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DIGITAL CASH PAYMENT AND ACCESSIBILITY OF *INUA JAMII* CASH TRANSFER PROGRAM IN MATUNGULU SUB-COUNTY, MACHAKOS COUNTY, KENYA

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Abstract: *This study examined digital functionality of Inua Jamii cash transfer dynamics in Matungulu Sub-county in Machakos County, Kenya. A concurrent mixed method was utilized, particularly descriptive survey and an exploratory research designs were used. Study respondents included Inua Jamii cash transfer program beneficiaries and service providers. Sample size of 365 was calculated from the Slovin's formula (n = N / [1 + N (e)2]). Quantitative data was analyzed using descriptive statistics, while qualitative data was analyzed using content analysis and presented through verbatim. From the findings, it emerged that there weren't adequate pay points in respondents' area. This was indicated by 57.8% (193) of the respondents. Most of the respondents had to commute for a distance between 1 Km and 6Km before they could get to their preferred pay point. Majority of the respondents felt secure transacting through the digital modes of transfer as opposed to the conventional cash payment. It emerged from the study that cases of hijacking had reduced as a result of digitalization of cash transfer. In digital withdrawal, it was either the beneficiaries or someone they have entrusted with their password who could withdraw their monthly cash transfer funds from their accounts. From the findings, 72.3% (243) of the respondents involved in the study affirmed that their information was safe with the banks. This study concluded that digital cash transfer payment mode had greatly influenced the Inua Jamii cash transfer program with a majority of service users appreciating the technology which to a great extent had reduced some of the security risks experienced and time spent on withdrawal of the program funds. The study recommended the government to increase the amount of monthly cash given to the beneficiaries of CTP.*

Key words: *functionality, digital system, cash payments, cash transfer program, Inua Jamii*

1.1 **Study background and literature review**

The cornerstone of digital payments is the national payment systems and the associated financial systems. Although digital payments can be more cost-effective in the long run, building proper physical infrastructure for effective electronic payment encounters may require substantial initial investment (Information, Technologies, & infoDev, 2012). To process digital payments, countries with advanced and commonly used payment and banking systems may already have a physical infrastructure in place. But the implementation of sufficient payment infrastructure, including a physical network, to distribute digital payments to all corners of the world is a major challenge in developed countries with more primitive payment systems, and where such infrastructure is centralized in urban areas.

These problems are often underrated, as seen in a study detailing the impact of digitizing payments in four low-income countries, namely Haiti, Kenya, Uganda, and the Philippines (Zimmerman, Bohling, & Parker, 2014). While the increased use of digital phones in developing countries seems to indicate that providing digital payments through mobile transfer will be easy, even in countries with the simplest banking systems, the widespread use of mobile phones is not enough. Credible transfers to mobile money accounts pose major obstacles to the infrastructure. The lack of adequate electricity supply to power the IT networks of mobile phones, cell signals, and payment systems and the constraints of mobile data coverage area are major obstacles to the growth of online payment services in rural areas.

Due to network connectivity problems, even Kenya, which is well-regarded for its mobile money infrastructure, was unable to establish a mobile money-based system for social transfer payment work from 2010 to 2012 but rather reverted to distributing the transfer payments into debit card accounts issued by a financial institution (Zimmerman et al., 2014). 2019 Afrobarometer researchers reported that just approximately four out of 10 African homes enjoy a stable electricity supply (Afrobarometer, 2019), and a survey by the world's largest industry body for mobile network operators (GSM Association) reveals that in the same period, sub-Saharan Africa accounted for 40 % of the global populace not served by a mobile broadband network (GSM, 2019).

In urban Mexico, for example, 51 percent of beneficiary households who did not even enroll for the *Progresa program*(Coady & Parker, 2005)attributed to the challenges of traveling to registration centers. In reality, car ownership increased the likelihood of households being admitted into the welfare dependency-oriented program, probably because car owners were more able to drive to the registration center. The significance of eligibility criteria has been a focus of a series of studies conducted.(De Brauw & Hoddinott, 2011)exploit the fact that PROGRESA rendered unconditional transfers to a collection of beneficiaries to equate educational performance in both classes due to administrative problems.

They find no impact of conditionality on the probability that children attend primary school, but a substantial difference among those making the move from primary to secondary school. (Barrera-Osorio, Bertrand, Linden, & Perez-Calle, 2011)found that making transfers conditional on high school graduation greatly increases educational achievement. The two current randomized studies comparing Conditional Cash Transfers (CCTs) and Unconditional Cash Transfers (UCTs) that we

are aware of have complex outcomes. (Baird, McIntosh, & Özler, 2011)run a study to equate a CCT to a UCT in Malawi between 2007 and 2009. They notice that conditioning cash transfers on school attendance improves the efficacy of the program at holding teenage girls in school, but decreased its effectiveness at forestalling teenage pregnancy and marriage.

