   L1 - *tumekubaliana* (we have agreed). The speaker appears to be presenting the collective views of his party and his party leaders.

   L1 - *tunataka* (We want). This is the plural collective pronoun. The leader is confident he has the authority to speak for others in particular Raila Odinga and the party. This suggests that he is close to the leader.

Drug addiction is a problem in the coast and L2 refers to addicts.

Text 7:

   L2 - *tuko na*; (we have) referring to the number of addicts in Mombasa.
The use of the pronoun 'we' seeks to make him part of the problem which he is addressing.

   L2 - *tukakutana* (We met) when referring to him, Orengo and Kiraitu.

This aims to give a first-person account and witness to what he saw. In case of doubt, Kiraitu can be consulted to prove him right.

   While defending the opposition, L3 lists former ministers now referred to as cabinet secretaries who have in the same docket and have died using the pronoun 'we'.

Text 8:

   L3 - *tulikuwa* (we had).

He lists George Saitoti and Joseph Nkaissery who died in office then refers to Cabinet Secretary Fred Matiangi as the late to suggest he will also die. The two were former cabinet secretaries formerly known as minister. George Saitoti was the assistant minister for internal security at the time of his death in a plane crash in 2012, while Joseph Nkaissery died in 2017 after a sudden heart attack. He was the cabinet secretary for Internal Security and Coordination of National Government. The collective is intended for inclusivity.

L3 uses the collective pronoun 'we' to show he is speaking on behalf of his group using h*atutacheka* (we will not laugh). As observed by Barasa (2014), the findings indicate that political solidarity is marked by the use of personal pronouns. The leaders use the first person singular to demonstrate personal responsibility and the first-person plural to indicate solidarity towards a shared goal.

In a highly charged speech, L7 who is then an MP does not like the presence of foreign traders in his constituency. He complains that they should go back to their homes.

Text 9:

L7 - t*ulichukua* (we took) and we in this context refers to the leadership (ruling class) which is a group he belongs to. He claims they took the initiative to assist with cargo clearance.

L7 - *tu-mekuwa* (we have had), as he puts himself in the same category of local traders to identify with them.

L7 - *sisi* (we). The choice of the first-person plural indicates the leader is speaking on behalf of local traders. It shows inclusion and solidarity.

L7 - *tutaingia* (**we** will enter) local traders,

L7 - *tutawatoa* (**we** will remove them) foreign traders.

In the texts, the leader uses the first-person plural to show inclusion and solidarity. The speaker claims that Pakistan traders have taken over the car business using the pronoun 'they'.

After the handshake, L8 who is then senator feels that his community has been alienated. In his speech, he praises the deputy president and criticises his opponents.

Text 10:

L8 - *(tuliambiwa)* we were told.

Before the 2013 elections the supporters of the president and his deputy were told about a ten years' tenure for both. He talks of the agenda that they should focus on using plural we; the leaders. This is a group he belongs to and this choice signifies inclusion. He claims that they are distracted by the opposition (they).

Text 11:

L8 - *tu-nataka* (**we** want). He demonstrates authority when he speaks for the deputy president supporters. He demands for respect.

Text 12:

> L8 - *sisi* (we) for deputy president supporters reveals solidarity.

The pronoun 'we' also refers to his community the Kalenjin. The choice of the pronoun reveals that he has authority over the group decision and he speaks for the 'collective'.

Similarly, L9 is a supporter of his community that he feels are alienated and hopes that the Building Bridges Initiative (BBI) will provide with solutions. This was an attempt to change the constitution with an aim to bring Kenyans together after the handshake between former President Uhuru Kenyatta and former Prime Minister Raila Odinga.

Text 13:

> L9 - *sisi* 'we' for Maasai to demonstrate identity with his ethnic group, that is he is one of them and he belongs. He uses 'us' for the leaders. He therefore demonstrates his identity first among his ethnicity and second as a leader.

Talking about the country L10 shows possession or ownership. The first person plural has been used for group identity and solidarity.

Text 14:

> L10 - *yetu* (ours).

> L10 - *Sisi* (we) for Kenyans. This is used for collective voice and identity.

