



**INCOME EFFECTS ON WOMEN HEADED HOUSEHOLDS DURING THE COVID-19 PANDEMIC IN KAKAMEGA
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ABSTRACT

Globally COVID-19 was and has been a threat to most economies not sparing whether a given economy belongs to a developing or a developed nation. There has been Women Headed Households suffering because of the affliction of socio-economic challenges escalation that resulted from the pandemic of COVID-19. The pandemic was one of the events that had an effect on global population with less researched information on socio-economic and health from the world scholars. Hence, the main objective of this study was to investigate the Influence of Income Effects on Women Headed Households during the COVID-19 pandemic in Kakamega Central Sub- County, Kakamega County; Kenya. The study applied descriptive survey research design and used a structured questionnaire on collection of primary data from Women Headed Households of Kakamega Central Sub-County, Kakamega County; Kenya. Pilot study was done at Mumia East Sub County, Kakamega County; Kenya, hence piloting enabled for testing of the reliability and validity of the research instrument. Study's descriptive and inferential statistics was analyzed by use of SPSS version 24 software and conclusions was that Income Effects had an impact on Women Headed Households of Kakamega Central Sub-County, Kakamega County; Kenya. The study recommended for the Women Headed Households of Kakamega Central Sub-County, Kakamega County; Kenya, to embrace the sensitivity on Income Effects being a component of Socio-Economic Effects with the reason, such practice improves Women Headed Households social capabilities. The study recommended for further studies in other various counties using different methods of analysis, more so apply other types of socio-economic Effects.

Key words: Income Effects, Socio-Economic Effects, Women Headed Households

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INTRODUCTION

The impact of COVID-19 across the global economy was profound. Already, as described in the policy brief 'Shared responsibility, Global Solidarity' on the socioeconomic impacts of COVID-19, markets and supply chains have been disrupted, businesses closed and some scaled back operations while millions had to lose their jobs and livelihoods (Evans & Over, 2020). International Labor Organization estimated that full or partial lockdown measures had an effect on almost 2.7 billion workers, representing around 81% of the world's workforce, while the IMF projects a significant contraction of global output in 2020 (IMF, 2020). COVID-19 subjected the world economy towards a global recession, which strikingly was different from past recessions. Emerging evidence on the impact of COVID-19 suggests that women's economic and productive lives got affected disproportionately and differently from men (Engida, 2021). Across the globe, women earn less, save less, hold less secure jobs, and are more likely to be employed in the informal sector. They have less access to social protections and are the majority of single-parent households they head. Their capacity to absorb economic shocks is therefore less than that of men.

According to Were (2020), as women took an understanding on greater care demands at home, their jobs could also be disproportionately affected by cuts and lay-offs. Such impacts risk rolling back the already fragile gains made in female labor force participation, limiting women's ability to support themselves and their families, especially for female-headed households. In many countries, the first round of layoffs has been particularly acute in the services sector, including retail, hospitality and tourism, where women are over represented. The situation was worse in developing economies where the vast majority of women's employment of 70 per cent was in the informal economy with few protections against dismissal or for paid sick leave and limited access to social protection.

To earn a living these workers often depend on public space and social interactions, which are now

being restricted to contain the spread of the pandemic (Brac International, 2020). With this in mind the current study seeks to establish the effects of socio-economic challenges on women headed households' post-COVID-19 pandemic in Kakamega Central Sub-County, Kakamega County; Kenya.

Gerszon, Mahler, Lakner, Castaneda, Aguilera and Wu (2020) embrace, across the globe, women earn less, save less, hold less secure jobs; are more likely to be employed in the informal sector. They have less access to social protections and are the majority of single-parent households; hence, their capacity to absorb economic shocks is therefore less than that of men. Women-dominated sectors are proving to be the most affected by the pandemic. Physical distancing and travel restriction measures have led to the closure of many businesses, resulting in severe economic effects, particularly in the services sector.

