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EFFECT OF PAYMENT MECHANISM ON CASH TRANSFER FOR ORPHANS AND VULNERABLE CHILDREN PROGRAM IN KENYA: A CASE STUDY OF BUSIA COUNTY

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ABSTRACT

Kenya government has been implementing Cash Transfer for Orphans and Vulnerable Children programme since 2004 and in the course of the implementation cycle various payment mechanisms had been adopted. The four objectives guiding the study were: to establish the effects of payment mechanism on CT-OVC; to establish the effect of cash-based transfer on CT-OVC; to establish the effect of card-based transfer on CT-OVC and to establish the effect of the account-based transfer on CT-OVC. The study is grounded on the Diffusion of Innovation theory. The study adopted a descriptive survey design while data was collected through primary and secondary sources employing a questionnaire as the data collection instrument that was administered to 99 sample recipients of CT-OVC in the seven sub-counties of Busia County. Stratified in addition to simple random sampling technique was employed. The study used multiple regression analysis with the aid of SPSS version 20 as a tool of analysis. Crucially, majority of the respondents preferred to be paid through a card-based transfer mechanism at 66.7%.

Similarly, only 5.1 % preferred to be paid through cash-based transfer. 12.1% preferred to be paid in the account-based transfer mechanism which is currently being implemented by the government. Mobile money transfers specifically Mpesa and Airtel money were preferred as other payment mechanisms by 16.2% of the respondents. The study recommends increased awareness on the current payment mechanisms to recipients of CT-OVC programme. Issues of long distances covered by beneficiaries to pay points, poor service delivery at the pay points and timely payments need to be addressed. Incorporate financial literacy in the programme that shall ultimately promote financial inclusion.

Key Words: *Cash Transfer for Orphans and Vulnerable Children, Diffusion of Innovation theory, Cash-Based Transfer, Card-Based Transfer, Account-Based Transfer, Payment mechanism, Mobile money Transfer*

BACKGROUND OF THE STUDY

In recent years cash transfer programs had been adopted as a tool of ameliorating poverty by developing countries. This is explained by evidence from Latin America where the programmes were successful in addressing poverty. Ralston & Hsiao (2017) posit that the CT programs are used as policy tools in addressing poverty and promotion of human capital development, especially in children. Vincent & Cull (2011) were of the opinion that distributing timely and predictable cash transfers to individuals presents the beneficiary with more choice in planning for expenditures to address consumption needs and further provides openings for a venture in economic activities. Cash Transfer programmes have shown positive outcomes in financing immediate consumption as well as promoting human capital development especially among children. As a result of these positive results in Latin America many countries in Asia and Africa are implementing Conditional Cash Transfer (CCT) programs (Das, Do, & Özler, 2005). Ninno, Subbarao, Kjellgren, & Quintana, (2013) defined a payment mechanism as the channel that transfers cash from the funding agency to the recipients.

According to Gelb & Decker, (2012), payment mechanisms consist of pull and push types. The old-fashioned pull type is where cash is dispersed on a particular day and at a particular site or location. He further noted that the push system is flexible and convenient for recipients. In the push system payments can be made directly into the recipients' accounts and easily received via Point of Sales all over the country, besides they encourage competition between POS agents and support biometric scans for identification. The concept of payment mechanism takes three key methods in the delivery of cash transfers: The Cash-based; Card-based and payment through a bank account. In the study, the payment mechanism was measured by the coverage of payment service providers (PSPs) and a network of agents and the use of technology in the payment solutions. The distribution of PSPs and the agency network is very important in ensuring that recipients conveniently access the cash not far away from their homes at a lesser cost while promotion of the use of technology ensures that the right recipients are identified, and recipients can access financial services.

STATEMENT OF THE PROBLEM

Although (Hagen-Zanker et al., 2016) postulate that cash transfer programs are crucial elements in poverty reduction and social protection policies by governments today, there is, according to Barca, Hurrell, MacAuslan, Visram, & Wasis,(2013) little attention in evaluations of the mechanism of how to transfer cash to the recipients. Further, a review of other payment mechanism alternatives are not adequately addressed during the programme implementation period (Ninno, Subbarao, Kjellgren, & Quintana, 2013). A range of approaches are still being experimented by programmes such as in-kind, vouchers, food rations, cash-based, card-based, account-based, or a mixture of two or both. This is partly attributed to the scant technology knowledge even though literature is available on opportunities for innovative payment mechanisms.

