

# Strategies used by Teachers to Earn Extra Income during COVID-19 Pandemic in Nandi South Sub-County, Kenya

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This study investigated the strategies used by teachers to earn extra income during the COVID-19 Pandemic in Nandi South Sub County. The study was guided by the following questions: what are the sources of extra income of teachers during COVID-19 pandemic?; what are the economic challenges faced by teachers during COVID-19 pandemic?; Is there a relationship between teachers' gender and amount of income earned from extra sources during COVID-19 pandemic?; Is there a the relationship between teachers' extra income before and during COVID-19 period? Concurrent Mixed Design was used where cross-sectional survey design was used to conduct the quantitative study and Phenomenological design was used to conduct qualitative study. The target population of the study was all the teachers in Nandi South Sub-County. Both simple random sampling and snow ball sampling techniques were used. A structured questionnaire and an interview guide were used to collect the data. A research expert was requested to examine the validity of the research instruments' results. Piloting of the instruments was also done. Test-retest method was used to test for the reliability. Descriptive statistics and inferential statistics were used to analyse quantitative data while data from the interview guide were coded into themes categories, analysed and presented in paragraphs. A total of 60 teachers participated in the study. 63.3% of the teachers were male and 36.7% were female. All the teachers who participated in the study practice farming as an extra source of income; 56.7% and 63.3% of the teachers practice cattle rearing and poultry keeping respectively; 23.3% of the teachers practice shop keeping; 20 % of the teachers do online business; 16.7% of the teachers sell groceries while 6.7% in *boda boda* business and one teacher is in business groups. The most popular extra income generating activities to teachers are; cattle rearing and poultry keeping. Insufficient finance to provide for family needs and low sales are the to be major challenges faced by teachers. From the hypotheses tested, it was established that teachers' income from extra sources is higher during Covid-19 period than before Covid-19 and that the amount of extra income earned by teachers is independent of gender. The study recommends that other teachers and members of the public maximise on the potential areas such as farming, cattle rearing and poultry keeping and they should also enrol for online businesses to widen their income. The findings of this study will advise teachers and other members of the public on the potential areas to invest, for them to earn extra income.

*Keywords:* strategies, teachers, income, COVID-19

## Introduction

The COVID-19 pandemic is an unprecedented global crisis, affecting human health and economic welfare across the globe. It is first and foremost a health crisis, with governments around the world taking measures to prevent the spread of the virus. The World Trade Organization estimates that world merchandise trade in 2020 could fall sharply, between 13% and 32%. Estimated global losses in GDP growth currently hover around 5 percent. Although the pandemic has affected every corner of the world, the economic earthquake unleashed by COVID-19 does not affect everyone in the same way. The pandemic has also resulted in a worldwide economic slowdown, affecting trade, investment, growth and employment.

Firms and institutions (including schools and private companies) take proactive measures to avoid infection. Business closures (whether through government bans or business decisions) result in lost wages for workers in many cases, especially in the informal economy where there is no paid leave.

After the confirmation of the first case on 13th March 2020, Kenya introduced various restrictions such as the entry of foreigners from countries that have confirmed coronavirus cases, working at home and closing of learning institutions. Other restrictions have since been set by 47 individual governors in their respective counties. Barely a few days into the restrictions, small-scale traders in Nairobi were already feeling the effects of coronavirus-induced hardships. Traders who were interviewed by the Standard Newspaper showed their frustration with the restrictions: “Normally by 10am, I should have made at least Ksh400. I have only made Ksh80 since morning today. People are hardly coming into the city,” (James Mulei, a shoe shiner near the Kenya National Archives, Nairobi).

## Impacts of COVID-19

Lockdown, Curfew and social distancing measures have left millions of workers jobless and without protection, particularly informal workers. Moreover, income support can stabilise economies during crises due to its positive effect on the demand for goods and services. COVID-19 has given governments around the globe the challenge of directing essential goods, such as food and medical equipment, where they are most needed to address the immediate health crisis. High demand for certain sanitary products, supply chain disruptions and logistical constraints made this difficult. This has resulted to high cost of living.