Zollman, Ngweni, Gachoka and Wanjala (2020) stipulate, given that women make up some 55 per cent of employment in this sector, in comparison with men, at 44 percent, women have been more adversely affected; hence, moreover, women-dominated services sectors, such as tourism and hospitality, are among those most severely affected. Access to credit is of paramount importance for the survival of firms. However, women entrepreneurs are often discriminated against when attempting to access credit. Without open and favorable lines of credit, many women entrepreneurs are forced to close their businesses. According to World Health Organization (2020), measures to contain the pandemic such as quarantines and closures of schools and day-care facilities, as well as the provision of basic health care at home, have resulted in an increase in the already heavy burden of unpaid work borne by women. As a result, some women have been forced to leave the labor market or opt for less stable forms of employment when balancing paid and unpaid work has proven unfeasible.

According to Were (2020) study on gender equality and women empowerment, COVID-19 has multi-dimensional impacts on women, who are the majority of the population in most Africa countries. Women are likely to be disproportionately affected by the impact of this pandemic, and ignoring their concerns and needs in the COVID-19 responses, might threaten the consolidation of the gains made in the advancement of gender equality, women's empowerment and women's rights in the continent. Jiang, Rojas, Schmutte, Simon and Weinberg (2020) suggests it is therefore of critical importance that responses towards the prevention, containment, management and eradication of COVID-19, could take place considered into account gender equality and women's empowerment so that women and girls are not left behind.

Les Nestour, Mbaya, Sandefur and Moscoviz (2020) asserted, since the emergence of the COVID-19 pandemic in December 2019, the effects on human lives have been devastating among the Economic Community of West African State member states. The economic challenges during and after the pandemic pose significant threats to the income and livelihoods of women engaged in micro-level businesses such as farming, street hawking, retail trading, and other domestic services. The implication to food security has raised regional concerns especially as 70% of the subsistence (FAO, 2020) agriculture is dominated by women. As in the case of the Ebola crisis in the region, COVID-19 prevention measures had a drastic impact on women's livelihoods and economic security.

Statement of the problem

The COVID-19 pandemic not only affects livelihoods through increased risk of mortality, but also through containment measures (World Health Organization, 2020). While the initial focus was on the health effects of the pandemic, its socio-economic effects and accompanying policy responses received increased attention, including low income being raised in most countries (Kahn, Lange & Wiczer, 2020). Literature about Socio-Economic effects on Women households is not

available on a larger dimension, though some scholars evidence the negatives of COVID-19; among the scholars include the population council (2020).

Despite high levels of literacy in Kenya of recent plus heavy support from developed nations, Kenya being a developing economy has had socio-economic factors that affect women householders, though with the emerging of COVID-19, the conditions had to worsen in both developing and developed economies, more so, for a household to grow and be in a sustainable condition poverty has to scaled down with increase in education, improved social amenities, infrastructural measures, employment to the household ought to be pronounced (Jiang, Rojas, Schmette, Simon & Weinberge, 2020).

In Kakamega County, people continue to live in poverty and are faced with numerous Income Effects challenges and the life expectancy remains low thereby experiencing the insecurity on matters to with income, more so lacking income or having low income that can't propel a person out of poverty. From the time COVID-19 emerged, there have been very few scholars on the research of socio-economic factors, especially Income Effects affecting women householders apart from the health doctor scientist that has been researching on how COVID-19 affects human beings health wise but not the zeroing on Income Effects. This gives rise to a researchable gap that allows zeroing on Income Effects and how it affects the women households in Kakamega County since the emerging of COVID-19.

Objective of the Study

This study determined the influence of Income Effects on Women Headed Households during the COVID-19 Pandemic in Kakamega Central Sub-county, Kakamega County, Kenya

The study was guided by the following research hypothesis;

Income Effects and women headed households

The unbalanced division of housework and childcare between women and men can be largely explained by traditional gender norms which are still prevalent in EU countries, the strength of which presents intra-regional variations; hence, while the belief that women are the caretakers and men play the role of the breadwinner remains prevalent in countries in Eastern and Southern Europe, comparatively results less common in countries in the Northern and Western sub-regions (Onyema, 2020). Regardless of such variation and has been even increased by the COVID-19 pandemic, however, it is concerning that overall 44% of Europeans think that the most important role of women is that of taking care of the home and the family and more so, spend nearly the whole income earned on house hold matters and assume the women head householder roles irrespective of the spouses availability (Alvarez, 2020).