In Burkina Faso, (Akresh, De Walque, & Kazianga, 2013) compared a UCT to a CCT conditional on registration. All in, they notice no significant difference between the UCT and the CCT. They claim that among girls and initially out of school children, CCTs lead to greater impacts than UCTs, but the results of the UCT remain significantly positive even for children who were originally out of school. This creates a gap like Digital cash programs in Matungulu Sub County and its effects on the intended beneficiaries which the present study seeks to fill.

Aker, Boumnijel, McClelland and Tierney (2016) postulate that in 80 low- or middle-income countries in Africa, Asia, and Latin America, several mobile money schemes have evolved since 2005. Most programs enable the user to save money in a 'mobile wallet' or handset-accessible account, transfer cash into and out of the stored value account via authorized representatives, and transfer cash amongst users. It can also be used for active vendors to buy air time or pay for the products. Transactions are carried out using an SMS (short message service) order or a mobile menu using a specific Code and are verified via SMS alert. According to (McKay & Pickens, 2010)branchless banking services are emerging to be popular from those who lack access to banking services, and are in need.

A recent Focus Note from the Consultative Community to Assist the Vulnerable (CGAP) found that 37 percent of clients (or an average of 1.4 million individuals each) were initially unbanked across eight branches-less banking providers. Alternative strategic uses of mobile banking systems to serve as distribution channels for additional financial services are available. In Kenya, M-KESHO, an interest-bearing savings account connected to M-PESA, was launched by Safaricom and Equity Bank. One of the widely mentioned advantages of providing cash transfers via e-payment systems is the ability it offers poor and disadvantaged families to save cash securely and navigate formal financial services, which have a positive effect on the well-being of households beyond the transfer period.

While not the primary purpose of humanitarian programs, it is frequently cited as an added advantage in program papers, and such perceived benefits have been reported by nongovernmental organizations and examined by all service providers. Part of the service providers' reasoning for funding these services is that they provide connects agencies to the 'unbanked' and new areas. Research by Microfinance Opportunity in Kenya used a financial diary technique to evaluate the usage of M-PESA by low-income users living on less than $2 / day, over 6 months, in non-emergency scenarios, compared to other financial networks.

The study showed that 'money is power,' where mobile money accounts for less than 6% of overall transactions and is primarily confined to cash transfers followed by fast cash out. The research revealed that the respondents did not seem to use M-PESA as trusted investments (Stuart & Cohen, 2011).Similar results were documented by Mbiti and Weil, who found that the use of M-PESA raises the chance of using formal financial services but provide limited evidence that people use their M-PESA account as a way to store money. This creates a gap in the current study on whether

the mobile money transfer system is significant for vulnerable households in Matungulu.

A 'robust' payment system guarantees that, at the right time, in the right place, and at the right sum, transactions reach the right individual. Thus, the essence and identification of the beneficiary, as well as of the individual receiving the payment, which may or may not be the beneficiary himself, is the first critical component that guides the design of the payment system (Transform, 2017). Programs with broad geographic coverage targeting large classifications of beneficiaries for instance, all citizens over 60 years of age regardless of their social pension income) require payment services that are distinct from small, narrowly targeted pilot programs.

Generally, large programs require a comprehensive payment system that can function in large cities, as well as in rural communities which may not be covered by electrical power or a mobile network. Digital payment devices, such as debit cards, smart cards, or cell phones are capable of preserving the beneficiary's information and payment background, and enable beneficiaries to either cash out or make cashless payments with their payment card or via mobile money (Del Ninno, Subbarao, Kjellgren, & Quintana, 2013).In recent times, a global trend towards account-linked payments has been gathering momentum, with the involvement from the fields of economic inclusion, social policy, and behavioral economics (New America Foundation, 2011).

The choice of one or more payment instrument(s), in turn, informs the decision of whether payments are made through government structures, a private payment provider, or a combination of both. One of the key considerations when selecting a payment provider is the reach of their distribution network, which might include third-party agents that deliver payments on behalf of the actual payment provider. Without extensive geographic coverage, beneficiaries might face high travel and opportunity costs to access their transfer, thus eroding the value of the payment (Gronbach, 2020). Achieving full geographic coverage and ensuring easy access to pay points for beneficiaries might require the use of several payment providers serving different areas or types of beneficiaries

Although government-led payment systems offer the benefit of stronger regulation and enforcement, digital payment mechanisms are usually focused on collaborations with private service providers. This is especially the case for donor-led initiatives in countries with relatively poor state resources, but even state-funded Social Cash Transfer (SCT) schemes in countries like Ghana, Kenya, or Nigeria have outsourced the payment mechanism to private firms such as banks, microfinance institutions, non-bank digital payments, and mobile network operators. Accessibility considerations should take account of the overall situation. In Kenya's case, social security is a right enshrined in the Constitution.

