

Impact of Covid-19 on Labor Markets in Nzoia River Basin, Kenya

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Abstract: Nzoia River Basin lies entirely within Kenya along the border with Uganda in the Lake Victoria Basin, and has a population of about 3.7 million people that is rapidly growing and require jobs to earn a livelihood. The urgent measures taken by Governments around the world to curb the rapid spread of COVID-19 has resulted into shortened working hours, furloughs, and work-from-home plans, all of which have had a direct effect on labor markets. The purpose of this study was to investigate the impact of COVID-19 on labor markets in Nzoia River Basin, Kenya. A cross-sectional research design was used. Three counties were randomly selected from the basin for study with Busia representing the lower catchment, Kakamega middle catchment and Trans Nzoia upper catchment. This study used in-depth expert interviews coupled with brainstorming sessions with selected stakeholders from national and county governments, private sector, academia and scientists, field observations, recently published literature and industry experiences to investigate the impact of COVID-19 on labor markets in Nzoia River Basin. The data were analyzed using descriptive statistics. The findings of this study reveal that COVID-19 has had a major impact on labor markets within Nzoia River Basin and the impact on Kenya's economy since the first case was reported on 13 March 2020 has been severe on all sectors. Different types of workers have been differentially impacted by the pandemic. There is need to develop new skills for workers in a number of sectors in the areas of emotional intelligence, virtual skills, teamwork, autonomous working, thinking skills, technical skills, creativity and effective communication. The very highly preferred mode of delivering services by organizations in the basin is normal program, followed by flexible schedules as highly preferred, mixed (working from home/telecommuting/teleworking/remote work and flexible schedules) was of medium preference and working from home/telecommuting/teleworking/remote work showed low preference. Despite a number of organizations wanting to adopt working from home/telecommuting/teleworking/remote work as the mode of delivering services, they were faced with a lot of difficulties that prevented them from taking off. Ability to digital technologies and computers, adaptation to emerging modes of communication and communication tools, operating in the same room as other family members, and the length of work schedule are among the crucial challenges faced. This study contributes to the rapidly growing body of knowledge about the COVID-19 pandemic and its effects on labor markets, paving the way for further future studies. The results of this study are crucial for national and county governments, the private sector, and higher education institutions, as they can be used to establish training plans for the evolving labor markets that will arise during and after the COVID-19 pandemic. Such training programs would aid in maintaining our labor force and, as a result, reducing the pandemic's negative effects.

Keywords: Nzoia River Basin, COVID-19, Labor markets.

I. INTRODUCTION

Many countries' lockdown and social distancing steps to combat COVID-19's spread since it was first reported on December 12, 2019 in Wuhan, China, have had a significant effect on jobs, including reduced working hours, furloughs, and work-from-home arrangements (Gupta et al. 2020). Working families were impacted in two ways by the global public health crisis. On the one side, government mobility limits and voluntary travel restrictions for health and safety reasons forced millions of employees to work from home (Yasenov 2020). On the other hand, the economic downturn caused many firms to downsize or go out of business, resulting in many workers working less hours, for less pay, or losing their jobs altogether (Gupta et al. 2020). By analyzing the effect of COVID-19 on labor markets in Kenya's Nzoia River Basin, this study fills existing information gaps. The study looks at how COVID-19 has impacted labor markets in Nzoia River Basin; how the pandemic has affected various types of employees; the sectors most affected by the pandemic; the new skills needed for workers during and after the pandemic; sectors needing new skills; training programs required for workers during and after the pandemic; working from home/telecommuting/teleworking/remote work and its advantages and disadvantages for both the employee and the employer organizations.

Beland et al. (2020) looked at the short-term effects of COVID-19 on jobs and salaries in the United States and found that the pandemic increased unemployment, reduced hours worked and labor force participation, but had no significant impact on wages. Men, younger workers, Hispanics, and workers with less qualifications have more negative effects on labor market results, suggesting that the COVID-19 crisis is rising labor market disparities. They discovered that, in comparison to occupations that can be done remotely, occupations that depend on physical proximity to others are the ones that are being impacted the most economically. Women, non-natives, those with non-standard contracts (self-employed and temporary workers), the lower educated, those employed in micro-sized workplaces, and low-wage workers are the segments of the workforce most likely to be impacted by social distancing measures and practices as a result of the COVID-19 pandemic, according to Pouliakas and Branka (2020) and Fana et al. (2020). Using data from France, Barrot et al. (2020) found that the decrease in jobs induced by social

distancing measures is greatest in hotel and restaurant services, arts and recreation, agriculture, service operations, food, wholesale and retail, and construction, and lowest in computer services, telecommunications, and consulting, as well as scientific and technical activities.

Using the most recent available labor force survey data from the Current Population Survey, the primary source of labor statistics for the United States, the authors of several papers examine the heterogeneous impacts observed in the early stages of the COVID-19 pandemic in different occupations and workers. The only notable exception is caretakers and building cleaners, whose jobs increased significantly between mid-February and mid-March 2020, suggesting that the early stages of the pandemic had a disproportionately negative effect on employment and hours in lower-paid occupations. In the United States, employees who were working in lower-paying jobs in mid-February 2020 were disproportionately less in employment in less than two months, relative to workers in higher-paying occupations, according to a key research result (Guido, 2020). Households limit the spread of disease by decreasing consumption, reducing working hours, and concentrating on working from home, according to studies of an economy's response to an unforeseen outbreak. Working from home is subject to learning by doing, according to recent studies, which is doubled by the restricted health system's capability (Jones, 2020). A key finding of the labor market study performed during the COVID-19 pandemic is that, unlike recent US recessions where job losses were much higher for men than for women, during COVID-19 pandemic unemployment is higher for women (Desson, et al, 2020). The causes and effects of this phenomenon are that women have lost more jobs, both as a result of the concentration of employment in severely affected industries, such as restaurants, and as a result of the increased demand for childcare, which was triggered by the closing of schools and kindergartens, preventing many women from working (Alon, et al, 2020).

A research conducted in Israel exposed gender disparity in the labor market during the pandemic. According to the study, the coronavirus outbreak has not leveled gender inequality. The economic crisis following the coronavirus outbreak has impacted women even more significantly than men, with more women losing employment than men, resulting in a substantial rise in income gaps between men and women. As a result, the economic downturn during the COVID-19 pandemic has had a negative impact on women's labor market attachment, both in terms of total jobs and working time (Kristal, et al, 2020).

According to the previous literature review, various studies have been performed all over the world to assess the effect of COVID-19 on the labor market; however, the majority of these studies are context-specific, illustrating the need for similar studies in an area like Nzoia River Basin with a rapidly growing young population in need of employment. The COVID-19 pandemic has caused severe problems for the workers in the basin. The effect of COVID-19 pandemic on

labor markets in Nzoia River Basin is investigated in this report, as labor market stabilization is expected to play a critical role in the basin's economic growth during and after the pandemic.

II. MATERIALS AND METHODS

2.1 Study area

Nzoia River Basin is situated in Western Kenya between latitudes 1° 30' N and 0° 05' S and longitudes 34° E and 35° 45' E. It occupies an area of 12,959 km² and has a river length of 334 km before it empties into Lake Victoria (Figure. 1). The population of the region is estimated to be about 3.7 million people, with the majority of people residing in rural areas. The basin covers the nine counties of Elgeyo/Marakwet, West Pokot, Trans Nzoia, Uasin Gishu and Nandi (in former Rift Valley province); Kakamega, Bungoma and Busia (in former Western province) and Siaya (in former Nyanza province).

