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# EFFECTIVENESS OF E-WALLET SCHEME IN CURBING SHARP PRACTICES ASSOCIATED WITH AGRICULTURAL INPUT ACCESSIBILITY AMONG SMALLHOLDER FARMERS IN KANO STATE, NIGERIA

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**ABSTRACT**

*Farm inputs, such as improved seedlings and* fertilis*ers, are germane to enhancing farmers' productivity. However, government efforts at making them affordable and accessible to farmers are fraught with sharp and corrupt practices. The electronic wallet scheme was introduced by the federal government to curb the menace. This study evaluated the effectiveness of the scheme in curbing sharp practices associated with agricultural input accessibility by smallholder farmers in Kano State. Using structured interview schedule, the study elicited information from 180 respondents selected from 9 LGAs of the state through multistage sampling procedure. Data were collected on socio-economic and e-wallet scheme related characteristics of the respondents and their perception about the effectiveness of scheme. Frequency counts, percentages and weighted mean score values were used for data analysis. Majority of the beneficiaries of the scheme were male (88.9%), married (81.1%) and within their productive age range (mean age = 43.1 years). Some, although very few, were neither registered in the scheme (5%), nor had mobile phone (3%), while more proportion (about 32%) did not attend the requisite e-wallet training, yet they benefitted from input distribution under the scheme. Farm inputs benefitted from were mainly subsidised* fertilis*er and improved seeds and frequency of benefit was low. Although beneficiaries mostly perceived e-wallet scheme as effective in ensuring transparency and reducing sharp practices prevalent in the old system, yet the 'people' component (i.e. human factor) of the e-wallet system seemed vulnerable which could undermine the success of the initiative. Recommended, amongst others, is need for government to pay special attention to disproportion in gender composition amongst beneficiaries, while also ensuring that stipulated conditions, such as registration of beneficiaries, possession of mobile phones, and attendance of necessary training are abided with in order to check corrupt practices. Lastly, but perhaps most importantly, government should be on the lookout for culprits and defaulters and sanction them appropriately.*

## INTRODUCTION

Agriculture used to be the mainstay of Nigeria's economy before the discovery of oil. The agricultural sector was the most important in terms of its contribution to domestic production, employment and foreign exchange. It contributed as much as 60% to the nation's Gross Domestic Product (GDP) prior to the oil boom in the 1960s. But, the story changed afterwards with agriculture's contribution becoming as low as 22 % by 1980. The National Bureau of Statistics reported that the trend in the share of agriculture in the GDP shows a substantial variation and long-term decline from 60% in the early 1960 through 48.8% in the 1970s and 22.2% in the 1980s (NBS, 2014). This was largely due to the neglect of the agricultural sector in deference to oil.

Successive national governments realized the potentials of agriculture towards employment generation, food security and poverty reduction. As such, several government initiatives have been established in order to ensure agriculture attains its full potential. Prominent amongst these schemes include National Accelerated Food Production Projects established in 1972, Agricultural Development Projects (ADPs) established in 1975 and the subsequent Multi-State Agricultural Development Projects (MSADPs) later established in 1986. Others include Operation Feed the Nation programme of 1976, River Basin Development Authority (RBDA), (1973) and the Green Revolution Programme (1980). Later in the between mid and early 90s, the Directorate of Food, Road and Rural Infrastructure (DFRRI) was established in 1986, National Directorate of Employment (NDE), (1986), Nigeria Agricultural Insurance Scheme (NAIS), (1987) and National Fadama Development Project (NFDP), (1992). In the last one and half decade, Poverty Alleviation Programme (PAP) was established in the year 2000, National Special Programme for Food Security (NSPFS) in 2003 and National Economic Empowerment and Development Strategy (NEEDS) programme was introduced in 2004 (Adebayo and Okuneye, 2011; Jibowo, 2005). Much lately was the Agricultural Transformation Agenda of the last democratic administration in 2012.

