JOURNAL LA SOCIALE

VOL. 03, ISSUE 03 (117-127), 2022
DOI:10.37899/journal-la-sociale.v3i3.646

Local Farmers' Perceptions about Covid-19 Impact on Agriculture: Case of Selected Rural Areas in Ekiti State, Nigeria

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Article Info

Article history:
Received 18 January 2021
Received in revised form 9 February 2021
Accepted 24 February 2021

Keywords:
Covid-19
Shocks
Farmers
Rural Areas
Agricultural Output
Welfare

Abstract

The outbreak of the Corona virus that ravaged most parts of the globe including Nigeria had impacted all sectors in all economies. Understanding the perception of rural farmers about Covid-19 pandemic impacts on agricultural activities becomes imperative as it will help local government authorities identify possible vulnerabilities and prioritize interventions. This study therefore seeks 1) to know farmer perceptions of the probable impacts of Covid-19 pandemic on agricultural production process of rural farmers and 2) to examine if this perception varies by the population subgroups of farmers? Using selected rural areas in five local government areas in Ekiti state as case study, primary data obtained through the administered questionnaire were analysed using descriptive statistics and analysis of variance. Results indicated that the two most potential and identified possible vulnerabilities are agricultural output and access to finance, and income with respect to production process and welfare, respectively. ANOVA results indicated that both age and gender are not statistically significant at 5 percent in explaining perceived impact of covid-19 on agricultural output likewise others such as educational attainment, years of farming experience and marital status. Hence, none of the levels in each of the chosen categorical variables is found to be statistically different from the other ones in impacting agricultural production. It is therefore recommended that government policies aimed at stimulating agricultural production should not be gender bias and age driven. Similarly, other factors such as years of farming experience, educational attainment and marital status should be de-emphasized when initiating such policies.

Introduction

For more than two decades, the global economy has witnessed series of shocks ranging from the global financial shocks of 2008, the economic recession of the 2017, the oil price shocks of 2019 while the Covid-19 pandemic shock greeted virtually all economies in the wake of 2020. The outbreak of Covid-19 had impacted directly on human health while its indirect effect had manifested in the form of low employment, and low productivity in virtually all sectors of the economy and agricultural sector not exempted. These resulted from the inadequate labour supply caused by measures introduced to lessen rate at which the virus spreads; its combined effects manifested in the form of shortages in the supply of essential commodities if not all commodities, with the tendency of causing rise in price levels of commodities which may result into declining standard of living among the citizens whose per capita might have fallen due to low productivity (Sena et al., 2020).

ISSN 2721-0960 (Print), ISSN 2721-0847 (online)

Before the outbreak of the pandemic, there was gross inadequate supply of labour into the agricultural sector in Nigeria, this may not be unconnected with the perception of the youth about this sector as most people have viewed the sector as not viable enough in transforming their economic status instantaneously. Thus, this has caused most youths resolving to move into the city in search of more lucrative jobs capable of raising their economic standard immediately. However, this resolution has continuously contributed to the low productivity in the sector as it has been opined that the young and active labour contribute more to the productivity of the sector than the aging labour force (Dionysis et al., 2020).

Agricultural sector productivity has over the years been retarded by the inadequate supply of inputs. Statistics has it that agricultural sector import accounted for over 5.89% of the country's total import bills. This has serious negative implication on the current account and ultimately balance of payments position of the economy given the rising and volatile nature of the exchange rate. The inadequate supply of or non-availability of inputs locally will amount to underutilization of the sector's capacity reflecting in form of low output (World Bank Development Indicator, 2020). Moreover, the sector has not been so much favoured in the area of infrastructural facilities provision such as good road network, electricity supply, pipe borne water among others. Most of the farm settlements are not linked with good road network that could facilitate easy transportation of their produce from the point of production to where they are needed in the cities. Often, those produce remained on the farm and got wasted thereby causing the income of the farmers to deteriorate and ultimately impairing their living standard at micro level while at macro level it results in reduction of the national output/income level (Grace, 2020).

Furthermore, the budgetary provision of the government to the sector has continuously been rising though considerably low over the years despite its significance in creating both forward and backward linkages within the economy. Statistics have shown that budgetary allocation to the sector between 2000 and 2020 on a five-year interval averaged 8.44, 30.91, 35.77 and 46.36 billion for 2004, 2009, 2014, and 2019 respectively. This has not compared favourably well with other developing nations that accord high priority to their agricultural sector. However, the low budgetary provision may be tied to series of shocks witnessed by the economy, especially the oil price shocks, being an oil dependent economy greater percentage of her revenue generation is determined by oil proceeds which ultimately affects the fiscal policy (Central Bank of Nigeria Statistical Bulletin, 2020). Impacts of COVID-19 pandemic on different levels of the economy; local, national, and global could be broadly classified into direct and indirect effects. The former touches people health directly while latter impacts indirectly on labour employment negatively, heighten poverty level among the populace, raises food insecurity level and lowering educational bar among others. Similarly. It has disrupted supply chains for the manufactures in form of shortages in food supply and fluctuations in their prices.