> L5 uses the pronoun 'you' in its various forms to show the listeners it is their decision to swear him in. This is to show that the event is a popular initiative. Inclusion is achieved using the second person pronouns *zenu/ kwenu/ nyinyi/yenyu* (you). He reminds them they decided *Wakipiga* (when they vote) t*utapiga* (we will vote). He uses the collective possessive pronoun *yetu* (ours) to show they are taking a collective decision. The use of the second person voice is appealing for inclusion of the audience.

Pronouns for Exclusion

When portraying the outgroup negatively, L2 mentions individuals he accuses of some wrongdoing.

Text 15:

> L2 -a*likuwa* (he was) when he is referring to, a governor of Mombasa County. The speaker does not mention his name but one can tell who he is talking about from his descriptions.

> L2 - *hawa watu*; these people to discuss the opposition. He separates himself from them when he refers to them thus compared to *sisi* (us) to refer to the in group.

Text 16:

> L1 - *hawa watu* (those people) chosen by L1 when talking of Ruto and Kenyatta, the presidential candidate at the time. This shows exclusion as he does not specify but presents them in abstract form.

L1 - *huyo (*That) when referring to Moses Kuria and Aden Duale. The two have been vocal in their attack of the opposition party and leader.

T**ext 17:**

L3 - *yake* (his), *yule ambaye* (the one which is) and *hawa watu* (these people) to refer to the government officials. These words demonstrate exclusion.

Text 18:

L3 - *walishika* (they arrested) in which they refer to the police with instructions from the government.

The third person plural is used to exclude those he is referring to and to demonstrate that it is impersonal and ambiguous. L7 discusses what the Cabinet Secretary for Internal Security and Coordination of National Government Fred Matiang'i, said.

Text 19:

L7 - *alisema* (**he** said). This is to show exclusion.

L7 - *hawa watu***;** those people.

L7 - *wamechukua* (they have taken) against foreign traders.

The choice shows that the speaker distances himself from his referent. The speaker seeks to exclude his referent and to create distance between them and himself. This is commonly used in exclusion. He threatens to mobilise violence.

The choice of the third person plural pronoun portrays exclusion. He excites his audience by promising to participate and this demonstrates solidarity as he will be a part of what he is telling them to do. He uses the collective in mobilising violence and this reassures the audience that he will actually accompany them to the streets.

Text 20:

L8: *wale* (those) for the opponents of the deputy president.

This is exclusion of the out group. L8 refers to 'you' when addressing the perceived opponents of the deputy president, and the exclusion pronoun 'they' for Raila Odinga and his associates.

In his personality attacks, L10 dares the president to kill him like his late father did to his opponents.

Text 21:

L10: *yeye* (him) in reference to the late president Jomo Kenyatta.

L10: *yeye* (him) telling him to work together.

He however refers to the deputy president William Ruto but in a positive portrayal. Pronouns are used to show, give and deny identity. Use of indefinite pronouns are not common apart from in a few instances. L1 begins his speech with one.

Text 22:

   L1: *atakayeita* (whoever will call/ anyone who will call).

Whoever/ anyone is an indefinite pronoun he first uses either to avoid mentioning names or to hint that he does not care who the person will be. L9 uses the plural pronoun 'they', as he speaks as an observer of his community the Maasai which he is part of.

Text 23:

   L9: hawa Maasai (These Maasai) since the venue of the meeting is Narok.

This is meant to show that they have suffered. Discourses of suffering are common when the speakers seek sympathy.

Text 24:

    Ll0: *Hii* (This) refers to Keriako Tobiko to show him he is not important.

This pronoun *hii* is used for objects and referring to a person using it is the highest form of exclusion. It is an attempt to dehumanise his referent and has been a precursor for wars and genocide like in Rwanda genocide.

The positive self and negative other representation is common in the used pronouns. L6 employs the pronoun 'us' (Akamba) versus 'them' (Somalis) to create distance between the two groups. She addresses the audience in the collective pronoun 'we' to create solidarity with them. She reveals her decision that those who burn charcoal and harvest sand should be dealt with. The leader adopts her opinion as the group resolution by using tag questions which her listeners automatically say yes. She says *Mavuti aa* (these guns) that the police are carrying to show they are accessible and to make her listeners aware of the powers of their bows and arrows. It confirms that metaphors are important in political speeches. When she refers to bows and arrows as guns, there is a deeper meaning as they are so to her and the audience as noted in Ndambuki (2013).