Although the different governmental initiatives might have had different foci, the common theme across them was to ensure enhancing farmers' productivity through provision of farm inputs, such as fertilisers, improved seeds and seedlings, etc. As aptly put by Jibowo (2005) 'the Federal Government special agricultural development schemes were aimed at boosting food production

and farmers' income through the provision of agricultural infrastructure, inputs and effective extension work'. Sadly, however, most of these initiatives often did not outlive the regime that established them. Asides, a perennial problem afflicting the agricultural sector is that governmental effort towards making these inputs affordable and accessible to farmers is fraught with sharp and corrupt practices.

Corruption is a global problem that affects development and has been present for ages (Carr and Jago, 2014). The menace of corruption has adversely impacted on virtually every sector of the Nigerian economy, agriculture inclusive. Several attempts made over the years to boost farmers' productivity include supplying of farm inputs such as improved seeds, agrochemicals and fertilisers at subsidised prices to the farmers. However, a large proportion of these inputs could not get to real farmers, as a result of the high level of corruption, insincerity and political interruption in the distribution channels (Adebo, 2014). Earlier, Adesina (2013) pointed out that the old system used in supplying inputs to the farmers was weak, inefficient and fraudulent, hence a large proportion of the farmers could not benefit from it. Furthermore, inputs meant for the farmers were diverted by political elites to other countries for personal gains. In addition, most of the fertilisers eventually supplied to farmers were adulterated, thus damaging the environment and reducing farmers' productivity Adesina (2013).

Information Technology (IT) has great potentials in curbing the menace of corruption (Carr and Jago, 2014). The deployment of IT in agriculture is not new, as evident in the Geneva plan of action of the World Summit of Information Society (WSIS) where e-agriculture is one of the identified action lines (e-agriculture, 2015). However, its use in tackling the menace of corruption in agriculture has not been largely exploited. An example of the deployment of IT in eradicating corrupt tendencies and sharp practices in the agricultural sector in Nigeria was the introduction of Electronic Wallet (e-wallet) in purchase and distribution of agricultural inputs in 2012. The e-wallet is a major component of Growth Enhancement Scheme (GES); an initiative introduced under the Agricultural Transformation Agenda of the federal government.

An e-wallet is defined as an efficient and transparent electronic device system that makes use of vouchers for the purchase and distribution of agricultural inputs (Adesina, 2013). That is, e-wallet involves use of information technology to check corrupt practices and tendencies in agricultural input dissemination to farmers.

Although certain studies (e.g. Adebo, 2014; Akinbile *et al*., 2014) have focused on the effectiveness of the e-wallet approach towards effective agricultural service delivery, and have evaluated factors associated with famers' willingness to utilise the e-wallet scheme for accessing agricultural information, none has however examined the use of information technology via e-wallet approach to check the menace of corruption in the agricultural sector. This study was designed to fill that gap.

The main objective of the study was to evaluate the effectiveness of the e-wallet scheme in curbing sharp practices associated with agricultural input accessibility among smallholder farmers. Specific objectives were to:

i. describe the socioeconomic characteristics of the e-wallet scheme beneficiaries;
ii. ascertain what agricultural inputs they had access to and its frequency;
iii. determine the perception of beneficiaries about effectiveness of the e-wallet scheme

## METHODOLOGY

Kano State was the study. There are 3 geopolitical zones in the state. Respondents included in the study were selected through a multi-stage sampling procedure. Firstly, one Local Government Area was purposefully chosen from each geopolitical zone on the basis of having access to extension service delivery and frequent farming activities in both dry and wet seasons. This gave 3 LGAs namely Bichi from Kano North senatorial zone, Bunkure from Kano South senatorial zone and Kura in Kano Central zone. Then 3 communities were purposefully selected from each LGA based on inclusion in the irrigation scheme of Kano Irrigation Project (KRIP) and Watari Irrigation Project (WIP), making 9 villages. This was to ensure that respondents to be selected would not have irrigation problem with their farming activities. The villages thus picked were: Badume, Damargu and Hagagawa in Bichi LGA, Barkun, Bunkure cikin gari and Shirin in Bunkure LGA and Agolas, Bugau and Karfi in Kura LGA. Lastly, 20 respondents were again purposefully selected from list of registered farmers with the 2 irrigation projects across the 9 communities, giving a total of 180 beneficiaries of the e-wallet scheme in Kano state sampled for the study.