As the devastating social and economic consequences of the COVID-19 crisis become apparent, a major challenge for governments is to limit adverse longer-term effects on labour markets. During the pandemic, many emerging and developing countries are relying on income support (through social protection systems), especially cash transfers (Gentilini, Almenfi, Orton, & Dale, 2020).

Public works can raise the living standards of beneficiaries during participation, but their post-participation effects are mixed (Escudero, Kluve, Lopez Mourelo, & Pignatti, 2019). While lifting people out of poverty during participation might be the final aim of some of these programmes (e.g. public works implemented during crises), other programmes are implemented with longer-term objectives of improving workers' prospects. In these delivering income and employment support in times of COVID-19: Integrating cash transfers with active labour market policies of cases, it appears that the key to the effectiveness of public works is that they include adequate training support to sufficiently enhance participants' skills (Escudero, Mourelo, & Pignatti, 2020).

Due to the rising cost of living, the world has to tackle and address the increased demands that have accumulated on the teachers demands from feeding families to taking care of needs. “There is a high correlation between the use of other strategies to gain extra income for the teachers during

this pandemic period” (Marziano, 2020).

The world should aim at addressing the objectives of using other methods of achieving economic stability for the teachers and school workers. Teachers should therefore look for other strategies to earn extra income to support their families. These strategies may include farming and business. Furthermore, there are fewer opportunities that will arise to offer economic stimulus to teachers. These modalities will be applied further due to increased need to provide for family and elevate their economic status (Arafat, 2019).

The above economic challenges are faced by teachers too and they adopt alternative ways of earning extra income due to COVID-19 pandemic. This study therefore aimed at establishing the strategies used by teachers to earn extra income during the COVID-19 pandemic in Nandi South Sub-County.

### **Literature Review**

As the devastating social and economic consequences of the COVID-19 crisis become apparent, a major challenge for governments is to limit adverse longer-term effects on labour markets. During the pandemic, many emerging and developing countries are relying on income support (through social protection systems), especially cash transfers (Gentilini et al., 2020).

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Due to the rising cost of living, the world has to tackle and address the increased demands that have accumulated on the teachers demands from feeding families to taking care of needs. “There is a high correlation between the use of other strategies to gain extra income for the teachers during this pandemic period” (Marziano, 2020). People have therefore derived different ways of earning extra sources of income due to Covid-19 pandemic.

Covid-19 has significantly affected peoples’ business or other income generating activities in one way or another. Men have invested in so many activities as compared to women and as such face multiple COVID-19 induced income shocks. The argument agrees with that of Beland, Brodeur, and Wright (2020) who contend that the labour market impacts of COVID-19 are disproportionately greater for men than for women.

To cope up with the challenges associated to Covid-19, members of the public have formed groups and others have joined income saving associations. Various studies have also found that households in Kenya and Uganda as well as other developing countries rely on similar coping strategies to buffer the effects of unexpected income shocks (Amendah, Buigut, & Mohamed, 2014; Maweje, 2019; Opiyo, Wasonga, Nyangito, Schilling, & Munang, 2015; Yilma et al., 2014). Having children at home due to the closure of schools is more likely to exacerbate food insecurity because for some students living in poverty, schools are not only a place for learning but also for eating healthily (Van Lancker & Parolin, 2020). Thus, such children lose the benefit of free school meals where such meals are provided (Douglas, Katikireddi, Taulbut, McKee, & McCartney, 2020). When children are at home, a lot of spending is experienced and therefore cause an economic challenge. Other studies have shown high consumption of fresh produce, second to staples in Kenya, and for the low-income households, vegetables are the meal of choice, a necessity (Ayieko, Tschirley, & Mathenge, 2005).

## Statement of the Problem

The COVID-19 pandemic is an unprecedented global crisis, affecting human health and economic welfare across the globe. The pandemic has also resulted in a worldwide economic slowdown, affecting trade, investment, growth and employment. Teachers are not spared in the current crisis caused by COVID-19. Schools were shut down in March 2020 due to infection rates within the Country. Most of the government organs and departments have introduced ways of managing financial challenges facing them, majorly on salaries of employees. The Teachers' Service Commission spared teachers to continue earning their full monthly salaries and also a relief on the taxes remitted to Kenya Revenue Authority.