Conclusion

The pronouns are used to show authority especially when one speaks on behalf of a group using 'we', or 'us', to show personal opinion using first person singular, for solidarity through first person plural, to issue warnings in the second person direct address, and to exclude the out groups through the third person references. Both subject and object pronouns are used. The plural pronoun 'them' is used to distance the speakers from the referents. The first person singular 'I' becomes 'we' in plural. It is often used to reiterate solidarity. The second person 'you' modal is retained in the plural and is useful in direct address. He/She/it are the singular third person forms and the plural is they. It is often used to portray the outgroups. The speakers employ we *(sisi)* versus them *(wale)* pronouns that aim to give a sense of belonging with the listeners and to exclude those they are criticising. They also ask rhetorical questions to portray that what they are saying is agreed to by the audience. In most of the speeches, the pronoun is derived from the word as Kiswahili

combines the verb with the pronoun. The feelings are evident from the pronoun choices and the inclusion and exclusion is clearly brought out.

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An Analysis of Pupil and Student-teacher Language in the Classroom during Teaching Practice in Secondary Schools in Kericho West Sub-County, Kenya

Tom Barnard Okoth Ndiewo, *Vicky Khasandi-Telewa, Evelyn Mahero
Laikipia University, Kenya
*Corresponding author

Abstract

The purpose of this study was to investigate the possible similarity between student-teacher language errors and learner interlanguage in Kericho West Sub-County of Kericho County, Kenya. The general objective of this study was to establish the possible similarity between student-teacher errors and the Interlanguage (IL) of the English Second Language Learners (ESLLs) in Kericho West Sub-County, Kericho. The objective of this study was to demonstrate the syntactic and grammatical errors made by student-teachers and English Second Language Learners at school. The study was guided by the Error Analysis theory while a descriptive research design was utilized to provide a description of the state of affairs. The target population was 50 teachers and 6000 learners. Purposive sampling technique was used to select the sample as the study focused on the student-teachers and the Form one and two learners they teach. The study chose eight student-teachers teaching either English or History/C.R.E, as these subjects involve much talking and writing. Sixty-four Forms one and two learners were also purposely selected from four purposely selected schools which usually get student-teachers. The study utilized observation and recordings in class and group discussions to collect data which was recorded for error analysis. Content validity of the research instruments was enhanced through a pilot study among learners and student-teachers who were not participants in the study. The data was analyzed using thematic analysis and a similarity was established between student-teacher language and the Interlanguage of the learners. The study established that student-teachers and their learners make many syntactic and grammatical errors. The study recommended that student-teachers language proficiency be emphasized, in-service courses be mandatory and Continuous Professional Development (CPD) be enhanced.

Keywords: Continuous professional development, English second language learners, error analysis, interlanguage, thematic analysis

Introduction

English is a global language which Crystal (2012), Jeraltin and Ramganesh (2013) affirm is both a medium for global communication and a utility language. English plays a critical role in Kenya as it is the language of instruction and an examinable subject at all levels of the Kenyan educational system (Ojiambo et al., 2017). The Ministry of Education in Kenya has often expressed great concern over the continuing decline in the English language results posted by candidates regularly at the Kenya Certificate of Secondary Education (KCSE) examination (Daily Nation, 1st January, 2016). Ndungu (2016) reported that the mastery of literacy in English is poor both at primary school and secondary school. Madowo (2020) posited that the problem in Kenya is about the way teachers teach their learners as their pedagogical skills are inadequate while Malowa (2015)

affirmed that approximately 70 percent of the candidates score less than 25 percent in English at the KCSE examinations.

Table 1: Kericho West K.C.S.E Results - Performance in KCSE English 101

Year	Mean Score	Highest Possible Mean Score
2016	3.26	12
2017	3.54	12
2018	4.13	12
2019	4.73	12
2020	4.40	12
2021	2.21	12

Source: Kericho West Sub-County Education Office (2022)

Table 1 above ascertains the need to conduct a study on the poor and declining results in English in Kericho West Sub-County.

In Second Language Acquisition, the field of Error analysis (EA) was established by Corder (1971). EA is a study which investigates the errors made by L2 learners. He emphasizes that errors, if studied systematically, can provide significant insights into how a language is actually learned by a foreigner. The errors and mistakes are due to their lack of knowledge of the target language (TL), and the influence of their previously learnt language (Leacock et al 2011).

