Determinants Factors Predisposing Crop Farmers to Farm Thefts in Imo State, Nigeria

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Abstract
Farm theft is prevalent and significant issue that affects crop farmers worldwide, including those in Nigeria. Theft, pose a difficulty to farmers who may not have sufficient resources and knowledge about prevention. This study examined the factors predisposing crop farmers to farm thefts in Imo State, Nigeria. Specifically, the study described the socio-economic characteristics of crop farmers in Imo State, Nigeria; determined frequency and season of occurrence of farm thefts in crop production; examined the perceived factors that predispose crop farmers to thefts. Primary data were obtained through the use of questionnaire. Data collected for the study were analyzed with frequencies, percentages and mean. The result from the study revealed that the average age of crop farmers was 47.96 years, greater proportions (51.69%) were males, majority (82.20%) were married, majority (54.24%) had secondary school education, average household size was 8 persons. The average farm size and farming experience were 0.52 hectare and 13.89 years respectively. Crop farmers had average monthly farm income of ₦67,860, greater proportion (85.59%) of them were member of social organization and majority (64.41%) had no contact with extension agents. Crop farmers admitted that farm theft occur in the evening (88.98%), in the morning (56.78%), occur anytime of the day (47.46%) and theft occurs in the afternoon (38.98%). The major factor perceived by the crop farmers that predispose them to thefts were farm location and accessibility ($\bar{x}$ = 2.40), farm workers that were male steal farm produced more than their female counterpart ($\bar{x}$ =2.11), family dependence predispose people to steal ($\bar{x}$ =2.01), high cost of living ($\bar{x}$ =2.50), financial difficulties among workers ($\bar{x}$ =2.44), attractiveness of the farm produce ($\bar{x}$ =2.37). The study highlights the need to strengthen farm security measures, improve farmers' access to agricultural extension services, and promote community-based strategies to reduce farm theft and protect crop production in Imo State.

Keywords: *Crop farmers, farm theft, socioeconomic characteristics, predisposing factors, Imo State, Nigeria.*

1.1 Introduction

Farming households depend largely on the successful cultivation and harvesting of crops and the rearing of livestock for subsistence and income generation. Small-scale farmers constitute a significant proportion of Nigeria's rural population and are responsible for producing a substantial share of the food consumed in the country (Sabo et al., 2017). These farmers depend on agricultural produce for food and income, while the extent to which farm output sustains their livelihoods reflects the level of agricultural development (Gbigbi, 2021).

However, their productivity and economic stability are increasingly threatened by farm-related crimes, particularly farm theft. Farm theft is a prevalent and significant problem affecting farmers worldwide, including those in Nigeria, with reports indicating that it remains a major concern in agricultural communities (Ogunlade et al., 2018). Rural crimes, such as theft, pose considerable challenges to farmers, particularly those who lack adequate resources, security facilities, and knowledge of effective preventive measures (Obuobisa-Darko, 2021). Given that agriculture serves as a primary source of livelihood for many rural households, the theft of farm produce, livestock, equipment, and other agricultural inputs threatens food security, income generation, and rural development (FAO, 2021). The loss of crops and other valuable farm assets can have serious consequences for farmers' livelihoods, financial stability, and overall well-being. Furthermore, farm theft can cause emotional distress and undermine the economic security of rural households, particularly when farmers lose crops on which they depend for their sustenance and income (Ogunlade, 2019).

Farm theft can be defined as the unauthorized taking, removal, or deliberate destruction of agricultural produce, equipment, inputs, or another farm property. It is a form of agricultural crime with potentially severe economic and social consequences for farming households. Although the prevalence and frequency of farm theft may vary across locations, its consequences can include reduced farm output, financial losses, increased production costs, and emotional distress among affected farmers (Ajah & Ajah, 2019). In Nigeria, farm theft remains a concern among agricultural producers, with crops, livestock, and farm equipment among the items commonly targeted. According to Ojo et al. (2018), farm theft constitutes a major challenge for Nigerian farmers, many of whom experience substantial financial losses as a result. Farm theft in crop production takes various forms, depending on the nature of the agricultural enterprise and the assets available on the farm. These include the theft of standing and harvested crops such as maize, yam, cassava, plantain, and vegetables. Other commonly targeted items include herbicides, pesticides, fertilizers, seeds, fuel, tractor parts, farm machinery, irrigation equipment, tyres, sprinkler heads, spanners, and other agricultural chemicals and tools. Such thefts can disrupt farming operations, increase production costs, reduce expected returns, and discourage farmers from investing in agricultural production. The consequences may be particularly severe for small-scale farmers, who often operate with limited financial resources and may find it difficult to recover from the loss of their produce or equipment.

