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Effect of Cash Transfers on Household Consumption amongst the Vulnerable Population in Awendo Sub-County

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ABSTRACT

Despite the national cash transfer programme, poverty rate among the Kenyan population is still high at a prevalence rate of 48.9% in 2016 up from 45% in 2008. In Kenya, poverty prevalence is disproportionately spread across the 47 counties and sub-counties. In Awendo sub-county, poverty prevalence rate is 49.8 % in 2018 which is higher than the national figure prompting this empirical study. The purpose of this study was to analyze the effects of cash transfer on consumption among vulnerable households in Awendo Sub-County. The study was anchored on the Life Cycle hypothesis of consumption and savings, the study used a correlational design to aid the determination of relationship and association between cash transfers and status of household consumption. Using stratified sampling method, a total of 390 respondents were selected. However, the response rate was 98.7 %. Cronbach's alpha coefficient was estimated to test for reliability and the value was 0.782 which was greater than the threshold of 0.7. The study used multiple linear regression models which indicated that, there is a positive significant effect of cash transfer on consumption (α_1=0.060;p=0.046). In conclusion; cash transfer is an important factor determining levels of consumption of the vulnerable population in Awendo Sub-County. The study recommends for policy to enhance allocations among the vulnerable population in Awendo and Kenya in general. The study provides empirical evidence on the current body of knowledge for researchers and policy makers.

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Life Cycle Theories of Consumption and Savings

Economists have developed three major theories of consumption and saving behavior: The life-cycle hypothesis the permanent income hypothesis and the relative income hypothesis. All three theories have their conceptual roots in the microeconomic theory of consumer choice. However, the life-cycle and permanent income hypotheses are the most similar; both theories assume that individuals attempt to maximize their utility or personal well-being by balancing a lifetime stream of earnings with a lifetime pattern of consumption [1-3].

The theory is that individuals seek to smooth consumption throughout their lifetime by borrowing when their income is low and saving when their income is high. The LCH assumes that individuals plan their spending over their lifetimes, taking into account their future income. Accordingly, they take on debt when they are young, assuming future income will enable them to pay it off. They then save during middle age in order to maintain their level of consumption when they retire. A graph of an individual's spending overtime thus shows a hump-shaped pattern in which wealth accumulation is low during youth and old age and high during middle age.

The life-cycle hypothesis has been utilized extensively to examine savings and retirement behavior of older persons. This hypothesis begins with the observation that consumption needs and income are often unequal at various points in the life cycle. Younger people tend to have consumption needs that exceed their income. Their needs tend to be mainly for housing and education, and therefore they have little savings. In middle age, earnings generally rise, enabling debts accumulated earlier in life to be paid off and savings to be accumulated. Finally, in retirement, incomes decline and individuals consume out of previously accumulated savings.

Empirical studies of the life-cycle hypothesis have generated a large literature. Studies that have focused on the savings behavior of older persons, however, have been inconclusive regarding the correspondence between observed savings behavior and the pattern of saving and dissaving predicted by the life-cycle hypothesis. Many studies seemingly in conflict with the life-cycle hypothesis, have found that older persons continue to save in retirement. Several explanations have been offered for this.

Life-cycle savings patterns in some European countries that have generous pension systems such as France, Germany, and Italy appear to be consistent with this explanation. Another related explanation for lack of dissaving in retirement is that deteriorating health may limit the ability of individuals to consume at levels that are higher than their pension income. Moreover, the pension wealth that retired persons hold is not liquid and they are not able to draw down their pension wealth any faster than the annuity payments that they receive.

An important post-Keynesian theory of consumption has been put forward by which is known as life cycle theory. According to life cycle theory, the consumption in any period is not the function of

current income of that period but of the whole lifetime expected income. Thus, in life cycle hypothesis the individual is assumed to plan a pattern of consumption expenditure based on expected income in their entire lifetime. It is further assumed that individual maintains a more or less constant or slightly increasing level of consumption.

However, this level of consumption is limited by his expectations of lifetime income. A typical individual in this theory in his early years of life spends on consumption either by borrowing from others or spending the assets bequeathed from his parents. It is in his main working years of his lifetime that he consumes less than the income he earns and therefore makes net positive savings. He invests these savings in assets, that is, accumulates wealth which he consumes in the future years. In his lifetime after retirement he again dis-saves, that is, consumes more than his income in these later years of his life but is able to maintain or even slightly increase his con-sumption in the lifetime after retirement.