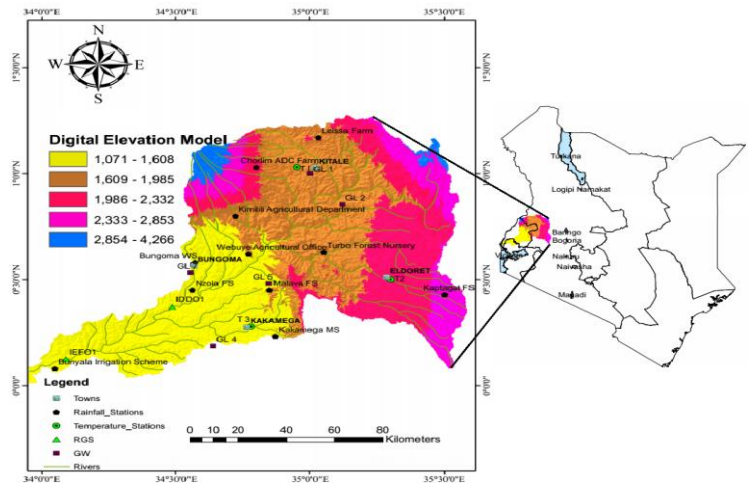


Figure. 1: Map of Nzoia River Basin, Kenya

(Source: Researcher, 2021)

The basin is divided into three physiographic regions: the highlands (which include Mt. Elgon and the Cherangani hills), the upper plateau (which includes Eldoret and Kitale), and the lowlands (which includes Busia that experiences the majority of flooding in the basin). The Eldoret and Kitale plains have rolling hills and lowlands as their dominant topography. Nzoia River is one of Western Kenya's main rivers, draining into Lake Victoria and adding to the waters that feed the Nile River (Odwor, et.al 2018).

The climate of Nzoia River Basin is tropical humid, although it varies from county to county due to the basin's varied landscape and elevations. Due to the Inter-Tropical Convergence Zone (ITCZ), the area experiences four seasons; however, the local relief and influences of Lake Victoria change the daily weather patterns. There are two rainy seasons and two dry seasons, namely, short rains (October to December) and the long rains (March to May). The dry seasons occur in the months of January to February and June to September. The mean monthly rainfall in the basin for the

period 1970 to 2001 varies from about 16.26 mm in January and December (Chorlim ADC. Farm) to about 300.79 mm in April (Kaimos Tea Estate).

The basin experiences lowest monthly maximum temperatures occurring in July at 16.1 °C (Eldoret), minimum temperatures in January, July and September at 10.0 °C (Eldoret) and mean temperatures in July at 16.1 °C (Eldoret) whereas the highest monthly temperatures in the basin for the maximum occurs in February and March at 29.5 °C (Kakamega), minimum in April at 15.1 °C (Kakamega) and mean in March at 22.0 °C (Kakamega). Temperature trends in the basin are linked to altitude since the lowest temperatures are found at highest altitudes and highest temperatures at lowest altitudes.

Agriculture is the region's dominant land use, and the basin's agricultural activities are largely reliant on rainfall, as most of the crops are rain-fed and irrigation is used sparingly. Maize, sorghum, millet, bananas, groundnuts, beans, potatoes, and cassava are the main food crops grown, while cash crops include coffee, sugar cane, tea, wheat, rice, sunflower, and horticultural crops. In addition to conventional livestock keeping, the residents of the basin practice dairy farming. Water is supplied by Nzoia River and its many tributaries for domestic use, irrigation, industry, and commerce. Nzoia River Basin has the soil type textures forming: clay (77%), loamy (9%) and sandy (14%). In the basin, the Ferralsol form well drained soils found mostly on level to undulating land. The Acrisols in the basin form clay-rich soils associated with humid tropical climates and supports forestry; whereas Nitisols compose deep well drained red tropical soils found mostly in the highlands occupying more than 75% of the catchment.

2.2. Methodology

The aim of this study was to see how COVID -19 affected labor markets in Kenya's Nzoia River Basin. The analysis was performed using a qualitative research approach. To explore the effect of COVID-19 on labor markets in the basin, the study used in-depth expert interviews coupled with brainstorming sessions with selected stakeholders from national and county governments, private sector, academia and scientists, field observations, recently published literature and industry experiences. After conducting 26 NO. in-depth expert interviews coupled with brainstorming sessions, transcriptions of the data recordings were followed by data analysis, interpretation, results, discussions, conclusions and recommendations. The selection of experts was based on purposive sampling. The interviewees were selected based on their personality traits. According to Corbin and Strauss (2008), the approach used to perform research is determined by the research questions. We can "discover rather than measure variables" with qualitative analysis (Corbin and Strauss, 2008). In-depth expert interviews are a valid method for some studies, particularly in the exploratory process, since they provide an effective and focused way to collect data and obtain good results quickly (Bogner, Littig, & Menz, 2009).

“An expert is defined as a person who possess technical, interpretative and process knowledge in a specific competence field” (Bogner, Littig and Menz, 2009). “Experts have not only systematic and organized knowledge, but also experience” (Mergel, Edelmann and Haug, 2019). “An expert has relevant knowledge about processes, decisions, behavior, as well as access to information, and they have ability to solve problems in their field of expertise. Researchers suggest the criteria for assessment of the competences of an expert as: education and skills, position, work experience in the field of research topic and the level of public recognition” (Libakova and Sertakova, 2015).

2.2.1 Sampling

Both the study questions and the availability of experts influence the number of interviewees (Baker and Edwards, 2012). According to Guest, Bunce & Johnson (2006), “the size of purposive sampling as the widely applied method of non-probability sampling depends on the saturation concept” (Guest, Bunce, & Johnson, 2006). “As soon as saturation has been reached, data collection should stop” (Glaser & Strauss, 1967). Sampling in expert interviews should be kept as long as the knowledge of the issue is increasing, and stop when there are no new insights gained (Cooper & Schindler, 2014). In total, 26 experts were sampled under this study. The experience and insight of the experts allowed gathering of primary data from various backgrounds and experience in order to study the impact of COVID-19 on the labor markets in Nzoia River Basin, Kenya. Participants were assured of confidentiality and the interviews were pre-scheduled. The semi-structured interviews followed a similar outline that allows comparison of data, and keeping the interview within research topic boundaries; all questions were open. At the end of the interview, the last question was about their additional comments or viewpoints they thought it could be important to the study.

2.2.2 Data Analysis

The data gathered from expert interviews was interpreted and evaluated using a qualitative content analysis method. “The systematic analysis includes concepts, themes, and categories derived from the data, which are then discussed” (Silverman, 2000). “The thematic parts and passages with similar elements need to be noticed” (Bogner, Littig & Menz, 2009). “Additionally, the data were grouped and labeled by category; relevant themes to the research questions were determined to make connections” (Flick, 2014). “Thus, themes, issues, categories were identified, patterns were discovered in the content, and were labeled appropriately. Then, data were sorted according to similar themes and sub-themes as well as conflicting points of view. Thematically similar passages from different expert interviews were put together” as described by Bogner, Littig and Menz (2009) to further conceptualize and reveal the commonly shared expert opinions.