Despite the importance of crop farming to rural livelihoods and food production, farm theft remains a challenge that requires greater attention. Understanding the circumstances under which theft occurs and the factors that farmers perceive as contributing to it is essential for developing appropriate preventive strategies. These factors may be associated with farm location and accessibility, the timing of farm activities, economic pressures, and the characteristics of farm workers and surrounding communities. Examining these issues can provide useful information for designing interventions to improve farm security, minimize agricultural losses, and protect farmers' livelihoods. It is against this background that this study examined the perceived factors predisposing crop farmers to farm theft in Imo State, Nigeria. The broad objective of the study was to examine the perceived factors predisposing crop farmers to farm theft in the study area. Specifically, the study sought to: (i) describe the socioeconomic characteristics of crop farmers in Imo State, Nigeria; (ii) examine the frequency and timing of the occurrence of various forms of farm theft in crop production in the study area; and (iii) assess the factors perceived by crop farmers as predisposing them to farm theft in the study area. The implementation of these recommendations could help reduce farm theft, minimize agricultural losses, protect farmers' investments, and improve crop

production and the livelihoods of crop farmers in Imo State.

Methodology

The study was carried out in Imo State, Nigeria, A multi-stage sampling technique was employed to select one hundred and twenty (120) farmers in Imo State. In the first stage of sampling, the three (3) agricultural zone were purposively selected, to ensure adequate coverage for the study. In the second stage, two (2) local Government Areas were randomly selected. The third stage involved purposive selection of two (2) communities with the highest crop production. Finally, the fourth stage involved random selection of ten (10) crop farmers which gave a total of 120 farmers. However, only one hundred and eighteen (118) useful questionnaires were used for the study. Primary data were used for this study. Primary data were obtained through the use of structural questionnaire which was complemented with oral interview in places where the respondent could neither read nor write. Data collected for the study were analyzed with percentages, frequency counts and mean. Specifically, Specifically, the objectives - to determine prevalence of occurrence of various farm thefts was measured using 4-point Likert type rating scale of Frequently (4), Often (3), Rarely (2), and not occur (1). and then divided by the number of scales to obtain the discriminating index e.g (4+3+2+1)/4 = 2.50 cut-off point. The decision rule is that a mean score of 2.50 and above indicates highly occur with the statement while a mean score of less than 2.50 Less occur with the statement. Objective on perceived factors that predispose crop farmers to farm thefts was measured using 3-point Likert scale of Major Factor (3), Factor (2), and Not a Factor (1). The perceived factors were grouped into demographic, economic and social factors. The decision rule is that a mean score of 2.0 and above indicates High Factor with the statement while a mean score of less than 2.0 posits disagreement with the statement.

3.0 Result and Discussion

3.1 Socio-economic characteristics of the crop farmers

Table 1 shows the socio-economic characteristics of the crop farmers presented and discussed include age, sex, marital status, level of education, household size, farm size, annual income, farming experience and membership of social organization.

Table 1: Socio-economic characteristics of the crop farmers N= **118**

Variables	Dominating Category	Percentage	Mean
Age (Years)	41-50	53.39	**47.96yrs**
Sex	Male	51.69	
Marital Status	Married	82.20	
Educational Level	Secondary	54.24	
Household Size (N)	6-10	75.44	**8 Persons**
Farm Size	0.1 - 0.5	64.41	**0.52Ha**
Years of Experience	11 - 20 years	61.87	**13.89**
Monthly Income	₦50,000 -₦70,000	47.46	**₦67,860**
Membership Organization	Members	85.59	
Extension Contact	Non-contact	64.41	

Field Survey Data, 2025.

