
Women in Cassava Processing and Marketing in North Central Nigeria: Are they any Happier?

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Abstract

Cassava is one of the most important staple food items available in Nigeria. Nigeria is the largest producer of cassava and it's considered the most important tropical root crop providing food and income to over 30 million farmers, processors and traders. The objective of this study is to ascertain the happiness status of women combining occupation of processing and marketing cassava with family responsibility in north-central Nigeria. This objective is motivated by novelty of such researches in the research area. The findings revealed that women in processing and marketing of cassava in north central Nigeria are happy. The study concludes that happiness question in the study area is influence by the people's culture where one will hardly said he/she is unhappy. The study therefore, recommends that community leaders and local government authorities encourage women in cassava processing and marketing to always form cooperative societies. This will not only make them a formidable common front but will improve their contributions/supports to families from their cooperatives pool resources.

Keywords: Cassava, Happiness, Processing, Women

JEL Classification: J16

1. Introduction

Cassava has taken the place of maize as Africa's most important food crop due largely to the climate change that expedites unpredictable rainfall (Adekanye & Oni, 2022; Forson, Baah-Ennumh, & Mensah, 2018). In the whole of Africa, Asia and Latin America, over 600 million people rely on cassava as staple food (Adekanye & Oni, 2022). It is popular, cheap and easy to produce in all tropical regions. It is found to be extremely tolerant to environmental stress which makes it suitable for present farming and food system in Africa. Nigeria is the largest producer of cassava and it's considered the most important tropical root crop providing food and income to over 30 million farmers, processors and traders (Tessy, Okoye, Ewuziem, & Onyeka, 2022). Cassava is one of the most important staple food items available in Nigeria. Harvested cassava tubers can be processed into many useful ends for man, animals and industrial uses (Tessy, Okoye, Ewuziem, & Onyeka, 2022).

These includes; tapioca, starch, fufu, Lafun (cassava flour), high-quality cassava flour (HQCF), and “gari” which is a staple food in some regions (Adeniyi, Akangbe, Kolawole, Ayeni & Olorunfemi, 2023). Almost two thirds (60%) of total output comes from the southern part, about 30 percent from the north-central part and 4 percent from the core northern part of the country. The crop is mainly grown by smallholders on small family plots and local sale (Olayide *et al.*, 2021). The location and potentialities of the environmental resources of the north central Nigeria area provides the inhabitant with diverse economics activities of which farming and allied activities is the main employer of labors. However, its employment came to be influenced by genders and skills hence, the division of labor. In other words, some tasks are exclusively reserved and performed only by women while others by men based on biological and psychological capacities. Hence, cassava production value chain is gender sensitive in terms of who does what; men owned and worked the farmland producing the food requirement while women in most cases limit themselves to harvesting of crops, transporting harvested crops home, processing, marketing among others (Ezeokeke,2014).

Nigerian cassava production, processing, and commercialization are dominated by women. It is crucial to ensuring food security in the home, which is commonly the responsibility of women because they are known to make greater financial contribution to families’ needs and spent less on selves than their male counterparts does. Although, cassava is a low-risk and low-input crop that is especially important for women because they face more severe barriers to accessing agricultural inputs than males do (Adeniyi, Akangbe, Kolawole, Ayeni & Olorunfemi, 2023), inadequate finance is major constraint due to their inability to access credit hence, limit their production to a small scale (Falola, Mukaila, & Olatunji, 2022). When a woman enters the labor market, her household suffers many non-negligible costs unless she find an alternative way to suppress all the household-related activities; home management. If these responsibilities cannot be outsourced, women end up having to work longer hours with higher intensity as strategy to manage both the home and the labor responsibilities outside the home. The psychological and physical burdens from these responsibilities translates to stresses resulting to high personal cost and lowers happiness (Torosyan, & Pignatti, 2020)

Conceptually, Diener (2009) reported the description of happiness to be ‘young, healthy, well-educated, well-paid, extroverted, optimistic, worry-free, religious, married person with high self-esteem, high job morale, modest aspirations of either sex and of a wide range of intelligence’. Diener, in furtherance said Sociologist and Anthropologist assess happiness to be societal performance in terms of meeting human needs. Thus, happiness reflects true human progress. Humans right to happiness of all emphasized in American Declaration of Independence by Thomas Jefferson in the 1776 is as thus, “that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are life, liberty and the pursuit of happiness” (Conklin, 2019; Nettle, 2005). This being the case, women inclusively as citizens has right to pursue happiness. Unfortunately, women’s right to happiness has limits because they have to fulfill social and cultural expectations (Baker, 2018). It then mean that a woman may choose to go with self-mastery which is also integral of self-respect and if appreciated leads to happiness, good life and good society. “Self-

mastery includes the willingness to forego some goods in order to obtain greater goods” (Martin, 2012). The objective of this study is to ascertain the happiness status of women combining occupation of processing and marketing cassava with family responsibility in north-central Nigeria. The objective is motivated by novelty of such researches in the research area. The research question is, are the women in the North central Nigeria any happier in the business of cassava processing and marketing? This study is divided into sections; section two is the theoretical framework and literature review after the introduction. The third is the method of the research which is followed by the evaluation of the happiness of family women in cassava marketing in North Central Nigeria and lastly conclusions and recommendation.