The social security of the country is pro-poor (Bhorat, 2017). On the level of coverage, only 13 percent of the population except civil servants is protected by social security instruments. This was in the year 2012. This low scope can be described by the selection mainly of formal employees for two out of the three social insurance and security instruments in the country. Formal jobs make up just 20 percent of the labor force and are thus not covered by other employees. Targeting is pro-poor in Kenya, through village level recipient welfare committees. This allows for checks and balances in the whole process and particularly in funds management. The numerous systems of social assistance also follow categorical targeting. This includes the recognition of easily

distinguishable characteristics that identify poor households and the benefit of those who share these characteristics, such as infants, elderly people, or people living in low-income areas (Domelen, 2007).

A shift to using emerging technology to provide transactions to recipients has been made in many poor countries in recent years, while also making them more financially inclusive, i.e. providing receivers with links to other financial services such as deposits, loans, and insurance). Governments should make transfers directly into beneficiaries' bank accounts to become clients of financial service providers rather than simply recipients of cash. Some countries have made strong strides in recent years in improving their payment systems' financial inclusivity. Between 2009 and 2011, Brazil expanded its compensation by established bank accounts from 2% to 15% of the recipients of the *Bolsa Familia* program; between 2006 and 2011, Mexico's *Oportuni-dadesscheme* expanded such transactions from 25% to 34%; and between 2007 and 2011, the growth in South Africa ranged from 28% to 59%.

Also, 99% of Brazil's payments and all South African benefits are paid to savings accounts, although many are limited-use accounts.3 Development in this region is not restricted to middle-income countries. In Northern Kenya – an especially inhospitable region – the Hunger Safety Net Program (HSNP) is opening conventional bank accounts for all recipients, with the ability for them to receive transfers from local bank agents located in shops and other small firms (HSNP, 2013). Payouts are provided via a common mobile phone service provider in Uganda, where banking services are inaccessible to most of the population. This further creates a gap in the methods employed to transfer cash to beneficiaries in Matungulu Sub County.

1.2 Statement of the Problem

The 2013 presidential directives mandated the digitization of all government payments. These directives underscored commitment towards enhancing transparency, accountability and efficiency in government's money delivery. Since then, social cash transfers have been delivered electronically through limited purpose accounts in commercial banks. However, the digital cash transfer payment mechanism in Kenya still faces some challenges such as low level of civil registration and to some characteristics of target population (Winnie,M., 2016).Winnie observed that the requirement of Kenyan citizenship is validated by possession of national identity card which is a problematic particularly in border towns where it's harder to identify genuine citizens due to the high incidence of non-Kenyans crossing the borders, some denying vulnerable Kenyan community members a chance to benefit from these programmes. Moreover, child headed households are also affected as identification cards are only issued at the age of 18 years.

Matungulu Sub-county which is characterized by rural setting, cash transfer beneficiaries experience technological challenges (e.g. biometric smart cards failure), limited institutional capacity of the payment service providers e.g. limited number of staff, limited knowledge and familiarity with the use of technology by the agents as well as liquidity problems. The researcher foresees that if such gaps continue to exist, consequences such as fiduciary risks, insecurity and some other times long distance between beneficiaries and points of payments will continue to negatively impact the cash transfer programme in the locality. Such challenges lead to delays which might even force beneficiaries to borrow money to pay for their upkeep which in turn might lead to mistrust among community members. Little has been done to reveal the performance of

cash transfer programmes as a result of digital cash transfer payment mechanism. Therefore, the study sought to evaluate digitization of cash transfer payment mode and its effects on programme performance in Matungulu sub-county, Machakos County.

1.3 Research objective

The overall objective of the study sought to assess the digitization of cash transfer payment mode and its effects on programme performance in Matungulu sub-county, Machakos County, Kenya

1.4 Theoretical review

Sen's Capability approach

This theory was advanced by Amartya Sen. According to him; the Capacity Approach is a broad normative criterion for understanding individual well-being and social structures, developing social change policies and procedures in community (Sen, 2014). This strategy can be used to examine a broad spectrum of facets of the well-being of individuals, such as personal well-being, inequality, and poverty. The capacity framework can be used by governments and non-governmental agencies to assess social cost-benefit analysis or assess policy initiatives. Sen 's Capacity approach implies that social structures such as the Cash Transfer Schemes should be assessed mainly according to the degree to which people's independence must facilitate or accomplish purposes that they esteem. Capability approach further aims at enhancing human development. Human development is a process of expanding the choices of people, so cash transfer program offers the beneficiary the option of being able to make household decisions, particularly those aimed at helping vulnerable groups such as people living with disabilities, Orphans and Vulnerable Children (OVC) and the elderly. Therefore, cash transfer projects targeting urban poor women in Kenya can help foster long-term development priorities and thus foster human development.