In the long run, apart from the pressing COVID-19 condition that has been persistent, the limiting traditional beliefs can lead to the widening of the gender employment, payment, and pension gaps, and thus an overall greater likelihood of female poverty throughout the life course, Perhaps conditioned by such norms, women who are the head householders are more likely to take career breaks or engage in part-time employment to comply with care responsibilities and expectations, which has also been overtly seen in Europe during the pandemic(Mc Gowan,2020). Without being able to count with the support of grandparents, neighbors or friends due to social distancing measures women have been seen to be disproportionately leaving employment to provide support which has alternatively served to reinforce gender gaps in the short run and more so, take over the head householder roles (Christakis & Christakis, 2020).

If little or no change occurs in the years following the pandemic, the exacerbation of traditional gender roles could result in increased poverty

prospects for women; hence, the deterioration of skills could lead to a negative feedback loop in the inability to access the labor market, and thus lead to the exacerbation of the gender pay gap, Prolonged periods of reduced working hours or temporary career breaks can also contribute to widening the pension gap and increasing poverty at old age, most pension systems do not account for nontraditionally male patterns of employment, and the few pension systems that do place value on unpaid care work are still not sufficient to compensate women for the time they spent outside the labor force (Khann, Lange & Wiczner,2020). According to Evans and Over (2020) female poverty rates are higher than those of men in the EU, and without gender mainstreaming policies to target the exacerbation of inequalities during the COVID-19 crisis women can find themselves in an unfairly vulnerable position in the years after the pandemic.

Worldwide interest in sub-Saharan Africa (SSA) concerning power dynamics within the house holding matters and how these relate to better production and consumption outcomes , sociologists and development economists use women's participation in household decision making as a proxy for women's empowerment, which could be a method of achieving Sustainable Development Goals (Alwang, 2017). The researchers who worked on how household power dynamics can contribute to better production outcome focused on sources and consequences of agricultural productivity differences between male and female farmers still rests on the how women become the head households (Anderson,2016). Asfaw and Maggio (2017) assert on the principles that ought to be applied on women empowerment that could be enshrined so that the women head householder do not get jeopardized in their rights considering the conditions they undergo on daily managerial decisions in the household, more so women should be supported fully by their spouses and the government at large.

Akresh (2016) argues that the redistribution of income in favor of women would not motivate an increase in the quality or quantity of calorie intake. The present study contributes to the few discourses on the impact of women's share of household income on the household expenditure of various categories of household goods, especially in southeast Nigeria, using gender-disaggregated data. The goals of the interest of development economists and sociologists in learning how the identity of the income earner, especially the women who are headed householders, affects how money is spent are to inform policy interventions on the gender, to target how close the asset gaps between men and women, therefore enhancing the productivity of African agriculture. Agriculture contributes substantially to the gross domestic product (GDP), export earnings and employment, and women provide between 42% and 80% of its labor force, depending on the region (Peterman et al. 2011; Oyinbo 2019).

Women Headed Households

Female-headed households have dramatically increased in number, particularly in the developing countries arising from divorce, death of the male spouse, increase in life expectancy in women, addiction or disability of the husband, abandonment by the husband, or migration (Javad, Mohammad, Goli, Bahar, Arash & Seyed, 2020). Accordingly, the worldwide statistics indicate that the rates of female-headed households tend to differ from one country to the other. For instance, in 2007, 49.40% of Ukrainian households were headed by women. By 2013, Namibia had 43.90%, while Zimbabwe had 40.60% households headed by women in 2015. Armenia had the highest female headed households' rate at 33.20 % in 2016. In Kenya today, the story is not any different. The rate at single motherhood is growing is alarming. Such women tend to experience poor health because of poverty and lower socio-economic challenges (Quaife, Zandvoort, Gimma, Shah, McCreesh, Prem, Barasa, Mwanga, Kangwana, Pinchoff, Edmunds, Jarvis & Austrian, 2020; Javad *et al.*, 2020; Ozawa,

Lee & Wang, 2011). Thus, they become more vulnerable because of low income, mental, physical and neurological disorders and isolation (Javad *et al.*, 2020; Rezaei, Mohammadinia, & Samiezadeh, 2013).