III. RESULTS AND DISCUSSION

COVID-19 is a public health emergency as well as a global economic challenge. Employees and employers have faced a series of problems as a result of the business and industries shutdowns that became common around the world as a measure to stop the rapid spread of the virus. Organizationally, the economic shutdowns and policy shifts are likely to radically alter some businesses and intensify developments that were already underway in others, as well as generate openings for new industry undertakings to develop, as is usual during wars and natural disasters (e.g., Sine & David, 2003). Although effective vaccinations and therapeutic therapies are being developed to reduce COVID-19's direct effects, human history is littered with examples of pathogenic microbes wreaking long-term havoc on populations and workplaces (Diamond, 1998). The Black Death of 1347-1352 killed over 75 million people worldwide, wreaking havoc on many cities but spared rural populations with fewer deaths. As a result of the decrease in available labor, agricultural wages increased. A strain of flu killed an estimated 50 million people worldwide between 1918 and 1920, many of them adults between the ages of 20 and 50. As a result, many nations had to implement programs to improve health and working conditions, such as universal health care in Europe or employer-based insurance plans in the United States. "More generally, the financial and health impacts of infectious disease have been linked to tighter cultural norms and practices" (Gelfand, 2019), "political conservatism and xenophobia" (Ji, Tybur, & Van Vugt, 2019), and "more directive workplace leadership" (Van Vugt, Hogan, & Kaiser, 2008). When considering other recent structural shocks, such as the September 11, 2001, attacks in the United States, it is also understood that such shocks will result in long-term global changes in surveillance, defense, and privacy practices and attitudes.

Given the economic crises that many countries are experiencing as a result of the COVID-19 pandemic, major labor market consequences are expected. Employment losses, reduced incomes, and increased poverty are expected under impending recession. Direct results, on the other hand, may have other short and medium-term consequences that can be just as painful in the long run. For instance, job losses affect future earnings due to interruptions, lost productivity, de-skilling associated with prolonged unemployment spells, and missed opportunities to build human capital on the job. Past crises led to earning declines that persisted for several years. This study aims at investigating the impact of COVID-19 on labor markets in Nzoia River Basin. The study investigates how COVID-19 has impacted labor markets in Nzoia River Basin; sectors of the economy most affected by COVID-19; how different types of workers have been impacted by the pandemic; new skills required for workers during and after the COVID-19 pandemic; sectors requiring new skills during and after the pandemic; training programs required for workers new skills during and after the pandemic; working from home/telecommuting/teleworking/remote work and its

advantages and disadvantages for both the employee and employer organizations.

IV. IMPACT OF COVID-19 ON LABOR MARKETS IN NZOIA RIVER BASIN

The government of Kenya's initiatives to combat the spread of COVID-19 are triggering job losses for both casual workers in the informal sector and daily wage earners in the formal sector, both of which employ a large number of women (ILO, 2020). Many jobs have become redundant as a result of curfews and restricted travel, resulting in loss of livelihoods for many people. Workers who are already poor and cannot afford to save for the future face a high risk of slipping into poverty, and will face much greater difficulties in regaining their livelihoods after the epidemic. According to a survey conducted by the Kenya National Bureau of Statistics (KNBS) in May 2020, the country's labor participation rate has substantially decreased as a result of the pandemic. According to World Bank statistics, Kenya had a 75 percent labor force participation rate in 2019, but this rate had fallen to just 56.8% in April 2020 (GOK/KNBS, 2020). According to the KNBS report, the number of people working, whether informal or formal, has dropped to 65.3 percent for men and 48.8 percent for women. Employment reductions in both the informal and formal sectors have contributed to the decrease. The virus has disrupted revenue flows and reduced supply and demand for goods and services, forcing businesses to employ various coping strategies in order to remain afloat. Employers have been forced to reduce their workforces, provide unpaid time off, or make temporary layoffs. The virus has also affected workflow as a result of curfews and conditions for people to stay at home, according to the KNBS report. In almost every sector of the economy, the total number of hours of work available each week for workers has decreased dramatically. This has had a particularly negative effect on the education sector and the hotel industry, resulting in lower revenues and job losses.

V. SECTORS OF THE ECONOMY MOST AFFECTED BY COVID-19 PANDEMIC

Based on the sector classification of the International Labor Organization (ILO), International Standard Industrial Classification of All Economic Activities (ISIC) (2), [ISIC Revision 4, divided into 21 Sections, titles and codes] (Castillo, 2011), as: (1) Agriculture, forestry and fisheries; (2) Mining and quarrying; (3) Manufacturing; (4) Electricity, gas, steam and air conditioning supply; (5) Water supply; sewerage, waste management and remediation activities; (6) Construction; (7) Wholesale and retail trade; repair of motor vehicles and motorcycles; (8) Transportation and storage; (9) Accommodation and food service activities; (10) Information and communication; (11) Financial and insurance activities; (12) Real estate activities; (13) Professional, scientific and technical activities; (14) Administrative and support service activities; (15) Public administration and defence, compulsory social security; (16) Education; (17) Human health and social

work activities; (18) Arts, entertainment and recreation; (19) Other service activities; (20) Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use; (21) Activities of extraterritorial organizations and bodies: this study established and examined the sectors of the economy most affected by COVID-19 pandemic. The economic impact of the COVID-19 pandemic on Kenya's economy since the first case was reported on 13 March 2020 has been severe on all sectors. The Government of Kenya introduced several mitigating measures to assist in controlling the rapid spread of the virus. These measures included: "All international flights being suspended from 25 March 2020 with the exception of cargo flights; All arriving passengers in Kenya after 25 March had to be subjected to mandatory 14 days quarantine at their own costs; All persons violating the self quarantine rule were to be forcefully quarantined for 14 days at their own cost and later arrested in line with the Public Health Act; The Government enforced a dusk to dawn curfew that took effect on the 27 March 2020 requiring all residents to be indoors between 7pm and 5am. Only Police Officers, Medical Professionals, Health Workers, Critical and Essential personnel were allowed outside during the curfew hours; All bars were to remain closed. Restaurant were to remain operational to provide take away meals; All churches, mosques, funerals and other social gatherings were suspended. Funerals were restricted to immediate family members only; All learning institutions were closed; All Public Service Vehicles were directed to limit the number of passengers carried to half the vehicles capacity; Mandatory requirement to wear masks while in public places were enforced; The Government banned all movement by road, rail or air in and out of the following counties for 21 days; Nairobi metropolitan (with effect from 6 April 2020), Mombasa, Kilifi and Kwale counties (with effect from 8 April 2020). Movement was also banned in and out of Eastleigh area and Old Town area in Mombasa with effect from 06 May 2020 for 15 days. All markets and eateries were ordered to shut down within those two areas; The government reopened eateries as from 01 May 2020. All eateries were to obtain certification to reopen from public health offices after meeting the guidelines provided by the Health Ministry. These directives impacted the labor markets in various sectors of the economy within Nzoia River Basin and the whole country at large" (GOK-MOH, 2020).

Kenya's revenue collections fell by USD 658 million in the final three months of the fiscal year 2019/20. The overall import value dropped by 3.1 percent (USD 545 million), with Chinese imports dropping by 36.6 percent. Export revenue was forecast to drop by at least 25% (USD 1.5 billion). Owing to hotel closures and global aviation shutdowns, tourism and transport, which employs around 1.6 million people (or 8.5 percent of the workforce), has been severely harmed. The Kenyan shilling has remained under pressure as a result of lower forex earnings, mostly due to lower exports. The flower industry was losing around KES 250 million per day and was expected to lose half of its value (KES 60 billion) by the end

of 2020. In the flower sector, about 30,000 temporary workers were laid off, with another 40,000 permanent employees being placed on unpaid leave (GOK- CBK, 2020).

In 2019, agriculture accounted for 32.4 percent of Kenya's GDP. In 2020, a locust swarm that harmed domestic agricultural production slowed agricultural development. Furthermore, the COVID-19 pandemic undermined growth prospects for main trading partners in North America and Europe, limiting demand for Kenya's coffee and horticultural exports in the short term. Exporters were shipping only 25% to 30% of their usual output, resulting in limited activity in the vegetable and fruit markets. Kenyan flower exports dropped by more than half, indicating that demand was on the decline (GOK EIU, 2020).