Some important conclusions follow from the life cycle theory of consumption. The fundamental idea of the life-cycle hypothesis is that people make their consumption plans for their entire lifetime and further that they make their lifetime consumption plans on the basis of their expectations of lifetime income. Thus in the life cycle model consumption is not a mere function of current income but on the expected lifetime income. Besides, in life cycle theory the wealth presently held by individuals also affects their consumption.

How the consumption of an individual in a period depends on these factors highlighted by life cycle theory can be expressed in the form of an equation. To do so let us consider an individual of a given age with an additional life expectancy of T years and intends to retire from working after serving for N years more. Then suppose that in the current period and thereafter in his life span the individual will consume a constant proportion, 1/T of his life-time income in equal installments per year.

Thus:

$$C_t = 1/T(Y_{Lt} + (N-1)YeL + W_t) \quad \text{2.1}$$

Where,
C_t = The consumption expenditure in the current period t
Y_{Lt} = Income earned from doing some labour in the current period t
N-1 = Remaining future years of doing some labour or work
Y_{eL} = The average annual income expected to be earned over N-1 years for which Individual plans to do some work
W_t = The presently held wealth or assets

Life cycle theory has also been criticized that it fails to recognize the importance of liquidity constraints in determining the response of consumption to income. According to critics, even if a household has a concrete vision of future income, the opportunities to borrow from the capital markets for quite a long period on the basis of expected future income, as has been visualized by life cycle hypothesis, are very little. This creates the liquidity constraints for deciding about consumption plans. As a result, the consumption becomes highly responsive to current income which is quite contrary to the life cycle hypothesis.

Literature Review

Estimated the effect of urban component of Mexican CCT program, Oportunidades on consumption [2]. This program started in rural Mexico in 1998 but later in the year 2003 it was expanded to urban areas. A selection criterion was based on a predetermined household's consumption, savings and investments threshold. Data collection was done from 7320 households in 2002 before program implementation and 6830 households after implementation for the years 2003 and 2004.Lack of randomization in participation across urban areas and among participants necessitated the use of DID method and instrumental variable (IV) estimators. Since there was low participation rate, the researchers also estimated the average intention to treat (AIT). The study found expected transfer was not adequate to persuade several qualified households to take part. The study also realized positive effects on consumption. However this study conceded that, low involvement in the program was as a result of low information regarding the presence of the program among other features. Regarding the effects of the program, the study findings showed that, treated households both in rural and urban areas consumed large proportion of grants. This is because most likely associated to the fact that most participants were likely to be poor ones with low saving and investment rates. This study was conducted in urban areas of Mexico and generalization of its findings to Awendo Sub-County is most likely to be unreliable.

Cash transfers might directly impact food consumption in various ways. Households might use the additional income to improve the quantity, quality and diversity of food that they consume. Cash transfers might prevent or mitigate negative responses to food insecurity, such as skipping meals. Vouchers for food rich in micronutrients might increase micronutrient intake. Cash transfers might increase dietary diversity when compared to food rations because cash can be used to purchase any type of food available. Cash transfers might indirectly improve food consumption through investment in livelihoods that increase income.

There are several indicators that could be used to analyze whether these changes take place. Diet quantity can be measured by calculating the kilocalories consumed by beneficiary households. Collecting data on the actual amounts of food consumed is challenging and recall might not be accurate. Other measures are becoming standard proxy indicators of food consumption, including the Food Consumption Score (FCS) and Household or Individual Dietary Diversity (HDDS and IDDS). Less perfectly, aid agencies can measure meal frequency, as well as analyzing how transfers were used. There are also indicators for food security based on asking questions about negative strategies adopted in response to food insecurity and feelings of anxiety, such as the Coping Strategies Index and Household Food Insecurity Access Scale.

Only four studies calculated kilocalorie consumption. In Ecuador, cash, vouchers and food aid all led to significant increases in the value of per capita calorie consumption (ranging from 12-15%). The impact of food aid was significantly larger than that of the cash transfer. Similar findings came from Yemen, where households receiving food appeared to consume four percent more calories than those receiving cash transfers [3]. In both cases the increase in calorie consumption was driven by increased staple food consumption. In Sri Lanka, baseline data on calorie intake data was collected during holidays, which affected consumption patterns. However, for one intervention region the decline in calorie intake was less for households receiving food aid compared to those receiving cash, indicating that food performed better than cash on this measure [4]. A different picture emerged in Uganda, where cash transfers increased daily kilocalorie intake by nearly 20%; and food had no effect. However, the amount of time that had lapsed between the food distribution and data collection might

have affected the findings on food aid. These limited examples suggest that all types of transfers can be effective in increasing calorie consumption, but that transfers that lead to large increases in staple food consumption may have the most significant impact on this measure. In three of the four cases, food aid had the greater impact.

