EFFECTS OF BURN-OUT ON INNOVATION PREFERENCE AMONG RURAL FARMERS IN BENUE STATE, NIGERIA

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ABSTRACT
A survey was conducted to assess perceived effects of burn-out on innovation preference among rural farmers in Benue State, Nigeria. The population of this study consisted of all rural farmers in Benue State. A total of 398 respondents were selected using stratified, purposive and simple random sampling techniques. Data for the study were collected from primary source with aid of a well-structured questionnaire. The data collected were analyzed using descriptive statistics such as frequency distribution, percentages, mean and standard deviation as well as inferential statistics such as Logit regression and Spearman's Ranked Correlation Coefficient. Analysis showed that the major innovation preference among the rural farmers includes use of pesticides, herbicides, fertilizers and improved seeds varieties. Burn-out symptoms experienced by rural farmers were tiredness most of the time, reduced immunity, frequent headache, backache and muscle ache, loss of appetite, sense of failure and self-doubt. Determinants of burn-out among the rural farmers which include loss of interest, felt sense of failure and self-doubt, lack of motivation in the innovation, tiredness to adopt innovations that have no value and failure to apply innovations. It was concluded that rural farmers' low level of innovation preference increased the level of burn-out among them. Socio-economic characteristics, especially household size and estimated farm annual income had significant effect on the probability of experiencing burn-out. It was therefore recommended that rural farmers should increase their preference for innovations.
Keywords: Burn-Out, Innovation Preference, Rural Farmers

INTRODUCTION
Burn-out is the physical, emotional and mental exhaustion brought about by unrelieved farm stress. Chronic stress causes burn-out which is a complete physical, emotional and mental exhaustion. According to Maslach & Leiter (2005) burn-out is the inability to cope with the stresses of farm work and personal lives. Some of the warning signs that indicate considerable stress include problems with concentration or memory, lack of energy and motivation, lack of interest in one's pleasurable activities such as farming, sleeping problems such as insomnia, early waking, mood changes, physical problems such as constant headache or stomach ache, heart palpitation, breathlessness and long term general ill health (Better Health Channel, 2012). Continued chronic stress can lead to depression. Some warning signs include a constant feeling of sadness, feeling of guilty, hopelessness and persistent

thoughts of suicide (Better Health Channel, 2012).

Farmers who burn-out can be identified by checking the list of symptoms and tabulating burn-out scores. Burn-out as it is currently understood is a subtle pattern of symptoms, behavior and attitudes that are unique for each farmer. The pressure of financial hardship on rural farming communities can bring stress, depression, relationship breakdown and increased risk of farm accidents. It is important to devise a stress management plan to help rural farmers and their families to get through the difficult times (Better Health Channels, 2012).Farm burn-out as a syndrome is characterized by emotional exhaustion likely to be experienced by rural farmers who work timelessly on the farm (Ashil & Rod, 2011). Another property of burn-out is the development of negative, cynical attitude and feelings towards co-farmers (Ashil& Rod, 2011). The consequences of burn-out are potentially serious for all rural farmers (Maslach & Leiter, 2005). Innovation on the other hand refers to wide range and multifaceted social activities that embrace the entire continuum and chain of scientific research and technological development from the most basic laboratory investigations to the marketing of new products (Janison, 1989). According to Ekumankama (2000), innovation is an idea, method or object regarded by rural farmers as new but which is not always the result of recent research. Innovation can also be defined as the successful conversion of new concepts and knowledge into new products, services, or processes that deliver new farmer value in the farm (Keathley, Merrill, Owen, Ian & Posey, 2003). Agricultural innovation is understood in its broad sense to encompass plant varieties, animal breeds, farm practices, agricultural production, processing tools, specific mental constructs, cultural codes, forms of management and cooperation (Sanun, 1994).

