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RISK ATTITUDES AND COPING STRATEGIES OF FRUIT MARKETERS IN IKOT EKPENE LOCAL GOVERNMENT AREA OF AKWA IBOM STATE, NIGERIA.

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Abstract

The study investigated risk attitude of marketers and their coping strategies in fruit marketing in Ikot-Ekpene Local Government Area of Akwa Ibom State. Specifically, the study examined the socio - economic characteristics of the marketers, risk attitude of the respondents, estimated the factors that influenced risk attitude of the respondents, identified their coping strategies and constraints to fruit marketing. Primary data were collected using structured questionnaire; data collected were analyzed using descriptive statistics such as table, frequency and mean while inferential statistics such as regression model was also used. Result shows that marketers were within the active work force, with a mean age of 43 years, majority of them were married with a mean household size of 5. Majority (55%) of the marketers had positive risk coefficients and were categorized as risk preferring. The factors that significantly influenced marketers' risk attitude in fruit marketing were age , membership of association ,sex and education with values of 5% , 10%, 1% and 10 % respectively. The coping strategies adopted by the marketers were increase selling hours, cut down household spending/expenditure, spend business money/saving and integration (input sourcing and sale). The major constraint identified by fruit marketers were high cost of transportation and seasonal price variation. The study, therefore, recommends that government should look into the price of fuel since it is the primary cause of increase in transportation fare.

Introduction

Risk is the probability of an occurrence whose outcome is known. It has two major outcomes, negative or positive as the case may be. According to Wasiu and Burhan (2018), it is a day to day incident that affects the achievement of set goals and is studied in various disciplines to serve as control measures for preventing/ reduce the effects of negative consequences. It is a situation where an individual, firm or entrepreneur, faces in the course of business ventures;

that necessitate a decision making process whether to take the risk or to avert it . The reaction in the form of decision of the individual, firm or entrepreneur reflects the attitude toward risk. Attitude is the behavioral approach toward an incident as it occurs. Some people do not want any risk, others may care only slightly about risk while some may enjoy risk. Most of them may likely lie between the one who does not want risk at all and the one who cares little about risk or otherwise. The degree to which an entrepreneur likes or dislikes risk is called "the risk attitude". Basically, entrepreneurs whether farmers or marketers have three attitudes toward risk; namely risk avert, risk neutral, and the risk takers. Agricultural enterprise, be it production or marketing is associated with high risk. This is because production yield depends majorly on natural process such as rainfall, temperature and occurrence of insect /pest and diseases that are beyond the control of man. The marketing aspect depends on the yield for the season, when yield is high, there will be abundance and prices will be low or moderate, while low yield implies high prices. Girdžiūtėa,(2012) affirmed it and posited that agricultural business organizations, marketers and farmers are more likely to face risks than other business sectors owing to the fact that agricultural products and services are related to natural processes, biological assets, plant and animal diseases, that influence the risk behaviour of the entrepreneurs in their decision making.

Risks that affect agriculture can be broadly grouped as systemic/correlated risks and idiosyncratic/independent risks. Systemic risks include production risks (farming practice, weather, pests, etc.), price risks, and political risks (export bans, price caps, debt write offs, etc.). Non-agricultural risks known as idiosyncratic risk are made up of personal risks which affect the entrepreneur and or manager of the farm business. Risk pooling and insurance arrangements are more likely to offer protections against idiosyncratic risks rather than systematic risks (Agbayekhai,2010). In order to effectively manage risk and adopt good strategies to keep business afloat, one needs an understanding of the nature of risk whether production or price risk. Marketing of fruit is associated with both production and price risk; this is because, the yield from production determines the supply chain and hence the price of the product. Although, Fausayana *et al. (*2018) posited that risk on fruit is found at the stage of marketing, but the experience of marketers will reduce the risk on marketing. More so, Lawrence *et al.* (2018) posited that marketing risks are prevalent throughout the world and they are particularly burdensome in developing countries due to the income level of the marketers. The income level of the marketers, plays a vital role in

their marketing decisions related to choices and levels of inputs (initial capital) and outputs (revenue). Empirically, how marketers decide under risky conditions is best analyzed by taking into account their risk perceptions and risk attitudes or preferences (i.e., risk-averse, risk-taker, or risk-neutral). Marketers whose survival hinges on marketing may be more sensitive to income variability than to average income and often exhibit high aversion to risk (Luke, 2011).