The study conducted by in Mexico on changing anti-households consumption, savings and investments agenda, the study found out that the PROGRESSA's cash transfers was predominantly used to buy food but these do not have impact positively on the immediate needs of extremely poor people who were reached by the program [5]. On the other hand, the possibility of exchanging cash transfer into food may be limited due to limited food supply in the remote rural areas where most of the beneficiaries live, the unexpected inflation that may be brought about by sudden inflow of money into these communities and the cost of transportation that beneficiaries have to pay in order to receive their cash transfer which in some cases consume up to 40% of their transfer [6]. In conclusion, Mexico's anti-households consumption, savings and investments policy since initiation of economic adjustment had reflected an uninterrupted dominance of neo-liberal ideology as the basis of economic and social policy reform. However, critics said that introduction of stabilization and structural adjustment policy in Mexico contributed to the worsening welfare indicators and increased households consumption, savings and investments, as occurred in many other countries following adjustment programmes.

Where measured, cash transfers usually resulted in the purchasing and consumption of more diverse foods compared to food aid. For example, the dietary diversity of households in Malawi increased by 24% for households receiving cash and by 12% for those receiving a cash / food transfer, while the change for those receiving food aid was not statistically significant. Only one of the voucher interventions measured HDDS. The IFPRI study in Ecuador found that vouchers resulted in greater improvements in dietary diversity compared to both food aid and cash. Cash transfers did not always lead to stronger improvements in dietary diversity compared to food aid. In Kenya, monitoring found little divergence between households receiving cash and those receiving food aids; the former ate slightly more sugar and less fresh food. In Niger, households receiving cash opted to buy 'cheap' calories through the bulk purchase of staple grains (. While there was no difference in HDDS between households receiving cash and those receiving food, the comparative impacts of the transfers on FCS were striking (see below).

Household dietary diversity does not reflect how food is distributed within households, which is better captured through individual dietary diversity (IDDS) or calculating the frequency of consumption of different food groups by individual household members. Only two evaluations undertook such analysis, and both focused on children. In Swaziland, children in households that received a cash / food transfer experienced immediate and sustained improvements in dietary diversity and consumed consistently more diverse diets than children in households that received only food aid (Devereux and Jere, 2008). In Uganda, cash increased children's consumption of starches, dairy (by 66%) meat (by 100%) and eggs; whereas food had no impact in the frequency of consumption of any of the food groups.

Angelucci, Attanasio and Maro (2011) estimated the effect of Mexican CCT program, Oportunidades. The researchers used data collected in 2004, on similar households observed in 2002 and 2003. Propensity score matching method results using probit specification revealed a significant impact of this program on consumption of durables and non-durable goods. The program also increased savings and a fall in number and value of loans. A fall of in-kind transfers was also noticed. Like other related studies, this study provides knowledge to literature on handling missing data. This study was conducted in a developed country and thus a need to conduct a study in the developing nations especially in Kenya and most specifically in Awendo Sub-County.

Study on households consumption, savings and investments alleviation conducted in Brazil on funds for the elderly by, using panel data found out that a conditional cash transfer program that was undertaken in all the 27 states of Brazil at the end of 2003 targeting families with low income who were majorly the poor families with children. The transfers were being made directly to the household heads even when they were not the heads of the family. Once the family was registered and considered eligible to receive the cash, someone in the household would receive the bank card that could be used exclusively to withdraw the cash in any branch of the bank concerned. The payment was also done on a monthly basis. Therefore, the cash transfer in Brazil on households consumption, savings and investments reduction was seen in terms of number of children enrolled in school and who moved up to secondary level. The second aspect was the health issue, where the access to healthcare as a very critical issue that comes as the major objective of the program on households consumption, savings and investments reduction in Brazil. The payment was being made directly by the federal government. However, municipality also participated through registration of the beneficiaries. In Kenya however, the payment of this cash is being done on quarterly basis by the national government alone including the registration of the beneficiaries. However, this study intended to include the consumption spending as additional variables in the study which was missing in previous studies reviewed.

The study done by using randomized control trial on the consumption spending in PROGRESA found out that in 1998, the medium food expenditure was on 2 percent higher in PROGRESA households. However, in November 1999, the medium food expenditure was 10.6 percent higher when compared to the comparable control households. Not only PROGRESA households increasing overall acquisition of food but also choosing to improve dietary quality over caloric intake [7]. The household's consumption was largely increased by higher expenditures on vegetables, meat and animal products.