Agricultural innovation is considered as a significant and necessary component in agricultural development activities. The continual adoption of new innovations and ideas will in itself improve the methods of human problem solving and ensure that the development objectives by promoting new innovation will be effectively achieved (Jamsari, Jasmine, Norhamideh, Suwaiba & Nordin, 2012). Improved seeds varieties, organic farming practices, mechanized farm operations, integrated poultry and fish production, integrated crops and livestock production, skip cropping to break lifecycle of insects, artificial insemination, animal feeds containing vitamins, genetic improved broilers, agrochemicals like pesticides, insecticides, herbicides and fertilizers are examples of agricultural

innovations disseminated to Benue State rural farmers. The process of increasing the efficiency of agricultural production through agricultural modernization depends mainly on the extent to which farmers can incorporate improved agricultural technologies into their farming operations. In developing countries like Nigeria where a greater proportion of the population lives in rural areas agricultural technologies are potential means of increasing production and subsequently raising incomes of farmers as well as their standard of living (Ani, 2002). However, traditional method of farming predominates in most localities, resulting from a perennial low input-low output relationship. An attendant low productivity constitutes the hallmark of traditional agriculture as practiced in Nigeria and farming based entirely upon traditional agriculture is inevitably poor (Ekumankama, 2000). However, the burn-out of a new idea depends partly upon the farmer's view of the idea, technology and practice. Some characteristics may spread up the rate of adoption while some practices may retard it. Despite various efforts being exerted by the government, non-Governmental organizations and independent agencies in providing intervention activities to rural farmers, it has become obvious over the years that some socio-economic characteristics of farmers play

significant role towards influencing their burn-out of recommendations on improved farm practices (Rao&Rao, 1996). Although, it is recognized that burn-out occurs, the bulk of past studies have concentrated on initial adoption decisions with only a handful research directed towards decision made later in the life of the innovation (Parthasarathy, 1995). According to Maslach & Leiter (2005) the burn-out syndromes include changes in behavior pattern with symptoms such as cynicism, negativism, and tendency to be inflexible and almost rigid in thinking. This often leads to a closed mind about innovation. Another sign is that the person may take the superior know it all attitude that borders on the condescending. The burn-out person hardly communicates with others and tends to become the loner or withdrawn. Other signs are feelings of being bored with farm work; all is becoming routine. Burn-out also occurs among rural farmers most especially in the practice of innovations that have overstayed it usefulness. The understanding of rural farmer's burn-out decision behaviors about innovation preferences is imperative. First it will form the spring board for advocacy of policy intervention strategies for sustained adoption of innovation. Also researchers, extension educators and technical assistants in agricultural development need to understand the burn-out decision behavior of the rural

farmers as well as the interplay with the socio-economic characteristics.

Maslach & Leiter (2005) opined that rural farmers who are not satisfied with their farming encounter burn-out more than those who are satisfied. Much of the research and information available on the phenomenon of burn-out is focused on the subordinate role, with very little studies about rural farmers burn-out (Saljoughi, 2003). Furthermore, it seems that not much is known about burn-out, the factors associated with it, and the extent to which it exist among rural farmers. Rural Farmers, like others, may suffer from burn-out. There is need to study this phenomenon among them, hence, the researchers took up this topic which tries to examine the effect of burn-out on innovation preference among rural farmers in Benue State Nigeria.

The broad objective of the study was to assess the effects of burn-out on innovation preference among rural farmers in Benue State, Nigeria.

Specifically, the objectives of this study are to:
i. describe the socio-economic characteristics of rural farmers affected by burn-out in the study area;
ii. determine the level of innovation preference among rural farmers affected by burnout in the study area;

Determine the effects of burn-out among rural farmers in the study area.

RESEARCH QUESTIONS
The study provided answers to the following research questions:
i. What are the socio-economic characteristics of the rural farmers affected by burn-out in the study area?
ii. What are the innovation preferences among rural farmers affected by burn-out in the study area?
iii. What are the effects of burn-out among rural farmers in the study area?

HYPOTHESES
The following null hypotheses (Ho) were postulated to guide the study:

Ho_1: Socio-economic characteristics of rural farmers have no significant effect on the level of burn-out.

Ho_2: There is no significant relationship between innovation preference and burn-out among rural farmers.