On the contrary, women, who usually act as bread winners in women-headed households, tend to face gender discrimination with respect to earnings, education, economic opportunities as well as individual rights (Mudi, 2020; Barros *et al.* 1997). Women headed households have been said to be poorer than their male-headed counterparts' households (Rajaram, 2009). Indeed, poverty measures based on the housing condition and the wealth indices show that women-headed households are less poor than male-headed households.

METHODOLOGY

Descriptive research survey design was used to determine an association between the conceptualized independent and dependent variables as shown in the study's conceptual model. A population is a complete set of elements, persons or objects that possess some common characteristics. The target population of the study comprised an aggregate of 41,978 Women headed households from Kakamega Central Sub County; County Government of Kakamega. The sampling frame consisted of Women Headed Households in the Kakamega Central Sub-County, County of Kakamega; Kenya. In order to arrive at the required sample size of 384, Fisher's model as cited in Mugenda and Mugenda, (2003) was used. Primary data was collected by means of self-administered questionnaires. The questionnaires had structured questions. Data collected from the field was coded, cleaned, tabulated and analyzed using both descriptive and inferential statistics with the aid of specialized Statistical Package for Social Sciences (SPSS) version 24 software. Descriptive statistics such as frequencies and percentages as well as measures of central tendency (means) and dispersion (standard deviation) was used. Data was

also organized into graphs and tables for easy reference.

Further, inferential statistics such as regression and correlation analyses was used to determine both the nature and the strength of the relationship between the dependent and independent variables. Correlation analysis is usually used together with regression analysis to measure how well the regression line explains the variation of the dependent variable. The linear and multiple regression plus correlation analyses were based on the association between two (or more) variables. SPSS version 24 is the analysis computer software that was used to compute statistical data.

Study conceptualized Regression Model;

$$Y = \beta_0 + \beta_1 X_1 + \varepsilon$$

Y = Women Headed Households

β_0 = Constant

X_1 = Income Effects

$\{\beta_1\}$ = Beta coefficients

ε = the error term

FINDINGS

The study involved 384 questionnaires being dispatched for data collection, 349 questionnaires were returned completely filled, and representing a response rate of 90.8% which was good for a general conclusion of the research findings to a wider population and 9.2% included those farmers that never responded.

Descriptive Statistics

Descriptive statistics: Income Effects on Women Headed Households

These are summarized responses on whether Income Effects has influence on Women Headed Households during the COVID-19 of the Kakamega Central Sub-County, Kakamega County; Kenya.

Most respondents agreed (27.1%) that they raise income solely from being employed to manage the house hold, while 15.4% disagreed to the

statement, implying that there are house holders who get income from other sources apart from employment. More closely, only 27.4% agreed while 12.6% of respondents strongly agreed that the house holders own businesses that sustain them other than being employed. Further, while 27.7% of respondents agreed that most women headed house holders got their income status being interrupted, while 12% strongly agreed for the same. 40% agreed and 8.6% strongly agreed revealing existence of sufficient income before the COVID-19 pandemic emerged. More so 36.6% of respondents agreed and 12.9% strongly agreed that the employers of the house holders were affected very much in that payment of salaries to them was a big problem,

Lastly, most respondents agreed (42.9%) and strongly agreed (12.6%) that generally, the women headed house holders' other means of raising income was affected and shut down. If little or no change occurs in the years following the pandemic, the exacerbation of traditional gender roles could result in increased poverty prospects for women; hence, the deterioration of skills could lead to a negative feedback loop in the inability to access the labor market, and thus lead to the exacerbation of the gender pay gap, Prolonged periods of reduced working hours or temporary career breaks can also contribute to widening the pension gap and increasing poverty at old age, most pension systems do not account for nontraditionally male patterns of employment, and the few pension systems that do place value on unpaid care work are still not sufficient to compensate women for the time they spent outside the labor force (Khann, Lange & Wiczer,2020).

Inferential Statistics

Linear influence of Income Effects on Women Headed Households

This tested the direct influence of Income Effects on Women Headed Household of Kakamega Central Sub- County, Kakamega County; Kenya. The results are shown table 1.