Study conducted in Burkina Faso on households' consumption, savings and investments alleviation by, the study employed exploratory study design and found that the additional income had increased household consumption. Thus CCTs have indeed helped reduce people's vulnerability to households' consumption, savings and investments at least in short term. A total of 3250 families, eligible to participate in the program were selected along a national list of durable goods which served as the criteria of households' consumption, savings and investments. The direct beneficiaries of the OVC program are orphans and the elderly population and the indirect beneficiaries of the program are the persons infected and affected by HIV/AIDS and vulnerable households. The aim was to provide these children with opportunities that would increase their human capital and capabilities to break down the intergenerational cycle of households' consumption, savings and investments. On a national level it seemed that CCTs had a significant impact on households' consumption, savings and investments reduction only in countries where the coverage of households had been large and

the amount of money transferred to the beneficiaries had been high. Such countries included Brazil, Argentina, Ecuador, Mexico and Jamaica. In terms of reductions in inequality there was variations among cases but it seemed that in those cases where the amount of transfer represented a higher proportion of the household income also the impacts on inequality had been more positive .

A similar study conducted by, on effects of both CCTs and Unconditional cash transfer (UCTS) on households consumption, savings and investments increment in Burkina Faso using exploratory study design found that for all the families interviewed the cash transfer was used first of all to purchase consumption goods such as soap, clothing, shoes, medicines, tools for school and to buy ingredients needed to prepare food and to vary the usual diet as articulated by a respondent Hence the cash transfer was in the first place used to compensate for consumption deficits and especially to take care of the children. This did not differ between the families who received unconditional cash transfers (UCT) and those who received CCTs. Thus money received during the program helped to alleviate the current prevailing households' consumption, savings and investments that people lived in and which according to the interviews and observations made had been aggravated due to the changes in climate influencing the harvests. The respondents' livelihoods strategies that were strongly dependent on agriculture and subsistence farming, rather than wages or formal labor, were in the absence of irrigation systems, infrastructure and other supportive mechanisms severely affected and threatened due to the drought. Even though the local context was only partly monetized, monetary resources become indispensable when the agricultural activities were not successful. The respondents thought that the additional income had significantly transformed their quality of life extending the limits of consumption.

A study conducted in Makueni County, Kenya on cash transfer for the elderly by using qualitative and quantitative data analysis method found out that the funds were being disbursed from the Ministry of Gender, Children and Social Development (MOGCSD) through PCK which is the sole disbursement agent of the cash transfer then to the PCK branches to undertake payment to beneficiaries. It was found out that some older persons were discovered to have challenges of distance which had implications in the cost of accessing the funds. Similarly, the funds were found to be sometimes irregular. It was further seen to impact on food security, household assets, shelter, health, clothing and access to goods and services. There was no baseline data to show the condition of the elderly before enrolling for the program. However, qualitative statements by some respondents depicted an improvement in overall health of the older person. A general rating of respondents' healths showed that majority of the elderly were in good condition. The research looked at challenges directly affecting the beneficiary. The focus areas were: regularity of the cash transfer stipend, hostility from the family or household emanating from being a recipient of cash transfer, distance from pay point and the cost of reaching the pay point. The research found out that the cash transfer stipend was not always regularized as indicated by majority who reported that their stipend was less often regular. An overwhelming majority did say that their community and their families were happy with them receiving the stipend. However, limited hostility was noted in regard to withdrawal of support, maltreatment by significant others and being spoken about negatively by community members. As to the cost of transport, a few had challenges spending much of their stipend on transport. On the other hand a good number of respondents (82) indicated using cash transfer in meeting medical expenses of self and household members. According to social transfers enhance those living in extreme households' consumption, savings and investments to access health services and pay for medicines and associated costs. In Namibia for instance, pensioners spent 13.8 percent of the cash they receive on healthcare for themselves and also to cover the other members of the household. Therefore, from the above literatures, there was still evidence of households consumption, savings and investments prevalence which was still on the rise in Kenya particularly in Awendo Sub-County despite the intervention towards households consumption, savings and investments reduction by both the government and non-governmental organizations through cash transfers to the target groups.

Apart from cash transfers given to the elderly to help reduce households' consumption, savings and investments among the vulnerable population, agriculture and business has played a critical role in alleviation of households' consumption, savings and investments among these vulnerable population the world over. According to the study on agriculture in India by the study found out that agriculture played a major role in alleviation of households consumption, savings and investments among most of the residents the world over [8]. This was evident by existence of income in the households of the communities who practiced agriculture as a source of income to sustain their livelihood to supplement the cash transfer given by the government. This gave a positive result where it contributed in the improvement of the living standard of the households who are practicing agriculture as the incidences of households consumption, savings and investments is greatly reduced. Therefore agriculture greatly contributed towards the households' consumption, savings and investments reduction in addition to the cash transfer given to the vulnerable population by the government of India.