According to Barca, Hurrell, MacAuslan, Visram, & Wasis, (2013) CTP impact assessment and performance of different payment mechanisms received less consideration than other operational aspects in the academic studies. Further, program are forced to start payments immediately thus leaving them with less time to consider other payment choices (Bankable Frontier Associates 2006). Despite the Kenya government investing in the CT programmes no study has been done to assess the effects of the payment mechanisms on the CT-OVC Program within Kenya and Busia County in particular. The study sought to bridge the gap that exists and provide information that could guide the formulation of policies on the disbursement of cash to the vulnerable.

OBJECTIVES

i. To determine the effects of payment mechanisms on "Cash Transfer for Orphans and Vulnerable Children" in Kenya.
ii. To establish the effects of cash-based transfer mechanisms on the CT-OVC in Kenya.
iii. To establish the effects of card-based transfer mechanisms on the CT-OVC in Kenya.
iv. To establish the effects of account-based transfer mechanisms on CT-OVC in Kenya.

EMPIRICAL LITERATURE REVIEW

Payment mechanisms are driven by innovations and new technology. Kenya is among the countries that had developed its financial services infrastructure regarding financial inclusion and interoperability of financial functions. The emergence of mobile money transfer and branchless banking or agency banking presents an opportunity for financial services to reach remote areas. However, new technologies need to be adopted to solve a problem and increase efficiency. The study therefore adopts the "Diffusion on Innovations" (DOI) theory propagated by Rogers (1995) as a theoretical basis in understanding the effectiveness of payment mechanisms on CT-OVC in Kenya.

Innovation offers organization and or an individual with alternative means of problem-solving. Though, the likelihood of the new means being greater to former practices is not to the problem solvers. Individuals are inspired to pursue extra knowledge on the new idea to fare with the uncertainty (Rogers, 1995). Innovation can be appropriate or not appropriate for different adopters in different circumstances. This example can easily be illustrated in the case of innovations and adoption of payment mechanisms in the developing countries' implementation of cash transfers where a majority of the countries are still relying on manual delivery mechanisms due to lack of infrastructure and the high cost of adopting new technology. In these countries adopting new technology was be a slow process compared to middle-income countries.

Barca, Hurrell, MacAuslan, Visram, & Wasis, (2013) noted that technology is on the rise especially in developing countries and this presents a large win-win opportunity with financial institutions who are willing in investing in the cash transfer programs. These financial partners could as well be financial institutions that had already invested in the financial infrastructure which the program can leverage on. According to Muthinja & Chipeta, (2018), there had been growing numbers and categories of financial innovations in developing and developed countries. These innovations had increased branchless banking that is important in efficiency especially in the financial segment. This in essence aids in transferring cash stipends in the remote areas through mobile money transfer, internet banking, teller machines, and via agency banking model where third parties represent the bank. This is supported by Pickens, Porteous, & Rotman, (2009) who contend that card enabled devices and mobile money solutions jointly with traders offering services as paying agents plays a vital part.