The government of Kenya and its Ministry of Education expect learners to have acquired sufficient command of the English language so that they are able to speak and write for proficient communication at the end of primary school. The current study was interested in the similarity between student-teacher syntactic and grammatical errors and the interlanguage (IL) of the secondary school ESLLs, as attested to by the poor English results at KCSE so as to determine methods of interventions which would result in better performance.

The objective was to demonstrate the possible similarity between syntactic and grammatical errors made by student-teachers and the IL of the secondary school ESLLs in Kericho West Sub-County. The study question was 'What syntactic and grammatical errors do student-teachers and ESLLs make in class?' The study was undertaken because of the core role English plays whereas its performance has been consistently poor in this Sub-County. There is need for further research to give deeper insight to the poor performance of pupils in English at KCSE. Therefore, this study aimed to fill in the existing gaps from an applied linguistics perspective.

Review of Related Literature
A number of studies in the Western and Eastern world have been conducted on Error Analysis (EA) whereas a few have been done in Africa (Uba, 2015). Kericho West Sub-County has not exhaustively been studied to establish the possible similarity between the syntactic and grammatical errors made by student-teachers and the ESLLs.

Setiyorini et al. (2020) established there were a variety of errors in the students' work and the analysis showed that omission, addition, substitution, and permutation errors were pervasive. The study concluded it was crucial for lecturers to do Error Analysis (EA) to detect student errors in their essays as errors are useful for both learners and teachers (James, 2013). Setiyorini et al (2020) emphasized the crucial role of EA but did not investigate the errors found in the language of the students' instructors and the current one sought to fill in that gap by utilizing EA and identifying any possible similarity.

Hikmah (2020) conducted research on the aspects of omission and addition errors in English texts made by the students of MAN 3 Bantul. The data was analyzed by identifying and checking the students' errors according to the theory of James (1998) which avers that errors inform the teacher of what needs to be taught. Data was categorized by entering them on the table based on the Linguistic Taxonomy and Surface Strategy Taxonomy. Hikmah (2020) established that the ESLLs had omission and addition errors and concluded that the ESLLs lack grammatical mastery. The current study has close similarity with Hikmah (2020) on the errors identified but the previous one did not investigate student-teacher language.

Khatter (2019) conducted a study to explore and analyze the most common essay writing errors among Saudi female learners at the departments of English, Majmaa'h University, Saudi Arabia. The aim was to identify the difficulties from an EA standpoint and identify the sources underlying them to achieve the study objectives. The tool for data analysis was EA, which falls within the descriptive research method. Corder (1967) established that errors are a visible proof of learning and are unavoidable. The findings established that the most frequent types of errors committed were; punctuation errors, spelling errors, preposition errors, article errors, wrong verb tense, and wrong word form. The study established that there was a gap between the student needs and the teachers' instructional methodology, inadequate teaching methods and strategies, and students were ignorant of grammar and punctuation rules. The current study has close relation in the themes identified but the current sampling was secondary school while the reviewed study did not investigate the errors committed by the instructors therefore the current one sought to bridge that gap.

Alahmadi (2019) investigated and classified grammatical errors with Subject Verb Agreement (SVA) errors in writing made by 25 female first year Saudi undergraduate students enrolled in an English language course at Tail bah University The study used EA to identify and classify the errors made by the participants and established that grammatical errors related to SVA fell into three main categories; SVA errors with singular subjects which were the majority, SVA errors with plural subjects, and SVA errors where the main verb or auxiliary verb is compounded with or separated from the subject which were the least. The study recommended that more emphasis be accorded to the SVA rules, learner errors should be traced, identified, analyzed and constructive activities and feedback given. The study by Alahmadi (2019) established that some errors are caused by the process of learning changes that an L2 undergoes when learning a new language. According to Corder (1967) errors provide insight into how languages are learnt. Alahmadi (2019) established that university students made errors while the current research sought to investigate whether the student-teacher errors had any influence on those of the ESLLs they teach.