Table 1: Direct influence of Income Effects

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.262 ^a	.069	0.66	.068397	.069	159.562	1	348	.000
ANOVA ^b									
Model		Sum of Squares	Df	Mean Square	F	Sig.			
1	Regression	66.844	1	63.844	25.744	.000 ^a			
	Residual	26.120	348	.482					
	Total	92.964	349						
Coefficients ^a									
Model		Unstandardized Coefficients		Standardized Coefficients					
		B	Std. Error	Beta	T	Sig.			
1	(Constant)	3.436	.172		20.004	.000			
	Income Effects	.210	.073	.262	5.074	.000			

a. Dependent Variable: Women Headed Households

From table 1, the model summary shows that $R^2 = 0.069$; implying that 6.9% variations in the Women Headed Householder of Kakamega Central Sub-County, Kakamega; Kenya is explained by Income challenges while other factors not in the study model accounts for 93.1% of variation in Women Headed Householder of Kakamega Central Sub County, Kakamega County; Kenya. Further, coefficient analysis shows that Income challenges has positive influence though weak on Women Headed Householder of Kakamega Central Sub County, Kakamega County; Kenya ($\beta = 0.210$ (0.073); at $p < .01$). This implies that a single improvement in effective Income challenges will lead to .210 unit increase in the Women Headed Householder in Kakamega Central Sub-County, Kakamega County; Kenya. Therefore, the linear regression equation was;

$$(i) Y = 3.436 + 0.210X_1$$

Where;

Y = Women Headed Householder

X_1 = Income Effects

Study hypothesis one (H_{01}) stated that Income Effects does not significantly influence Women Headed Householders of Kakamega Central Sub-County, Kakamega County; Kenya. Multiple regression results indicate that Income challenges influences Women Headed Householders of Kakamega Central Sub-County, Kakamega County; Kenya ($\beta = 0.141$ (0.041) at $p < 0.05$). **Hypothesis one was therefore rejected.** The results indicated that that a single improvement in effective Income Effects will lead to 0.141 unit increase in the Women Headed Householders of Kakamega Central Sub-County, Kakamega County; Kenya.

CONCLUSIONS AND RECOMMENDATIONS

This tested the influence of Income Effects on Women Headed Householders of Kakamega Central Sub-County, Kakamega County; Kenya. The study found that Income Effects had an influence on Women Headed Householders. The study results are consisted with earlier researchers that found that Income Effects had an impact on house holders especially in the areas headed by women in various economies of the world.

There was a statistically significant weak positive correlation between variations in Income Effects and Women Headed Households. Income Effects had an impact on Women Headed Householders, though negligible for the reason being most of the headed Householders were concerned about health attack other than just socio-economic challenges.

The study recommended that Socio-Economic Effects namely; Income, contributed to improved Women Headed Households. The study therefore

recommended for Women Headed Households to effectively consider the Income effects with a view to enhancing sustainable Headed House holding capabilities.

Areas for further research

Future researchers should therefore have other areas being researched on since environment differs and economic capabilities vary from one area to another and more so, there are other challenges apart from those in study.