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The cost of living however has risen as a consequence of the Covid-19 Pandemic that has paralysed operations and hence teachers, amongst other citizens, spend huge amounts of money to sustain their families. Teachers have adopted various ways to reinforce on their financial levels and hence generate extra income to sustain their families. This study therefore investigated the strategies used by teachers to earn extra income during the Covid-19 pandemic in Nandi South Sub-County, Kenya.

## Research Questions

1. What are the sources of extra income of teachers during COVID-19 pandemic in Nandi South Sub-County?
2. What are the economic challenges faced by teachers during COVID-19 pandemic in Nandi South Sub-County?
3. Is there a difference between teachers' extra income before and during COVID-19 period?
4. Is there a relationship between teachers' gender and amount of income earned from extra sources during COVID-19 pandemic?

## Research Hypotheses

- $H_1$ : There is a difference between teachers' extra income before and after COVID-19 period.
- $H_2$ : There is a there a relationship between teachers' gender and amount of income earned from extra sources during COVID-19 pandemic.

## Theoretical Framework

This study was guided by Abraham Maslow's Hierarchy of Needs. Maslow (1943) stated that people are motivated to achieve certain needs and that some needs take precedence over others.

Maslow's hierarchy of needs is a motivational theory in psychology comprising a five-tier model of human needs, often depicted as hierarchical levels within a pyramid. Needs lower down in the hierarchy must be satisfied before individuals can attend to needs higher up. From the bottom of the hierarchy upwards, the needs are: physiological, safety, love and belonging, esteem, and self-actualization.

Every person is capable and has the desire to move up the hierarchy toward a level of self-actualization. Unfortunately, progress is often disrupted by a failure to meet lower level needs. Life experiences, including divorce and loss of a job, may cause an individual to fluctuate between levels of the hierarchy

Regarding the structure of his hierarchy, Maslow (1987) proposed that the order in the hierarchy "is

not nearly as rigid” (p. 68) as he may have implied in his earlier description.

Maslow noted that the order of needs might be flexible based on external circumstances or individual differences. For example, he notes that for some individuals, the need for self-esteem was more important than the need for love. For others, the need for creative fulfillment may supersede even the most basic needs.

Maslow (1987) also points out that most behavior is multi-motivated and noted that “any behavior tends to be determined by several or all of the basic needs simultaneously rather than by only one of them” (p. 71). Our most basic need is for physical survival, and this will be the first thing that motivates our behavior. Once that level is fulfilled the next level up is what motivates us, and so on.

Maslow observe that physiological needs are biological requirements for human survival, e.g. air, food, drink, shelter, clothing, warmth, sex, sleep. If these needs are not satisfied the human body cannot function optimally. Maslow considered physiological needs the most important as all the other needs become secondary until these needs are met. During the current COVID-19 pandemic, these needs should therefore be achieved and hence extra sources of income are necessary as the cost of living has risen. Teachers therefore opted for alternative sources of income to provide these important needs for their families.

Once an individual’s physiological needs are satisfied, the needs for security and safety become salient. People want to experience order, predictability and control in their lives. These needs can be fulfilled by the family and society (e.g. police, schools, business and medical care). Curfew hours and Ministry of health measures towards COVID-19 ensure safety of the members of the public, teachers inclusive.

For example, emotional security, financial security (e.g. employment, social welfare), law and order, freedom from fear social stability, property, health and wellbeing (e.g. safety against accidents and injury).

## **Research Design and Methodology**

This study employed Concurrent Mixed Methods Design where both quantitative and qualitative studies were conducted at the same time to determine the strategies used by teachers to earn extra income during the COVID-19 pandemic in Nandi South Sub-County. Cross-sectional survey design was used to conduct the quantitative study where teachers’ extra income before and during COVID-19 pandemic was established. Phenomenological design was used to conduct the qualitative study on sources of extra income of teachers and economic challenges faced. Quantitative study was done together with qualitative study such that the data collected was reinforced at every time during data collection, analysis and presentation. More elaboration of the findings obtained from quantitative methods could be obtained by qualitative data.