CONCEPTUAL FRAMEWORK

Independent Variable-Payment Mechanism

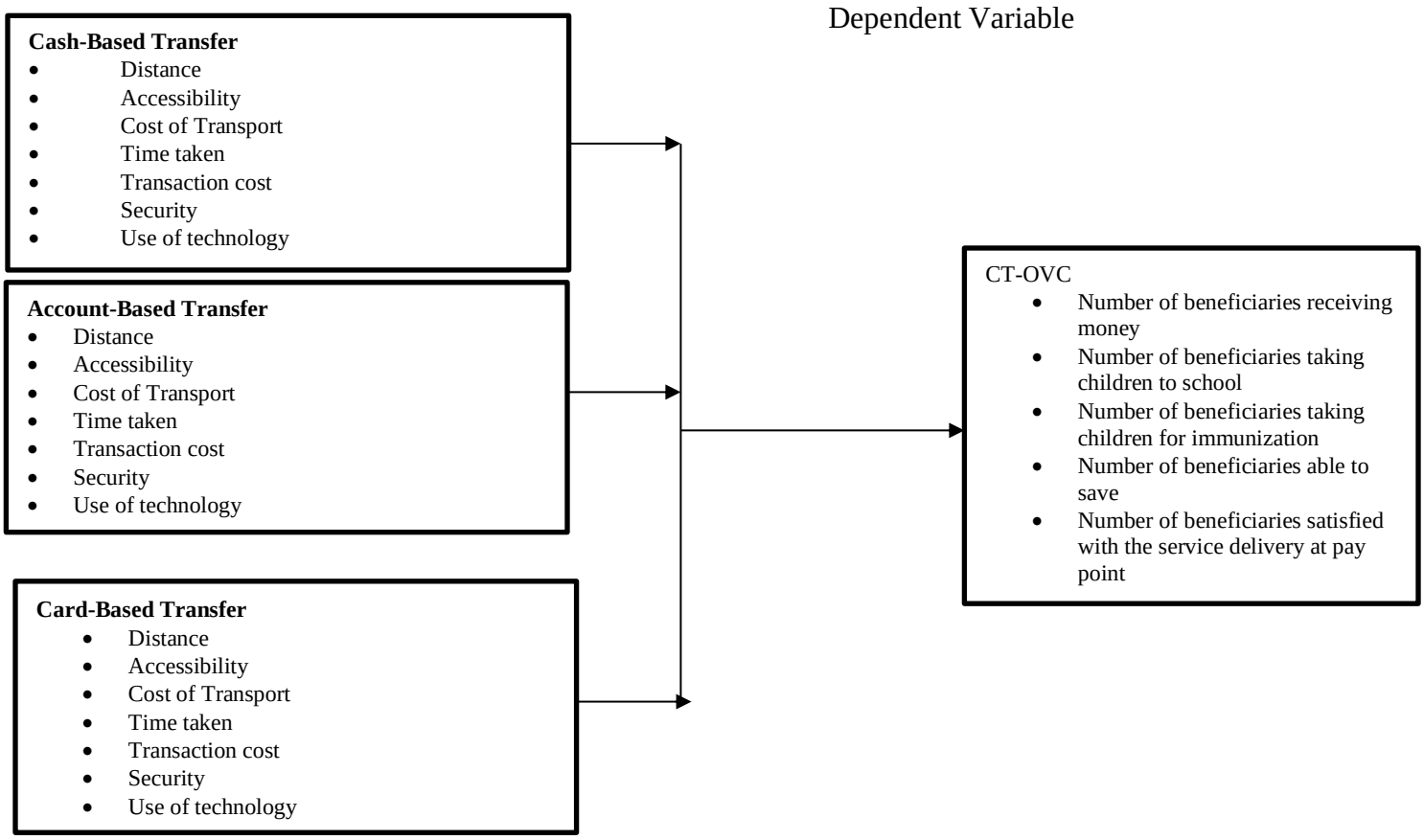

Figure 1: Conceptual Framework

RESEARCH METHODOLOGY

The study adopted both descriptive and quantitative approaches. It was carried out in the seven sub-counties of Busia, namely Bunyala, Butula, Funyula, Matayos, Nambale, Teso North and Teso South. Busia County is situated in the Western part of Kenya and has a population size of 893,681 (KNBS, 2019). A total 8296 households were benefiting from the CT-OVC programme in Busia as indicated in the program mobilization list of November-December 2019 sourced from the Social Assistance Unit which is a program implementing agency in the Ministry of Labour and Social Protection. Using Yamane (1967) formula, Sample size for a population of 8296 was calculated as follows; the formula was expressed as; n=N/1+N (e) 2. N represents the population, n is the sample and e is the precision level (0.1).Hence, the expression formula was; n=8296/1+8296(0.1)2 =99. Therefore 99 was the sample and were distributed proportionally among the seven sub-counties as indicated in the Table 1. A questionnaire was utilized in the data collection. The descriptive and inferential analysis was employed in the study analysis. The descriptive analysis was through approximation of mean, frequencies, and standard deviations while inferential inquiry was through correlation analysis, Variance (ANOVA) and regression analysis.