REFERENCES

- Awiti, C. A., Dennis, A. C. K., Mutie, C. K., Sanya, S. O., Angelique, U., Wankuru, P. C., *et al.*, (2018). Kenya economic update: Policy options to advance the Big 4 - unleashing Kenya's private sector to drive inclusive growth and accelerate poverty reduction 125056; 1–88.
- Baker, S. R., Farrokhnia, R. A., Meyer, S., Pagel, M., & Yannelis, C. (2020). *How does household spending respond to an epidemic? Consumption during the covid-19 pandemic (No. w26949)*, National Bureau of Economic Research
- Bayangani, B., Irandoost, S.F., & Ahmadi, S. (2013). Qualitative study of typology of lifestyles: study of youth in Mahabad City of Iranian Kurdistan. *Int J Bus Soc Sci.* 4(14), 198–217.
- Bayangani, B., Irandoost, S.F., & Ahmadi, S. (2014). A sociological study of cultural and Economic factors effective on empowering female household-headship in Sanandaj City of Iran, *Asian J Humanit Soc Stud*, 2(3), 428–38
- BRAC, International (2020). Rapid food and income security assessment Round 2: How are BRAC International volunteers and programme participants coping with COVID-19
- Carvalho, V. M., Hansen, S., Ortiz, A., Garcia, J. R., Rodrigo, T., Rodriguez Mora, S., (2020). *Tracking the Covid-19 crisis with high-resolution transaction data (No, DP14642)*, Centre for Economic Policy Research.
- Evans, D., & Over, M., (2020). "The Economic Impact of COVID-19 in Low- and Middle Income Countries," <https://www.cgdev.org/blog/economic-impact-covid-19-low-and-middle-income-countries>
- Gerszon Mahler, D., Lakner, C., Castaneda Aguilar, R. A., & Wu, H. (2020). The impact of COVID-19 (Coronavirus) on global poverty: Why Sub-Saharan Africa might be the region hardest hit, <https://blogs.worldbank.org/opendata/impact-covid-19-coronavirus-global-poverty-why-sub-saharan-africa-might-be-region-hardest>.
- Gupta, S., Nguyen, T. D., Rojas, F. L., Raman, S., & Lee, B., (2020). *Tracking Public and Private Response to the Covid-19 Epidemic, Evidence from State and Local Government Actions*. National Bureau of Economic Research
- Khazaeian, S., Kariman, N., Ebadi, A., & Nasiri, M.,(2017). The impact of social capital and social support on the health of female-headed households: a systematic review. *Electron Physician* 9(12):6027–34.

- Lange, F., & Wiczer, D.G. (2020). Labor Demand in the Time of Covid-19: Evidence from Vacancy Postings and Ui Claims. National Bureau of Economic Research
- Le Nestour, A., Mbaye, S., Sandefur, J., & Moscoviz, L. (2020). Phone survey on the Covid crisis in Senegal, Harvard Dataverse
- Ministry of Health. (2020). COVID-19 outbreak in Kenya, Daily situation report 66, Ministry of Health
- Montenovo, L., Jiang, X., Rojas, F.L., Schmutte, I.M., Simon, K.I., (2020). Determinants of Disparities in Covid-19 Job Losses. National Bureau of Economic Research
- Nguyen, G. T. H., White, B., & Ma, C. (2019). When Faced with Income and Asset Shocks, Do Poor Rural Households in Vietnam Smooth Food Consumption or Assets? *The Journal of Development Studies*, 55(9), 2008–2023.
- Population Council (2020). Kenya: COVID-19 knowledge, attitudes and practices responses from Second Round of Data Collection in Five Informal Nairobi Settlements (Kibera, Huruma, Kariobangi, Dandora, Mathare) [COVID-19] *Research & Evaluations Brief*.
- Sumner, A., Hoy, C., & Ortiz-Juarez, E. (2020). Estimates of the impact of COVID-19 on global poverty (WIDER Working Paper 2020/43), UNU-WIDER
- Were, M. (2020). COVID-19 and socioeconomic impact in Africa (WIDER Background Note 2020/3), UNU-WIDER.
- World Health Organization. (2020). WHO Coronavirus Disease (COVID-19) Dashboard, <https://covid19.who.int/>.
- Zollmann, J., Ng'weno, A., Gachoka, A., & Wanjala, C. (2020). When hustling fails: The impact of coronavirus mitigation efforts on ordinary people's livelihoods, <https://fsdkenya.org/blog/when-hustling-fails>
- Yoosefi Lebni J, Khorami F, Ebadi . F., Azar F, Khosravi. B, Safari. H, Ziapour. A. (2020).Experiences of rural women with damages resulting from an earthquake in Iran: a qualitative study. *BMC Public Health*, 20,1–13.
- Cooper, J. & Schindler, S. (2011). *Business Research Methods*. (11th Ed.), New Delhi, India: McGraw-Hill International Edition
- Creswell, J., & Miller, L. (2010). Determining Validity in Qualitative Inquiry. *Journal of Theory into Practice*, 39(3), 124-130
- Cronbach, J. (1971). Test validation. In R. L. Thorndike (Ed.), *Educational measurement* (2nd ed., 443-507). Washington, DC: American Council on Education
- Engida, Y. M. (2021). The Three-Dimensional Role of Education for Women Empowerment. *Journal of Social Sciences*, 17, 32-38
- Fraenkel R. & Wallen, N.E. (2006). How to Design and Evaluate Research in Education. Newyork, Ny: Mcgraw-Hill Publishing Company Tabachnik, B.G., & Fidell, L.S. (2001). *Using Multivariate Statistics* (4th ed.). Pearson: Needham Heights, MA.
- Government of Kenya. (2010). *Kenyan Constitution*. Nairobi. Government Press
- Gujarati, D., & Porter, D. (2009). *Basic Econometrics*, (5th ed.). New York, US: McGraw-Hill Irwin