Development can be viewed as extending the true freedoms people enjoy. Development includes the elimination of major causes of un-freedom, perhaps poverty, inadequate economic opportunities, systemic social inequality and degradation of public facilities. Economic insecurity, hunger, lack of proper nutrition, lack of clothing, housing, and lack of good health care are directly linked to the lack of meaningful freedoms. (Sen & Drèze,1999). Cash transfers can be seen as a way to broaden the freedoms of individuals. Cash transfers if used well by recipients meet people's basic needs, such as food, clothes, housing, and access to health care, thereby establishing and extending the freedoms of individuals. Sen's approach to capacity focuses on the concept of positive freedom, arguing that, for instance, poverty leading to hunger is not the product of a lack of food, but rather that people in a community lack access to opportunities and/or capabilities to do anything about it. This may be due to a shortage of facilities, revenue or sufficient capital (Heywood, 2014).Vulnerable groups in Matungulu Sub County are suffering from a number of hindrances which include food shortages, poor education, little to no healthcare access, unemployment and socioeconomic instability. Cash transfers if made reliable and regular would help vulnerable groups achieve these benefits. The weakness of the theory is that it fails to specifically address how digitized cash transfer mechanisms on influence the lives of beneficiaries in Matungulu Sub County.

1.5 Materials and Methods

Research design

Adopting a concurrent mixed methods approach, both qualitative and quantitative research data were employed to get more information from the respondents. This study adopted descriptive and exploratory designs to explore and describe digital payment on *Inua Jamii* cash transfer program in Matungulu Sub-county. The research designs were used to bring out the perceptions by respondents that entailed functionality of the digital system, user experience in cash transfer, the security of the cash transfer and data integrity in the cash transfer, and the dependent variable (*Inua Jamii* cash transfer program).

Study site

The study was conducted in Matungulu Sub-County, Machakos County. The Sub County is one of the 8 Sub Counties of Machakos County and covers 577.50 Sq. Km. It consists of ten administrative wards namely: Tala, Matungulu East, Matungulu West, Matungulu North, and Kyeleni. According to (Statistics, 2019)the population of Matungulu was 161,557.00 persons with 81,145.00 males, 80,407 females, and 5 intersex persons. Further, the sub-county has 44,454.00 households with an average household size of four. The economic activities of the locals include sand harvesting, quarrying and ballasting, subsistence farming, and small-scale business.

In Machakos County, there are over 43,000 persons aged 70 years and above who are eligible cash transfer program dubbed *Inua Jamii.* Many elderly persons mostly in rural areas, orphans, and vulnerable children and persons with Severe Disabilities have no access to this noble program due to various impediments. The sub-county experience inequalities in social dimensions such as levels of access to education, access to clean water and sanitation, and experience a high level of poverty (Statistics, 2019). Currently, there are over 3106 older persons, 880 orphans, vulnerable children and 117 persons with severe disabilities benefitting from the cash transfer program in Matungulu. The three cash transfer programs have been progressively scaled up in the area since 2012.

Sample and sampling Techniques

The sample size of this study was calculated from Slovin's formula which asserts that:

$n = N / [1 + N (e)^2]$

n = the sample size

N = Total population (4104)

e = Error tolerance (0.05)

1 is constant

Since the study, the population (N) is 4103. The error of tolerance will be 0.05. Thus, the sample size was determined as shown below:

$n = 4104 / [1 + 4104(0.05)^2] = 365$

The study adopted a sample size of 365 members of households, which was selected using a proportionate simple random sampling technique. Simple random sampling was adopted since the population constituted an identical group, and hence required no comparisons between various sub-groups. Besides, the researcher purposefully selected cash transfer beneficiaries only and 7 key informants (2-sub county social development officer, 2-bank manager, and 3 local leaders) for key information about the progress of the program. The method assured the researcher that the sample was representative of the population. The researcher has been working with the members

in the area used local research assistants who helped in accessing the respondents in their homes.