Kenya's tourism industry performed better in 2019, thanks to increased aviation, investor confidence, and the lifting of travel advisories. The number of international visitors increased by 1.2 percent from 2 million in 2018 to 2.1 million in 2019. Tourism earnings increased by 3.9 percent from KES 157.4 billion in 2018 to KES 163.6 billion in 2019. As a result, the sector contributed about 8.8% of Kenya's GDP and over 1.1 million jobs to the Kenyan economy during the same period. Due to the COVID-19 pandemic, both foreign and domestic leisure and conference tourism are at risk of collapsing due to travel restrictions that have completely halted international tourist arrivals, while social distancing policies have harmed domestic tourism and conferencing. Reduced tourist arrivals would hinder consumption of various goods and services, as well as the incomes of workers in related industries, due to the tourism sector's close links to the rest of the economy. Kenya's government has set aside KES 500 million to assist in the recovery of the tourism sector following the coronavirus pandemic (GOK- CBK, 2020).

Manufacturing is one of the Kenyan government's Big Four Agenda items, and it is therefore crucial for the country's economic growth and development. In 2019, the manufacturing sector contributed around 7.7% of Kenya's GDP. The COVID-19 pandemic would have a mixed effect on the industry, with some subsectors expected to increase production to meet critical goods demand, while others will see demand and production activity decline. Manufacturing of food and health goods is likely to remain afloat. Food processing will benefit from the expected expansion in manufacturing of essential medical and protective equipment to deal with the unfolding pandemic, while health product manufacturing will benefit from the expected expansion in manufacturing of essential medical and protective equipment to deal with the unfolding pandemic (GOK- CBK, 2020).

The construction and real estate sectors together account for about 12.4 percent of Kenya's GDP (USD 11.3 billion). Shorter working hours, a decrease in building materials due to supply disruptions, and lower housing demand are among the main disruptions in these industries. As the government gathers funds to combat the scourge and respond to

emergency measures, the public housing project will be affected. Further implications for the building and real estate industries include a decrease in project funding, as lenders are reluctant to fund construction projects due to the uncertainty surrounding project completion. Government infrastructure programs are also projected to stall as a result of a USD 658 million revenue deficit and increased spending on the health sector to fight the virus. In 2020-2021, financial uncertainty is projected to dampen demand for homes in the real estate market. Since real estate purchases are often characterized by speculation, most investors are already counting their losses as the COVID-19 pandemic restricts credit availability. Since housing is one of Kenya's Big Four Agenda items, the government is expected to provide critical assistance during the pandemic (GOK EIU, 2020).

As a measure against the deadly COVID-19 pandemic, the Kenyan government temporarily halted all international flights beginning March 25, 2020. As a result, Kenya Airways (KQ) applied for a government bailout to prevent bankruptcy as its planes were grounded and revenue sources were cut off. The airline sent most of its staff home on unpaid leave as of April 1, 2020, as a result of the suspension of international flights, with the management team receiving a 75 percent pay cut and the CEO receiving an 80 percent pay cut. For three months (January to March 2020), the airline had 3.5 million fewer passengers, resulting in a revenue loss of USD 0.73 billion, putting 193,300 jobs at risk and contributing USD 1.6 billion to Kenya's economy. In the economy, one worker in the airline transportation industry funds approximately another 24 jobs. As a result, a deterioration of the airline aviation sector will result in major losses in other industries (GOK-KBS, 2020).

The stock market was Kenya's first significant economic effect as a result of COVID-19. On 13 March 2020, the first day a COVID-19 case was announced in the country, trading at the Nairobi Securities Exchange (NSE) was halted after the NSE 20 index fell more than 5%, with stocks such as Safaricom and KCB falling by 5.4 percent and 7.0 percent, respectively. Owing to market volatility, most investors have been net selling since the outbreak of the pandemic, with the preferred option of buying fixed income securities (GOK EIU, 2020).

VI. HOW COVID-19 PANDEMIC HAS IMPACTED DIFFERENT TYPES OF WORKERS

The study established that different types of workers have been differentially impacted by the COVID-19 pandemic in the basin. Table-1 shows the effect of COVID-19 on different types of workers in Nzoia River Basin, Kenya.

Table 1: Effect of COVID-19 on different types of workers in Nzoia River Basin, Kenya

Type of workers	Score	Ranking
University graduates with added training on specialised skills	5	Very High
University graduates	4	High

Diploma and Certificate college graduates with added training on specialised skills	4	High
Diploma and Certificate college graduates	3	Moderate
Artisans	2	Low
Casual workers	1	Very Low

Source: Researcher (2021).

The study identified and grouped different types of workers in Nzoia Basin as follows: (1) University graduates with added training on specialised skills; (2) University graduate; (3) Diploma and Certificate college graduates with added training on specialised skills; (4) Diploma and Certificate college graduates, (5) Artisans; (6) Casual workers. A group of carefully selected stakeholders consisting of employees and employers from national and county governments, private sector, academia and scientists deliberated on how different types of workers in cartegories 1 to 4 have been differentially impacted by the COVID-19 crisis and agreed on a simplified scoring tool to asses the workers ability to cope with the disequilibria brought to the labor market by the COVID-19 pandemic. The scoring scale was anchored at 1 (lowest score) and 4 (highest score) based on ability to cope with the disequilibria brought to the labor market by COVID-19 pandemic. The scoring scale had: 1- Very low; 2- Low; 3- Moderate; 4- High; 5- Very High ability to cope with the disequilibria brought to the labor market by COVID-19 pandemic. During scoring, the outcome on each Type of workers ability to cope with the disequilibria brought to the labor market by COVID-19 pandemic were heavily evaluated before reaching a consensus on the score. The results indicate that University graduates with added training on specialised skills had a very high ability to cope with the disequilibria brought to the labor market by COVID-19 pandemic; followed by University graduates and Diploma and Certificate college graduates with added training on specialised skills who showed a High ability to cope with the disequilibria brought to the labor market by COVID-19 pandemic. Diploma and Certificate college graduates had a Moderate ability to cope. Artisans and Casual workers reflected low and very low abilities to cope with the disequilibria brought to the labor market by COVID-19 pandemic respectively.

Employment losses, reduced wages, and increased poverty resulted from the imminent recession brought by the COVID-19 pandemic. Interruptions, decreased productivity, de-skilling associated with extended unemployment periods, and missed opportunities to develop human resources on the job all have an effect on potential earnings. According to human capital theory, higher education develops cognitive abilities, which in turn improves labor market results including productivity and earnings. Since they can adapt to evolving employer demands and emerging technology, educated employees are better able to deal with the disequilibria caused by events such as economic crises. Furthermore, trained employees are better able to access job details from relatives, colleagues, ads, past employers, radio, and the labor bureau.

The rates of return on education are described as the difference in price between highly and less educated employees. During periods of crisis, wages for those with less education may fall due to higher unemployment rates among the less educated. This results in a pool of unemployed less-educated employees, which has a negative impact on their incomes. During emergencies, the rate of return to higher education increases if university graduates' earnings remain constant or adjust just slightly. In addition, more skilled employees can more easily find other jobs to supplement their income. During a recession, less trained employees are more likely to take lower-paying positions, while more advantaged graduates will migrate to better jobs more quickly. Employers can be unable to fire trained employees because they are more adaptable to changing economic conditions.