Understanding risk attitude determines the type of risk management strategy to be adopted by marketers which influences their economic decisions. Attitudes towards risk, whether risk averse, risk seeker/taker or risk neutral needs a level of coping strategies available to them. For instances in fruit marketing where the produces have very short shelf life, marketers are likely to face the constraint of high lost to perishability and loss in price as the produces change their nature to deterioration. Therefore, it is imperative to analyze the risk attitude of fruit markers and their coping strategies that sustain them in the business. Thus, the study addresses the following specific objectives (i) examine the socioeconomic characteristics of fruit marketers in the study area; (ii) examine and classify the fruit marketers according to risk attitude; (iii) estimate the determinants of risk attitudes of the fruit marketers (iv) determine and describe risk coping strategies use by fruit marketers and (v)identify the constraint that militated against fruit marketing in the study area.

Methodology

The study was conducted in Ikot Ekpene Local Government Area of Akwa Ibom State. The area is located between latitude 5^0 10' and 5^0 30'North and longitude 7^0 30'and 7^0 45'.The Local Government is bordered on the East and North by Obot Akara Local Government Area, on the west by Essien Udim Local Government Area and on the South by Abak and Uyo Local Government Areas of the State. The area has a total land mass of 305km^2 and population of over 367,000 people (NBS, 2019). Ikot Ekpene LGA is notable for marketing of fruit like banana, garden egg, pineapple, apple, carrot, cucumber, cabbage.

The study used a multi-stage random sampling technique; Ikot- Ekpene LGA is made up of five clans. In the first stage, three clans out of the five clan were randomly selected for the study. The clan selected are (Abiakpo, Ukanaan and Ibiakpan). In the second stage, two (2) markets were purposively selected from each of the clans due to the level of fruit marketing

activities in the area, this gave a total of 6 markets. Lastly, ten (10) fruit marketers were randomly selected from each of the selected markets. This gave a total of Sixty (60) respondents for the study. Primary data were collected by the use of structured questionnaire. Data collected were analyzed using different statistical and econometric model as deemed suitable for the study. Objectives one (i) was realized using descriptive statistics such as tables, frequency and means. Objective two (ii) was realized using Risk attitude model, objective (iii) was realized using Ordered Probit Regression Model and (iv) objective was realized by using five point Likert scale to generate information for its analysis. (v) was realized using descriptive statistics such as tables, frequency and means .

The risk model as used by (Sekar and Ramasamy, 2001) is specified thus;

Risk model

$$\Psi_i = \frac{(\partial i^* - \mu i)}{\sigma r} \quad - \quad - \quad - \quad (1)$$

Ψ_i = risk aversion Index (RAI)

∂_i^* = Disaster level of income

The disaster level of income $(\partial_i)^*$ represents the point below which attitude of the marketers must change markedly; the marketer must borrow or sell assets to avoid starvation. This level of income, also, determined the situation that prompt decision-making among socio-economic groups.

μ_i = Expected revenue from sale;

σr = Standard deviation of income;

The model was constructed following the utility function.

If $\Psi i < 0$, the respective marketer's is a risk averter

If $\Psi i = 0$, the marketer's attitude to risk is neutral

If $\Psi i > 0$, the marketer's is a risk seeker or preferrer/lovers

The ordered probit model that analyzed the factors that influenced risk attitude of the fruit marketers is specified as used by Lawrence *et al.,* (2018).

Ordered probit regression model was used to examine the determinants of risk attitudes of the fruit marketers in the study area. Ordered Probit Model is the most appropriate model due to the fact that the dependent variable takes discrete values and these values have a natural ordering. Respondents were provided with a set of questions which were related to their risk seeking attitude and was used to classify the risk nature of the marketers with the value {1,2,…J} for *J*, take a positive integer.

$$Zi=1,2,..j = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + b_7X_7 + b_8X_8 + b_9X_9 \ldots(2)$$

where;

Z = Risk attitudes (0 = Risk neutral, 1 = a risk averter and 2 = risk taker or preferrer).

The independent variables are as follows:

X_1 = Sex (1=Male, 0=Female)

X_2 = Age in (years)

X_3= Marital Status (1=Married, 0=Not married)

X_4 = Educational status in (years spent in school)

X_5 = Household size (no of persons)

X_6 = Membership of market union (1= Yes, 0= No)

X_7 = Return from fruit sold (N)

X_8= Availability of storage facilities (1= Yes, 0= No).

Results and Discussion

The socio-economic characteristics of the fruit marketers is presented in Table1:
Table 1: Socio economic characteristic of fruit marketers in the study area.