Primary data was used for the study. Data collection was done with use of structured interview schedule administered to the respondents with the assistant of trained enumerators, including state ADP extension agent. Data collected included socioeconomic and e-wallet scheme related characteristics of the respondents. Data were also collected on beneficiaries' perception about the effectiveness of the e-wallet scheme.

Independent variables such as sex, marital status, major occupation, crops cultivated etc were

measured at nominal level. Others such as age, household size, farm size, years of farming experience, etc were measured with absolute values provided. 'Beneficiaries' perception about effectiveness of e-wallet scheme in curbing sharp practices' was the dependent variable. It was measured through responses to 20 perceptional statements on a 5 point Likert-type scale as follows: Strongly agreed (SA) – 5, Agreed (A) – 4, Undecided (U) – 3, Disagreed (D) – 2 and Strongly Disagreed (SD) – 1.

Data were summarized using descriptive statistics such as frequency counts, percentages, mean and standard deviation. In addition weighted mean score (WMS) was computed for each perceptional statement. For the purpose of this analysis, responses were first recorded viz: SA – 4, A – 3, D – 2, SD – 1 & U – 0. The recoding was done to ensure that 'undecided' responses did not unduly affect the weighted mean value. Then, the frequencies of each option were multiplied by its weight, summed together and then divided by the total number of respondents (180). The WMS thus calculated ranged between 1 and 4, which depending on the value obtained on this continuum indicated the degree of respondents' concordance with each statement. Furthermore, respondents' overall perception about the statements was obtained using mean plus/minus standard deviation, with mean – standard deviation indicating unfavorable perception, mean + standard deviation indicating favorable perception, and proportion in between these two range indicating indifference disposition.

## RESULTS AND DISCUSSION

### *Personal and socioeconomic characteristics of respondents*

Results in Table 1 show that majority (83.3%) of the respondent fell between 31 and 60 years age bracket. Few (11.7%) were below 30 years while only 5% were above 60 years old. Mean age of respondent was 43.1 years with standard deviation of 10.2. Also, majority (88.9%) of respondents were male with just 11.1% female. In the same vein, majority (81.1%) were married while 14.4% were still single. Very few (3.3% and 1.1%) were divorced and separated, respectively.

These results indicate that majority of the e-wallet scheme beneficiaries were largely male, married and of middle-age. This suggests a disproportionate gender composition of the beneficiaries of the e-wallet scheme in favour of the male gender, finding which supported that of Adebo (2014), where more male beneficiaries reportedly participated in the e-wallet scheme in Kwara State. This might not be unconnected with the condition prevalent within the socio-cultural milieu of the study area where male is the dominant gender.

Results further show that the primary occupation of majority (88.3%) of the respondents was farming. Thirty percent were primarily artisans, while 20.6%, 11.7% and 10% were primarily traders, civil servants and teachers respectively. This indicates that the beneficiaries in the e-wallet scheme were primarily farmers. This is not unexpected given that one of the desires of the federal government in the establishment of the scheme, according to Adesina (2013), was to target real farmers engaged in farming activities and eliminate influx of political farmers predominant in the old system on input distribution.

The results also show that about 28% and 30% of the respondents completed secondary and tertiary education, respectively. About 22% had koranic education while 10% completed primary education only. This indicates that respondents completed some sort of formal education at various levels, and is similar to findings reported by Akinbile *et al*. (2014) where beneficiaries of the e-wallet scheme in Osun State were reportedly mostly literate. This might likely have implication on respondents' responsiveness and participation in the scheme, as educational status is expected to enable them make better and well informed decision. This submission is further supported by findings of Obinne (1991) who opined that education is an important factor that has been established to influence adoption of modern farm practices.

