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EFFECT OF FARMING ANXIETIES ON FOOD PRODUCTION: AN ASSESSMENT OF FARMER'S MOTIVATION TO FARM IN THE ERA OF INSECURITY

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Abstract

The present study examined farmers' motivation in the period of security uncertainties based on farming anxieties. Two hundred and twenty-five farmers recruited from farming communities of Enugu State, Nigeria, completed a self-report instrument intended to ascertain their motivations relative to continuing farming activities in the perceived insecurities. A cross-sectional design was employed in the study. Data from the respondents were analyzed using the statistical package for social sciences (SPSS, Version 23). Simple regression was run to test the main hypothesis that farming anxiety would predict farmers' motivation. The analysis demonstrated a statistically significant effect of farming anxiety on the farmers' motivation F (1,223), 21.31 P< .05, with the R^2 indicating the independent variable accounted for 12.8% of the variation in farmer's motivation. The present finding contributes to the agricultural literature by revealing farming anxiety as a potential determinant of farmers' low motivations and the increasing low food production.

INTRODUCTION

Nigeria is assumed to have an enormous farming potential, with an estimated 34 million hectares of arable land for farming (Simona, 2021). Similarly, many of the population are farmers (Enyiazu & Nwangwu, 2019), mostly subsistence and commercial agriculture. Accordingly, the agricultural possibilities make the country a farming society (Tersoo, 2012). Indeed, farming activities contributes significantly to sufficient food availability for the country's growing population, employment generation, and foreign exchange incomes (Abubakar et al., 2018). Arguably, Nigeria is primarily dependent on the oil sector for revenue (Oluduro & Durojaye, 2013; Osah & Goodnews, 2016; Oseni, 2013). However, agriculture contributes markedly to the gross domestic product (GDP) (Mgbenka et al., 2015). The enormous agronomic resource base in the country offers unlimited potential for the economy's growth (Ogwumike & Akinnibosun, 2013). Therefore, the land is gifted with food and agricultural properties (Karya & Otsanjugu, 2019). The abundant cash crops such as citrus, rubber, cocoa, cotton, groundnuts, palm kernel, and palm oil have been Nigeria's major export crops (Ajayi et al., 2010; Ayorinde et al., 2015). Accordingly, there is a wide suggestion that Nigeria is self-contained in food production and has accomplished a position of exporting several cash crops (Nwozor et al., 2019).

In recent times, there has been wide apprehension relative to the growing reduction in food production and agricultural activities in the country (Anigbogu et al., 2015; Austine et al., 2011; Eze & Chinedu-Eze, 2016; Njoku, 2000; Okongo et al., 2021; Okoro et al., 2016; Onogwu et al., 2017). The situation is widely observed in the increasing food insecurity and dependence that have led to enormous food importation. Even as the government and other stakeholders are committed to enhancing agricultural production and food sustainability (Sabo et al., 2017), evidence suggests a growing security challenge that seems to pose a severe constraint to food production in the country. Indeed, insecurity impacts farmers' productivity and capability to partake in farming activity. Generally, factors relative to rainfall, temperature, humidity, and the natural environment are primarily known to influence food production and farming (Idumah et al., 2016). However, the contemporary farming society is partly dependent on security situations that have instigated anxiousness among the farmers.

Farming anxiety is a form of general anxiety reflecting farmers' fear and worries occasioned by persistent attacks on farmers. It entails intense, excessive, and constant worry and fear relative to dangerous situations. Indeed, anxiety commonly describes a state of heightened distress, arousal, and vigilance triggered by a potential threat (Grupe & Nitschke, 2013; Hur et al., 2019). It is occasioned by increased heart rate, rapid breathing, sweating, and feeling of tiredness. Accordingly, Greig et al. (2020) noted that uncertainties and other factors had affected the farmer's anxiety and stress. The growing attacks on farmers have certainly impacted farmers' psychological well-being and might have prompted varying anxiousness. Consistent with this assertion, evidence has indicated a higher anxiety rate in farmers due to numerous uncertainties (Rudolphi et al., 2020; Sanne et al., 2004; Torske et al., 2016). Farmers in volatile communities encounter everyday chaos, which might trigger a series of psychological challenges and stressors, predominately involving increased anxiety due to the increased uncertainty of violent attacks.