The regression model was:

$$Y= \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Where the dependent variable is represented by Y, while the independent variable is represented by X. X_1 is a Cash-Based Transfer mechanism, X_2 is a Card-Based Transfer mechanism and X_3 is account-Transfer mechanism while β_0 is the constant, and β_1 to β_3 represent the change or direction of the variables X. Statistical Package for Social Sciences (SPSS) software was used for data analysis. Table 1 below shows the sample size.

Table 1: Sample size

Sub-County	CT-OVC HH	PROPORTION	SAMPLE
Bunyala	1002	0.120781099	12
Butula	1816	0.218900675	22
Funyula	837	0.100891996	10
Matayos	1364	0.164416586	16
Nambale	784	0.094503375	9
Teso North	1097	0.132232401	13
Teso South	1396	0.168273867	17
Grand Total	8296	1	99

RESEARCH FINDINGS

All 99 participants responded to the survey translating to 100% rate. The results are indicated in Tables 2, 3 and 4 describe the analysis of Cash-Based Transfer mechanism, Card-Based Transfer mechanism and Account-Based Transfer mechanism based on the responses given by the respondents. Table 5 describes the analysis of CT-OVC Programme based on the responses given by the respondents. Tables 6, 7 and 8 provide regression analysis results. Table 2 below indicates that most of the caregivers agreed on the question of low transaction cost charged on withdrawal. They disagreed on the short distance covered. On the issue of easy access to cash at any time the respondents disagreed. On the low cost of transport, they disagreed. They disagreed with the statement on less time taken at pay point with a mean of They disagreed on high security at the pay point and disagreed on the increased use of technology.

Table 2: Descriptive Analysis of Cash-Based Transfer Mechanism

Statement	N	Minimum	Maximum	Mean	Std. Deviation
Short distance covered to pay points	69	1.00	4.00	2.9130	1.02526
Cash can be accessed easily and at any time	69	1.00	4.00	2.5507	1.30086
Low cost of transport	69	1.00	4.00	2.7101	1.04461
Less time is taken at the pay point	69	1.00	4.00	2.0580	1.10990
Low transaction cost charged on withdrawal	69	1.00	4.00	3.0435	1.14320
High security at the pay point	69	1.00	4.00	2.9420	1.12307
Increased use of technology	69	1.00	4.00	2.4058	1.14171
Valid N (listwise)	69				

Table 3 below shows results that most of the caregivers disagreed with the statement on the less time taken at the pay point in the card-based transfer. However, they agreed on the distance covered to the pay point is short. They agreed that cash can be accessed easily and at any time. Further, they agreed that there is low cost of transport. They agreed that there is a low transaction cost charged on withdrawal. They agreed that there is high security at the pay point. On increased use of technology, a majority agreed with the question.

Table 3: Descriptive Analysis of Card-Based Transfer Mechanism

Statement	N	Min	Max	Mean	Std. Deviation
Short distance covered to pay point	86	1.00	4.00	3.2442	.88032
Cash can be accessed easily and at any time	86	1.00	4.00	3.2674	.92577
Low cost of transport	86	1.00	4.00	3.1860	.80457
Less time is taken at the pay point	86	1.00	4.00	2.6512	1.12477
Low transaction cost charged on withdrawal	86	1.00	4.00	3.0930	1.18449
High security at the pay point	86	1.00	4.00	3.0698	1.19598
Increased use of technology	86	1.00	4.00	3.5930	.74167

Table 4 below indicates that most caregivers agreed with the question that cash can be accessed easily and at any time.They agreed on the statements that there is low transaction cost charged on withdrawal,high security at the pay point,increased use of technology.Disagreed on the question that the distance covered to the pay point is short,Low cost of transpost and ittakes less time at the point.

Table 4: Descriptive Analysis of Account-Based Transfer Mechanism

Statement	N	Minimum	Maximum	Mean	Std. Deviation
Short distance covered to pay point	80	1.00	4.00	2.3750	1.20521
Cash can be accessed easily and at any time	80	1.00	4.00	3.1625	1.06073
Low cost of transport	80	1.00	4.00	2.7000	1.01133
Less time is taken at the pay point	80	1.00	4.00	2.5875	1.08725
Low transaction cost charged on withdrawal	80	1.00	4.00	3.0750	1.23016
High security at the pay point	80	1.00	4.00	3.2250	1.16895
Increased use of technology	80	2.00	4.00	3.6875	.64815

Table 5 below illustrates that majority of the respondents agreed with the statement that an increased number of beneficiaries had received money on time. They agreed that an increased number of beneficiaries are taking children to school. They agreed that an increased number of beneficiaries are taking children for immunization. However, the respondents disagreed with the statement that an increased number of beneficiaries are able to save. Further, many respondents disagreed with the statement that an increased number of beneficiaries are satisfied with service delivery at the pay point.