Also, majority (93.9%) cultivated between 1 and 5 acres, while very few (6.1%) had between 6 and 10 acres of farm land. Average farm size was 2.6 acres. This indicates that majority of the respondents were small scale farmers, and this agreed with the submission of Olayide (1992), Orisakwe and Agumuo (2004) and Akinbile *et al*. (2014) that most Nigerian farmers are small-scale farmers that cultivate small area of land. Furthermore, large proportion (65%) of the respondents had as much as 6 members of household. About 27% had between 7 and 12 individuals. Average household size was 5.5. This is similar to findings reported by Akinbile (2014) where about 63% of e-wallet scheme beneficiaries in Osun State had below 6 members of household. The implication of the finding is that family labour might be readily available for use for household farming activities.

Table 1: Personal and socioeconomic characteristics of the e-wallet scheme beneficiaries, n = 180

| Variable | Frequency | Percentage |
|---|---|---|
| **Age (years)** | | |
| Below 30 | 21 | 11.7 |
| 31 – 60 | 150 | 83.3 |
| Above 60 | 9 | 5.0 |
| Mean | 43.1 | |
| Standard deviation | 10.2 | |
| **Sex** | | |
| Male | 160 | 88.9 |
| Female | 20 | 11.1 |
| **Marital status** | | |
| Married | 146 | 81.1 |
| Single | 26 | 14.4 |
| Separated | 2 | 1.1 |
| Divorce | 6 | 3.3 |
| **Educational level** | | |
| No formal education | 2 | 1.1 |
| Koranic education | 40 | 22.2 |
| Adult education | 1 | 0.6 |
| Pry school incomplete | 8 | 4.4 |
| Pry school completed | 18 | 10.0 |
| Sec. school incomplete | 4 | 2.2 |
| Sec. school completed | 50 | 27.8 |
| Tertiary education | 57 | 31.7 |
| **Household size** | | |
| Below 6 | 117 | 65.0 |
| 7 – 12 | 48 | 26.7 |
| 13 – 18 | 11 | 6.1 |
| Above 18 | 4 | 2.3 |
| Mean | 5.5 | |
| Standard deviation | 5.2 | |
| **Primary occupation*** | | |
| Farming | 159 | 88.3 |
| Artisan | 54 | 30.0 |
| Teaching | 18 | 10.0 |
| Trading | 37 | 20.6 |
| Civil servant | 21 | 11.7 |
| **Farm size (Acres)** | | |
| 1 – 5 | 169 | 93.9 |
| 6 – 10 | 11 | 6.1 |
| Mean | 2.6 | |
| Standard | 2.3 | |

**Source: Computed from field survey, 2015**
*Multiple responses applicable

Results in Figure 1 show that above average (57.8% and 56.1%) of the respondents cultivated rice and maize respectively. About 38%, 27% and 22% cultivated sorghum, cowpea and groundnut, respectively, while about 16% each cultivated millet and tomatoes. The results indicate beneficiaries of the e-wallet scheme were farmers cultivating a wide variety of arable crops. This could be as a result of the economic and cultural importance of these crops, being major staples common in the study area. The implication of this finding is that farmers having access to subsidised input under the e-wallet scheme would enable them enhance their production of locally important staple crops common amongst inhabitants of the study area.