2. Literature Review

Herbert Marcuse critical theory revealed that “...relationships may grant joy; true happiness and sexual freedom for women are in fact impossible within an oppressive system” (Ellen, 2019). He lamented that in a man-control society where in most cases, the right of a woman is denied, true goal or happiness to all is impossible because inclusive economic development is not fundamental in such society. The theory sees the cooperation and accommodation of women to men a threat to women’s pursue of happiness within a repressive society. That is to say, women’s wants does not always match with men’s expectations – that is, what the women want nor what men want for women. The disconnection between the two makes women’s unhappiness and men’s frustration with women for not being satisfied with the prone privileges. In his words, “men defended what made them happy by extending it to all ... and because our society is built on the individual pursuit of happiness as a God-given right, personal needs which hurt others are allowed and protected if presented as required components of one’s happiness quest” (Ellen 2019).

Zhang and Tsang (2013) revealed that, the impact of women’s income is expected to facilitate their happiness. But amazingly, contrary tents to be the case. Women’s income inflicts their marital outcomes negatively. In other words, women’s economic independence tends to hamper the stability of marriages which in turn affects their happiness negatively. Wives’ relative income lead to marital disagreements and it is positively associated with the risk of divorce. According to Liang in Shui, Xu, Lui and Lui (2020) women’s pursuit of work achievements and their own social values is contrary to cultural moral values. Most women are intentional to work but unable to go out to work against their wish because of family commitment. This has nothing to do with the woman’s capacity or meeting the requirement but simply can’t join work force due to family responsibly hence, inflict woman’s happiness negatively. According to Filipovic in Baker (2018), women are victims of “operating in a system created by men, for men according to their whims and desires” and therefore, women can’t be happy and independent if they are expected to provide support for the world without freedom. Sayer and Bianchi in Zhang and Tsang (2013) revealed that women in production to earn income adds capital and assets to the homes and enhance the quality of life and happiness for the family. Such family effort to allow women indulge in production for income, apparently render the marriage more attractive to the couple and thus lower the risk of marital dissolution.

In processing and marketing cassava, women suffer some impediments that hamper their efficiency. These include domestic injuries, waste of and time investment at root peeling of cassava, fermentation for various useful ends and frying of gari hampers women processing efficiency (Olaosebikan, Abdulrazaq, Owoade, Ogunade, Aina, Ilona, & Parkes, 2019). The local implements and traditional processing method prone to women consume a lot of their time in cassava processing and marketing. Rudimental methods like over reliance on sun-dried methods are rendered impossible during the rainy season (Githunguri, Gatheru, & Ragwa, 2017). Women cassava processing industry has being a profitable venture in Nigeria. According to the study of Falola, Mukaila, & Olatunji (2022), the return on capital invested in cassava processing was 0.62 which meant that for every ₦1 invested in cassava processing, ₦0.62 was earned as a return. Thus, cassava processing had a relatively high return on investment. In other words, the benefits of cassava processing are economical, productive and profitable. In furtherance, buttressing the fact of woman's profit in cassava processing and marketing, (Adeniyi, Akangbe, Kolawole, Ayeni, & Olorunfemi, 2023) expatiated the participants into two sets; women that indulge into the use of technology and those that perpetuate the traditional method of processing and marketing. Majority of women that make use of improved technology makes annual income that ranges between N500,000 and N1,100,000 while majority of those that perpetuate traditional methods makes between N100,000 and N300,000 annually. The study's findings revealed that users of improved technology earned more with a mean of N528,654 compared to that of traditional methods which is N294,610.