The result shows that the average age of the crop farmers was 47.96 years suggesting that mature and active men and women dominated the crop farming. This result aligns with the study of Gbigbi (2021) and Egwuonwu (2024) that crop farmers between the age group of 41 and 50 years are mostly involved in farming practices, suggesting farmers to be in their active

and productive age. Greater proportions (51.69%) of the respondents were males, men were actively involved in crop production and contributing to the income and welfare of their farm families. This is true and could be attributed to the fact that male seems to have more access to farm resources such as farmland, economic crops, and farm credit than female in the area. About 54.24% of the farmers had a secondary education. This suggests that most of the crop farmers were educated. Education plays a significant role in increasing farmers' consciousness and affects approaches and techniques to discourage or curb stealing of their produce or input. Educational attainment influences farmers' ability to implement preventive measures against farm theft. In general, education has been shown to have a positive effect on innovation adoption. The average household size for crop farmers was 8 persons. The implication of the findings is that farmers in the area had sizeable household size which is expected to increase their access to farm labour. Household sizes are can have dual effects on farm theft perceptions.

The average farm size was 0.52 hectare which implies that the farmers in the study area were mainly smallholder farmers operating on less than or equal to 1.00 hectares of farmland. The mean farming experience of the crop farmers was 13.89 years. This implies that crop farmers had reasonable years of farming experience which no doubt will enhance their decision making in choosing better coping strategy to curb farm theft in the study area. The mean monthly farm income was ₦67,860. This is relatively low and below the Nigeria Monthly National Minimum wage of ₦70,000.00. Therefore, farmers with a higher monthly income are expected to practice to have money to provide adequate measures to combat farm theft. Greater proportion (85.59%) of the crop farmers in the area belonged to one form of social organization or the other, majority of the crop farmers (64.41%) had no contact with extension agents, while 35.59% had extension contact. This shows poor visits by extension agents in the area. This situation could pose a serious challenge for farmer in understanding best agricultural practices.

3.2 Frequency of Occurrence of Farm Thefts in Crop Production

The outcome of the frequency of occurrence in crop production is indicated in Table 2.

Table 2 Frequency of occurrence of farm theft in crop production **N=118**

S/N	Farm Theft in Crop Production	Mean	S.D(σ)	Decision
1.	**Harvest theft**			
i.	Maize	3.30	0.7	Highly Occur
ii.	Cassava	3.09	0.8	Highly Occur
iii.	Yam	3.14	0.8	Highly Occur
iv.	Plantain and banana	2.90	0.6	Highly Occur
v.	Vegetables	3.73	0.9	Highly Occur
2.	Post harvest theft	3.28	0.7	Highly Occur
3.	Tools and equipment theft	2.87	0.7	Highly Occur
4.	Agro Chemicals (Fertilizers, pesticides and herbicides theft	2.42	0.8	Less Occur
5.	Fuel theft	2.25	0.5	Less Occur
6.	Fencing materials thefts	2.36	0.8	Less Occur
7.	Building materials theft	2.47	0.9	Less Occur
8.	Transport theft	2.42	0.8	Less Occur
	Grand Mean	**2.85**	0.4	Highly Occur

S.D (Standard Deviation); Discriminatory index: mean value of 2.50 and above is Highly occur while mean value less than 2.50 is Less occur; Source: Field Survey Data, 2025.