Agricultural practice in most developing African countries is carried out on a labour intensive mode. This suggests that inadequate labour supply as a result of lockdown will have serious implication on farming activities such as land preparation, planting, crop maintenance, crop growth without exclusion of warehousing of harvested produce. Moreover, inability to manage pests and diseases outbreak on farmers' as a result of movement restriction will have direct negative impact on domestic food production and distribution. Given the fact that series of elements influence agricultural output such as finance, better infrastructural facilities such as good road network, electricity supply; availability of farm inputs such as pesticides, fertilizers; labour supply, technology among others. This study therefore seeks to explore the perceived impacts of the lockdown measures on these components of agricultural system with respect to

ISSN 2721-0960 (Print), ISSN 2721-0847 (online)

agricultural output and farmers' welfare. The paper is organised into five sections. Apart from the introduction of this paper, the rest sections are divided into four. Review of literature is presented in section 2, while section 3 gave details of materials and methods adopted. Section 4 contained the results and its discussion and section 5 is the conclusion.

Series of studies had been carried out in order to determine factors capable of influencing agricultural activities in different regions of the globe. Most of these factors vary from region to region; some of them are demographic in nature such as age and gender, few others are policy related factors such as government fiscal and monetary policies with their instruments such as interest rate, government expenditure, taxation, subsidies while others are natural such as outbreak of epidemics, rainfall, soil components among others are bound to influence agricultural activities. Oluwatosin (2013), investigated the effects of age factor on farmers' production, results of such study revealed that younger people are more involved in farming with direct impacts on their productivity as against the old. Other studies carried out in Ethiopia concluded that, apart from land-labour ratio, use of fertilizers, and use of pesticide among others; size of the household is similarly another most significant variable that affects agricultural productivity. Often, gender accounts for the difference in agricultural output among the households but education was found not to be statistically significant in determining agricultural output (Tessema, 2015). However, analytical effects of the level of education on the output level of farmers in Odisha, Eastern India showed that farmers' productivity could be influenced greatly by their educational qualification (Kirtti & Phanindra, 2018; Habtmu, 2019).

In examining the influence of marital status, age, farm size and gender on agriculture production in Kenya, it was submitted by the authors that none of these factors has effect on productivity of agricultural sector (Javan et al., 2015). In a related survey carried out in Nigeria with the objective of evaluating impact of gender-based employment and productivity in agricultural sector, findings showed that contributions of the female gender to the sector remained abysmally low (Esther et al., 2021). Meanwhile, it was submitted that a direct significant relationship existed, also, farming experience is observed to be impacting positively productivity of the farmers (John & Johnny, 2014). Assessment of the pandemic impact African economic development was done using macro econometric models, it was estimated that most African economies would have their gross domestic products contracted by about 1.4 percent as a result of Covid-19 shocks as smaller economies would face contraction of about 7.8 percent. The contraction has link to export adjustment that impact primary product exporters negatively with its attendants losses to tax revenue; about 5 percent losses in public revenue has been estimated in African region as merchandise exports contracted by about 17 percent, therefore, limiting government capacity in extending public services necessary in responding to the crises.

Covid-19 is perceived to have undermined agro-food enterprises' activities in the area of regular supplies of food to markets occasioned by compulsory closures of business outlets, inadequate labour supply caused by ill health rampant not only among the workforce but the general populace. Obviously, agricultural production in African countries is labour intensive, slightest workers' inadequacy instantaneously and negatively impacts farming activities (Food and Agriculture Organization, 2020). In south Sahara, qualitative data were systematically collected and methodologically analysed for 12 countries in the region using probit model. Results indicated that fear about pandemic spread locally would have both psychological and economic effects on people as non availability of food would increase people worries which ultimately can throw them off balance. Global impacts' analysis of pandemic carried out and presented showed that disruption experienced in supply chain of agricultural products could be

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linked to Pandemic control measures impairing both production and distribution (Padam et al., 2020).