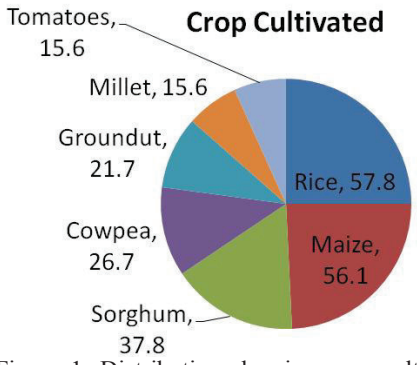



Figure 1: Distribution showing crop cultivated by the beneficiaries of the e-wallet scheme

***E-wallet scheme related characteristics of beneficiaries***

Results in Table 2 show that majority (96.7% and 95%) of the respondents had mobile phone and were registered beneficiaries in the e-wallet scheme. About 56% got registered in the scheme in 2012; 38% registered in 2013 while very few (0.6%) got registered in 2014. Also, About 68% attended training organised for beneficiaries of the scheme. The results indicate that about 5% and 3.3% of the beneficiaries were neither registered in the scheme nor had mobile phone, while about 32% did not attend the training, yet they benefitted from input distribution under the scheme.

Registration in the scheme, possession of mobile phones and attendance of the training were part of condition for inclusion of beneficiaries in the scheme (Signal alliance, 2014). Adebo (2014) found that 86% of the beneficiaries of the e-wallet scheme in Kwara state had mobile phones, while all (100%) registered in the scheme and participated in the e-wallet training. The inclusion of non-registered individuals, as well as those not possessing mobile phones, although very minute tends to suggest corrupt practices prevailing in the e-wallet scheme. Similarly, as much as 32% of the beneficiaries who did not participate in the compulsory training could undermine the transparency drive of the scheme.

Results in Table 2 further show that majority (96.7% and 94.4%) of the respondents had benefitted from subsidised fertiliser and improved seeds, respectively, under the scheme. While about 42% each had benefitted from subsidised seeds once, only about 12% benefitted thrice from subsidised input. On the other hand, about 41% had benefitted from subsidised fertiliser twice, while 35% and 21.1% benefitted from this input once and thrice, respectively. The results indicate that fewer

proportion of the respondents had benefitted from subsidised input up to three times, which implies low frequency of time they had access to input supply under the scheme. This is similar to result obtained by Adebo (2014) where fewer proportion (20%) among beneficiaries of the e-wallet scheme in Kwara State had access to input beyond three times. The finding suggests that beneficiaries might not have access to sufficient input needed for their farming activities under the e-wallet scheme.

Table 2: e-wallet scheme related information, n = 180

| Variable | Frequency | Percentage |
|---|---|---|
| **Possession of mobile phone** | | |
| Yes | 176 | 96.7 |
| No | 6 | 3.3 |
| **Registration in scheme** | | |
| Yes | 171 | 95.0 |
| No | 9 | 5.0 |
| **Year of 1st registration** | | |
| 2012 | 101 | 56.1 |
| 2013 | 69 | 38.3 |
| 2014 | 1 | 0.6 |
| Not applicable | 9 | 5.0 |
| **Attendance of e-wallet training** | | |
| Yes | 123 | 68.3 |
| No | 57 | 31.7 |
| **Farm input benefitted from** | | |
| Subsidised improved seeds | 170 | 94.4 |
| Subsidised fertiliser | 174 | 96.7 |
| **Frequency of time benefitted** | | |
| **Subsidised seeds** | | |
| Once | 76 | 42.2 |
| Twice | 75 | 41.7 |
| Thrice | 21 | 11.7 |
| Not applicable | 10 | 5.6 |
| **Subsidised fertiliser** | | |
| Once | 63 | 35.0 |
| Twice | 73 | 40.6 |
| Thrice | 38 | 21.1 |
| Not applicable | 6 | 3.4 |

**Source: Computed from field survey, 2015**

***Beneficiaries' perception about effectiveness of the e-wallet towards curbing corrupt practices***

Results in Table 3 show that majority (about 87%) believed that the 'introduction of e-wallet scheme greatly enhanced transparency in processes involved in purchase and distribution of agricultural inputs amongst smallholder farmers'. This statement recorded weighted mean of score of 3.22 out of possible 4. However, about 69% still believed that 'large proportion of agricultural inputs could not still reach farmers under the e-wallet scheme due to corrupt practices' (WMS = 2.77). These results indicate that, although beneficiaries strongly believed that e-wallet scheme enhanced transparency in accessibility of farm inputs, yet, they still believed that corrupt tendencies still persist under the scheme.