The various attributes were rated in a 4- point Likert type rating scale questions of Frequently occur (4); Often occur (3); Rarely occur (2) and Not occur (1). Result shows that most of the items were rated high and with an acceptable discriminatory index of acceptable mean of 2.5 and above. For instance, the result shows that crop farmers were victims of post-harvest theft ($\bar{x}$ =3.28) which highly occur in crop production. This implies that crop farmers frequently experienced theft of their produce especially after harvest as some of the produce was stolen from their storage areas. Also, crop farmers also agreed that theft highly occur during harvest of crop such as vegetables ($\bar{x}$ =3.73), harvest theft- maize ($\bar{x}$ =3.30), cassava ($\bar{x}$ =3.09), yam ($\bar{x}$ =3.14), plantain and banana ($\bar{x}$ =2.90). It was observed that theft of vegetables highly occurred in the study area. During the Focus Group Discussion, one of the respondents said that *"the most stolen crop was vegetables especially leafy vegetables. While one is thinking of harvesting ugwu or okra to go and sell in the market, on getting to the farm, some part of the crops has been harvested. This has been a normal occurrence."* Further, stealing of plantain frequently occur, before crop farmers could harvest their bunch of plantain when its due for harvest, it will be stolen, therefore leaving farmers disserted. Stealing of cassava and yam frequently occur in the study area. Research indicates that the highest occurrence of farm theft in crop production coincides with the maturation and harvesting stages when crops are fully developed and ready for market (Prinsloo & Mofokeng, 2021). This is primarily because the potential economic value of crops is maximized at harvest, making fields more attractive targets for thieves. In addition to harvest-time vulnerability, post-harvest theft targeting stored crops also poses a major risk. Farmers who store their crops before sale, especially in unsecured facilities, are susceptible to theft during storage or transport (FAO, 2020). Theft at this stage not only reduces the volume available for sale but can also affect food security within farming households.

Crop farmers agreed that tools and equipment theft ($\bar{x}$ =2.87) highly occur in the study area. Stealing of farm tools and implement is most common among large scale farmers. Osborne and Swartz (2021) observed that farmers with larger farms are at a greater risk of facing tools and equipment theft more than farmers with smaller acreage. Other farm theft that less occur in the farm were agro chemicals (fertilizers, pesticides and herbicides theft ($\bar{x}$ =2.42), building materials theft ($\bar{x}$ =2.47), fencing materials thefts ($\bar{x}$ =2.36), fuel theft ($\bar{x}$ =2.25). The study of Gbigbi (2021) confirms that some common items stolen from farms in the developing country are the fuel, machinery, equipment, and other farm properties. Farm properties which are highly attractive, portable, and have high value are more likely to experience theft (Obuobisa-Darko, 2021). Farmers mostly use portable equipment or machines that offenders can easily carry, therefore an easy target for theft. Research revealed that criminals mostly target highly market demanded products from the farms including maize, beans and sugarcane (Smith et al., 2022).

3.3 Perceived Factors That Predispose Crop Farmers' to Farm Thefts

The outcome of perceived factors that predispose crop farmers to farm thefts is presented in Table 3.

Table 3: Perceived Factors that Predispose Farmers Crop to Farm Thefts

Perceived factors that predispose crop farmers to farm thefts	Mean	S.D (σ)
Demographic factors		
Farm workers that are male steal farm produce more than their female counterpart	2.11	0.7
Family dependence predispose people to steal	2.01	0.6
Low level of education	1.97	0.7
Location and farm accessibility	2.40	0.2
Economic Factors		
Low pay among workers	2.28	0.4
Delay of payments to workers	2.32	0.4
Financial difficulties among workers	2.44	0.6
High cost of living	2.50	0.2
Attractiveness of the farm produce	2.37	0.7
Income or profit of the farm	2.34	0.4
Social factors		
Unemployment	2.50	0.5
Desperation of the people to make quick money	2.14	0.4
Increase in school dropouts	2.09	0.5
Grand Mean	**2.67**	**0.5**

Discriminatory index: Cut off point $\bar{x} \geq 2.00$ is a High Factor while mean less than 2.00 is Less Factor; Source: Field Survey Data, 2025.