Table 1: Sampling frame

Respondent category	Target Pop.	Sample size	Sampling Method	Sample Proportion (%)	Sample Size
Older Persons	3,106	365	Purposive & Proportionate simple random	76%	277
OVCs	880	365	Purposive & Proportionate simple random	21%	77
Persons with Severe Disabilities	117	365	Purposive & Proportionate simple random	3%	11
Social Development Officer	2	7	Purposive sampling	29%	2
Bank managers	2	7	Purposive sampling	29%	2
Local administrators	3	7	Purposive sampling	42%	3
TOTAL	**4,110**				**372**

Source: Field data, 2020

Data Collection

The researchers collected both quantitative and qualitative data. Quantitative data was collected using questionnaires while qualitative data was collected by the use of interview guides. The questionnaires were structured to be used to collect primary data from *Inua Jamii* cash transfer beneficiaries. It included both open and closed-ended questions. The questionnaire was divided into five sections, the first section addressed the respondents' demographic information and the other four sections thematically addressed the four research objectives in the digitization of cash transfer payment and beneficiaries' perception on *Inua Jamii* cash transfer program in Matungulu sub-county. The researcher trained 4 local research assistants to help with administering the questionnaires. The respondents were randomly picked using their unique program number identifiers. The respondents comprised only of the beneficiaries or primary caregivers in the cases of OVCs and persons with disabilities

Interviews guides were further used to collect primary data from key informants. The interview guides consisted of open-ended questions. The open-ended questions enabled the researcher to probe for quality data. This was used to gain a better understanding and possibly enable better and more insightful information on the perceptions of digitization of *Inua Jamii* cash transfer programme in Matungulu Subcounty, Machakos County in Kenya. Questions were organized thematically as per the study objectives in the digitalization payment mode and its effects on *Inua Jamii* cash transfer program in Matungulu sub-county.

Quantitative data from questionnaires was cleaned before analysis by removing outliers. Primary

data from household questionnaires were coded and punched to SPSS version 23. Coding involved assigning a variable value for each response and punching was purely inputting the data to the designed SPSS template. After punching, the researchers spooled tables and charts and graphs with frequencies and percentages which were interpreted to generate this report. For qualitative data, the analysis started by coding each incident into as many categories as possible as the data collection took place. Existing categories were modified if not a new category of responses emerged. Finally, the researcher thematically summarized the data, coded it using unique identities, and presented them verbatim. The verbatim analysis focused on the stories told by the respondents during data collection

Validity and reliability

Comprehensiveness and representativeness of the study content were determined through ensuring literature representativeness of the cash transfer stakeholders; the researcher allowed experts judgment to determine the extent to which the designed questions measured the subject of interest. Accordingly, experts in the department of social sciences from the Catholic University of Eastern Africa were used to judge the appropriateness of the content domain I the study tools.

Ethical consideration

Ethical consideration is paramount for every study. Ethical issues apply to all research approaches and to every stage of research that is, in the identification of the research problem, data collection, data analysis and interpretation, and lastly in the writing and dissemination of the research (Creswell & Creswell, 2017). Ethical issues involve matters of access, confidentiality, and anonymity of the participants, the participants' consent as well as legal issues like intellectual ownership, confidentiality, privacy, access and acceptance, and deception (Johnson, Christensen, & Kagermann, 2008).

Since this study oscillated around social cash assistance and their socio-economic status, the researcher sought data collection permission from the department of social sciences, Catholic University of Eastern Africa, NACOSTI, and from the office of Deputy County Commissioner, Matungulu, and Sub-County. Further, the researcher assured the respondents' anonymity and confidentiality during the study. Also, the respondents were notified that participation in the exercise was voluntary and they were at liberty to withdraw at any point in the survey. The researcher also credited scholars in the study to avoid plagiarism.

1.6 Findings and discussion

Response rate

The study targeted to reach out to a total of 365 respondents comprised of 259 elderly persons, 79 OVCs, 20 persons living with severe disabilities, and 6 key informants (2 local administration members, 2 bank managers, and 2 Sub County social development officers). The respondents were to share their experiences and information regarding the digitalization of cash transfer, and its adaptability to the users. The study however reached out to a total of 340 respondents comprised of 334 cash transfer clients and 6 key informants. This gave a response rate of 93.2% of the initial 365 respondents. Informed by (Kombo & Tromp, 2006), a response rate of 50% of the target population is adequate for data analysis in a descriptive study, while 70% and above is excellent. The researcher, therefore, found a 93.2% response rate to be excellent enough for data analysis.

Digital Cash transfer functionality

The variable 'effects of cash transfer digital system functionality' was measured through various indicators. These included whether or not the respondents were enrolled in CTP, frequency of payment of the respondents, average monthly payments, mode of payment used to channel funds to the respondents, ways of withdrawing money from bank accounts, and the transaction cost of the respondents' mode of payment.

Table 2: Enrollment of the respondents in the Cash Transfer Program

Were enrolled	Frequency	Percent
Yes	256	76.6
No	78	23.4
Total	**334**	**100.0**

Source: Field data, 2020

The study investigated whether or not the respondents were enrolled in Cash Transfer Program. This was to assess whether or not the respondents bore the requisite information that was relevant to the study. The study findings were as presented in table 1 above. From the findings, it was evident that most of the respondents were enrolled in CTP. This was indicated by 76.6% (256) of the respondents involved in the study, who affirmed to be beneficiaries of CTP.