Age (years)	Frequency	Percentage
20-29	6	10.0
30-39	13	21.7
40-49	26	43.3
50-59	15	25.0
Total	60	100.00
Mean	43	
Sex		
Female	34	56.7
Male	26	43.3
Total	60	100
Marital Status		
Single	7	11.7
Married	42	70.0
Widowed	11	18.3
Total	60	100
Household size		
1-4	45	75.00
5-8	11	18.3
9-12	4	6.7
Total	60	100.00
Mean	4	
Educational status		
No formal Education	8	13.3
Primary Education	28	46.7
Secondary Education	17	11.7
Tertiary Education	7	11.7
Total	60	100.00
Experience		
1-5	33	55.00
6-10	20	33.30
11-15	7	11.70
Total	60	100
Mean	6	
Membership status		
Member	49	81.7
Non member	11	18.3
Total	60	100.0

Source: Computed from field survey (2019)

The result in Table 1 shows that the mean age of the fruit marketers was 43 years, with forty three (43%) falling within the age range of 40 and 49 years. This is an indication that the fruit marketers in the study area were mostly middle aged and they were within the active productive work force. This has implication on fruit marketing because of the ability of this segment of population to effectively

withstand the rigorous, strain and stress involved in fruit marketing. Middle aged fruit marketers within the active productive work force can effectively shoulder the rigorous and tedious activities in fruit marketing (Thompson, 2015). On marital status, the result, shows that majority (70.0%) of the fruit marketers in the study area were married while 11.7% of them were single. This implies that the married class was more involved in fruit marketing because of the need to supplement the family's means of livelihood. The dominance of the married people in fruit marketing in the area may be attributed to the fact that married people have responsibilities and would pay more attention to their means of livelihood in order to carter for their family. More so, the result in Table:1 shows that majority (75.0%) of the fruit marketers had household sizes of between 1 and 4 persons with a mean household size of 4 persons among fruit marketers. This result indicates that the fruit marketers in the study area had moderate family sizes. The result of the study is similar to the findings of Offor*, et al*. (2016) who reported a mean household size of 5 persons among fresh fish marketers in Port - Harcourt. Furthermore, the result shows that on the average the marketers spent about 6 years in marketing business. Offor, *et al.* (2016), also reported a mean marketing experience of 7 years. This implies that fruit marketers are well experienced in their business and can handle challenges that could arise from the fruit business. This is because marketers would count on their marketing experiences to improve output hence income. In addition, majority (81.7%) of the marketers belongs to marketer's association while the rest (18.3%) were not. The marketers could join cooperatives in order to enjoy the gain of collective bargaining as well as curb low pricing in the business. The implication is that an overwhelming majority of the fruit marketers in Ikot Ekpene of Akwa Ibom State belong to marketing union, which may help the marketers get adequate information on fruit marketing and other benefits obtainable from a union.

Risk Attitude of Fruit marketers in the study area

Table 2: Risk Attitude of fruit marketers

Category	Risk aversion index	Frequency	Percentage
Risk Preferring	2.51 – 5.00	33	55.00
Risk neutral	2.5	11	18.33
Risk Averse	1.00 – 2.49	16	26.67
Mean level of income	28, 582.21	60	100.0

Source: Computed from field survey (2019)

The result in Table 2 shows that, 55 percent of the marketers in the study area had positive risk aversion index and were therefore categorized as risk preferring/ risk takers. The results of this study concur with the findings of a study carried out by Yusuf *et al.* (2015) who reported that most of the respondents were risk preferring. Marketers' preference or attitude towards risk brings about different economic decisions and situations. Therefore, the knowledge of marketers' attitude toward risk has important implications on the success of rural development activities/programmes since their attitude can affect their income level hence welfare. About 26.67% of marketers were risk averse. This implies that small proportion of the respondents were risk averse. This result corroborates the findings of Lola (2014) who reported that marketers in the study area were not risk averse; in other word the marketers were risk takers. It is a welcome development since few of the fruit marketers are risk averse; this means that the marketers are willing to take risk and to enjoy the benefit that may accrue to them in terms of increase return. Furthermore, about 18.33% of the sample respondent are risk indifferent/neutral. The study is in tandem with the findings of Okpara (2021) who reported that about 20.4% of rice entrepreneurs were risk neutral. People naturally differ in the way they take decisions involving risk and uncertainty and these differences are often described as differences in risk attitude.

Factors that influence the risk preference of fruit marketers in the study area.