Hayati (2019) set out to investigate and analyse written papers of 28 students majoring in English so as to identify the areas of error and the error types in their work. Hayati (2019) employed the procedural analysis of Corder (1974) The findings established the existence of errors; namely, auxiliary, subject verb agreement, lexical, preposition, noun clause, possessive form, verb, noun phrase construction, article, and pluralisation errors which he averred were interlingual. Hayati (2019) recommended that teachers need to realize that student errors are a sign of learning while Corder (1967) posited that they are also a sign of inadequate teaching. Based on the reviewed literature the current study sought to investigate whether there was possible similarity between student-teacher syntactic errors and those of their learners.

Hasan and Munandar (2018) conducted an investigation which attempted to identify the grammatical errors produced by students of the English Department of UGM (Universitas Gadjah

Mada). The study classified the errors based on the Surface Strategy Taxonomy as proposed by Dulay et al. (1982). The reviewed study found the following errors; omission, misformation, misordering and addition errors as made by learners but did not investigate those made by their teachers and the current one sought to fill in that gap.

Chitondo (2021) conducted an investigation on the grammatical errors made by student-teachers in their written work at Rockview University, Ghana. The population comprised 50 second year students and 8 language lecturers who were purposely selected. He used student-teacher written assignments for data collection. The data was analyzed qualitatively with charts and graphs utilized. He also utilized a combination of software for analysis. The study established that student-teachers made SVA, singular and plural, spelling, punctuation, prepositional, omission of words, articles, and repetition errors. Chitondo (2021) established that learners made mistakes due to their ignorance. It was also found that L1 interference played a role. Even though both studies are related, Chitondo's focused on student-teachers whereas the current one also sought to investigate whether student-teacher errors were similar with those of the ESLLs they taught.

Wairimu and Ngugi (2021) sought to investigate the prepositional errors in English usage of upper primary learners in Kieni East Sub-County, Nyeri County in Kenya. The study was to identify, categorize and describe prepositional errors in the written compositions based on Corder's EA (1971). They established that there were prepositional errors, errors of omission, addition, substitution and misordering. In contrast with the aforementioned study which focused on the prepositional errors by learners the current one sought to establish whether there was any similarity between the errors made by the teachers and their learners.

Katam (2016) conducted a study Eldoret West District in Uasin Gishu, Kenya, on common spelling errors made by speakers of Nandi as an L1 and use English as an L2. She argued that what exists in the L1 system is thereby shifted to the L2 and that the L1 influence led to misspelling and mis-articulation in the ESLLs' language. These errors occur due to language transfer caused by fossilized linguistic items and rules as a result of L1 which is transferred to the L2 by the SLL (Hourani, 2008). Katam (2016) shows the extent to which she explored the errors made by learners but did not investigate the possible link between teacher and learner errors which the current one sought to bridge.

Kirigia and Ombati (2015) presented a paper at the Laikipia University International Conference which examined errors in the written work of Kenyan university students' written work in English. The study used a qualitative research design and was carried out over a period of two semesters in the 2013/2014 academic year. They established the gravity of the errors which ranged from interlingual, intralingual to ambiguous types involving erroneous, wrong spelling, and poor word choice. Their research has similarities with the current study as both examined errors made by students but they differ when it comes to the similarity between errors made by student-teacher and their learners.

Error Analysis as Theory and Method

In order to analyze errors, this study employed James' (2001) Error Analysis taxonomy developed from Corder's theoretical framework (Corder, 1967). Error Analysis (EA) as explained by Corder (1967) is a method used to document the errors that appear in a learner's language, to determine whether they are systematic and to possibly explain their causes. Sheng (2016) defines EA as the process of studying the appearance, nature, causes, and consequences of unsuccessful language. According to Corder (1967), there are five procedures in EA; namely, collection of ESLL language

samples, identification and classification of errors, description of errors, explanation of errors, and evaluation of errors.

Corder (1967), Alharbi (2015) averred that mistakes are unsystematic errors while errors are systematic. Unsystematic errors or mistakes occur in one's native language while systematic ones occur in a second language. Corder (1982) categorizes errors into; omission, addition, mis-formation, mis-ordering and fossilized errors. Kusumawardhani (2017) defines Intralingual errors as those which reflect the general characteristics of rule learning, such as faulty generalization, incomplete application of rules and failure to learn the appropriate conditions for rule application, and the learner's attempt to build up hypotheses about English from their own limited experience of it.