Several studies have examined how return rates change before, during, and after a crisis. Educated workers' earnings in Argentina were less affected by crises than the earnings of less educated workers during the volatile period of 1992-2002. (Fiszbein, et al 2007). During non-crisis years, skilled workers in Mexico had greater advantages than less educated workers, and even greater advantages during crises and recessions (Psacharopoulos, et al 1992). During Greece's recent economic crisis, graduates with a university degree fared better in the job market than those with less education (Cholezas et al 2013). Moreover, research from Thailand during the late 1990s crisis suggests that those with secondary academic education did better than those with secondary vocational education due to a rise in the number of staff with vocational degrees and a shortage of job opportunities requiring vocational skills during the Asian crisis years (Hawley, J. D, 2003).

Agricultural workers may be more resilient to economic downturns, particularly in countries with more egalitarian land distribution, since they are able to generate more food than they consume and are not reliant on other food sellers or that the unemployed in other sectors can be absorbed (Ravallion, M.) (2008). COVID-19, on the other hand, appears to have harmed the incomes of less-educated agricultural workers, according to new data. During a recession, manufacturing workers, particularly middle-income earners with a secondary education, suffer the most (Binder, M, 1999).

According to historical data from the United States, the recession would worsen income disparity (Goldin, C. and Katz, F.L, 2008). During a recession, middle-income workers (those without a university degrees) do much worse than high-income workers (those with a university degrees), and the difference widens after the crisis. Low-wage workers (those with only a secondary education) will be less affected because they provide basic services, and the majority of them are likely to return to work once the economy recovers. So far, the COVID-19 pandemic has disproportionately affected low-wage staff (Lekfuangfu et al, 2020).

VII. NEW SKILLS REQUIRED FOR WORKERS DURING AND AFTER COVID-19 PANDEMIC.

The study established that there is need to develop new skills for workers during and after COVID-19 pandemic in the basin to enable effective and efficient delivery of services. These skills required include: (1) emotional intelligence, (2) virtual skills, (3) teamwork, (4) autonomous working, (5) thinking skills, (6) technical skills, (7) creativity, (8) effective communication. The skills generally fall under the broad areas of management; management communication; communication; digital; digital management; digital communication; digital management and communication. These skills complement one another in assisting staff to ensure effective and efficient service delivery during and after the COVID-19 pandemic. National and county governments, private sector organisations, universities and institutions of higher learning, Kemya government training colleges, and staff in the public and private sectors, among others, can recognize, develop, and implement new skills for workers.

The rate at which people become unemployed does not follow a universal trend, according to Lekfuangfu et al. (2020), since both workers' skills and their flexibility to work from home play a dominant role in their job opportunities. Working from home has divided the labor market into "good jobs" and "bad jobs"; as a consequence, the workforce mix is disproportionately skewed in favor of those with the right skills relative to those in positions that do not qualify for remote working (Dingel and Neiman, 2020). Workers with flexible employment relationships were also found to be less impacted than workers with fixed employment relationships in terms of job locations and working hours (Haak-Saheem, 2020). Organizations are urging their workers to avoid social contact as a result of the COVID-19 pandemic, which is in stark contrast to previous standards, when employees were educated and encouraged to establish interpersonal contact with customers. While the pandemic's immediate effects are negative, it may open up new job opportunities in the long run as a result of the incorporation of individuals' competencies and contextual factors (Akkermans, et. al, 2020).

Universities and other institutions of higher learning must define and improve the required types of labor market skills. This not only increases the workforce's long-term viability, but it also improves society's overall economic well-being. According to Fakhri et al. (2020), higher education institutions must cultivate the appropriate employability skills in their graduates in order to improve their job prospects. Employers expressed a lack of faith in higher education institutions' ability to build the requisite employability skills among their graduate students, according to Alsulami et al. (2019). Industrial employers place a higher value on teamwork, language proficiency, and emotional intelligence, while universities place a higher value on technical skills. Similarly, due to the shift of organizations from traditional to digital operations, language competency is becoming more important during COVID-19 (Thomas, et al, 2016). While it is

commonly assumed that rapid change is crucial for educational sustainability in the current climate, Valverde-Berrocso, 2020 points out that digital learning often carries a number of risks. Ahmed, et al 2020, on the other hand, suggests the concept of a smart campus to leverage the convergence of information and communications technology (ICT) with adaptive learning. Students with overseas study experience, on the other hand, had a higher chance of landing a job, according to Di Pietro, 2019. This was attributed to better adaptability, multicultural experience, bilingual skills, and coping with unforeseen circumstances.

VIII. SECTORS REQUIRING NEW SKILLS DURING AND AFTER COVID-19 PANDEMIC

Based on the sector classification of the International Labor Organization (ILO), International Standard Industrial Classification of All Economic Activities (ISIC) (2), [ISIC Revision 4, divided into 21 Sections, titles and codes] (Castillo, 2011), as: (1) Agriculture, forestry and fisheries; (2) Mining and quarrying; (3) Manufacturing; (4) Electricity, gas, steam and air conditioning supply; (5) Water supply; sewerage, waste management and remediation activities; (6) Construction; (7) Wholesale and retail trade; repair of motor vehicles and motorcycles; (8) Transportation and storage; (9) Accommodation and food service activities; (10) Information and communication; (11) Financial and insurance activities; (12) Real estate activities; (13) Professional, scientific and technical activities; (14) Administrative and support service activities; (15) Public administration and defence, compulsory social security; (16) Education; (17) Human health and social work activities; (18) Arts, entertainment and recreation; (19) Other service activities; (20) Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use; (21) Activities of extraterritorial organizations and bodies: the study established sectors that need to develop and adapt new skills to enable effective and efficient delivery of services during and after COVID-19 pandemic in the first category as education; service-based sectors such as administrative and support service activities, other service activities, information and communication, professional, scientific and technical activities; Human health and social work activities. Others include wholesale and retail trade; repair of motor vehicles and motorcycles; financial and insurance activities; arts, entertainment and recreation; accommodation and food service activities; transportation and storage. These sectors believe it is important to keep workers' skills up to date in order to boost service delivery. During the COVID-19 pandemic, these sectors rapidly moved from traditional to online work, necessitating the creation and adaptation of new skills among their employees. New employees in these sectors will be hired based on their ability to learn new skills, and old workers who stagnate and fail to learn the necessary new skills will lose their employment. Workers in other sectors, such as agriculture, forestry, and fisheries; mining and quarrying; manufacturing; construction; and so on, did not see the need to learn and adapt skills as urgent, and therefore

continued to function in traditional ways. Their work did not necessitate a transition from traditional to virtual work. With some small changes to the new normal, they were able to maintain continuity with their work.

IX. TRAINING PROGRAMS REQUIRED FOR WORKERS NEW SKILLS DURING AND AFTER COVID-19 PANDEMIC.

The study established through in-depth expert interviews coupled with brainstorming sessions, training programs required to enable workers acquire new skills for effective and efficient services delivery during and after COVID-19 pandemic. The training programs to equip workers with new skills include:

I). Remote working skills development: Remote working is a working style that encourages professionals to work outside of a typical office setting. Instead of driving to an office every day to work from a fixed desk, remote workers can complete assignments and meet deadlines from anywhere they want. Staff who have the option to work remotely from their homes in developing scenarios but are hampered by a lack of appropriate skills must learn remote working skills. Organizations have been rapidly transitioning from traditional to remote working since the outbreak of the COVID-19 pandemic, putting tremendous pressure on employees to learn new skills

II). Remote working policy and guidelines development: Remote working policies and guidelines must be established because this working arrangement allows workers to do all or part of their work at an approved alternate worksite, such as their home or a nearby workplace. Who can work from home, how they should do so, what is required of them, how their work will be evaluated, what help is available, and what their legal rights as remote workers are all explained in remote working policies. Employees who work remotely must find a secure, distraction-free workspace with a reliable internet connection. During working hours, he/she should devote his/her full attention to the job duties and follow the break and attendance schedules that the manager has decided upon. He or she should make sure that their work schedules coincide with those of their team mates for as long as is required to efficiently complete their job duties. Long- and short-term goals should be defined by team members and managers. They should meet on a regular basis to review progress and outcomes (online or in person if possible). The manager should determine how he will interact with his team members, whether it will be by email, Zoom, Teams, Google Hangouts, or another form. He'll think about making a regular phone call or doing a virtual check-in (virtual, phone, email for effective communication). It's also a good idea to share cell phone numbers among team members. The manager should ensure that all team members have access to the systems, services, and resources they need to do their work, as well as that adequate security and data protection measures are in place when accessing, sending, and receiving information, including

paper copies of documents they may have at home. Managers and supervisors should clearly communicate the job expectations; develop a policy for managing and approving hours; and establish a contact mechanism for addressing the need for time off or other problems that may cause you to be unavailable.