On the other hand, a study in South Asia on sustainable livelihood promotion through agricultural development by, found out that about 70% of the population in the western hills of Nepal revealed that a large proportion of the households were involved in agricultural activities including crops 70% and livestock 55%. This comprised of both primary and secondary sources of livelihood for residents to help spur their living standards and improve on the conditions of life they live [9]. The study further revealed that agriculture contributes to a great extent to the households consumption, savings and investments reduction in addition to the cash transfer programme given to the vulnerable population who were also the beneficiaries of the cash programme undertaken by the government of South Asia to help alleviate households consumption, savings and investments incidences among its residents.

Businesses also contributed towards the households consumption, savings and investments alleviation through the residents of the concerned nations engaged in the sale of their produce in small scale in local markets to earn extra income to help reduce the incidences of households consumption, savings and investments prevalence among the members of their households. By doing this, the survival of their dependents was well taken care of by proceeds from the sale of the outputs from the farm.

Methodology

Research Design

The study adopted correlational design which allows for measurement of statistical relationship between two or more variables and to determine the direction of association.

The study focused on Awendo Sub-County in Migori County which was approximately 262 square kilometers with a population of approximately 108,913 (KNBS,2019) and out of this, population of 14960 (MOGCSD) persons are the vulnerable group and had been enrolled in the programme both benefiting and non-beneficiaries The study sample population was calculated using Yamen's

formula, $n = \frac{N}{1+Ne2}$ where N is the population, n is the sample size and e is the margin of error.

= 14,960/ 1 + 14,960(0.05)* (0.05)
= 389.5

=390 registered both benefiting and non-beneficiaries

Stratified sampling technique was used to ensure representative sample from each ward. Study qualitative and quantitative data was collected by the help of structured questionnaire, and were analysed based on binary multiple regression where the dependent variables were continuous while two of the independent variables were binary.

The functional relationship will be
C = f (Be, Age, G, In, Sav, Ed,).....1
Where C is consumption, Be is cash transfers, Age is age of the respondent, G is gender, In is investment, Sav is savings and Ed is education

$$C = \alpha_0 + \alpha_1 Be + \alpha_2 Age + \alpha_3 \Pr + \alpha_4 Se + \alpha_5 Ter + \alpha_6 G + e_1 \quad \ldots\ldots 2$$

$$\Pr = \begin{cases} 1 & \text{1 if primary level education, 0 if no education at all} \\ 0 & \end{cases}$$

$$Se = \begin{cases} 1 & \\ 0 & \text{1 if secondary level education, 0 if no education at all} \end{cases}$$

$$Ter = \begin{cases} 1 & \\ 0 & \text{1 if tertiary level education, 0 if no education at all} \end{cases}$$

$$G = \begin{cases} 1 & \\ 0 & \text{1 if male, 0 if female} \end{cases}$$

$$Sa = \delta_0 + \delta_1 Be + \delta_2 In + \delta_3 Oc + \delta_4 Age + \delta_5 C + e_2 \quad \ldots\ldots 3$$

$$Be = \begin{cases} 1 & \text{1 if cash transfer beneficiary, 0 if non-cash transfer beneficiary} \\ 0 & \end{cases}$$

$$Oc = \begin{cases} 1 & \text{1 if a business person, 0 if peasant farmer} \\ 0 & \end{cases}$$

C-consumption, Sa.-Savings, In-investment, Be-Cash transfer beneficiary, Pr-Primary level of education, Se-Secondary level of education, Ter-Tertiary level of education

α_0-Parameter consumption for non-beneficiary,
α_1 -Parameter in average consumption between beneficiary & non-beneficiary
α_3 -Parameter in average consumption between beneficiary with primary education and that with no education
α_4 -Parameter in average consumption between beneficiary with secondary education and that with no education
α_5 -Parameter in average consumption between beneficiary with tertiary education and that with no education
α_6 -Parameter in average consumption between beneficiary who is male and a female

Findings

A total of 14,960 households' in Awendo Sub-County are enrolled in the cash transfer programme. However, not all enrolled households are so far benefiting from the programme. From the 385 participants as in Table 4.2 and Figure 4.1, a total of 247 were benefiting from government cash transfer that translated to 64.2% while 138 households translated to 35.8% are yet to start benefiting from the programme. This 64.2% coverage although above average, was an indication that more vulnerable groups and the elderly (35.8%) were still suffering because they could not benefit from the cash transfer program. This called for increased budgetary allocations by the government from Kshs. 1.3 million to Kshs. 2 million so that the non-benefiting persons can also be reached if the goal of increasing households' consumption, savings and investments was to be realized.