However, it was noted that those who were not enrolled were primary caregivers of the CTP beneficiaries who could not fill the questionnaires on their own and they were assisted by their caregivers at their own consent. The researcher assumed that all the respondents had adequate information to understand the topic under study. These results were in line with the findings of (Aker, Boumnijel, McClelland, & Tierney, 2011)who postulated that cash transfer mechanisms had evolved since 2005.

The study investigated how often the respondents received their dues from the CTP. It was evident from the study that the funds from Cash Transfer were paid on monthly basis. This was indicated by 100 percent of the respondents involved in the study. The response indicated that they had to wait and, in the process, they took items on credit from the shops on credit when the funds finally came, they were to pay the arrears and in the long run, were left with very little or even none to take care of themselves. They, therefore, felt that it would be better if the CTP offered funds on monthly basis and stuck to their schedules. The respondents further highlighted that sometimes the payment was irregular, and as a result, some would lose out.

Average monthly pay of the respondents

The findings presented in figure 1 below shows the findings of the average monthly payment the respondents received from the cash transfer program.

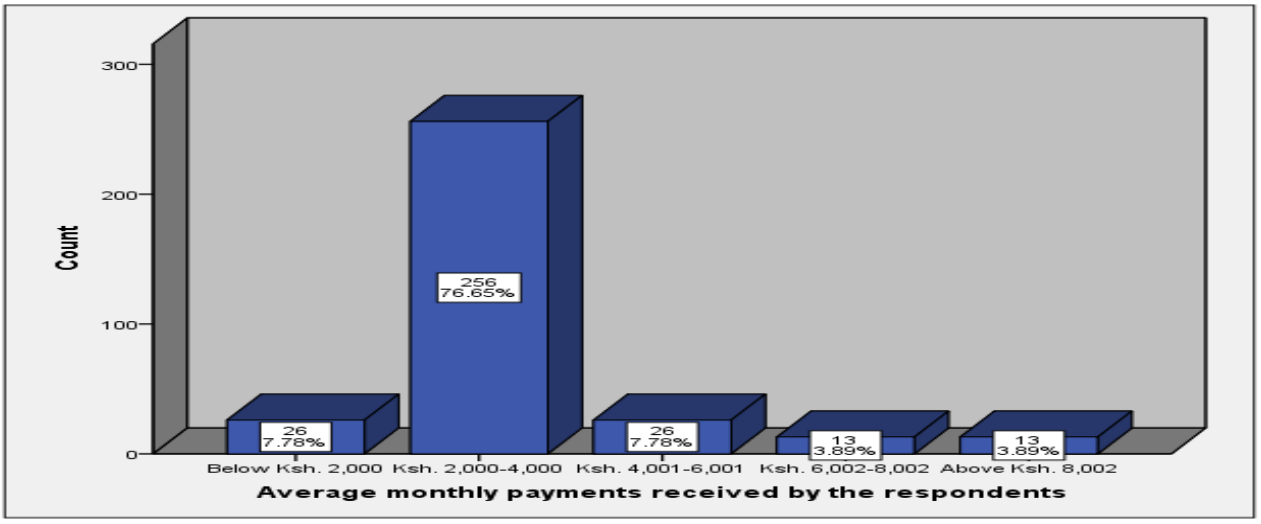

Figure 1: Average monthly payment received by the respondents

Source: Field data, 2020

On average, most of the respondents received between Ksh. 2,000 and Ksh. 4,000. This was indicated by 76.65% (256) of the respondents involved in the study. The respondents, therefore, indicated that the amount was accumulated and handed to them after the two months. Even though the funds were essential in ensuring that the vulnerable groups sustained their lives, most of the respondents were honest enough to indicate that the funds were inadequate to sustain their needs.

Payment mode

Table 2: Mode of payment used to channel funds to the respondents

Mode	Frequency	Percent
Bank Transfer	243	72.8
MPESA/ Mobile money transfer	65	19.5
Cash payments	13	3.9
Other	13	3.9
Total	**334**	**100.0**

Cash payments had been used for quite some time. However, it was found that cash payments were exhausting and risky altogether to the recipients of the funds, for cases of hijackers were common. The elderly, PLWD, and OVCs would as well wait in the queues for long, and as a result, some ended up losing energy and even fainting while still waiting for the funds. There were also higher chances of embezzlement of the funds. This paved way for the digitalization of the payments, so that to reduce the risks involved.

When therefore asked to indicate the mode of payments they received their funds from, 72.8% (243) of the respondents indicated that they used bank transfers. The respondents indicated that the funds would be channeled to their bank accounts, and they would withdraw at their convenience. As a result, no one could know that they had been paid. In some areas, mobile banking was heavily utilized. This was as presented in table 2 above.