James' (2001) Error Analysis taxonomy classifies errors into the following sub-sets; grammar (articles, prepositions, verb forms etc.), syntax (word order, phrase, and clause), phonology (pronunciation), semantics/lexicon (meaning, word choice) and orthography (capitalization, punctuation, and spelling). The current study utilized James' (2001) EA taxonomy.

Research Methodology

The study adopted the descriptive research design and was conducted on Form one and two pupils in Kericho West Sub-County secondary schools with a research population of 6000 pupils (Kericho West Sub-County Education Office, 2019). The pupils were selected as they are taught by student-teachers who were also subjects in this study. The study was conducted to assess the similarity between student-teacher language and the IL of the ESLLs. The researcher used purposive sampling to select four schools from the 32 in Kericho West which usually engage student-teachers.

The study utilized observation and recordings in class and group discussions to access participants' speech. The researcher analyzed the responses for errors, classified the major topics covered, indicated the major themes, and developed a summary report of the major themes. The researcher used direct quotations to present the data (Kombo & Tromp, 2006). The study adopted the coding system drawn by Creswell (2009) and the following themes emerged; poor tenses, poor pronunciation, and syntactical errors. The errors as illustrated further down were coded thus TSG1a or LSG1a. T or L refers to teacher or learner, SG refers to Syntactic/Grammatical that is error type, '1' refers to error number while the letter 'a' refers to the school.

Verb Tense Errors

Serial no.	Error identification	Error correction	Discussion type	School
TSG6a	*She teach at that school.	She teaches at that school.	Group	A

In this case, a teacher has made a syntactic/grammatical error which is error number six.

Results and Discussion

In this section, the researcher presents and discusses the findings of the study in light of its objective. The errors made by the participants are classified; the common errors are identified with illustrative examples; and finally, these errors are corrected by examples. Table 2 shows the types, numbers and percentages of errors made by the participants in their spoken English.

Table 2: Analysis of Errors made by Kericho West Student-Teachers and Pupils

Type of Error	Frequency of Error	Percentage (%)
Verb tense	60	20
Concord	55	18
Double marking	30	10
Preposition	72	23
Omission	20	7
Mis-ordering	25	8
L1 influence	40	13
Total	**302**	**100%**

Source: Analysis of Errors made by Kericho West Student-Teachers and Pupils (2022)

The researcher thereafter presented the seven types of errors the participants made in their spoken English.

Verb Tense Errors
Syapriza and Ramadona (2018) posit that verb tense is the verb used to indicate the time at which the action or statement occurred.

Table 3: Verb Tense Errors

S/N	Error Identification	Error Correction	Discussion Type	School
TSG6a	*She teach at that school.	She teaches at that school.	Group	A
LSG6b	*Yego call me and told me we should not go.	Yego called me and told me we should not go.	Group	B

The findings in table 3 established that verb tense errors were made by both the teacher-students and ESLLs as argued by Hayati (2019) who claimed errors in grammar and syntax established that students had not mastered the rules of English grammar. He reiterated that tense errors were found among students as they lacked sentence construction skills. Katam (2016) established that verb tense errors and deletion of –ed past tense marker errors were most likely interlingual as L1 influence led to mis-articulation. The study findings revealed that the participants were unaware of the verb tense rules and were bound to make errors.

Errors Relating to Concord/Subject-Verb Agreement
Concord refers to grammatical agreement (Kirigia & Ombati, 2015). Alahmadi (2019) reported that the main rule of agreement is that singular subjects are used with singular verb phrases while plural subjects are used with plural verb phrases.

Table 4: Concord Errors

S/N	Error Identification	Error Correction	Discussion	School
TSG1c	*We are created in God image.	We are created in God's image.	C.R.E class	C
TSG1d	*These are pronouns that ascertains the person.	These are pronouns that ascertain who the person is.	English class	D
TSG1d	*These are pronouns that refers to people.	These are pronouns that refer to people.	English class	D

The sentences in table 4 showed that the participants had not mastered the basic SVA rules. Alahmadi (2019) argued that SVA was a challenge to ESLLs which was most likely due to misapplication of rules. He also noted that in English, the mastery of grammar rules is crucial. The current study established that the SVA rules were an area of difficulty for learners even though they had been taught in class while Setiyorini et al. (2020) argued that teachers were not fully specialized in their teaching of English. They placed blame on the teachers for the ESLLs misapplication of grammar rules.