METHODOLOGY
This study was carried out in Benue State, Nigeria. The State was created on 3rd February, 1976. It derives its name from River Benue which exists

as the second largest river in the country and the most outstanding geographic feature in the state. Benue state has a population of 4,253,641 people. This makes the state the ninth most populous in the country. Over 80% of this population derives its livelihood from agriculture with more than 70% of the populace living in the rural areas ((National Population Commission, 2009; Benue State Government, 2012).Benue State has land mass of 33,955 square kilometers and lies between latitude 6°and 8°North of the equator and longitude 6°and 9°East of the Greenwich meridian (Benue State Government, 2012).Benue State is located entirely in the tropics and is bounded on the West by Kogi and Enugu States and Taraba State to the East, Cross River State to the South and Nasarawa state to the North and shares an international boundary with the Republic of Cameroun on the South east. Presently, Benue State has twenty three Local Government Areas, (Benue State Government, 2012). The ecology of Benue state supports extensive arable crops and livestock production as well as fruits, palm, grains, legumes, roots and tuber production; hence the state is acclaimed the Food Basket of Nigeria. Benue state accounts for over 70% of the country's soybean yield and also produces large quantities of vegetables such as tomatoes, pepper, okra and so on (Benue State Government, 2012).

All the LGAs have similar physical features in terms of topography, vegetation, soil type as well as the type and nature of Agricultural activities carried out.

The study adopted public opinion survey which made use of questionnaire for data collection.The population of this study consist all rural farmers in Benue State. A total of three hundred and ninety-eight (398) rural farmers were selected using multistage sampling technique, involving Purposive, stratified, snowball and simple random sampling techniques. Firstly, three agro-ecological zones in the state, namely; Central zone, Eastern zone and Northern zone were purposively selected due to their high agricultural productivity. In each zone, two Local Government Areas were selected thus: Central zone: Apa and Otukpo, Eastern zone: Katsina-Ala and Vandeikya, Northern zone: Makurdi and Gboko were purposively selected. Again, in each of the Local Government Areas Central zone: Apa; Auke, Edikwu and Otukpo; Ugboju, Adoka, Eastern zone: Katsina-Ala; Ikurav-Tiev II, Yooyo and Vandeikya; Aginde, Ankar, Northern zone: Makurdi; Makurdi Central, Makurdi South and Gboko; Mbakpegh, Igyorov, two rural communities were purposively selected due to their high agricultural productivity using proportional

allocation, 10% of the sample frame of farm families were randomly selected. Data for this study were generated from primary sources. Primary data were collected from rural farmers by means of a well-structured questionnaire *vis-a-vis* interview technique. To be eligible for interview, the rural farmers must have been actively involved in farming activities in the study area. The questions in the interview schedule were drawn from questionnaire and translated to rural farmers in their various dialects at the point of information and data collection.

The research instrument for this study was validated by passing it through research experts in the Department of Agricultural Extension and Communication, University of Agriculture Makurdi and pilot-tested to ensure that it possesses both content and face validity. The reliability of the instrument was tested using test re-test method. The scores obtained were correlated using Pearson product moment correlation coefficient for scores at the interval level, while the Spearman's Rank Correlation was used for scores obtained at the ordinal level. Coefficient value of 0.6 was obtained thus indicating the reliability of the instrument. The primary data were analyzed using both descriptive and inferential statistics. Descriptive statistics such as percentage, mean score and frequency distribution were used to analyze research question 1, while questions 2 and 3 were analyzed using Mean score and Standard Deviation. Hypotheses 1was tested using Logistic regression model while Hypotheses 2was tested using Spearman's Ranked Correlation Analysis.

MODEL SPECIFICATION
Logistic regression model for Hypothesis 1
The logit regression model used to analyze hypotheses 1 is expressed as:

$$P_i = \frac{1}{1 + e^{-(\beta_o + \beta_1 x_{i1} + \dots + \beta_k x_{ik})}}$$

Where,

P_i = Probability that there is high level of burn-out

β_o = Constant term

β_k = Coefficient to be estimated

β_k = (i=1, 2......6) = unknown parameters to be estimated

X_k = (i=1, 2......6) = independent variables

i = i^{th} observation.