3. Methodology

In ascertain the happiness status of women combining occupation of processing and marketing cassava with family responsibility in north-central Nigeria. This study used primary data obtained through structured questionnaire. The administration of the questionnaire in the research area covers selected states of Benue, Niger, and Nasarawa States of the North Central States of Nigeria. The region has overwhelming women population that is directly engaged in cassava processing and marketing. The total number of questionnaire distributed was 384 in line with Kenny and Barons, with 128 questionnaires administered on equal bases across the states. But about 60% valid return questionnaires were achieved. The study used happiness as dependent variable with being happy as one, and zero otherwise. Other independent variables such as earn income, support family, other source of income, donation, family responsibility, family life suffer, no problem of trust and cultural norms were measured in likert scale, with one as strongly agreed, two as agreed, three as disagreed, and four for strongly disagreed. Using the binary logistic regression, the model is specified as:

$$\Pr(y_i = 1/x)_i = \beta_0 + \beta_1 X_i \dots\dots\dots 1$$

Where, $\Pr(y = 1/x)$ is the probability of the outcome, Y is the response value, X_i indicates the vector of explanatory variables, β_0 signifies the intercept of the equation, and β entails vector of the parameters to be estimated. The essence of this model is that the dependent variable is dichotomous, and while the independent variables are categorical. However, since the dependent variable in this study is dummy variable, with two categories of either being happy or not. The empirical model is therefore specified as follows:

$$\Pr(H_i = 1/0)_i = \beta_0 + \beta_1 EI_i + \beta_2 SF_i + \beta_3 OSI_i + \beta_4 D_i + \beta_5 FR_i + \beta_6 FLS_i + \beta_7 NPT_i + \beta_8 CN_i + \mu_i \dots\dots\dots 2$$

Where, $\Pr(H_i = 1/0)_i$ is probability of not being happy; β_0 is the constant parameter of the equation; β_s refers to the coefficient of the independent variables; with EI_i as earn income; SF_i refers to support family, OSI_i is other source of income, D_i denotes donation, FR_i stands for family responsibility, FLS_i indicates family life suffer, NPT_i refer to no problem of trust, CN_i means cultural norms and μ_i denotes error term. However, the marginal effect explained the changes in independent variables that will leads to change in the dependent variable.

4. Result

Table 1: Descriptive Statistics

	Frequency	Percentage
Year of Birth		
15 – 24	32	25.4
25 – 34	57	45.24
35 – 44	23	18.25
45 – 54	7	5.56
55 and Above	7	5.56
Complete Educational Status		
Non-formal school	30	23.81
Primary	23	18.25
Secondary	30	23.81
Diploma/ NCE	31	24.60
Degree	8	6.35
Post Degree	4	3.17
Marital Status		
Single	36	28.57
Married	84	66.67
Others	6	4.76
Family Size		
0	32	26.23
1 – 2	37	30.33
3 – 5	28	22.95
6 and above	25	20.49
Years of Experience		
Less than 5	23	18.25
6 – 10	42	33.33
11 – 15	40	31.75
More than 16	21	16.67
Religion		
Islam	95	76.00
Christianity	25	40.00
Others	5	4.00
Total	126	100

Source: Author's Computatuon

The ages of the respondent rages between five groups; 25 percent of the respondents are within the ages of 15 – 24 as the youthful ages and 7 percent for above 55 as the oldest group. The most active respondent age rank is the 25 – 34 groups who are mostly married women that portray the energetic nature of the job. This in furtherance translates to number of married women respondent to 67 percent showed that the job’s needed energy aged rank takes the bull by the horn. The statistics in the descriptive statistics of education status show the level of unavailability of formal jobs. The percentages of the family size across groups connote that all families needed support from women’s earnings and over 95 percent of the respondents are either Muslims or Christians. This also goes to signify that the communities are dominated/influenced by their both religious ethics.

Table 2: Logistic Regression of the happiness of women combining cassava processing and marketing with Family and Job Responsibility

Variables	Coefficient	Margins
Earn Income	0.5751 (0.7098)	0.0882 (0.1108)
Support Family	-0.9121 (0.5561)	-0.1399 (0.0889)
Other source of Income	0.0084 (0.1066)	0.0013 (0.0163)
Donate	0.1466 (0.4986)	0.0225 (0.0762)
Family responsibility	0.3382 (0.3841)	0.0519 (0.0586)
Family life suffer	0.3322 (0.3166)	0.0509 (0.0486)
No problem of trust	0.0946 (0.4130)	0.0145 (0.0634)
Cultural norms	0.0091 (0.369)	0.0013 (0.0566)