- Javad, Y. L., Mohammad A. M. G., Goli, S., Bahar K., Arash Z., & Seyed, F. I. (2020). Challenges and opportunities confronting female-headed households in Iran: a qualitative study. *BMC Women's Health*, 20 (183), 2-11
- Kasomo, D. (2006). *Research Methods in Humanities and Education*. Njoro; Egerton University Press.
- Khoshtaria, T (2018). The Impact of Strategic Planning on Organizational Performance through Strategy Implementation. *International Scientific-Practical Magazine*.
- Kombo, K., & Tromp, A. (2006). *Proposal and Thesis Writing: An Introduction*. Nairobi: Paulines Publishing Africa.
- Kothari, C. & Garg G. (2014). *Research Methodology: Methods and Techniques*. (3rd Ed.), New Delhi, India: New Age International (P) publishers
- Kothari, C.R. (2004). *Research Methodology Methods and Techniques*. New Delhi, New Age International Publishers.
- Krejcie, R. & Morgan, D. (1970). *Determining the Sample Size for Research Activities*. Educational Psychology Measures
- Lawshe, H. (1975). A Quantitative Approach to Content Validity. *Personnel Psychology*, 28, 563–575.
- Mathieson, J., Popay, J., Enoch, E., Escorel, S., Hernandez, M., Johnston, H. and Rispel, L. (2008). Social Exclusion Meaning, measurement and experience and links to health inequalities A review of literature. WHO Social Exclusion Knowledge Network Background Paper 1.
- Moore, D., & McCabe, G. (2014). *Introduction to Practice of Statistics* (5th ed.). Thousand Oaks, CA: Sage
- Mugenda, O. M., & Mugenda, A. (2003). *Research Methods: Quantitative and Qualitative Approaches*, Nairobi: African Centre of Technology Studies.
- Mugenda, O.M. & Mugenda, A. G. (2003). *Research Methods: Quantitative & Qualitative Approaches*. Nairobi: African Centre of Technology Studies
- Neethi, D. J. (2017). Employment and Economic Wellbeing of Single Female-Headed Households. *Masters of Science in Economic Theory and Policy*. 5
- Ozawa M. N., Lee Y., & Wang K. (2017). Economic conditions of female-headed households in Taiwan in comparison with the United States and Sweden. *J Comp Soc Welf*, 27(1), 63–74
- Quaife, M., Zandvoort, K. V., Gimma, A., Shah, K., McCreesh, N., Prem, K., Barasa, E., Mwanga, D., Kangwana, B., Pinchoff, J., Edmunds W. J., Jarvis, C. I., & Austrian, K. (2020). The Impact of COVID-19 Control Measures on Social Contacts and Transmission in Kenyan Informal Settlements. *BMC Medicine* (2020) 18:316
- Remenyi, D., Williams, B., Money, A., & Swartz, E. (1998). *Doing Research in Business and Management: An Introduction to Process and Methods*. London. Sage Publications
- Rezaei M. A., Mohammadinia, N. & Samiezadeh, T. T. (2013). Problems of female-headed households in Sistan Baluchistan province, Iran. *J Res Health*. 3(3):452–7
- Sen, A. (2000). Social Exclusion: concept, application and scrutiny. Social Development papers 1. Asian Development Bank
- Sireci, S.G. (2007). On Validity Theory and Test Validation. *Educational Researcher*, 36 (8), 477–481