The unknown parameters β_i are usually estimated by Maximum likelihood. Thus, the model is explicitly expressed as

$$Z_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + u_i$$

Where,

Zi = level of burn-out of ith rural farmer

β_o = Constant term

β_i = (1-6) vector of the parameter to be estimated

X_1 = Age of rural farmer in years

X_2 = Sex (1 if male and 2 if female)

X_3 = Marital status (1 if married and 2 if single)

X_4 = Years of formal education (years spent in obtaining formal education)

X_5 = household size (number of persons in a household)

X_6 = Farming experience in years

X_7 = Estimated farm annual income in Naira and Kobo (₦ & K)

X_8 = Farm size (Hectare)

Spearman's Ranked Correlation Analysis for Hypotheses 2

The Spearman's Ranked Correlation model used to analyze hypotheses 2 and 3 is expressed as:

$$\rho = 1 - \frac{6\Sigma d^2}{N(N^2 - 1)}$$

Where:

$\rho = Spearman's\ ranked\ correlation\ coefficient\ (rho)$

D = the different between two ranks ordered

N = total numbers of cases.

MEASUREMENT OF VARIABLES

A. Independent Variables

The independent variables were measured as follows:

i.   **Age:** The farmeyr's age was measured in years.

ii. **Sex:** The farmer's sex was measured by scoring male =1, female = 2

iii. **Marital status:** This was measured as married=1, single=2

iv. **Level of education:** This refers to the number of years spent in school.

v.   **Years of farming experience:** This refers to the number of years spent in farming.

vi. **Household size:** This refers to the number of persons living in a household.

vii. **Estimated farm annual income of:** Measured as the estimated farm annual income in Naira (₦) and Kobo (K).

B. Dependent variable

The dependent variable isolated in this study was burn-out. This was measured using

Likert-type scale and value as follows: High=3, Low=2 and Not Applicable=1.

RESULTS AND DISCUSSION
Research Question 1

What are the socio-economic characteristics of the rural farmers affected by burn-out in the study area? The results in table 1 show that 65.8% of the respondents were males while 34.2% were females. This implies that farming in the study area is dominated by males. Due to the traditional ownership structure of land in Benue State and most part of Nigeria, assets such as farmland are exclusively owned by men. Saljoughi (2003) noted that while male and female are fairly similar in their experience of burn-out, a few differences exist. These differences according to Maslach & Leiter (2005) are that males show slightly more of one aspect of burn-out while females show slightly another. Greater percentages (62.6 %) of the respondents were married while 37.4% were single (Table 1). This indicate that the respondents were mostly married people with responsibilities hence greater involvement in farming activities in order to provide for members of their families. Being married is an asset in traditional farming system. This is because the status enables farmers to have more sizeable labour force for farm work. This is why most successful farmers in the traditional system are married and

even polygamous. Maslach & Leiter (2005) postulated several reasons why farmers with families are less vulnerable to burn-out. Firstly, they are older, stable and more matured psychologically. Secondly, the presence of their families' involvement helps them deal with personal problems and emotional conflicts. Thirdly, to the farmer, the family is often an emotional resource rather than an emotional drain. The love and constant support of family members help farmers cope with the emotional demands of farm. The individual with a family to support becomes more realistically concerned about farm security, profits and benefits as compared to the single farmer who feel free to move about. Average age of respondents was 40.67, approximately 41 years (Table 1). This is the active farming age as most farmers within this age bracket are married, with sizeable farm family labour force. Maslach & Leiter (2005) also reported that the young farmers at their age experienced burn-out more than the older matured farmers in the same farming environment. In several of Maslach & Leiter (2005) research studies, people indicated that the first confrontation with burn-out was likely to happen in the first few years of their farming career. The implication here is that farmers in any farming environment have difficulty in dealing with problems of burn-out when they are young. This means that the older