Source: Author’s Computatuon

The coefficient of income earnings of the logistic regression in table 2 connotes the happiness of women who combines cassava processing and marketing with family/Job responsibility. The magnitude is 0.58 with 0.088 as the margins. This goes to mean that the women in north central Nigeria are happy with income generation from cassava processing and marketing. In other words, a unit change in income increases the happiness of women in cassava processing and marketing in the research area by 8.8 percent. This in line with the

study of Falola, Mukaila, & Olatunji (2022), who found return on capital invested in cassava processing industry by women to bear fruitful earned as a returns. On whether, the women are not happy with level of support they do render to the family resulting from their businesses, the coefficient is -0.9121 and the margin is -0.1399. Meaning that, likely decrease happiness in women as a result of the dissatisfaction with the magnitude of the support they tender to the family. That is to say a unit change in family support decreases their happiness by 13.9 percent. This is likely not separable from the unfriendly high inflationary pressure in the country's economy that frowns at households at all levels of income groups. According to Sayer and Bianchi in Zhang and Tsang (2013) women in production to earn income support homes and enhance the quality of life and happiness for the family, therefore with women's earnings but unable to give enough support due likely largely to inflationary pressure, decreased happiness is likely.

Women's happiness resulting from other sources of income or businesses is positive but very thin value addition to the magnitude of their happiness. The coefficient is 0.0084 and the margin is 0.0013. This goes to mean that a likely change in the other sources of income of women in the research area increases the level of their happiness by 0.13 percent which less than 1 percent. In other words, women in the cassava and marketing business in north central Nigeria likely have little or no other sources of income that add to the value of their happiness. On whether women are happy being able to respond to immediate responsibility of donating to religion and the likes in times of societal/community needs, they are likely happier with 0.1466coefficient and with the margin as 0.0225. Meaning that, a unit change in women's ability towards donating or attending to immediate social responsibility in the research area is likely to make them happier by 33.8 percent.

The responses of whether family responsibility impedes women's concentration on their cassava businesses, it has positive impacts on their happiness in the research area. The coefficient is 0.3383 with 0.519 as the margin. This goes to mean that a unit increase in family responsibility is likely to increase women's happiness by 15.9 percent. Although this might not be practically true, the research area has elements of women depravation from cultural structures. Therefore, the enthusiasm of business freedom amongst women in cassava business is likely the result of the outcome of increase happiness with increase home responsibility knowing full well that at the end, they have the freedom to carry out their respective cassava businesses. On whether family life suffer set back resulting from women engagement in cassava processing and marketing, the coefficient connotes positive value happiness of 0.3322 and margin of 0.0509. Meaning that, a unit change in family life resulting from women engagement in cassava business rather brings of about a 33 percent increase in the happiness of women in the research area. In other words, women participation in cassava businesses doesn't have negative set back on family settings, rather, contributes positively to family settings hence, increase family happiness.

As women, on whether they suffer trust challenges from spouses, the result connotes improved happiness coefficient of 0.0946 and 0.0146 margin. That means a unit change in trust issues amongst spouses in the research area can only bring about improved relationship. In other words, a unit change in the trust issues improves happiness of 1.5 percent happiness which is so insignificant that wouldn't rule out this challenge amongst

women in the business that takes place out the circumferences of homes. On whether the women's choice to take up job outside homes instead of being a dedicate house wife supposed to remain at home as encouraged by most of the cultures of the people in the research area, the result connotes improved happiness coefficient of 0.0091 and 0.0013 margins. That is to say a unit change in the women's mind set at taking jobs outside home against their cultural back ground improves their happiness by 0.13 percent. In other words, although, women in this case have positive result or are happy in the cassava and market businesses, when it comes to considering the societal perception of their participation in businesses outside homes against some cultural norms, the happiness seem too insignificant or thin.

5. Conclusion and Recommendations

The results connote improved happiness amongst women in cassava processing and marketing in the entire constructs in the north central Nigeria except in one construct which has to do with women's satisfaction with their contribution to family. The reason is probably not farfetched from the current magnitude of inflation in Nigeria. According to Nigeria's National Bureau of Statistics, in 2023, the inflation rate stands at 29.9 percent and by January, 2024, it's estimated to have increase by 0.98 percent. This rate of inflation is high enough to deprive of make improved income contributions to families worthless hence, generation of unhappiness. All other constructs has improved happiness results. These probably are as results of the responses to happiness questions that people in the research area's responses to all happiness questions. The happiest and saddest person responds *fine* on the question of *how are you*. This has to do with culture of the people in the research area. A way of being thankful to God in every circumstance one finds self. These for instance can be observed clearly in the constructs; cultural norms, trust amongst spouses, other sources of income and donations to immediate communities where the improved happiness are obviously insignificant that they are not far away from negative happiness.

The study will therefore, recommends that community leaders and local government authorities to encourage women in cassava processing and marketing to always form cooperative societies. This will not only make them a formidable common front but will improve their contributions/supports to families from their pooled resources.

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