### **Target Population**

The target population of the study was all the teachers in Nandi South Sub-County.

### **Sample and Sampling Procedures**

One Location was chosen to participate in the study by simple random sampling technique out of three locations. Two sub-locations from the location were then chosen by simple random sampling technique. From the two sub-locations, a total of 60 teachers were selected using stratified random sampling technique.

### **Research Instruments**

A structured questionnaire and an interview guide were used to collect the data. The questionnaire consisted of three sections; A, B and C. Section A collected data on the demographic characteristics of the teachers; Section B collected data on the strategies used by teachers to earn extra income during COVID-19 pandemic and section C collected data on the financial monthly estimates

gained by teachers (in Kenya shillings) before and after COVID-19 pandemic.

An interview guide was also used to obtain more detailed data from five teachers on the economic challenges they face during the COVID-19 Pandemic and the strategies they use to earn extra income during the COVID-19 pandemic. It consisted of 7 questions.

### **Validity of the Research Instrument Results**

A research expert was requested to examine the validity of the research instruments' results. Pilot-ing of the instruments was done with eight teachers who were not to participate in the study, in order to examine and improve on their validity. Data and interpretations from the interview guide were taken back to teachers after the study for them to corroborate the information. This was done through formal corroboration interviews and confirmatory studies.

### **Reliability of the Instrument Results**

Test-retest method was used to test for the reliability of the research instruments' results. This involved administering the research instruments to eight teachers who didn't participate in the study. The two instruments were analysed. After ten days, the same instruments were administered to the same teachers and were analysed. The responses obtained in the two occasions were compared and the scores from the questionnaires were analysed where Pearson's product moment correlation coefficient was calculated to show the relationship between the results obtained in the test and those of the retest. The reliability coefficient of 0.73 was obtained, and hence reliable since it is greater than 0.6 according to Mugenda, (2003).

### **Data Collection Procedures**

Permission to carry out the research in the sampled Sub-Location was sought from the Chief. The respondents were informed about the reasons for the study and were requested to participate. They

were then issued with questionnaires and clear instructions were given out on how to complete them. Completed questionnaires were then collected.

Interviews were then conducted to ten teachers, purposively selected from the 30 teachers and the interview guides were completed and collected.

### **Description of Data Analysis Procedures**

Completed questionnaires and interview guides were organized and scrutinized to ensure completeness. Data from the questionnaires were fed in the computer using the statistical package for social sciences (SPSS) version 20. Data were then analyzed using both descriptive statistics and inferential statistics.

Data from the interview guides were coded into themes categories, analysed and presented in paragraphs to expound on the quantitative data obtained. Direct narrations too were obtained for some of the respondents.

For quantitative data, frequencies, means, standard deviation and percentages were calculated. Dependent samples t-test was used to test the relationship between teachers' extra income before and after Covid-19 period while independent samples t-test was used to test for the relationship between teachers' gender and amount of income earned from extra sources during Covid-19 pandemic. Data was then presented using tables.

### **Ethical Consideration**

The respondents were informed about the purpose of the research and their consent to participate in the study was also sought. They were requested to participate in the study and were assured that the information they would be treated with confidentiality. The respondents remained anonymous right from the time of data collection, analysis, interpretation and report writing. In the instruments used, the respondents were instructed not to write their names or the name of their institution in order

for them to remain anonymous. Social distancing was also observed and wearing of masks.

## Results

### Demographic Characteristics of the Respondents

Table 1 shows the number of male and female teachers who participated in the study.

Table 1  
Demographic Characteristics of the Respondents

Gender	n	%
Male	38	63.3
Female	22	36.7
Total	60	100.0

From Table 1, a total of 60 teachers participated in the study. 38 (63.3%) of the teachers were male and 22 (36.7%) were female. Table 1 indicates that more male teachers than female teachers participated in the study. It was also established that the eldest teacher who participated in the study was aged 52 years and the youngest was 23 years.