Table 3: Ordered probit regression factors influencing marketers risk attitude towards fuit Marketing

Variables	Coef.	Std. error	Z	Pz
Sex (X_1)	-1.305455	0.351197	-3.72	0.000***
Age (X_2)	0.0480671	0.0208706	2.30	0.021**
Marital Status (X_3)	-.2396291	0.2526609	-0.95	0.343
Education (X_4)	-.4300714	0.2330442	-1.85	0.065*
Household size (X_5)	-.0754588	0.0606908	-1.24	0.214
Association (X_6)	0.8400089	0.4934927	1.70	0.089*
Revenue	1.82E-08	1.58e-06	0.01	0.991
Storage	-.0002836	0.0001797	-1.58	0.115
LR Chi^2	29.62**			
Pseudo R^2	0.2078			
Log likelihood	-56.4650			

Source; Field survey (2019)

The result in Table 3 shows the coefficients of factors that had significant influence on marketers' attitude towards risk. Sex and education with the significant levels of 1% and 10% respectively negatively influence risk attitude of the marketers. This inverse significant relationship implies that fruit marketer's attitude/preference for risks depend more on their sex. That is to say, the probability of a marketer becoming a risk averse increases if she is a female marketer. The coefficient of education was significant at 10%, but had a negative sign. This implies that, the probability of a marketer risk attitude decreases as a marketer attained higher level of education. This is against *a priori* expectation; because better education has the effect of enabling marketers to access and conceptualizes information on improved marketing methods and other related issues capable of enhancing their risk attitude (Apata *et al.,* 2010). The coefficient of age and association with the significant levels of 5% and 10% respectively had positive relationships on risk attitude of the marketers. This implies that increase in age and membership of an association will increase marketers' preference and attitude towards risks taking in fruit business. In other words, if a fruit marketer belongs to an association, it increases the chances of the marketer becoming risk loving or risk taking. This result is similar to the findings of Okpara (2021), who reported that membership of association /cooperative membership had positive influence on rice entrepreneur risk attitude in the study area.

Risk coping strategies of fruit marketers in the study area

Table 4: Risk coping strategies use by fruit marketers

Coping strategies	**Mean**	**Std. Deviation**
Increase selling hours	3.48	1.35
Cut down household spending/expenditure	3.40	1.06
Increase labour force	2.35	1.29
Borrowing	2.77	1.11
Business reserves/savings	3.13	1.46
Integration (input sourcing and sales)	3.10	1.24
Cooperative support	2.55	1.16
Grand mean	2.97	1.24

Source: Field survey; 2019. Decision mean $X \geq 3.0$

The study analyzed the coping strategies used by fruit marketers using a 5-point Likert scale whereby respondents indicated their perception by ticking either of 1-5 for strongly disagree, disagree, neutral, agree, strongly agree. The result in Table 4: gives a descriptive analysis using means and standard deviations of the coping strategies employed by the marketers. The result had a grand mean of 2.97 and a standard deviation of 1.24. Among the strategy listed four (4) item were accepted as their mean values were greater than or equal to 3, while three items were rejected. This implies that the coping strategy adopted by the marketers in the area were increase selling hours, cut down household spending/expenditure, business/saving and integration (input sourcing and sales).

Constraints that militates against risk attitude in fruit marketing in the study area.

Table 4.13 Distribution of Respondent according to marketing problem

Constraint	Frequency	Percentages	Rank
High cost of transportation	36	60.0	1st
Bulkiness	22	36.7	2nd
Inadequate market information	22	36.7	2nd
Seasonal price variation	20	33.33	3rd
Perishability of the product	18	30	4th
Poor pricing	12	20.0	5th
Market Remoteness	12	20.0	5th
Bad road network	8	13.3	6th
Poor storage facilities	8	13.3	6th

Source: Field survey (2019)

The result in Table 5 showed that the major problems faced by the marketers include high transport cost, which accounted for 60%. Usually the price of petrol was unstable and this created sharp rise in the cost of transportation. As transportation fare increases, the prices of fruit will also increase; this could lead to reduction in sales of fruit and hence affect the return from sales. This corroborates the finding of Obasi and Nzeakor (2016) who reported that majority (77%) of marketers indicated that transportation cost was the major problem they faced. On seasonal price variation, 36.7% of the respondents identified it as a constraint. Also inadequate market information and bulkiness was also noted as a constraint. During off

season, the prices varied tremendously. The least problem identify by the marketers was perishability of the product, this shows that fruit spoilage was not a major constraint.

Conclusion

The study investigated into risk attitude of marketers and their coping strategies in fruit marketing in Ikot- Ekpene Local Government Area of Akwa Ibom State. Result shows that marketers were within the active productive work force, majority of them were married with a mean household size of 5. Majority (55%) of the marketers had positive risk coefficients and were categorized as risk preferring. The factors that significantly influenced marketers' risk attitude in fruit marketing were age, membership of association, sex and education. The coping strategies adopted by the marketers were; increase selling hours, cut down household spending/expenditure, spend business money/saving and integration (input sourcing and sale). The major constraint identified by fruit marketers were high cost of transportation and seasonal price variation. The study therefore recommends that government should ensure a regular fuel price since it is a primary cause of increase in transportation fare.

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