one who survived, remain, do well in the farming and consequently report less burn-out than their younger counterparts. Results in Table 1 show mean years of formal education for most farmers were 13.41. This implied that most of the farmers had at least secondary education. Education is vital to successful farming and management of burnout. This is because educated farmers embrace innovation; more easily understand issues surrounding burnout and how to minimize the effect. The finding is in line with Jamsari et al. (2012) that master level degree holders engaged in farming tend to burn-out less frequently than farmers with lower degrees. Educated rural farmers discern the obvious advantages of technologies faster and are more disposed to innovations. This agrees with Nnamdi & Akwiwu (2006) in which educated farmers excelled in the adoption and practice rather than burn-out of farm technologies. The results in Table 1 also show that average household size was 8.06. This meant that most of the farmers had at about eight members in the household. This is also an essential asset in a traditional farming system where labour is largely sourced from farming family rather than hired. Where household size is large, burnout could be minimal due to the possible implementation of the principle of division of labour. Department for International Development, (2002)

stressed that two thirds of Nigeria households are poor and 85 percent of extreme poor live in rural areas. Average farming experience among the respondents was 19.24 years. This means that the respondents have been in farming business for about 19 years. With this farming experience, farmers understand the changing situations in farming. They could also make fairly accurate prediction about the outcome of innovation. Large farming experience confers on the farmers the ability to manage burn-out. Maslach & Leiter (2005) found that a high degree of emotional exhaustion was reported for farmers with farming experience, although on all the three dimensions of burn-out using the Maslach & Leiter (2005) scale, this group scored the lowest. Several years of farming experience just like education inspire confidence because of the accumulated knowledge in the use of innovations. Entries in Table 1 show that average farm income of respondents was ₦146, 000:00. Farm income encourages or discourages farmers from increasing the scope of farming. This is the money the farmer uses to acquire input for the next farming season, pay for labour and other household needs. These could be explained by the confidence in increased assets possession and disposition for investment (Nnamdi & Akwiwu, 2006). The British Department for International Development (2002) aimed at

elimination of poverty in developing countries like Nigeria with the reduction in burn-out. The livelihoods approach is expected to contribute to this aim in providing structures for discourse and research. The household member's contribution to the household total income differs according to their age. The average farm size of the farmers was 1.70 ha.. This implied that the farmers are largely small-scale farmers. Small-scale farming is predominant in the traditional farming system due to small capital and land tenure system. Small farm size is expected to be more easily manageable.

TABLE 1: Socio-economic Characteristics of the Respondents (n = 398)

Socio-economic characteristics	F	%
Sex		
Male	262	65.8
Female	136	34.2
Total	398	100.0
Marital status		
Married	249	62.6
Single	149	37.4
Total	398	100.0

Source: Field survey (2017)

Other socioeconomic characteristics of respondents (n = 398)

Socio-economic characteristics	X
Age (years)	40.67
Years of formal education	13.41
Household size	8.06
Farming experience	19.24
Annual farm income (₦)	146,000:00
Farm size (ha)	1.70

Source: Field Survey (2017)

RESEARCH QUESTION 2

What are the innovations preferences among rural farmers affected by burn-out in the study?

The major innovation preference among the rural farmers include use of pesticides (X=2.58), use of insecticides (X=2.52), use of herbicides (X=2.55), use of fertilizers (X=2.55), use of improved seed varieties (X=2.32). This implies that innovation preference was low among the respondents. In the absence of innovation preference, farming system will remain

subsistence. With this low level of innovation preference, burnout level among rural farmers could be high as farmers contend with rudimentary practices that require so much energy exertion resulting into exhaustion. In other words, farmers who are disposed to innovation are usually able to do so much with relatively greater ease, greater returns and even save energy thereby reducing the level of burn-out. Disenchantment burn-out may result from the misuse of an innovation by the adopter (Rogers, 2003). Parthasarathy (1995) elaborated further on the idea of disenchantment when he discussed underutilization burn-out. This occur when adopters gradually lose interest in or motivation to use an innovation. Underutilization is closely related to disenchantment because adopters react negatively to unpleasant consequences of using the innovation. Many innovations are used directly after adoption but then fade from use as other technologies are adopted or the farmer's priorities shift. Rogers (2003) noted that the characteristics of innovation facilitate its burn-out.