About 69% believed that political interference could prevent successful implementation of the scheme (WMS = 2.72), as shown in Table 3. However, only about 39% believed that 'diversion of inputs by political elites for personal gain still persists under the scheme' (WMS = 1.91). In the same vein, large proportion, about 63%, believed that political farmers have been sidelined in the e-wallet scheme (WMS = 2.49). These results suggest beneficiaries were favorably disposed to the effectiveness of the e-wallet scheme in reducing political influx that characterized the old system. Similarly, about 79% believed that fraudulent practices prevalent in the old system of input distribution have been greatly reduced.

Also, a total of 56.7% were opposed to the view that fertiliser adulteration prevalent in the old system still persists under the e-wallet scheme while just 37.2% favored the view (WMS = 2.04). This indicates that above half of the beneficiaries did not favor the view of prevalence of fertiliser adulteration in the scheme.

Results in Table 3 further show that about 67.2% believed that 'large proportion of farmers now have easy accessibility to agricultural inputs due to transparency of the scheme' (WMS = 2.64). Similarly, about 83% favoured the view that 'use of e-voucher to redeem agricultural inputs from agro-dealers enhances efficient and transparent distribution of inputs amongst smallholder farmers'. In same vein, about 64% also believed that 'use of e-voucher to redeem agricultural inputs from agro-dealers guarantees reduction of corrupt practices'; WMS of 2.86 and 2.48, respectively, were recorded here. These findings agree with earlier submission buttressing beneficiaries' favourable perception of e-wallet scheme in enhancing transparency and reducing corruption associated with input distribution amongst smallholder farmers.

**Table 3: Perception of beneficiaries about effectiveness of the e-wallet scheme in curbing corruption**

| Statements | SA | A | D | SD | U | WMS |
|---|---|---|---|---|---|---|
| Introduction of e-wallet scheme greatly enhanced transparency in processes involved in purchase and distribution of agricultural inputs amongst smallholder farmers | 87 (48.3) | 70 (38.9) | 3 (1.7) | 12 (6.7) | 8 (4.4) | 3.22 |
| Large proportion of agricultural inputs could still not reach farmers under the e-wallet scheme due to corrupt practices | 65 (36.1) | 60 (33.3) | 21 (11.7) | 16 (8.9) | 18 (10.0) | 2.77 |
| Political interference prevents the successful implementation of the e-wallet scheme | 64 (35.6) | 60 (33.3) | 11 (6.1) | 31 (17.2) | 14 (7.8) | 2.72 |
| Diversion of inputs by political elites for personal gain still persists under the e-wallet scheme | 35 (19.4) | 35 (19.4) | 29 (16.1) | 40 (22.2) | 41 (22.8) | 1.91 |
| Political farmers have been totally sidelined through the new approach used in the scheme | 46 (25.6) | 67 (37.2) | 20 (11.1) | 24 (13.3) | 23 (12.8) | 2.49 |
| Fraudulent practices involved in the old system of input distribution have been greatly reduced under the e-wallet scheme | 65 (36.1) | 78 (43.3) | 9 (5.0) | 10 (5.6) | 18 (10.0) | 2.90 |
| Large proportion of farmers now has easy accessibility to agricultural inputs due to transparency of the e-wallet scheme | 52 (28.9) | 69 (38.3) | 17 (9.4) | 26 (14.4) | 16 (8.9) | 2.64 |
| The e-wallet scheme has greatly reduced the inefficiency that characterized the old system of input distribution | 58 (32.2) | 55 (30.6) | 21 (11.7) | 14 (7.8) | 32 (17.8) | 2.52 |
| Fertiliser adulteration prevalent in the old system still persists under the e-wallet scheme | 34 (18.9) | 33 (18.3) | 30 (16.7) | 72 (40.0) | 11 (6.2) | 2.04 |
| Use of e-voucher to redeem agricultural inputs from agro-dealers guarantees reduction of corrupt practices prevalent in the old system | 59 (32.8) | 56 (31.1) | 18 (10.0) | 6 (3.3) | 41 (22.8) | 2.48 |
| Use of e-voucher to redeem agricultural inputs from agro-dealers enhances efficient and transparent distribution of agricultural inputs amongst smallholder farmers | 59 (32.8) | 90 (50.0) | 3 (1.7) | 2 (1.1) | 26 (14.5) | 2.86 |