### Sources of Extra Income of Teachers during Covid-19 Pandemic in Nandi South Sub-County

Teachers were asked to list their extra sources of income during the COVID-19 pandemic. Their responses were: farming; cattle rearing; poultry keeping; shopkeeping; selling groceries; *boda-boda*, business groups and online businesses. Table 2 shows the summary of their responses.

Table 2  
*Teacher Extra Sources of Income*

Source of Income	No. of Teachers	%
Farming	60	100
Cattle rearing	34	56.7
Poultry keeping	38	63.3
shopkeeping	14	23.3
Groceries	10	16.7
<i>Boda-boda</i>	4	6.7
Business groups	2	3.3
Online business	12	20

According to Table 4.2, all the 60 teachers who participated in the study practised farming as an extra source of income. 34 (56.7%) and 38 (63.3%) of the teachers respectively practice cattle rearing and poultry keeping to earn extra income during Covid-19 pandemic. 14 teachers practised shop keeping; 10 of the teachers sell groceries with 4 in *boda boda* and two teachers participated in business groups. Twelve teachers do online business.

From these findings, the most popular income generating activity among teachers in Nandi South Sub-County was farming. Most of the teachers also practised cattle rearing and poultry keeping as shown by table 4.2. The least popular income generating activity was business groups as only one teacher among those who participated in the study practised it.

Similar sources of extra income were found out from the interview results obtained from ten teachers. They said that farming was easy to do, when probed why farming dominates among teachers. A teacher said that "I prefer farming because it is easy to do where you only plough the farm, plant, weed and harvest". This therefore explains why farming was found to be the most preferred income generating activity by all teachers. Some of the teachers (4) also noted they had gone for loans from banks to sustain their businesses.

Table 3  
*Mean Income and Standard Deviation for Teachers' Extra Income before and during Covid-19 Pandemic*

Period	Mean Income (Kshs)	SD
Before COVID-19	36,857.34	27,795.04
During COVID-19	71,467.34	60,610.24

Table 3 shows the mean monthly income for teachers from different alternative sources of income. It is evident that the mean income for teachers during COVID-19 is Kshs. 71,467.34 which is almost two times their mean income before Covid-19 which was Kshs 36857.34. This may be associated to close management done by teachers while at home for the long holiday caused by COVID-19 pandemic. The standard deviation before COVID-19 period was found to be Kshs. 27,795.04 and that of during COVID-19 period is Kshs. 60610.24. It is again noted that the standard deviation for during COVID-19 period is higher than that of before COVID-19 period.

Table 4  
*Mean Income and Standard Deviation for Male and Female Teachers*

Gender	Mean Income (Kshs)	SD
Male teachers	68,005.26	53,573.10
Female teachers	84,810.9	73,100.39

Table 4 shows the mean monthly income for teachers as per gender. It is evident that the mean income for female teachers during COVID-19 is Kshs. 84,810.90 which is higher than that of male teachers which is Kshs. 68005.26. The standard deviation of male teachers was found to be Kshs. 53,573.10 and that of female teachers is Kshs.

73,100.39. It is again noted that the standard deviation for female teachers is higher than that of male teachers.

### **Economic Challenges Faced by Teachers during COVID-19 Pandemic**

Ten teachers were interviewed on the economic challenges they face during COVID-19 pandemic. Four teachers reported that they have insufficient finances to provide the need for their families. One of them observed that "I went for a loan to supplement my salary due to COVID-19 challenges". The other teachers cited that income from salary was not enough because of large number of dependents.

For those teachers who had business as alternative source of extra income, they reported that their sales have dropped due to COVID-19 pandemic. "Most customers fear to come to shop because of fear of Corona", one teacher reported. Lack of money was also explained to be a factor to low sales made.