Cash withdrawal means

Table 3: Means of withdrawing money from the bank accounts

Means of withdrawing	Frequency	Percent
At the bank over the counter	26	7.8
Through the ATM	76	22.8
Bank agent	63	18.9
Mobile banking	143	42.8
Others	26	7.8
Total	**334**	**100.0**

Source: Field data, 2020

The study further probed on the means of withdrawing the funds from the respondents' bank accounts. The study findings were as presented in table 3 above. From the study findings, the majority of the respondents found mobile banking to be more convenient for them. This was indicated by 43.8% (143) of the respondents involved in the study. The respondents highlighted that they did not need to go to the banks, but rather would just transfer their funds to MPESA and then either withdraw or make payments.

They, therefore, minimized chances of hijacking and saved on time, for the transactions were done from wherever they felt like; even if it was in their bedrooms. Moreover, 22.8% (76) withdrew funds from ATMs that were closest to them. The respondents as well indicated that this was easier than the conventional cash payments. Some withdrew their funds from banking agents that were located in their nearest shopping centers, while others went over the counters at their preferred banking institutions. This was as presented in table 3 above.

Table 4: Transaction cost of the respondents' mode of payment

Transaction cost	Frequency	Percent
Very high	26	7.8
High	65	19.5
Moderate	217	65.0
Low	13	3.9
Very low	13	3.9
Total	**334**	**100.0**

Source: Field data, 2020

The study also sought to investigate on how cheap or expensive it was to transact on their preferred modes of payment. The study did this by asking the respondents to rate the cost from very high to very low. The findings were as presented in table 4 above. From the findings, it was evident that the respondents found the transaction costs to be moderate. This was indicated by 65% (217) of the respondents involved in the study, who indicated that the transaction cost was neither high nor low. They hence embraced the digitalization of cash transfer as opposed to manual transfers. Some, however, indicated that since they had to receive their funds from the banks and opted for mobile banking, they incurred additional costs. They had to incur the costs of transferring from their bank accounts to MPESA and then withdraw from MPESA agents, while others withdrew from banking agents. The findings concur with the findings of Coady & Parker (2005), who posits that in urban Mexico, 51 percent of beneficiary households who did not even enroll for the *Progresa program* attributed to the challenges of traveling to registration centers. In reality, car ownership increased the likelihood of households being admitted into the welfare dependency-oriented program, probably because car owners were more able to drive to the registration center. The significance of eligibility criteria has been a focus of a series of studies conducted. (De Brauw & Hoddinott, 2011) exploit the fact that PROGRESA rendered unconditional transfers to a collection of beneficiaries to equate educational performance in both classes due to administrative problems. They find no impact of conditionality on the probability that children attend primary school, but a substantial difference among those making the move from primary to secondary school.

Furthermore, (Aker et al., 2011) postulates that in 80 low- or middle-income countries in Africa, Asia, and Latin America, many mobile money schemes have evolved since 2005. Most programs enable the user to save money in a 'mobile wallet' or handset-accessible account, transfer cash into and out of the stored value account via authorized representatives, and transfer cash amongst users. It can also be used for active vendors to buy air time or pay for the products. Transactions are carried out using an SMS (short message service) order or a mobile menu using a specific Code and are verified via SMS alert. After successfully testing the consistency of study instruments in this study, it yielded Cronbach's alpha *(a)* of 0.745 and therefore the results exceeded 0.70 indicating the results were reliable.

1.7 Conclusion

After keenly carrying out this study, it was concluded that digital cash transfer payment mode had greatly influenced the *Inua Jamii* cash transfer program with a majority of service users appreciating the technology which to a great extent had reduced some of the security risks experienced and time spent on withdrawal of the program funds

1.8 Recommendations

i) The social protection department was recommended to offer education to the beneficiaries on how they can use the little gains they get from CTP in sustainability projects
ii) The community members were recommended to be vigilant enough to identify report and pursue individuals who hijack the beneficiaries of CTP.
iii) The banking institutions were recommended to intensify the training and awareness of the use of technology and the risks involved with exposing confidential information to the respondents to minimize cased of frauds.

References

Aker, J. C., Boumnijel, R., McClelland, A., & Tierney, N. (2011). Zap it to me: The short-term impacts of a mobile cash transfer program. *Center for Global Development working paper*(268).

Aker, J. C., Boumnijel, R., McClelland, A., & Tierney, N. (2016). Payment mechanisms and antipoverty programs: Evidence from a mobile money cash transfer experiment in Niger. *Economic Development and Cultural Change, 65*(1), 1-37.

Akresh, R., De Walque, D., & Kazianga, H. (2013). *Cash transfers and child schooling: evidence from a randomized evaluation of the role of conditionality*: The World Bank.