SA – Strongly agreed; A – Agreed; D – Disagreed; SD – Strongly disagreed; U - Undecided

**Source: Computed from field survey, 2015**

Results in Table 4 show that majority (66.1%) of the respondents were of the opinion that '18 years age limit criteria for inclusion and participation in the e-wallet scheme is not thwarted', while few, about 15%, disagreed with this view. The statement recorded WMS of 2.64. This indicates respondents' favourable perception about under aged not been engaged to perpetuate corrupt tendencies through impersonation in the scheme. Also, about 53.9% of the respondents did

not support the opinion that 'helpline personnel and redemption supervisors discharge their responsibilities diligently without demand for 'tip-off'. Only about 18% supported this view. WMS was low, 1.39. In same vein, only about 48.9% supported the view that 'helpline personnel and redemption supervisors sluggishly delay in discharge of their responsibilities when not 'tipped-off'", while about 40% did not hold this view. The results here indicate that 'people' component within the e-wallet system still seemed vulnerable to sharp practices. This finding mirrors the general trend in government business in the country, which further explains the root cause of prevalent corrupt personnel in the scheme.

Results in Table 4 further show that majority (72.3%) favoured the view that 'cumbersomeness of procedure in getting approval from cellulants encourages corrupt practices'. Similarly, majority (77.2%) favoured opinion that 'insufficient fertiliser and seed supply encountered sometimes in the scheme breeds corrupt practices'. WMS recorded for these statements were 2.78 and 2.82, respectively. These indicate that presence of bureaucratic complexities also tend to encourage corrupt practices within the e-wallet system.

Majority (74.5%) supported the opinion that 'subsidised inputs are delivered by agro-dealers at half cost to smallholder farmers without demand for any hidden charges. The statement recorded a very high WMS of 2.75. Also, about 43% supported the opinion that subsidised inputs are distributed to all farmers registered in the scheme without preferential treatment'. Similarly, majority (73.9%) favoured the view that 'inclusion and registration of farmers at the onset of the scheme was transparent'. WMS was 2.87. Lastly, majority (77.8%) supported the view that e-wallet scheme has renewed respondents' confidence of transparency in government programmes and initiatives for smallholder farmers. WMS was 2.85. These results further reflect the respondents' resolve about transparency and lack of corrupt practices under the e-wallet scheme.

Table 4: Perception of beneficiaries about effectiveness of the e-wallet scheme in curbing corruption (continued)