Table 1 Cash Transfer Beneficiaries

Beneficiary	Frequency (n)	Percent (%)	Cumulative Percent (%)
Yes	247	64.2	64.2
No	138	35.8	100.0
Total (N)	385	100.0	

Period Benefited from Cash Transfer Programme

Results in Table 1 on the period that the beneficiary has benefited from cash transfer indicated that out of the 247 cash transfer beneficiaries, 5 (2.0%) had benefited for less than one year, 187 (75.7%) between 1 to 5 years, 46 (18.6%) between 5-10 years and 9 (3.6%) had benefited for more than 10 years. The findings indicate that majority at 192 (77.7%) have benefited from the program for less than 5 years. This might be attributed to the fact that initially the program was meant for those who were very needy but recently expanded to cover anybody at the age of 70 and above.

Table 2: Period Benefited from Cash Transfer

Education Level	Frequency	Percent (%)	Cumulative Percent (%)
Below one year	5	2.0	2.0
Between 1-5 years	187	75.7	77.7
Between 5-10 years	46	18.6	96.4
Above 10 years	9	3.6	100.0
Total	247	100.0	

The objective of study was to analyze the effect of cash transfers on household consumption amongst the vulnerable populations in Awendo Sub-County. This was based on the null hypothesis that cash transfer does not have an effect on household consumption in Awendo Sub-County. The study discussed the effect based on correlation analysis and binary linear regression with reference to demographic characteristics of age, gender and education as in sections.

Consumption Expenditure Correlation Analysis

Correlation was done to figure out how the independent variables that is consumption, savings and investment associates with the cash transfer programme. The Variance Inflation Factor identified the correlation between independent variables and the strength of the correlation.

Correlation analysis results in Table 3 indicated correlation coefficients with p-values in parentheses between consumption expenditure (C) and; - cash transfer benefit (Be.) of 0.060 (0.023), age of -0.069 (0.175), 0.079 (0.120) for gender (G), 0.094 (0.066) for primary education (Pr.), -0.170 (0.001) for secondary education (Se.) and -0.359 (0.000) for tertiary education (Ter.). This suggests that 6% increase in consumption is significantly associated with cash transfer benefit of individuals. This implies that cash transfer in addition to funds from other sources increase the disposable income for the vulnerable households and therefore there is a change in the consumption spending as individuals will tend to consume more due to increased income caused by addition of income from cash transfer. A 6.9% decrease in consumption is associated with age of individual. On the other hand a 7.9% increase in consumption is associated with gender of individuals, 9.4% increase in consumption is associated with primary level of education, a 17% decrease in consumption is associated with secondary level of education and a 35.9% decrease in consumption is associated with tertiary level of education of the individual. This conforms to a priori expectation and study on consumption showed that increase in disposable income due to cash transfers increases consumption spending of vulnerable households. Also similar study conducted by, on effects of both CCTs and Unconditional cash transfer (UCTS) on households consumption in Burkina Faso using exploratory study design, the study found that all the families interviewed the cash transfer was used first of all to purchase consumption goods such as soap, clothing, shoes, medicines, tools for school and to buy ingredients needed to prepare food and to vary the usual diet as articulated by a respondent Hence the cash transfer was in the first place used to compensate for consumption deficits and especially to take care of the children. The findings lead to the rejection of the null hypothesis that cash transfers do not have effect on consumption amongst the vulnerable populations in Awendo Sub-County, Kenya which may be due to increased disposable income on of cash transfer beneficiaries that gives them more accessibility to food. The findings given p-values of less than 0.05 indicated that there is a significant positive association between cash transfers and consumption expenditure at 5% level of significance. This therefore has an implication that cash transfer programme has greatly contributed in improving the living standard of the vulnerable group of population in Awendo Sub-County through increasing the consumption expenditure due to increased disposable income occasioned by disbursement of cash transfer funds to the target beneficiaries who are the vulnerable residents of Awendo Sub-County. This implies that benefit from cash transfer offers an opportunity for increased consumption which might be attributed to improved disposable income that enhances accessibility to food, healthcare and education. It should also be noted that, consumption expenditure had no association with age, gender and primary level education given that the p-values for the factors were greater than 0.05. Attainment of secondary and tertiary education indicated a significant negative association with consumption expenditure.