Alden, A., & Haddad, H. (2017). Blockchain 'Crypto'Assistance at WFP. *Retrieved March, 1*, 2018.

Arends-Kuenning, M., & Amin, S. (2000). The effects of schooling incentive programs on household resource allocation in Bangladesh.

Babbie, E., & Mouton, J. (2001). The practice of social science research. *Belmont, CA: Wadsworth*.

Bailey, S. (2017). Electronic Transfers in Humanitarian Assistance and Uptake of Financial Services: A Synthesis of ELAN Case Studies. *London: Overseas Development Institute. https://www. odi. org/sites/odi. org. uk/files/resource-documents/11424. pdf*.

Baird, S., McIntosh, C., & Özler, B. (2011). Cash or condition? Evidence from a cash transfer experiment. *The Quarterly journal of economics*, *126*(4), 1709-1753.

Barrera-Osorio, F., Bertrand, M., Linden, L. L., & Perez-Calle, F. (2011). Improving the design of conditional transfer programs: Evidence from a randomized education experiment in Colombia. *American Economic Journal: Applied Economics*, *3*(2), 167-195.

Barrientos, A. (2012). Social transfers and growth: What do we know? What do we need to find out? *World Development, 40*(1), 11-20.

Bhalla, G., Handa, S., Angeles, G., & Seidenfeld, D. (2018). The effect of cash transfers and household vulnerability on food security in Zimbabwe. *Food policy, 74*, 82-99.

Bold, C., Porteous, D., & Rotman, S. (2012). Social cash transfers and financial inclusion: Evidence from four countries. *Population (in millions), 193*(46), 109.

Browne, E. (2013). Theories of change for cash transfers. *GSDRC Applied Knowledge Services Help Desk Research Report. London: Governance and Social Development Resource*

Center (GSDRC). URL: http://www. gsdrc. org/docs/open/HDQ913. pdf. Accessed April, 3, 2014.

Coady, D. P., & Parker, S. W. (2005). *Program participation under means-testing and self-selection targeting methods*. Retrieved from

Cooper, D. R., & Schindler, P. S. (2014). *Business research methods*: McGraw-Hil.

Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*: Sage publications.

De Brauw, A., & Hoddinott, J. (2011). Must conditional cash transfer programs be conditioned to be effective? The impact of conditioning transfers on school enrollment in Mexico. *Journal of development Economics, 96*(2), 359-370.

Del Ninno, C., Subbarao, K., Kjellgren, A., & Quintana, R. (2013). Improving payment mechanisms in cash-based safety net programs.

Devereux, S. (2001). *Social Pensions in Namibia and South Africa*: Institute of Development Studies.

Devlin, A. S. (2006). *Research methods: Planning, conducting and presenting research*: Thomson/Wadsworth Belmont, CA.

DFID, D. (2011). Cash Transfers Evidence Paper. *Policy Division. London: DFID*.

Donovan, K. P. (2015). Infrastructuring aid: materializing humanitarianism in northern Kenya. *Environment and Planning D: Society and Space, 33*(4), 732-748.

Drost, E. A. (2011). Validity and reliability in social science research. *Education Research and perspectives, 38*(1), 105.

Duryea, S., & Schargrodsky, E. (2008). Financial services for the poor: Savings, consumption, and welfare. In: Processed.

Evans, D., Hausladen, S., Kosec, K., & Reese, N. (2014). *Community-based conditional cash transfers in Tanzania: Results from a randomized trial*: The World Bank.

Ford, E. (2017). *The potential of digital cash transfers to strengthen the link between humanitarian assistance and social protection*. Retrieved from

FTHD., W. B., & DECRG., W. B. (2009). *Accelerating catch-up: Tertiary education for growth in sub-Saharan Africa*: World Bank Publications.

Fultz, E., & Francis, J. (2013). *Cash transfer programmes, poverty reduction and empowerment of women: a comparative analysis: experiences from Brazil, Chile, India, Mexico and South Africa*. Retrieved from

Gentilini, U. (2014). Our daily bread: what is the evidence on comparing cash versus food transfers?

Gliem, J. A., & Gliem, R. R. (2003). *Calculating, interpreting, and reporting Cronbach's alpha reliability coefficient for Likert-type scales*.

Gronbach, L. (2020). Social cash transfer payment systems in sub-Saharan Africa.

Grosh, M. E., Del Ninno, C., Tesliuc, E., & Ouerghi, A. (2008). *For protection and promotion: The design and implementation of effective safety nets*: The World Bank.

Mwasiaji, W., Reidel, K., Mistiaen, E. S., Sandford, J., & Munavu, M. M. (2016). *Inua Jamii: Towards a more effective national safety net for Kenya* (No. 105760, pp. 1-70). The World Bank.