- Social Exclusion Unit (SEU) (1997). *Social Exclusion Unit: Purpose, work priorities and working methods*. London: The Stationery Office
- UN. (1999). Committee on Economic, Social and Cultural Rights, General Comment no. 13 (1999), para. 1, 'Education is both a human right in itself and an indispensable means of realizing other human rights.'
- Wodon, Q., Montenegro, C. E., Nguyen, H., & Onagoruwa, A. (2018). Missed Opportunities: The High Cost of Not Educating Girls. <http://repositorio.minedu.gob.pe/handle/20.500.12799/662>
- Zhang, H., Maloney, Z., Juslin, P., Winman, A., & Olsson, H., (2011). A Common Presentation of Linearity of Probability and Frequency Distortion in Perception Action and Cognition. *Front Neurosci*, 6(1), 456-471.
- Zientek, L., Kim, N., & Bryn, H. (2016). Analyzing Data from a Pretest-Posttest Control Group Design: The Importance of Statistical Assumptions. *European Journal of Training and Development*, 40(8-9), 638-659
- Zikmund, W. (2003). *Business Research Methods*. United States of America: South-Western Publishers.
- Zikmund, W., Babin, B., Carr, J., & Griffin, M. (2013). *Business Research Methods*. New York: Cengage Learning Custom Publishing
- Rezaei, M.A, Mohammadinia, N, & Samiezadeh, T.T. (2018). Problems of female-headed households in Sistan Baluchistan province, Iran. *J Res Health*, 3(3),452–7.
- Ozawa, M.N., Lee, Y., Wang, K.Y.T, (2017). Economic conditions of female-headed households in Taiwan in comparison with the United States and Sweden. *J Comp Soc, Welfare*. 27(1), 63–74.
- Statistical Center of Iran (2016). National Census of Population and Housing of Iran. <https://www.amar.org.ir/english/Population-and-Housing-Censuses>.
- Rafii, F., Seyedfatemi, N., & Rezaei, M., (2013) Factors involved in Iranian women heads of household's health promotion activities: a grounded theory study. *Open Nurse J*. 7,133.
- Veisani, Y., Delpisheh, A., & Sayehmiri, K., (2017). Health related quality of life in the female-headed households. *Int J Epidemiol Res* 2(4)178–83
- Parvizy, S. Kiani, K. & Ivbijaro, G.(2013). Women's health bridges and barriers: a qualitative study. *Health Care Women Int*. 34(3–4), 193–208.
- Springhouse (2015). *Women's health: A guide to health promotion and disorder management*: Wolters Kluwer Health
- Irandoost, S.F., Taghdisi, M.H., Dehdari, T., Bayangani, B., Azadi, N. A.(2019) Obesity consequences from the people's perspective living in Kurdish regions of Iran: A qualitative content analysis. *J Educ Health Promot*, 8 (159)
- Yoosefi Lebni, J., Ziapour, A., Qorbani, M., Baygi, F., Mirzaei, A., Safari, O., (2020). The consequences of regular methamphetamine use in Tehran: qualitative content analysis. *Subst Abuse Treat Prev Policy*. 15, 1–10.
- Yoosefi Lebni, J., Khorami, F., Ebadi, F., Azar, F., Khosravi, B., Safari, H., & Ziapour, A., (2020). Experiences of rural women with damages resulting from an earthquake in Iran: a qualitative study. *BMC Public Health*, 20,1–13.

- Habib, T.Z. (2017). Challenges of the female heads of household in Bangladesh: a qualitative inquiry. *J Adv Soc Sci Humanit*, 3 (6), 36160–9.
- Yoosefi Lebni, J., Mansourian, M., Taghdisi, M.H., Khosravi, B., Ziapour A, & Özdenk, G.D.(2020). A study of Kurdish women's tragic self-immolation in Iran: a qualitative study. *Burns*, 45 (7), 1715–22.
- Mirzaee. H., Gol, A. K., & Labani, J.Y.(2015). Tragedy of self-immolation: an Iranian case study in the towns of Salas Babajani and Sarpol Zahab. *Soc Anthropol*. 3(6), 301–6
- Liu, C.E.A., & Treviño, R.(2017). Female-headed households and living conditions in Latin America, *World Dev*. 1(90), 311–28
- Nwosu, C., Ndinda, C.(2018). Female household headship and poverty in South Africa: *an employment-based analysis*. 2018.
- Montoya, Á.J.A., & Teixeira, K.M.D.(2017). Multidimensional poverty in Nicaragua: are female-headed households better off? *Soc Indic Res*, 2(3), 1037–63.