III). *Development of skills for balancing remote work and life:* This is about balancing life and remote work. Work-life balance is the concept of allocating time to both your professional and personal lives. Working from home, which avoids commuting and sitting in a cubicle all day, can seem to be the best way to achieve work-life balance. Remote employees, on the other hand, are often more depressed than their office-bound counterparts. Since they don't draw a distinction between work and home hours, they prefer to work longer hours. All levels of the workforce that wish to work from home must improve remote work/life balance skills. Because of the COVID-19 pandemic, most businesses are forcing workers to operate from home, causing a huge disconnect between their professional and personal lives. Staff are depressed and tired as a result of this mismatch, which can lead to poor results. In these situations, a detailed set of guidelines to educate staff about how to balance their work and personal lives when working remotely is needed.

IV). *Short-term skills training program development and administration:* Employees who work remotely must have the ability to work independently, be self-motivated, have good written communication skills, be comfortable learning and using digital resources, be a team member, and be cross-culturally literate, as well as have reliable and safe equipment. Short-term skills training programs are events that are customized to the needs or problems of particular worker target groups. Workshops, lectures, short courses, in-service training, and apprenticeships are examples of short-term learning opportunities. Employers are increasingly searching for new skills and qualifications, so short-term training programs are constantly evolving. Short-term skills initiatives are needed to build new sets of skills in order to retain existing employees and recruit new ones. In a fast-changing business climate, the workforce's long-term viability can only be ensured by providing timely and cutting-edge skills in line with consumer demands.

V). *Launch of digital-based learning initiatives:* Any form of learning that is accompanied by technology or instructional practice that makes efficient use of technology is referred to as digital learning. It encompasses the use of a broad range of practices, such as blended and interactive learning. When people think of digital learning, they think of online learning or e-learning. Nevertheless, digital learning incorporates all of these terms. Any or more of the following can be included in a digital learning strategy: Adaptive learning; badges and gamification; mixed learning; classroom technologies; e-textbooks; learning analytics; learning objects; electronic learning (phones, tablets, computers, iPads); personalized learning; online learning (or e-learning); open educational

resources (OERs); technology-enhanced teaching and learning; virtual reality; augmented reality. Staff must be given access to digital-based learning programs to aid in the acquisition of new skills necessary for effective and efficient service delivery.

VI). *Emotional intelligence program initiation:* Emotional intelligence (EQ) is the ability to recognize, use, and control one's own emotions in a constructive way in order to reduce tension, interact effectively, empathize with others, resolve obstacles, and defuse conflict. Emotional Intelligence Training is a collection of skills and information that helps people understand the language of emotions. The training aims to improve communication skills as well as personal and professional interpersonal relationships. Employees get angry, have bad moods, argue, and generally have bad days; people listen to each other in meetings; people express themselves openly; most reform programs succeed; flexibility; people have the freedom to be creative; people meet outside of work hours are all indicators of emotional intelligence in the workplace. To help employees better manage their own and others' feelings, an emotional intelligence program should be implemented. Since both employers and employees have been through tough times as a result of the COVID-19 pandemic's physical, economic, and psychological impact, emotional intelligence skills will help them strengthen their psychological well-being while also mitigating COVID-19's negative effects.

VII). *Creation of language-strengthening programs:* Good communication within a team can promote a sense of mutual purpose among team members, helping them to achieve their objectives. Frequent friendly contact may assist in the creation of a sense of belonging and the strengthening of relationships among team members. When communication is good, both parties involved feel happy and accomplished. There is no space for confusion or modification of messages when messages are delivered explicitly, which reduces the risk of conflict. Workers' communication skills should be improved in order to better prepare them for all types of business communications rather than only for linguistic purposes. Company relations are moving from in-person to remote networks as companies move to remote working.

VIII). *Effective hybrid skill set development for workers:* Hybrid skills are a blend of technological and non-technical skills. What qualifies as a hybrid skill now depends on a variety of factors, including the actual work, business, or industry, to name a few. Take administrative assistants, for example. This position used to entail answering calls, taking memos, preserving files, greeting clients, and so on. However, today's administrative assistant will require a hybrid skill set that could include digital skills like creating presentation materials, using database systems, producing reports and spreadsheets, using social media, and updating websites, among other items. People in highly technical occupations, such as IT networkers or security specialists, will need to use soft skills (communication, decision-making, teamwork,

strategic thinking, time management, and so on) in order to adapt and succeed in today's competitive job market. Staff should be taught a hybrid skill set to help prepare them for the fast-changing and competitive job market. Hybrid skills, which combine both traditional and virtual skills, are important because they not only improve worker productivity but also give them more flexibility to work under any conditions.

XI). *Upskilling and reskilling programs development and administration to workers:* Upskilling is the process of acquiring new skills or improving existing ones in order to succeed in your career. Reskilling, on the other hand, is the process of acquiring new skills or receiving training for a new career, usually with the intention of moving to a new job or industry. Organizational development necessitates upskilling and reskilling. It's vital not only for sustaining and increasing efficiency, but also for keeping workers motivated and interested. Upskilling or reskilling, is a less expensive option than recruiting and training a new employee. You build a more well-rounded, cross-trained workforce and improve the productivity of your team by reskilling your workers. It doesn't only help the bottom line. It also helps with retention. To define the appropriate market skills, it is crucial to engage the relevant labor market stakeholders. Established worker skills can be updated to meet current criteria under the framework of the upskilling program, while the reskilling program allows for the development of an entirely new skill set.

X). *Idea generation skills development among workers:* Idea generation is the innovative process or practice that an organization uses to come up with solutions to a variety of difficult problems. It includes creating various ideas in a group discussion, choosing the best idea or ideas, working to establish a strategy to execute the idea, and eventually putting the idea into motion. The concept may be physical, such as something you can touch or see, or abstract, such as something symbolic or cultural. Workers' idea generation skills must be built so that they can help their companies with creative and innovative ideas in response to evolving business demands.

X. WORKING FROM HOME/TELECOMMUTING/TELEWORKING/REMOTE WORK

The study established that most organizations now prefer carrying out their services during and after COVID-19 pandemic by (1) Flexible schedules, (2) Working from home/Telecommuting/Teleworking/Remote work; (3) Mixed (Working from home/Telecommuting/Teleworking/Remote work and flexible schedules); (4) Normal programme. A group of carefully selected stakeholders consisting of employees and employers from national and county governments, private sector, academia and scientists deliberated on the organizations' preferred ways of carrying out their services during and after COVID-19 pandemic vide:

Flexible schedules; Working from home/Telecommuting/Teleworking/Remote work; Mixed (Working from home/Telecommuting/Teleworking/Remote work and flexible schedules); and Normal programme, and agreed on a simplified scoring tool where the 'methodologies of carrying out services' were scored on a scale anchored at 1 (lowest score) and 4 (highest score) based on the most preferred methodology by the organizations for delivering services during and after COVID-19 pandemic. The scoring scale had: 1-Low preference, 3- Medium preference, 4-High preference, 5-Very High preference. During scoring, the outcome on each methodology of delivering services by the organizations during and after COVID-19 were heavily evaluated before reaching a consensus on the score.