| Statements | SA | A | D | SD | U | WMS |
|---|---|---|---|---|---|---|
| 18 years age limit criteria for inclusion and participation in the e-wallet scheme is not thwarted/circumvented | 65 (36.1) | 54 (30.0) | 14 (7.8) | 12 (6.7) | 35 (19.5) | 2.64 |
| Helpline personnel and redemption supervisors discharge their responsibilities diligently without demand for 'tip-off' | 13 (7.2) | 20 (11.1) | 41 (22.8) | 56 (31.1) | 50 (27.8) | 1.39 |
| Helpline personnel and redemption supervisors sluggishly delay in discharge of their responsibilities when not 'tipped-off' | 40 (22.2) | 48 (26.7) | 20 (11.1) | 25 (13.9) | 47 (26.1) | 2.05 |
| Cumbersomeness of procedure in getting approval from 'cellulants' encourage corrupt practices | 73 (40.6) | 57 (31.7) | 15 (8.3) | 8 (4.4) | 27 (15.0) | 2.78 |
| Insufficient fertiliser and seed supply encountered sometimes encountered in the scheme breeds corrupt practices | 70 (38.9) | 69 (38.3) | 8 (4.4) | 5 (2.8) | 28 (15.6) | 2.82 |
| Subsidised inputs are delivered by agro-dealers at half cost to smallholder farmers without demand for any 'hidden charges' | 84 (46.7) | 50 (27.8) | 4 (2.2) | 1 (0.6) | 41 (22.8) | 2.75 |
| Subsidised inputs are distributed to all farmers registered in the scheme without preferential treatment | 32 (17.8) | 45 (25.0) | 41 (22.8) | 45 (25.0) | 17 (9.4) | 2.17 |
| Inclusion and registration of farmers at the onset of the scheme was transparent | 66 (36.7) | 67 (37.2) | 16 (8.9) | 19 (10.6) | 12 (6.7) | 2.87 |
| The e-wallet scheme has renewed my confidence of transparency in government programmes and initiatives for smallholder farmers | 68 (37.8) | 72 (40.0) | 8 (4.4) | 9 (5.0) | 23 (12.8) | 2.85 |

SA – Strongly agreed; A – Agreed; D – Disagreed; SD – Strongly disagreed; U - Undecided

**Source: Computed from field survey, 2015**

**Overall perception of beneficiaries about the effectiveness of the e-wallet scheme**

Results in Figure 2 show that, overall, few (15%) of the beneficiaries had favourable perception about the effectiveness of the e-wallet scheme towards curbing sharp and corrupt practices associated with agricultural input distribution. While fewer (13.9%) had unfavourable perception, majority (71.1%) were indifferent. The results reflect mixed perception of the respondents about the effectiveness of the e-wallet scheme, as reflected in the discussion in previous subsection above. Little proportion of the respondents favorably perceiving the scheme as effectiveness implies the need to look at critical areas of the scheme which still encourages corruption to thrive as previously highlighted, so as to improve overall perception of the scheme among the beneficiaries.

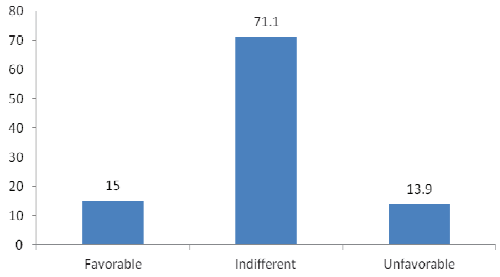



Fig 2: Perception of effectiveness of e-wallet scheme

## CONCLUSION AND RECOMMENDATION

Based on the major findings of the study, it was concluded that majority of the respondents were male, married and within their productive age range. Also, very few beneficiaries were neither registered in the scheme, had mobile phone, nor attended the e-wallet training, yet they benefitted from input distribution under the scheme. Farm inputs benefitted from were mainly subsidised fertiliser and improved seeds and frequency of benefit was low. In addition, the beneficiaries mostly perceived e-wallet scheme as effective in ensuring transparency and reducing sharp practices prevalent in the old system. Nonetheless, 'people' component (i.e. human factor) of the e-wallet system still seemed vulnerable and could undermine the success of the initiative.

From the foregoing, it is recommended that special attention should be paid to disproportion in gender composition amongst beneficiaries of the scheme. Also, there is need to ensure that all beneficiaries are duly registered, compulsorily attend necessary training and meet any stipulated conditions before benefitting from farm inputs under the scheme in order to check corrupt practices. There is also need for continued encouragement of the beneficiaries to decline lobbying or tipping-off any official involved in the scheme, and re-assuring them not doing this will not undermine their chances of procuring inputs. Lastly, but perhaps most importantly, government should be on the lookout for culprits and defaulters and sanction them appropriately.

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