

Research Article

Smallholder farmers risk management strategies and livelihood implications: Evidence from nsukka local government area, enugu state, Nigeria

Amarachi Jacinta Agu^{1*}, Ume Chukwuma Otum²

¹Department of Agricultural Economics, University of Hoheihiem, Stuttgart, Germany.

²Department of Agricultural Economics, Justus Liebig University, Giessen, Germany.

Accepted 13 October, 2021

Abstract

This study was designed to assess the risk management strategies used by smallholder farmers in Nsukka local government area. The broad objective of this study was to assess the risk management strategies used by peasant farmers and how these can be improved upon. The specific objectives were to: (i) identify and describe risks faced by peasant farmers and its impacts on their production, (ii) identify and describe the risk management strategies employed, and (iii) examine the factors affecting risk averseness among peasant farmers. A multi stage random sampling technique was used to select 100 famers. Primary data was used and were collected using well-structured questionnaire and personal interview method. The data was analyzed using descriptive statistics like mean, frequencies, Likert rating scales and Probit regression. The results showed that risk from deficiency in rainfall, excess rainfall, heat, pest and diseases, unexpected variability of yields, unexpected variability of product prices, unexpected variability in input prices, changes political and economic situation, fire and drought imposed serious threats to the respondents' farming operations and these risky situations had caused low farm income, increased input prices, increased need to borrow, decreased savings, migration to cities and low farm yield. The factors identified to have significant effect on their perception regarding taking risk in agriculture were gender, age, farming experience, extra skill, farm income and off farm income. The risk managements strategies adopted were having diversified crop, animal or other enterprise, storing feed and seed reserves, planting several varieties of crops, applying pests and diseases control program, having a water reservoir, planting and rearing disease resistant varieties of crops and animal, planting and rearing improved varieties of crops and animal, spreading sale over several time and period, obtaining market information on prices forecast and trends, reduced debt level, leasing farm machinery rather than owning them, working off farm to supplement net farm income and investing in nonfarm investment businesses in other to reduce the risky situations. The study therefore recommends that government should provide effective and well-functioning credit schemes and facilities and agricultural banks basically for agricultural projects so that farmers can easily get the necessary and timely financial support they need to boost and expand productivity.

Keywords: Cassava farmers, institutional risk, likert scale, cassava farming

INTRODUCTION

Risk is an unavoidable part of the business of agriculture and production can vary widely from year to year due to risks such as unforeseen weather and market conditions, causing wide swings in commodity prices. Farmers, like most of those who at

people, do not want to take on any more risk than they have to. In fact, they have been shown time and again to be willing to trade less profit for a reduction in the risk they face

*Corresponding author Amarachi Jacinta Agu, E-mail: umechukwuma@gmail.com.

European Commission, opines that risk in agriculture is not only concerned with the individual farmer, it is also of importance to society as a whole, as risk-averse behavior of farmers can lead to inefficient and sub-optimal allocation of resources, resulting in lower overall welfare. According to, appropriate risk perception can be seen as a prerequisite for choosing an effective risk-coping strategy, because a farmer that is not aware of the risks faced is clearly unable to manage them effectively. Studies revealed that risks faced by peasant farmers in rural settings have not received sufficient attention. The relative lack of information about farmers' risky environment and their approach to it means there are few useful practical insights for policy makers, researchers, extension officers and advisers. This study will examine the risk faced by peasant farmers and their management strategies.

The impact of risk is more severe on the poor than for the better-off farm households and this implies that it increases inequality. Risk results in unwillingness or slowness in the adoption of innovations [1]. In terms of risk management strategies, Boggess et al. and Patrick et al. reported that 'placing of investments', 'obtaining market information' and 'enterprise diversification' were the most important strategies that the sampled crop and livestock farmers use to handle risk in the US. Meuwissen et al. found that 'cost of production' and 'insurance schemes' were regarded as important risk strategies among livestock farmers in the Netherlands, Norway perceived 'increasing farm liquidity', 'disease prevention', 'buying farm insurance' and 'cost of production' as the most important strategies used to deal with risk on their farms. On the other hand, New Zealand farmers used a mix of risk management strategies to reduce risk. The strategies varied among the groups of farmers depending on the nature of the product, market structure and conditions, farmer characteristics, dynamic risk adjustment considerations and the regulatory situation.

According to, appropriate risk perception can be seen as a prerequisite for choosing an effective risk-coping strategy, because a farmer that is not aware of the risks faced is clearly unable to manage them effectively. One has to be aware of the fact that farmers from various ecological zones live within different climatic and institutional conditions, thus the differences of risk perception can be a result of either different probabilities of certain risk factors, or different farmers' mentality and awareness, or a mixture of both. Knowledge of the characteristics of risks that influence smallholder farmers is the key to developing appropriate strategies to deal with risks. Understanding how stakeholders and the broader community perceive risk can assist policy makers in developing better policy and more effective means for communicating government policies and programs in areas involving risk management.

Furthermore, adequate knowledge about risk management in agriculture is an essential tool for farmers to anticipate, avoid and react to shocks from risk. An efficient risk management of

strategy for smallholders' farmers will preserve their standard of living, strengthen the viability of their farm businesses, and provide an environment which supports investment in the farming sector. Appropriate risk perception can be seen as a prerequisite for choosing an effective risk-coping strategy, because a farmer that is not aware of the risks faced is clearly unable to manage them effectively. More generally, this work may be possible to present information and advice in ways that better portray the risks involved and that permit a farmer to decide more easily which choices best suit his or her particular circumstances and risk-bearing capacity.

The broad objective of this study therefore, was to assess the risk management strategies used by peasant farmers and how these can be improved upon. The specific objectives were to: (i) identify and describe risks faced by peasant farmers and its impacts on their production, (ii) identify and describe the risk management strategies employed, and (iii) examine the factors affecting risk averseness among peasant farmers.

METHODOLOGY

The study was carried out in Nsukka Local Government Area (LGA), Enugu state. Nsukka LGA has an area of 1,810 km² and is located between latitude 6°30' and 7°06' north and longitude 7°54' and 8°54' east (Figure 1).



Figure 1. Map of Enugu state showing the three agricultural zones.

Random sampling techniques were used to select 100 peasant farmers from 17 villages in Nsukka LGA. Data were collected using a well-structured questionnaire that was administered by personal interview. Descriptive statistics (mean, percentages and frequencies) was used to describe the socio economic characteristics, identify and describe risks faced, assess from the farmer's perspective, the impacts of risks on their production and identify and describe the risk management strategies used by the peasant farmers in the study area. Using a 5 points Likert rating techniques (graded as 1= not risky, 2= somewhat risky, 3= risky, 4= very risky, 5= extremely risky), the respondents were asked to rank the risk elements in their farming activities. The probit regression model was used to ascertain the factors affecting the potentials of smallholder farmers regarding taking risk in their farming business. Here the

CONCLUSION

The specific objectives of this study were to: Describe the socio economic characteristics of the smallholder farmers, identify and describe risks faced by smallholder farmers, assess from the farmer's perspective, the impacts of risks on their production, examine the factors affecting the perception of farmers as regards to risk taking in agriculture and identify and describe the risk management strategies used by the smallholder farmers in the study area. Using a multi stage random sampling, data was collected on 100 smallholder farmers from 10 communities in the

study area. The data was analyzed using descriptive statistics like mean, frequencies, Likert rating scales and Probit regression. The research work has assessed the risk management strategies used by Smallholder farmers in Nsukka local government area of Enugu state. Although farmers in the study area adopted numerous strategies to mitigate risk but it still results to low productivity. This is because they do not have sufficient skills in managing risks in agriculture.

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