Table 2: Methodologies for delivering services during and after COVID-19 pandemic in Nzoia River Basin, Kenya

Methodologies for delivering services during and after COVID-19	Score	Ranking
Normal programme	4	Very High preference
Flexible schedules	3	High preference
Mixed (Working from home/Telecommuting/Teleworking/Remote work and Flexible schedules)	2	Medium preference
Working from home/Telecommuting/Teleworking/Remote work	1	Low preference

Source: Researcher (2021).

The results are shown in Table.2. The very highly preferred mode of delivering services by organizations in the basin was normal programme followed by flexible schedules as highly preferred, mixed (Working from home/Telecommuting/Teleworking/Remote work and Flexible schedules) was of medium preference and working from Home/Telecommuting/Teleworking/Remote work showed low preference. Despite a number of organizations wanting to adopt working from home/Telecommuting/Teleworking/Remote work as the mode of delivering services, they were faced with a lot of difficulties that prevented them from taking off. Working from home/Telecommuting/Teleworking/Remote work faces many obstacles, including access to modern technologies and devices (e.g., internet connection); adaptation to different modes of communication and communication tools; working in the same room as other family members (working from home); length of work schedule, and so on.

Alternative work arrangements or schedules to the conventional work environment are known as flexible work arrangements. Jobs and staff with flexible work plans have more scheduling flexibility in how they perform their job duties, helping them to meet personal or family needs and create a stronger work-life balance. Meanwhile, employers' needs, such as timely and high-quality job delivery, must not

be jeopardized. In short, workplace flexibility arrangements are expected to create a win-win working relationship, which simultaneously recognises and realises the needs of both employers and employees. Examples of flexible work arrangements for employees; Flex Time:- Banking of working hours, Compressed work week, Flexible working hours, Job sharing, Switch shifts. Flex Time Off: -Extra or prolonged holiday or personal leave, Long-term leave with position being kept, Reduced hours (part-time) with the same hourly rate, Paid lactation breaks. Flex Location/Roles:- Telework or telecommuting, Temporary remote work for caring purposes, Job sharing, Change of responsibilities.

There have been many attempts to describe the words "working from home," "telecommuting," "teleworking," and "remote work." Baker et al. (2007) tends to refer to "working from home," "telecommuting," "teleworking," and "remote work" as "remote working." He points out that remote working has been researched under a number of names (e.g., teleworking, telecommuting, working from home). Since there are no widely accepted definitions, terms are used differently and interchangeably from study to study, and data collection methods and definitions vary. The definition of "telework" proposed by the International Labor Organization (ILO) in 1990 seems to be the most accepted definition: "A form of work in which (a) work is performed in a location remote from a central office or production facilities, thus separating the worker from personal contact with co-workers there; and (b) new technology enables this separation by facilitating communication" (Beno 2018, citing Ruiz and Walling 2005). Blackwell et al. (2002) quoted The International Telework Association and Council (ITAC) as follows: "Telework is a much broader term that means using telecommunications to work wherever you need to in order to satisfy client needs; whether it be from a home office, telework center, satellite office, a client's office, an airport lounge, a hotel room, the local Starbucks, or from your office to a colleague 10 floors down in the same building (ITAC 2001, as cited in Blackwell et al. 2002)". To put it another way, not all teleworkers are employees who work from home. As a result, teleworking may refer to workers who work outside of the office but not generally from home. The two forms of telecommuting are explained by Shafizadeh et al. (2000): home-based telecommuting and center-based telecommuting. Working from a local or regional satellite office is referred to as center-based telecommuting. "Working from home with connectivity to the office" is how home-based telecommuting is described (Shafizadeh et al. 2000). According to Blackwell et al. (2002), the terms "telecommute" and "telework" are interchangeable.

XI. THE ADVANTAGES AND DISADVANTAGES OF WORKING FROM HOME/TELECOMMUTING/TELEWORKING/REMOTE WORK DURING AND AFTER COVID-19 PANDEMIC FOR EMPLOYEES AND EMPLOYER ORGANIZATIONS

As a result of the COVID-19 pandemic, many organizations' work practices and cultures have shifted, resulting in work

from home/telecommuting/teleworking/remote work as a means of preventing the virus's rapid spread. Since certain forms of work cannot be done from home, working from home is not a feasible choice for all. When it comes to working from home/telecommuting/teleworking/remote jobs, there are a range of advantages and disadvantages for both workers and employers.

The advantages of organizations Working from home/Telecommuting/Teleworking/Remote work during and after COVID-19 pandemic

Some companies were already working from home, telecommuting, teleworking, or doing remote work even before the COVID-19 pandemic. The following are the reasons why companies tend to work from home: Organizational expenses such as "rent, maintenance, computers, telephones, offices, services, supplies, and so on" are minimized, according to Lupu (2017). Further examples regarding office space costs are offered by Ford and Butts (1991), who also recommend that businesses can prevent leasing additional offices by introducing a telecommuting program. Beno (2018) also addresses the lower costs of parking for employees' vehicles. Increased worker efficiency is another aspect that motivates companies. Long periods of uninterrupted time for concentration on their tasks and "lack of interruptions, increased concentration, increased motivation, employee satisfaction, a better employee commitment, increased work energy by reducing time and disruptive elements" are stated by both Lupu (2017) and Ford & Butts (1991). (Lupu 2017). The third aspect is the opportunity to recruit people who may otherwise be unable to come to work, such as mothers, the disabled, and workers who live far away from the workplace and do not want to move (Ford and Butts 1991). The fourth element is the reduction in absenteeism. The following causes, according to Lupu (2017), minimize absenteeism: "diseases, family incidents, adverse weather conditions, nervous breakdown." Wienclaw (2019) adds to the list of factors that reduce absenteeism the ability to conveniently care for sick children or elders without having to take time off from work. "Reducing the spread of infectious diseases among workers, which causes interruptions in the working process and additional expenses" is the fifth factor driving businesses to prefer working from home (Lupu 2017). The sixth element has to do with lowering employee stress levels. According to Lupu (2017), stress can manifest itself in a variety of ways, including decreased concentration levels, work-related errors, insubordination, team frustration, and the development of occupational diseases such as stroke and heart attack.