Table 3: Correlation Matrix Consumption Expenditure and its determinants

Variable	Age	C	Be.	G	Pr	Se	Ter
Age	1						
C	-.069 (.175)	1					
Be.	.060* (.023)	.079* (.042)	1				
G	.079 (.120)	-.019 (.705)	.014 (.778)	1			
Pr	.094 (.066)	.020 (.693)	.227* (.000)	.044 (.395)	1		
Se	-.170* (.001)	-.053 (.303)	-.045 (.382)	.016 (.762)	-.143** (.005)	1	
Ter.	-.359* (.000)	.020 (.699)	-.126* (.013)	-.010 (.848)	-.178* (.000)	-.068 (.183)	1

Values in parenthesis ( ) are p-values, C-Total Consumption expenditure, Be -Cash transfer beneficiary, G-Gender, Pr, Se, Ter.-Primary, Secondary & Tertiary Education level respectively, * indicate p-value < 0.05 hence statistical significance at 5% level of significance. Source; author (2020)

Consumption Expenditure Binary Regression Analysis

Regression was conducted based on which variables had a significant correlation with consumption expenditure i.e. cash transfer benefit, expenditure on food, school fees and healthcare. Results in Table 4 show the relationship between consumption expenditure and cash transfer benefit with age, gender and education. Age (B= .624, P= .645), gender and primary level of education had no significant influence on consumption expenditure at 5% level of significance since the p-values for the variables were > 0.05. However, secondary level of education (B=-11.335, P=.001) and tertiary level of education (B=-0.914.033, P=0.037) had significant influence on consumption expenditure at 5% level of significance since the p-values for the variables were <0.05, and conforms to a priori expectation and study on consumption showed that increase in disposable income due to cash transfers increases consumption spending of vulnerable households. The findings lead to the rejection of the null hypothesis that cash transfer does not have an effect on consumption amongst the vulnerable populations in Awendo Sub-County, Kenya which may be due to increased disposable income on the beneficiaries of cash transfer that gives them more accessibility to food.

Table 4: Consumption Expenditure Binary Regression Analysis Results

Model	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	T	Sig.	Collinearity Statistics Tolerance	VIF
(Constant)	2197.807*	123.827		17.749	.000		
Be.	84.662*	22.752	.060	3.721	.046	.951	1.052
G	16.624	14.034	.012	1.185	.645	.988	1.013
Age	.624	.572	.299	1.091	.077	.987	1.013
Pr.	2.065	1.094	.001	1.888	.231	.960	1.041
Se.	-11.335*	2.121	-.004	-5.344	0.001	.927	1.078
Ter.	-194.033*	45.693	-1.205	-4.246	0.037	.825	1.212
a. Dependent Variable: Give approximate monthly expenditure for your household in Kshs.							

* indicate statistical significance at 5% level of significance where p-value < 0.05. Source; author (2020)

Given the binary relation where 1 denotes cash transfer beneficiary and 0 denotes non-cash transfer beneficiary, a constant value of 2,197.80 that is statistically significant at 5% level of significance given a p-value 0.000 < 0.05 as in Table 4 and models (4.1) and (4.2) indicated that if the participant is not a cash transfer beneficiary his/her average consumption expenditure will be Kshs. 2197.81. On the other hand, if the participant is a beneficiary of cash transfer a coefficient of 84.66 that is statistically significant at 5% level of significance given a p-value 0.046 < 0.05 presented the difference in the average spending on consumption expenditure between cash transfer beneficiaries and non-cash transfer beneficiaries.

As from the study models a beneficiary of cash transfer with no education or primary level education no matter their age and gender spends an average of Kshs. 2,282.50 on consumption compared to an average of Kshs. 2,197.81 spending by a non-cash transfer beneficiary. Similarly, as in models (4.5) and (4.6) a beneficiary of cash transfer with primary and tertiary education spends an average of Kshs. 2,271.13 and Kshs. 2,090.50 respectively on consumption. The finding implied beneficiaries of cash transfer spend more on consumption expenditure by Kshs.84.66 in relation to their non-cash transfer beneficiary counterparts. Beneficiaries with secondary and tertiary level education spend less on consumption by Kshs.11.34 and Kshs.194.03 respectively in comparison to their counterparts with primary level education or no education at all. This is an indication of significant positive relationship between cash transfer and consumption which supports the correlation analysis results and conforms to a priori expectation and study on consumption showed that increase in disposable income due to cash transfers increases consumption spending of vulnerable households. The findings lead to the rejection of the null hypothesis that cash transfer does not have an effect on consumption amongst the vulnerable populations in Awendo Sub-County, Kenya which may be due to increased disposable income on of cash transfer beneficiaries that gives them more accessibility to food.