Farming insecurity describes the growing scope and consistent violent attacks on farmers and farming societies. The constant suspected herder attacks, banditry, raping, kidnapping, and other attacks in the farmlands witnessed across the nation indicate farming insecurity in the modern-day farming ecosystem. This situation entails a critical problem for the farming populace and generally affects the country's food production. Numerous farmers within the rural settlements have doubts about going to their farmlands due to the concern of kidnapping or unjustified attacks by herders (Abdulkareem, 2021). The increasing scope of farmer-herders clashes in various parts of Nigeria has led to numerous ruins of lives and farm products (Somtochukwu et al., 2018). Mostly, farming communities are compelled to abandon their farmlands and agricultural products in response to aggression from attackers (Anthony et al., 2020).

Literature abounds that emphasizes the scope of persistent attacks on farmers across many farming communities in Nigeria (e.g., Enorr et al., 2019; George et al., 2021; Hamman & Haruna, 2018; Li, 2019; Kolawole et al., 2018; Mojisola, 2019; Oghuvbu & Oghubu, 2020; Olu-Adeyemi, 2017). Although farming is much-admired due to its importance, it seems less attractive recently due to the fear induced by constant uncertainties in the farmland. Nonetheless, a farmer's motivation denotes the resolve, enthusiasm, and attitudes that drive farmers to partake in agricultural activities. Subsequently, the motivation to participate in farming actions seems to be influenced by contemporary insecurities. Indeed, various farmers could be demotivated based on anxiety and other associated psychological features. While most farmers, especially in isolated communities, encounter different farming uncertainties, they have a series of psychological challenges and stressors, predominately leading to poor motivation and low food production.

In these rising insecurities, the motivation to work on the farm may be inhibited by extreme anxiety, affecting motivation, productivity, performance, and physical and mental well-being. Many studies have examined the numerous factors influencing farming motivation in different farming domains (Cafaro et al., 2020; Hadden et al., 2012; Kahramanoglu et al., 2020; Nguyen et al., 2021; Raza et al., 2019; Tamma et al., 2021; Wang et al., 2019). For instance, perceived risk (Han & Li, 2020), farmer's education (Cao et al., 2020), attitudes, and social norms (Rezaei et al., 2018) have been found to determine farmer's intention. However, the role of farmers' anxiousness relative to farming motivation is lacking in the literature. Thus, the present paper examined farming anxiety as an antecedent of farmers' inspiration.

Hypothesis: *Farming anxiety would predict farmer's motivation*

Method

The present study was conducted in the farming communities of Ugbawka, Aninri, and Uzo-uwani areas of Enugu State, Nigeria. A convenient sample of two hundred and twenty-five farmers was approached between February and April 2022, and they were asked to participate in the study. They were briefed on the study's objectives and were equally informed that participation in the survey was voluntary, and they could withdraw any time they wanted. In particular, the participants were urged to complete a consent form before they were handed the questionnaire fill on the spot

Instrument

Farmers' motivation was measured with a scale designed to assess respondents' motivation and eagerness to engage in farming during security uncertainties. The instrument consists of 17 items rated on a 5-point Likert-type scale (1 = Never, 5 = Always). A higher score on this scale indicates a high motivation. The instrument was validated following a pilot study, and 0.77 Cronbach's alpha was obtained.