1.1.1 The advantages for Employees Working from home/Telecommuting/Teleworking/Remote work during and after COVID-19 pandemic

Working from home on a flexible schedule gives most workers preference for this work option. According to Lupu (2017), flexible scheduling helps workers to have some

flexibility over their everyday lives, including both employee and family events, such as getting their children to school or going to the doctor. Employees may change their work schedule on a regular or even hourly basis, according to Ford and Butts (1991). The following are some of the advantages of flexible scheduling, according to Wienclaw (2019): being able to sleep in and work late, beginning and ending early, working forty hours in four days rather than five or six days a week, scheduling personal appointments (e.g. physician, dentist, hairdresser) during office work hours, and finishing work later in the evening without using vacation days. Another advantage of working from home for workers is that they save time driving to work and escape rush-hour traffic. According to Ford and Butts (1991), removing the burden of driving in rush hour traffic could be the most significant benefit for many workers. According to Wienclaw (2019), workers may have more free time to spend with their families if they do not commute. Employees who work from home will also benefit financially in a variety of ways. They will save money “by eliminating the ride to work” (Wienclaw 2019), such as “gasoline and car wear” (Ford and Butts 1991), “parking or other commuting costs” (Wienclaw 2019). Employees will also save money by avoiding the prices of workplace clothing and lunches (Ford and Butts 1991). They also save money on “babysitting/kindergartens/nurses” (Lupu 2017) and “not needing to pay for afterschool programs”(Wienclaw 2019). Working from home has a lot of advantages, particularly for “new mothers or physically handicapped people who find travel difficult or impossible but need or want to remain in the workforce” (Ford and Butts 1991). Another advantage is the opportunity to care for sick children or elderly people while working (Beno, 2018 and Wienclaw, 2019). Working from home often allows people who live in remote areas to work (Lupu 2017), and it decreases the risk of being sick, exhaustion, and work-related stress (Lupu 2017).

1.1.2 *The disadvantages for Employees Working from home/Telecommuting/Teleworking/Remote work during and after COVID-19 pandemic*

For workers, there are a number of disadvantages to working from home. According to Lupu (2017), these disadvantages include: “technical issues that cannot be resolved remotely,” “unequal salaries between office and teleworkers,” “employee isolation,” “limitation of daily contact with coworkers,” and “difficulties in coordinating union activities.” Another significant disadvantage for workers is the impediment to progression of their careers. When it comes to staff promotions, Ford and Butts (1991) argue that the phrase “out of sight, out of mind” applies to workers who work from home. They argue that coworkers who stay in the workplace have a better chance of being noticed and promoted faster, since management is unaware of the employee's interpersonal communication skills and relationships. This condition has an effect on his or her potential job opportunities, as his or her current boss or bosses do not have a good view of the employee working from home and are unable to make recommendations. The final disadvantage of working from

home for employees is the inability to maintain an informal contact network with coworkers. Employees who do not have such experiences may feel isolated from their coworkers as well as the company's objectives and values (Ford and Butts 1991).

1.1.3 *The disadvantages for Organizations Working from home/Telecommuting/Teleworking/Remote work during and after COVID-19 pandemic*

While working from home has become more popular in many countries as a result of the advantages mentioned above, organizations are still reluctant to embrace this method of working due to a number of disadvantages. According to Ford and Butts (1991), the disadvantages of working from home are based on potential or real loss of control of the organization. Organizations are worried that workers will prioritize personal errands over work or “farm out” work to others, further reducing organizational power. This could lead to data protection issues, which Peters et al. (2004) say is the most significant disadvantage, ranking first among many others in their report. When workers are able to work from home, according to Ford and Butts (1991), security problems are primarily caused by “allowing outside computer terminal connections and remote access to company databases.” They claim that there is a chance of unauthorized access to the system, as well as privileged company data that could be used by competitors. According to Peters et al. (2004), productivity and work quality issues are the second most important disadvantages of working from home for companies. Supervisors reported distractions in the employees' home setting as a disadvantage, according to Greer et al. (2014). They also mentioned a “lack of sufficient work-related tools, such as technical equipment and files stored at the main worksite that are needed to conduct work-related tasks while teleworking” (Greer et al. 2014). Supervisors also discussed the challenge of “managing and monitoring teleworker results” (Greer et al. 2014).

The organization's “poor accessibility of workers” is one of the factors contributing to the issue (Lupu 2017). And when employees are approached by peers and managers, the lack of “face-to-face communication and the advantages associated with face-to-face communication” places them at a disadvantage (Greer et al. 2014). Working from home activities necessitate good coordination because team members are interdependent on one another, and it is difficult for managers to organize them because they are all physically located in different locations (Greer et al. 2014). According to Peters et al. (2004), a study of 66 managers found that they were opposed to working from home because they believe it stresses managers with extra tasks and reduces employer-employee contact. As previously reported, being away from coworkers and the workplace can result in a “lack of identity with the company's community and a lack of team spirit,” both of which have a negative effect on productivity (Ford and Butts 1991). Other technical disadvantages of working from home for the organization include “the maintenance and

control of computer equipment placed in employee homes” (Ford and Butts 1991). The company's disadvantage is not only the damage and abuse to the office equipment, but also the insurance question that occurs when the office equipment is off-site (Ford and Butts 1991). Other disadvantages include repairing and transporting broken office equipment, deciding the liable party (either the organization or the employee) for the repair, and determining how the broken equipment should be replaced (Ford and Butts 1991).

XII. CONCLUSION

The COVID-19 pandemic has created both challenges and opportunities for the labor markets as government efforts to slow down the virus's spread result in shortened working hours, furloughs, and work-from-home arrangements, among other things. Because of the health risks associated with traditional open-plan workplaces, the pandemic is changing the way people used to work, and virtual work practices are likely to spread as organizations realize the cost savings from structuring labor with fewer full-time workers and more contractors linked technologically, as well as less office room. Individuals working in this manner will face significant obstacles, as more people are required to learn to work in ways that are somewhat different from previous generations.

COVID-19 has had a huge effect on labor markets in Nzoia River Basin, and the economic impact on Kenya's economy has been extreme across all sectors since the first case was recorded on March 13, 2020. The pandemic has had varying effects on various groups of workers. University graduates with further training in specialized skills demonstrated a very high ability to cope with the labor market disequilibria brought on by the pandemic. This is due to their ability to adapt to changing employer needs and emerging technology. There is need to develop new skills for workers during and after the pandemic in the areas of emotional intelligence, virtual skills, teamwork, autonomous working, thinking skills, technical skills, creativity and effective communication. Sectors requiring new skills during and after the pandemic in the first category are education; service- based sectors such as administrative and support service activities, other service activities, information and communication, professional, scientific and technical activities; Human health (healthcare) and social work activities. Others include wholesale and retail trade; repair of motor vehicles and motorcycles; financial and insurance activities; arts, entertainment and recreation; accommodation and food service activities; transportation and storage. These sectors agree that it is important to keep workers' skills up to date in order to boost service delivery. During the COVID-19 pandemic, these sectors rapidly shifted from traditional to online work, necessitating the development and adaptation of new skills among their employees. New employees in these sectors will be hired based on their ability to learn new skills, and old workers who stagnate and fail to learn the necessary new skills will lose their employment. Staff in other sectors, such as agriculture, forestry, and fisheries; mining and quarrying; manufacturing; construction;

and so on, did not see the need to learn and adapt new skills as urgent, and instead continued to operate in traditional ways. Their work did not necessitate a transition from traditional to virtual work. With some small changes to the new normal, they were able to maintain continuity with their work.

The very highly preferred mode of delivering services by organizations in the basin is normal programme followed by flexible schedules as highly preferred, mixed (working from home/telecommuting/teleworking/remote work and flexible schedules) was of medium preference and working from home/telecommuting/teleworking/remote work showed low preference. Despite the fact that a number of organizations wanted to incorporate working from home/telecommuting/teleworking/remote work as a method of providing services, they ran into a number of roadblocks. Access to digital technologies and devices, adaptation to emerging forms of communication and communication tools, operating in the same space as other family members, and work schedule length are among the critical challenges faced in the delivery of services.

During the pandemic, the demand for healthcare workers increased. The long-term effects of the current COVID-19 pandemic are unclear, and there is no reason to expect that it will have a short-term effect on labor markets. Our focus must be forward-looking, based on the premise that the grand problem we are currently faced with is not a singular, anomalous occurrence, but rather a "new fact" that poses new opportunities to which labor markets will need to adjust on a regular basis.

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