Double Marking of Linguistic Elements
Double marking is when a construction has an unnecessarily repeated item which is basically an addition error.

Table 5: Double Marking

S/N	Error Identification	Error Correction	Discussion	School
LSG2b	*He is growing more younger.	He is growing younger.	English class	B
LSG2b	*I cannot be able to help you.	I cannot help you	English lesson	B

The words 'more' and the suffix –er (younger) are elements of comparison and the student-teacher failed to observe the English rules of marking degree of comparison in sentences.

　　　The participants had errors of double marking which also indicated a failure to understand or master the grammar rules. The study findings as shown in table 5 are similar to those of Khatter (2019) who argued that students were ignorant of grammatical rules and there seemed to be a gap between the students' needs and the teachers' instructional methodology. He also proved that the teachers' methods and strategies were inadequate.

Errors Related to Prepositions
According to Setyaningrum and Fatmawaty (2020), a preposition is a part of grammar that is useful in connecting one word to another.

Table 6: Preposition Errors

S/N	Error Identification	Error Correction	Discussion	School
LSG3a	*At least the uniforms will be on use so they do not just disappear	At least the uniforms will be in use and will not just disappear	Group	A
TSG3c	*Now from what you have heard in the radio.	Now from what you have heard over the radio	Group	C

The findings in table6 established that the participants had preposition errors due to their failure to understand the correct usage of prepositions. Khatter (2019) established that preposition errors were frequent among the participants while teaching methods and strategies were inadequate. He claimed that there was a gap between student needs and teachers' instructional methodology.

Errors of Omission
Errors of omission are types of errors where the learner lacks the form of grammar that is expected to be in the sentence and omits or deletes it. Hikmah (2020) argues it is the missing of some elements which should exist in a well-formed sentence construction.

Table 7: Omission Errors

S/N	Error Identification	Error Correction	Discussion Type	School
TSG4a	*I haven't seen you quite some time now.	I have not seen you for quite some time.	C.R.E class	A
TSG4c	*Bible is the sacred book.	The Bible is the sacred book.	C.R.E class	A

The study established that the participants had omission errors. Wairimu and Ngugi (2021) argue that such errors are lexical and affect the meaning of the entire sentence. They also established that omission errors among English as Foreign Language Learners (EFLLs) were common because they had neither learnt nor understood the Target Language (TL). Setiyorini et al. (2020) claimed that for learners to eliminate such errors, they needed feedback from their lecturers.

Mis-ordering Errors
Misordering errors occur when the speaker or writer puts an item in the incorrect place in a construction (Hikmah, 2020).

Table 8: Mis-Ordering Errors

S/N	Error Identification	Error Correction	Discussion Type	School
LSG5a	*We were brought for by our principal.	Our principal brought us these things.	Group	A
TSG5a	*I urge all students that let us stay calm; avoid throwing stones and hard words to various individuals.	I urge all to stay calm, avoid throwing stones and hard words at various individuals.	C.R.E class	A
TSG5d	*Why can you support that Vincent is right?	Why do you support Vincent's answer?	English class	D

Hasan and Munandar (2018) reported that misordering errors were found in the work of English department students and claimed that students who had a poor understanding of the grammar system have a difficulty in constructing correct sentences. Wairimu and Ngugi (2021) reported that errors were caused by the following; student attitude towards the TL, interlingual causes, developmental interference or teacher incompetence. They established that despite students being taught much English, they still made many grammatical errors. These errors were quite common in the work of the students and suggested that the participants had a poor understanding of grammar rules.

Katam (2016) argued that L1 influence occurs when a learners' TL is interfered with by their L1 thus causing an incorrect sentence construction.

Table 9: L1 Interference

S/N	Error Identification	Error Correction	Discussion Type	School
LSG7a	*I hope staying at home for a week took you well?	I hope staying at home for a week was good for you?	Group	A
LSG7d	*Can you put it properly?	Can you explain it properly?	Group	D

The identified errors in table 9 were most likely due to negative interlingual transfer as posited by Brown (2000). The current findings were similar to those of Calderon and Plaza (2021) who reasoned that many errors by ESLLs were interlingual as they are caused by L1 influence.