Some of the teachers employed by Board of Management (BOM) pointed out that their salaries were stopped and hence their capital reduced, affecting the stability of their extra income generating activities. One of them observed that "I relied on my little salary from BOM and now it has been stopped due to COVID-19 and most of my activities like farming have stopped too". One teacher also pointed out that there is overproduction of some products e.g. vegetables and hence excess supply and low demand hence low prices.

To increase on the sale of the products from farming, teachers indicated that they needed to use the social media to market their produce, advertise their businesses and also join online jobs. This enabled them expand on their income, as noted by one teacher, who invested majorly on cattle rearing. The teacher noted that "KASS FM (a local radio station) conducts a lot of training on farming and cattle rearing and has therefore assisted much on improving production in my businesses".



## Test of Hypotheses

Two null hypotheses were tested at 0.05 level of significance:

$$H_{01} : \mu_1 = \mu_2$$

There is no significant difference between mean teachers' extra income before and during COVID-19 pandemic.

$$H_{A1} : \mu_1 \neq \mu_2$$

There is a significant difference between mean teachers' extra income before and during COVID-19 pandemic.

$$H_{02} : \mu_1 = \mu_2$$

There is no significant difference between mean extra income for male teachers and mean extra income for female teachers during COVID-19 Pandemic.

$$H_{A2} : \mu_1 \neq \mu_2$$

There is a significant difference between mean extra income for male teachers and mean extra income for female teachers during COVID-19 Pandemic.

### Null hypothesis 1

$H_{01}$ : There is no significant difference between mean teachers' extra income before and during COVID-19 pandemic

$H_{11}$ : There is a significant difference between mean teachers' extra income before and during COVID-19 pandemic

Table 3 shows Means, standard deviation, paired samples t-statistic results for teachers' extra income before and during COVID-19 pandemic.

Table 5  
*Mean Income, Standard Deviation, Paired Samples, and T-Statistic Results for Teachers' Extra Income Before and During COVID-19 Pandemic*

Period	Mean Income (Kshs)	SD	T
Before COVID-19	18428.67	27,795.04	0.035
During COVID-19	36857.34	60,610.24	

$$p = 0.05$$

From Table 5, the calculated value of t (0.035) is less than p-value (0.05), therefore we reject the null hypothesis  $H_{01}$  and conclude that there is a significant difference between mean teacher extra income before and during COVID-19 pandemic.

This finding indicates that there is a relationship between teacher extra income before and during COVID-19 period. When teachers were interviewed, they argued that they now have adequate time to manage and coordinate their income generating activities. This is also noted from table 5 that the mean income for teachers during COVID-19 period is higher than the mean income before COVID-19 pandemic.

### Null hypothesis 2

$H_{02}$ : There is no significant difference between mean extra income for male and female teachers during COVID-19 Pandemic.

$H_{12}$ : There is a significant difference between mean extra income for male and female teachers during COVID-19 Pandemic.

Table 6  
**Mean Income, Standard Deviation, Independent Samples T-test for Relationship Between Teachers' Gender and Extra Income Earned**

Gender	Mean Income (Kshs)	SD	T
Male teachers	68,005.26	53,573.10	0.72
Female teachers	84,810.9	73,100.39	

$p = 0.05$

From Table 6, the calculated value of  $t$  (0.72) is greater than  $p$ -value (0.05) therefore we do not reject the null hypothesis  $H_{02}$  and conclude that there is no significant difference between mean extra income for male and female teachers during COVID-19 Pandemic. This indicates that there is no relationship between teachers' gender and amount of income earned from extra sources during COVID-19 pandemic. It means that extra income of a teacher is independent of gender.

### Discussion Based on the Findings

This study intended to answer four research questions. The first research question sought to establish the sources of extra income of teachers during COVID-19 pandemic in Nandi South Sub-County. Farming; cattle rearing; poultry keeping; shopkeeping; selling groceries; *boda-boda*, business groups and online businesses were found to be the extra income generating activities that teachers are practising during the COVID-19 pandemic. All the 60 teachers who participated in the study practised farming as an extra source of income. 34 (56.7%) and 38 (63.3%) of the teachers respectively practice cattle rearing and poultry keeping to earn extra income during COVID-19 pandemic. 14 teachers practised shop keeping; 10 of the teachers sell groceries with 4 in *boda-boda* and two teachers participated in business groups. Twelve teachers do online business; this is another potential area

yet to be utilised by teachers.