TABLE 2: Mean Innovation Preference among Rural Farmers affected by Burnout (n = 398)

Innovation Preference	X̄	S
Use of pesticides	2.58	0.565
Use of insecticides	2.52	0.584
Use of herbicides	2.55	0.628
Use of fertilizers	2.55	0.624
Use of improved seed varieties	2.32	0.715
Practice of organic farming	2.27	0.714
Use of mechanized farm operations	2.15	0.755
Use of recommended crop spacing	2.14	0.725
Use of crop processing and storage facilities	2.14	0.731
Use of plant extract against insects for seed storage	1.99	0.734
Use of skip cropping to break lifecycle of insects	1.95	0.755
Use of artificial insemination	1.94	0.786
Use of animal feeds containing vitamins	1.99	0.784
Use of genetically improved broilers	1.95	0.790
Use of genetically improved turkeys	1.93	0.776
Use of genetically improved fast growing cockerels	2.00	1.205
Use of integrated poultry and fish production	1.98	0.688
Use of integrated crops and livestock production	2.08	0.638
Use of feeds containing coccidiostat in poultry	1.98	0.666
Use of natural enzymes animal feeds additives	2.01	0.697

Use of animal feeds with nutrients for optimal production	2.02	0.741
Use of probiotic incorporation in animal feeds	1.89	0.937

Source: Field Survey (2017)

RESEARCH QUESTION 3

What are the effects of burn-out among rural farmers in the study area? Data in Table 3represent determinants of burn-out among the respondents which include loss of interest (X=2.41), feel sense of failure and self-doubt (X=2.33), feel not motivated in the innovation (X=2.32), feel tired to adopt innovations that have no value (X=2.31), failure to apply innovation (X=2.20)… Due to poor disposition of farmers to innovation, practices that would have been carried out with minimal energy requirement are done laboriously, thereby draining a lot of energy from the farmers. Innovation enables farm practices to be carried out with minimal energy requirement. This result showed that burn-out is largely related to the level of disposition and access to innovation that would ease farm practices. Overestimation and excessive reliance on scheduled farm activities were graphically described by a burn-out rural farmer who was interviewed (Maslach & Leiter, 2005). Many of the characteristics of burn-out reported deal with negative changes in farm-related attitudes and behavior in response to farming stress. In addition to these negative changes in thought and behavior related to farming. They further reported that physically and behavior signs of burn-out are similar to chronic fatigue, frequent cold, flu, headache, gastrointestinal disturbances, sleeplessness, excessive use of drugs, and decline in self-esteem, marital and family conflict. Of course, not all of these symptoms need to be present for us to say that a farmer is burn-out. Some may be present and some not, depending on each particular case (Maslach & Leiter, 2005).

TABLE 3: Mean Determinants (Effects) of Burn-out among Rural Farmers (n = 398)

Determinants of Burnout	X	S
Loss of interest in innovation	2.41	0.662
Feel sense of failure and self-doubt	2.33	0.659
Feel not motivated in the innovation	2.32	0.667
Feel fatigue with different innovations	2.27	0.693
Feel tired to adopt innovations that have no value	2.31	0.694
Failure to apply innovation	2.20	0.738
Interest not sustained for a particular innovation	2.32	0.697

Insufficient financial support to adopt certain innovations	2.32	0.620
Dislike of some innovations	2.18	0.659
Lack of production skills to execute certain innovations	2.25	0.651
Inadequate ownership of agricultural inputs	2.25	0.681
Unwillingness to apply an innovation	2.06	0.691
Inability to discuss innovation with others	2.20	0.689

Source: Field survey (2017)