Table 5: Descriptive Analysis CT-OVC Programme

Statement	N	Minimum	Maximum	Mean	Std. Deviation
Increased number of beneficiaries had received money on time	99	1.00	4.00	3.1919	.97601
Increased number of beneficiaries are taking children to school	99	1.00	4.00	3.6768	.61988
Increased number of beneficiaries are taking children for immunization	99	1.00	4.00	3.3030	.98410
Increased number of beneficiaries can save	99	1.00	4.00	2.4848	.88483
Increased number of beneficiaries are satisfied with service delivery at the pay point	99	1.00	4.00	2.9192	1.05634
Valid N (listwise)	99				

Regression Analysis

A multivariate regression model was run to determine relationships between independent and dependent variables. Following regression analysis at a 5% significance level, determination R squared of 0.011 was obtained implying that 1.1% change in the dependent variable (CT-OVC) is jointly influenced by the independent variables (Cash-based transfer, card-based transfer, account-based transfer). This means that the remaining 98.9% is explained outside the model as shown in Table 6.

Table 6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.107[a]	.011	-.020	29.00498

a. Predictors: (Constant), Received cash through Account-Based Transfer, received cash through Cash Based Transfer, Received cash through Card-Based Transfer

The analysis of variance test was determined to show the implication of the model. The findings as presented in table 7 below shows the p-value of 0.777 which is greater than the 0.05 significance level thus implying that the model is not significant and the connections between the variables are weak.

Table 7: ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	927.564	3	309.188	.368	.777[b]
Residual	79922.436	95	841.289		
Total	80850.000	98			

Findings from Table 8 above show that the relationships between cash-based transfer and the CT-OVC are positively correlated but not statistically significant. The relationship between card-based transfer and the CT-OVC are positively correlated but not statistically significant. The relationships between account-based transfer and the CT-OVC are positively correlated but not statistically significant. The model computation is Y= 40.786 +0.66(XI) +5.88(X2) +5.023(X3) Where; Y= is the dependent variable, X1=Cash-based Transfer, X2= Card-based Transfer, X3= Accounts-based Transfer.

Table 8: Regression Model Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	40.786	10.047		4.059	.000
Cash through Cash Based Transfer	.066	6.395	.001	.010	.992
Cash through Card-Based Transfer	5.881	8.794	.070	.669	.505
Cash through Account-Based Transfer	5.023	7.601	.069	.661	.510

CONCLUSION

The study ascertained that there is a positive correlation between the payment mechanism and the CT-OVC Programme, however the relationship is not strong. There is positive relationship between the cash-based transfer mechanism and CT-OVC Programme, however, the relationship is not statistically important. It was determined that there is a positive relationship between card-based transfer mechanisms and CT-OVC Programme, however, the relationship is not significant. Further, there is a positive relationship between account-based transfer mechanisms and CT-OVC Programme the relationship is not significant. The extent to which the payment mechanism influences the CT-OVC programme is not significant. Majority of the respondents preferred to be paid through a card-based transfer mechanism at 66.7%. Similarly, only 5.1 % preferred to be paid through cash-based transfer. 12.1% preferred to be paid in the account-based transfer mechanism which is currently being implemented by the government.

POLICY RECOMMENDATIONS

Government through Social Assistance Unit should create awareness on the current payment mechanism which is account-based to caregivers of CT-OVC Programme. Address the issue of long distances covered by beneficiaries to pay point and poor service delivery at the pay points. Ensure timely payments and create awareness for savings among the beneficiaries. Incorporate financial literacy in the programme and come up with an exit strategy to ensure that caregivers do not stay in the programme for a long period.

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CONFLICT OF INTEREST

No potential conflict of interest has been recorded by the authors.

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