The second research question sought to collect information on the economic challenges faced by teachers during COVID-19 pandemic in Nandi South Sub-County and through the interviews conducted with ten teachers, on the economic challenges they faced during COVID-19 pandemic, it was noted among most teachers that insufficient finances to provide the needs for their families was a major challenge. They cited that income from salary was not enough because of large number of dependents. Those teachers who had businesses as alternative source of extra income reported that their sales have dropped due to COVID-19 pandemic. Lack of enough money was also explained to be a factor to low sales made. A teacher also pointed out that there was overproduction of some products like vegetables and hence excess supply and low demand hence low prices. To increase on the sale of the products from farming, teachers indicated that they needed to use the social media to market their produce, advertise their business and also join online jobs.

The third research question sought to determine the relationship between teachers' extra income before and during COVID-19 period. From the hypotheses tested, it was established that there is a significant difference between mean teachers' extra income before and during COVID-19 pandemic. Income earned by teachers during COVID-19 was higher than the income earned before COVID-19. Teachers are able to manage and expand their income generating activities (as noted during interviews) and hence this is associated to the rise in their extra income during COVID-19 period.

The fourth research question sought to determine the relationship between teachers' gender and amount of income earned from extra sources during COVID-19 pandemic. From the hypothesis tested, it was established that there is no significant difference between mean extra income for male and female teachers during COVID-19 Pandemic. It means that extra income of a teacher is

not influenced by gender, though there was a difference in mean income for male teachers and female teachers from the descriptive statistics. Mean male income was found to be Kshs. 34,002.63 and mean female income was Kshs. 42,405.45. The hypothesis tested indicated that this difference in mean income scores is not statistically significant. We can therefore note that mean income for teachers during COVID-19 is independent of gender.

### Conclusions based on the findings

Based on the findings of this study, the most popular extra income generating activity to teachers was farming since all teachers practice. Cattle rearing and poultry keeping were also practised by majority of the teachers where 56.7% and 63.3% of the teachers practice them respectively. These three activities are therefore the major income generating activities among most teachers. Online business is among the least attractive income generating activity to teachers and yet there is a potential in it.

Insufficient finances; low sales and overproduction of some products like vegetables were noted to be the economic challenges faced by teachers during COVID-19 pandemic. These challenges have therefore affected teachers' extra income generating activities.

There is a relationship between teachers' extra income before and after COVID-19 period. Teachers' income from extra sources is higher during COVID-19 period than before COVID-19. This is because teachers can be able to manage their income generating activities closely, despite the challenges they undergo and hence the quality and quantity of their products have improved.

There is no relationship between teachers' gender and amount of income earned from extra sources during COVID-19 pandemic. The amount of extra income earned by teachers is independent of gender. As noted from the study, the mean incomes for male and female teachers do not differ significantly. This indicates that both genders of teachers earn the same income from extra sources.

Based on the findings of this study, the most popular extra income generating activity to teachers was farming since all teachers practice. Cattle rearing and poultry keeping were also practised by majority of the teachers.

Insufficient finances; low sales and overproduction of some products e.g. vegetables were noted to be the economic challenges faced by teachers during COVID-19 pandemic.

Teacher income was found to be higher during COVID-19 period than before COVID-19. The amount amount of extra income earned by teachers was not affected by gender.

### Recommendations

On the basis of the findings and conclusion of this study, the following recommendations are made:

1. Teachers and members of the public should maximise on their potential areas such as farming, cattle rearing and poultry keeping. This will enable them to cater for all the need of their families and also widen their sources of income.
2. Teachers should enrol for online business, more so in online investments which pay them weekly dividends, based at their amount invested. This will enable them to generate extra sources of income and widen their knowledge on technology (Electronic Commerce and Cloud Computing). They are also able to trade their products electronically and learn better ways of improving on their production and quality of their products.

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