TEST OF HYPOTHESIS

Hypotheses 1: Socio-economic characteristics of rural farmers have no significant effect on the level of burnout. The analysis of the effect of socio-economic characteristics on the level of burnout among farmers is presented in Table 4. The result showed that chi-square (X^2) statistic (27.42) was statistically significant (p < 0.01). The implication is that the alternative hypothesis was accepted hence socioeconomic characteristics had significant effect on the level of burnout among farmers. The Nagelkerke R-squared was 0.106, implying that the independent variables in the model account for 10.6 % of the variations in the level or probability of burnout. The wald of household size (7.156) was statistically significant (p < 0.01). This implied that 10 percent increase in household size reduced the probability of experiencing burnout by 0.75 %. The more people are available in the household to provide farm labour, the less work each member has to do per unit of time spent on the farm. Increased household size would facilitate division of labour and reduced energy consumption. The wald of estimated farm annual income (7.577) was statistically significant (p < 0.01). This implied that 10 percent increase in annual farm income increased the probability of experiencing burn-out by 0.12 %. Estimated farm annual income would have been used to search, embrace and acquire innovation that would reduce the drudgery in traditional farming system. This result, therefore, implied that farmers used their farm income for reasons other than acquiring innovations that would reduce burn-out.

TABLE 4: Effects of Socio-economic Characteristics on Level of Burnout among Farmers

Variables	Coefficient	S.E.	Wald	P-value
Constant	1.835	0.916	4.016	0.045
Age	-0.013	0.018	0.550	0.458
Sex	0.320	0.291	1.207	0.272
Marital status	-0.012	0.079	0.024	0.877
Years of formal education	-0.015	0.034	0.201	0.654
Household size	-0.075	0.028	7.156*	0.007
Farming experience	0.024	0.016	2.336	0.126
Annual farm income	0.012	0.001	7.577*	0.006
Farm size (ha)	0.282	0.184	2.345	0.126
Nagelkerke R^2	0.106			
Chi-square statistic	27.42*			
P-value of Chi-square statistic	0.001			

Statistical significance at 0.01 levels respectively

Source: Field survey (2017)

Hypotheses 2: There is no significant relationship between innovation preference and burn-out among rural farmers. The relationship between the level of innovation preference and level of burnout is presented in Table 5. The result showed that Spearman's Rank Correlation Coefficient (*rho*) was -0.203. The negative sign implied that increase in the level of innovation preference was associated with decrease in the level of burnout. The *rho* was also statistically significant ($p < 0.01$). Thus, the alternative hypothesis was accepted implying that there was significant relationship between the level of innovation preference and level of burnout. In other words, the more innovative preference the farmers have, the less the level of burnout they would likely experience.

TABLE 5: Relationship between Level of Innovation Preference and Level of Burnout

Correlation Parameters	Statistics
Spearman's Correlation Coefficient (*rho*)	-0.203**
Sig. (2-tailed)	0.000
N	398

Correlation Coefficient (*rho*) is significant at the 0.01 level (2-tailed).

Source: Field survey (2017)

CONCLUSION

The study assessed effects of burn-out on innovation preference among rural farmers in Benue State, Nigeria. Specifically, the study describes the socioeconomic characteristics of rural farmers affected by burnout, determine the level of innovation preference among rural farmers and determine the mean burnout among rural farmers. Major findings of the study revealed that majority of the rural farmers in the study area were male, who were married. Average age of rural farmers was approximately 41 years, who have gotten at least formal education and a household size of about eight people. Average farming experience was 19.24 years; average farm income was about ₦146, 000:00. The majority cultivated farm size of about 1.70 hectares and above, meaning that there are predominantly small scale farmers.

The study also revealed that most of the rural farmers have low level of innovation preference. Burnout was a bit high among the rural farmers. The major effect of burnout among the rural farmers was loss of interest in innovation. It was found that socioeconomic characteristics had significant effect on burn-out. It was therefore, recommended that rural farmers should increase their preference for innovation adoption. It was concluded that farmers' low level of innovation preference increased the level of burnout among them. Socioeconomic characteristics, especially household size and annual farm income, had significant effect on the probability of experiencing burnout. Based on the findings of this study, it was recommended that farmers should increase their preference for innovation. This, too, would reduce the probability of burnout among them. Farmers with large household size should embrace division of labour in order to reduce the amount of work to be done by each member so that the probability of burnout would be reduced; and Annual farm income should be used to acquire innovative farming practices so that the probability of burnout among farmers will be kept to the barest minimum.

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