Conclusions
This study has given an account of the main errors made by pupils and student-teachers in their spoken English. The study findings based on the discussion and the illustrative examples given showed that the participants committed seven syntactic/grammatical errors namely; subject-verb agreement, double marking, preposition, omission, verb tense, misformation, misordering, and L1 influence. Wairimu and Ngugi (2021) argued that some errors were due to poor ESLL attitude, interlingual causes, teacher incompetence, and developmental causes. Some errors were as a result of L1 interference while others were due to the media the learners are exposed to. One way of emphasizing the influence of the L1 and student-teachers language on the ESLLs' learning of

English is to collect such and ask the learners to analyze them to see whether they are able to correct them. The similarity between the syntactic errors made by student-teachers and the IL of the ESLLs was quite telling as the ESLLs look up to the student teachers. Therefore, there is a relationship between the syntactic errors committed by teachers and those of the ESLLs. The current study was limited as it only investigated Form one and two pupils, and their student-teachers without venturing into other classes therefore it is not representative of the whole. The study investigated syntactic and grammatical errors made by student-teachers who are at these schools for only a school term and some might argue that this is too short to correctly gauge their impact.

A number of recommendations for further research are given. It is recommended that further research be taken to investigate the causes of the errors made by education undergraduates at their institutions. Lastly, further research should be undertaken on whether regular teachers also make syntactic and grammatical errors.

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LIST OF CONTRIBUTORS

1   **June Chebet Chelule** is a PhD student in Applied Linguistics in the Department of Literary and Communication Studies, Laikipia University, Kenya. chebetchelule@gmail.com

2   **Isaac Simiyu Juma** is an MA student in Applied Linguistics in the Department of Literary and Communication Studies, Laikipia University, Kenya. isaacjuma85@gmail.com

3   **Prof. Nicholas Kamau Goro-Kamau** is an Associate Professor of Literature in the Department of Literary and Communication Studies and Acting Deputy Vice-Chancellor, Administration, Finance and Planning at Laikipia University, Kenya. nkamau@laikipia.ac.ke

4   **Prof. Andre Louw** is a Professor of Agribusiness Management in the Department of Agricultural Economics, Extension and Rural Development, University of Pretoria, South Africa. andrelouw1950@gmail.com

5   **Dr. Evelyn Mahero** is a Senior Lecturer of Applied Linguistics in the Department of Literary and Communication Studies, Laikipia University, Kenya. emahero@laikipia.ac.ke

6   **Prof. Patience Mshenga** is a Professor of Agribusiness Management in the Department of Agricultural Economics and Agribusiness Management and also the Dean, Faculty of Agriculture at Egerton University, Kenya. pmshenga@egerton.ac.ke

7   **Prof. Robert Bisonga Mwebi** is an Associate Professor of Teacher Education in the Department of Curriculum and Education Management and also the Registrar Academic Affairs at Laikipia University, Kenya. rmwebi@laikipia.ac.ke

8   **Prof. Jacinta Ndambuki is** an Associate Professor of Applied English Language Studies in the Department of Literary and Communication Studies and Acting Deputy Vice-Chancellor, Academic, Research and Student Affairs at at Laikipia University, Kenya. jmndambuki@laikipia.ac.ke

9   **Tom Barnard Okoth Ndiewo** is a PhD student in Applied Linguistics in the Department of Literary and Communication Studies, Laikipia University, Kenya. barnardnokoth@gmail.com

10   **Dr. Nelson Ndiritu** is a Lecturer of Applied Linguistics in the Department of Literary and Communication Studies, Laikipia University, Kenya. nndiritu@laikipia.ac.ke

11   **Dr. Ben Jack Otieno Ochieng** is a lecturer in the Department of Economics, School of Business and Economics, Laikipia University, Kenya. bochieng@laikipia.ac.ke

12   **Dr. Florence Opondo** is a lecturer in the Department of Commerce, Laikipia University, Kenya. fopondo@laikipia.ac.ke

13   **Dr. Samuel O. Onyuma** is a Senior Lecturer of Business Administration in the Department of Commerce, School of Business and Economics, Laikipia University, Kenya. sonyuma@laikipia.ac.ke

14   **Prof. Vicky Khasandi Telewa** is an Associate Professor of Applied Linguistics and English Language in the Department of Literary and Communication Studies at Laikipia University, Kenya. vkhasandi@laikipia.ac.ke