The result shows that several factors predispose crop farmers to farm thefts in the study area such as demographic, economic and social factors. The major demographic factor agreed by the crop farmers was farm location and accessibility ($\bar{x}$ = 2.40). This finding suggest that farms located far away from farmers house can encounter more thieves stealing their crop produce, tools and implements than farmers whose farm are within their reach. This confirms the studies of Prinsloo and Mofokeng (2021) and Mubangizi (2017) that farms located near roads, urban centers, or informal settlements are often more vulnerable to theft due to ease of access and proximity to potential markets for stolen produce. Also, noted were farms closer to public roads experienced higher rates of crop theft compared to more isolated farms. Other demographic factors were farm workers that were male steal farm produced more than their female counterpart ($\bar{x}$ =2.11) and family dependence predispose people to steal ($\bar{x}$ =2.01). This is in line with the study of Bunei et al. (2013) that gender plays a critical role in explaining crime such as farm theft, it is believed that men are much more likely to steal farm produce and property, especially if they have many family dependents who rely on them to provide food. During a Focus Group Discussion, one of the crop farmers revealed, that "*Males especially youths have been caught trying to steal their yam, cassava and other farm implements"*. According to Landers et al. (2017), violent offenses are often committed by male persons. Apart from age, offenders are also identified within the community by their sexes. Particularly, young male people in the community are considered responsible for most offenses committed in society. However, the finding also shows that low level of education ($\bar{x}$ =1.97) is low factor that can predispose farmers to theft. The economic factors agreed by the crop farmers that predispose them to farm thefts in the study area were high cost of living ($\bar{x}$ =2.50), financial difficulties among workers ($\bar{x}$ =2.44), attractiveness of the farm produce ($\bar{x}$

=2.37), income or profit of the farm ($\bar{x}$ =2.34), delay of payments to workers ($\bar{x}$ =2.32), low pay among workers ($\bar{x}$ =2.28). The socio-economic conditions of the communities and farm workers matters. Poor economy can influence workers to steal farm produce and even selling of the produce to make extra income for themselves thereby, causing great loss for the crop farmers. Several social factors predisposing crop farmers to farm thefts ranging from unemployment ($\bar{x}$ =2.50) to desperation of the people to make quick money ($\bar{x}$ =2.14) and increase in school dropouts ($\bar{x}$ =2.09). This suggests that being a youth can influence them to pilfering or stealing in the farm as there is increase in desperation to make money now. From the Focus Group Discussion, one crop farmer said '' some youths in the community are lazy and do not want to farm but be waiting for every available thing to steal. They stole my farm produce even gathered up any iron materials in my farm to sell to iron benders" Generally, crop farmers lose both the crop value and their investment made in inputs such as seeds, fertilizers and labor.

4.0 Conclusion and Recommendation

The study concludes that farm theft is a common challenge experienced by crop farmers in Imo State, Nigeria. The thefts occurred at different stages of crop production, ranging from the theft of crops ready for harvest to post-harvest theft of harvested produce and farm materials, with incidents frequently occurring at night. The major factors perceived by the crop farmers as predisposing them to farm theft included farm location and accessibility, the perceived tendency of male farm workers to steal farm produce more frequently than their female counterparts, family dependence, the high cost of living, financial difficulties among farm workers, the attractiveness of farm produce, farm income or profit, delayed payment of workers' wages, low wages, unemployment, the desire to make quick money, and an increase in school dropout rates. These findings suggest that farm theft may be associated with a combination of economic, social, and farm-related factors. The study therefore highlights the need to strengthen farm security measures, improve farmers' access to agricultural extension services, and promote community-based strategies to prevent theft and safeguard crop production in Imo State.

Based on the findings, the study recommends that:

1. Crop farmers should harvest mature produce as early as possible to minimize the risk of theft, particularly when crops are ready for harvest.
2. Harvested crops, farm equipment, and other valuable agricultural materials should be kept in secure storage facilities and properly locked or guarded to prevent theft.
3. Farmers should adopt appropriate security measures, including regular farm monitoring, the use of suitable fencing where practicable, and collaboration with neighbouring farmers and community security groups to enhance farm protection, particularly at night.
4. Agricultural extension agents should intensify their efforts to educate crop farmers on effective farm security practices, theft prevention strategies, and appropriate ways of safeguarding farm produce, equipment, and other assets.
5. Farm owners should endeavour to pay workers fair wages and ensure timely payment for services rendered. This may help address some of the economic difficulties perceived by farmers as contributing to farm theft.
6. Farmers, community leaders, and relevant security agencies should collaborate to identify theft-prone areas, report suspicious activities, and develop community-based strategies for preventing farm theft.

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