Farming anxiety was measured using an anxiety scale adapted from the Self-Rated Anxiety Sub-scale originally developed by Warr et al. (1979) as a tool for measuring the internal psychological states of the workers regarding the concerning or worrying circumstances in work indicating self-rated anxiety level. The scale comprised 7- items scored on a five-point rating scale, ranging from 1 (not at all concerned) to 5 (extremely concerned). The total score of the instrument ranged from 7 to 35. In contrast, a score of 7-14 indicates low Self-Rated Anxiety, while a score of 15-24 represents moderate Self-Rated Anxiety and 25-35 points indicate high Self-Rated Anxiety. The items were modified to suit the current samples. A Cronbach alpha 0.86 was recorded on the scale following a reliability test.

Result

A cross-sectional design was employed in the study. Data from the respondents were analyzed using the statistical package for social sciences (SPSS, Version 23). Simple regression was run to test the central hypothesis that farming anxiety would predict farmers' motivation. The analysis demonstrated a statistically significant effect of farming anxiety on the farmers' motivation F (1,225), 21.31 P< .05 with an adjusted R^2 of 128.

Table 1:

The table shows the linear regression analysis of the effect of farming anxiety on farmers' motivation.

	B	SEB	β	t	R^2	Sig
Constant	1.71	.032		33.32	.128	.000
Farming anxiety	-.67	.077	-.64	-12.15		.000

Note: B = Unstandardized regression coefficient; SEB = Standardized error of the coefficient; β = Standardized coefficient; R^2 = Coefficient of determination. *P<.000.

Discussion

The present study examined farmers' motivation in the period of security uncertainties based on farming anxieties. Two hundred and twenty-five farmers recruited from farming communities of Enugu State, Nigeria, completed a self-report instrument to ascertain their motivations relative to continuing farming activities. A regression model was employed to test the hypothesis that farming anxiety would predict farmers' motivation. The analysis revealed a positive interactional effect between the variables. Remarkably, the result showed that farming anxiety explained about 12.8% of the variation in farmers' motivation. The finding presupposes that the perceived insecurity, especially in the farming communities, exacerbates the intense emotional state that might potentiate the experience of fear, thus, propelling many farmers to react slowly to farm activities. In other words, those who exhibit a high level of anxiety as a result of the uncertainties of the modern-day and the perceived inability of intervention from the authorities are likely to show signs of dampened motivations. Moreso, many farmers are forced to exit their farmlands and suspend farming activities due to fear of being attacked. The enormous burden of farming inconsistencies results in a massive fall in food production. Thus, the absence of agricultural activities and lack of inspiration emerge as a common characteristics in today's heightened farming insecurities. The outcome is evident in the growing food insecurity in Nigeria. This present finding offers evidence that the trend of farming insecurity activates a certain level of uneasiness that interferes with the motivation of the farmers. Accordingly, a recent study stressed that anxiety and stress are significant factors that predominantly affect the farmer (Greig et al., 2020). Thus, this finding assumes that many farmers within the volatile farming communities might attempt to circumvent the dangers of being attacked by reducing the enthusiasm associated with farm work, thereby contributing to the declining food production and increased food scarcity in the country.

Conclusion

The present research examined the farmers' motivation based on the farming anxieties. A single hypothesis was formulated for the study. Expectedly, the linear regression analysis performed on the data confirmed that farming anxiety positively predicted farmers' motivation. Thus, the research finding offers insight into the farmers' psychological state during the period of growing insecurities in Nigeria. Consequently, the study concludes that the tension occasioned by the heightened

rate of attacks on the farm negatively impacts the farmers' psychological well-being and affects food production. In other words, the finding demonstrated a positive interaction between farming anxiety, farming motivation, and food insecurity. However, the study encountered certain limitations that are necessary to report. For example, the mechanism through which anxieties correlate with farming motivation remains unclear and requires further research. Also, the self-reported measures used in data collection raise concerns about biases and pose a limitation to the generalization of the result. Future research should use experimentation to establish clear causes and effects and adopt multiple means of data collection. Nonetheless, the present finding contributes to the farming literature by revealing farming anxiety as a potential contributor to farmers' low motivations, which is implicated in the increasing low food production.

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