$$\hat{C} = \underset{(123.827)}{2197.807} + \underset{(22.752)}{84.662}\,Be + \underset{(14.034)}{16.624}\,G + \underset{(0.072)}{0.624}\,A + \underset{(1.094)}{2.065}\,\mathrm{Pr} - \underset{(2.121)}{11.335}\,Se - \underset{(45.693)}{194.033}\,Ter \quad \ldots\ldots(4.1)$$

$$Mean(Be = 0, \mathrm{Pr} = 0, Se = 0, Ter = 0) = 2197.807 \quad \ldots\ldots(4.2$$

$$Mean(Be = 1, \mathrm{Pr} = 0, Se = 0, Ter = 0) = 2197.807 + 84.662 = 2{,}282.469 \quad \ldots\ldots(4.3)$$

$$Mean(Be = 1, \mathrm{Pr} = 0, Se = 1, Ter = 0) = 2197.807 + 84.662 - 11.335 = 2{,}271.134 \quad \ldots\ldots(4.4)$$

$$Mean(Be = 1, \mathrm{Pr} = 0, Se = 0, Ter = 1) = 2197.807 + 84.662 - 194.033 = 2{,}090.501 \quad \ldots\ldots(4.5)$$

Consumption Expenditure Binary Regression Model goodness of Fit and Diagnostics

A coefficient of determination (R2 = 0.759) in Table 4.12 with an F-statistic 119.713 having a p-value 0.000 <0.05 showed that the model is statistically significant at 5% level of significance and changes in the independent variables of cash transfer, age, gender and education jointly explain 75.9% of changes in total consumption expenditure for the participants. VIF values of < 10 as in a Durbin-Watson statistic of 1.904~2.0 showed that there was no problem of multicollinearity and autocorrelation. Further, plotting the distribution of residuals showed that residuals are normally distributed while plotting residuals against predicted values of the dependent variable showed no regular patterns as residuals were scattered all over an indication that heteroscedasticity was not a problem.

Table 4.12 Consumption Expenditure Model Summary Results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.871[a]	.759	.553	451.48518	1.904

a. Predictors: (Constant), School fees for children, Healthcare for the family, Food items, Have you benefited from the cash transfer by government?

b. Dependent Variable: Give approximate monthly expenditure for your household in Kshs.

Table 4.13 Consumption Expenditure ANOVA Results

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	97608659.367	4	24402164.842	119.713	.000
Residual	77458769.205	380	203838.866		
Total	175067428.571	384			

a. Dependent Variable: Give approximate monthly expenditure for your household in Kshs.
b. Predictors: (Constant), School fees for children, Healthcare for the family, Food items, Have you benefited from the cash transfer by government?

Summary of Findings

The objective of this study was to analyze the effect of cash transfer on household consumption amongst the vulnerable populations in Awendo-Sub-County, Kenya. It was guided by the null hypothesis that cash transfer does not have an effect on household consumption amongst the vulnerable populations in Awendo-Sub-County, Kenya. The findings indicated that all (385) households comprising of cash transfer beneficiaries and non-beneficiaries spend on household consumption. Correlation analysis results indicated that cash transfer and total consumption expenditure had a significant positive association at 5% level given a correlation coefficient r = 0.079 with a p-value 0.042 < 0.05. Binary regression results with age, gender and education as intervening factors revealed that beneficiaries of cash transfer spend Kshs. 84.66 more on consumption in relation to non-cash transfer beneficiaries that was statistically significant at 5% level of significance given a p-value of 0.046 < 0.05. For instance, cash transfer beneficiaries spend an average of Kshs. 2,282,469 on consumption while non-beneficiaries spending an average of Kshs. 2,197,807on consumption. The results conform to a priori expectation and show that cash transfers increase disposable income that gives beneficiaries more accessibility to food, education and healthcare in relation to the non-beneficiaries.

The study recommends the following to realize the goal of increasing households' consumption amongst the vulnerable populations in Awendo-Sub-County, Kenya. First, concerted efforts by the government should be made to increase budgetary allocation towards cash transfers so that non-beneficiaries who are enrolled in the programme may start benefiting from the cash transfer and even enhance the amount given to each beneficiary.

The findings of the study have policy implications that can be very useful to policy makers in developing social protection policies. Generally, cash transfers are innovative forms of social protection centered towards provision of money to poor or vulnerable households with the aim of enabling them to move out of poverty by protecting their financial, physical and human capital assets. In the short term, cash transfer reduces poverty through a cash transfer, and in the longer term, they aim at investing in human capital [10-43].

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