It has been submitted that the restrictive measure used in containing the spread of Covid-19 infections have negatively influenced United States' agricultural personnel, mostly affected are their casual workers who are migrants. Inadequate labour availability was compounded by non-vehicular movement and restriction on human movement. Besides, sufficient number of indigenous workers that were ill needed to be cared for by their immediate household members which further impacted negatively availability of seasonal personnel. In brevity, labour deficiency results in production shortages and soaring prices, causing markets' unpredictability (Dionysis et al., 2020). Similarly, it has been predicted that shortages of labour would ultimately cause disruption in crop cultivation and food processing especially for labour intensive crops which would in turn cause most developing countries particularly the African nations to be at risk as the disease can lead to reduction in labour force and labour intensive production (Food and Agriculture Organisation, 2020). Also, it has been averred that pandemic movement restrictions would have serious effects on food security because such measure implementation period coincided with staple food production season (Ayansina & Maren, 2020).

Sena et al. (2020) estimated costs implication of the pandemic employing Social Accounting Matrix (SAM) adopting different yardsticks such as value-added, employment incomes and household income. Despite the fact that lockdown was just partial and not total in Ghana and for a short while; the costs seem heavy in the urban centres of the country. The general aftermath for the nation was declining gross national product that plunged many into poverty as poverty level rose by 12.5 percentage. Moreover, the economic costs of the lockdown in Nigeria has been assessed using social accounting matrix. The highest losses, were dominated in two sectors of the economy; industrial and services, though losses were recorded in agriculture but small in absolute terms. (Kwaw et al., 2020). On the other hand, economic consequence of the pandemic include changes in values of basic macro-economic factors such as inflation, unemployment, exchange rates as revealed in study conducted in Nigeria (Farayibi & Asongu, 2020).

Agricultural export companies in China had been differently hit by the pandemic. Generally, results showed that agricultural exports had considerably diminished. Surprisingly, some companies from this sector remained vibrant in the face of the pandemic and even stimulated exports of edible fungus (Lin & YuYvotte, 2020). In the same vein, it has been asserted that exportable cash crops, edible vegetables, and roots now have falling exports demand as their related prices are sharply dropping. Ultimately, net effects of all these manifested in form of dwindling foreign exchange reserves for most African economies (Food and Agriculture Organisation, 2020). In another survey reports from Nigeria ascertained that agricultural sector is at major risk during pandemic, being largest non-oil foreign exchange earnings source of the nation. The major cash crop which is cocoa, is particularly vulnerable with dramatic fall in prices since greater quantity of Nigeria cocoa goes to Europe, as demand plummets, more losses are anticipated beyond the earlier projection (Nigeria Export Promotion Council, 2020).

Furthermore, farmers' accessibility to basic imports like seedlings, fertilizers, chemicals among others have been impeded; this is not unconnected with borders' closure and lockdown in Uganda. The effect in form of food loss and waste are enormous as most farmers are losing their products due to inability to harvest. In addition to lockdown, non-opening of markets made farmers' produce to remain on the farm unharvest, decaying and eventually wasted as there were no means to convey them to where they are needed thus contributing to food insecurity (World Farmers' Organisation, 2020).

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Other authors have examined the impact of the pandemic on Chinese and Indian agricultural sub-sectors. It was found from the investigation that Covid-19 impacted series of elements in these sub-sectors such as loss of innovation, falling sales volume, reduction in profit level among others. This further affected manufacturing activities as well as the domestic and international trade by diminishing their value added and exports value (Shafique et al., 2021). An exhaustive study on the effects of the pandemic on all agricultural sub-sectors have been conducted. Findings about Covid-19 restriction measures are revealing as were discovered to be negatively impacting agricultural production and its value chain. Majority either as producer or marketer were at their active and productive age claimed that they were extremely affected while the agro-processors confirmed the moderate effect of the pandemic on their businesses as others affirmed that the pandemic had changed agricultural practices.

Methods

Areas of study are selected rural communities from five local government areas that include, Ekiti West, Ekiti South, Moba, Ilejemeje, and Gbonyin local governments, in Ekiti state. All the local government have various forms of agricultural activities. The study used data primarily sourced from the selected farmers in these local government areas and information on their agricultural activities during the Covid-19 was obtained through the administered questionnaire in March 2021. The purposive sampling method which is a form of non-probability random sampling method that selects sample on the basis of knowledge of a population was adopted in determining the number of chosen farmers that totalled 185 from all the selected local governments, corresponding to 37 from Ekiti west, 38 from Ekiti south, 37 from Moba, 36 from Ilejemeje and 37 from Gbonyin, respectively. The data collection lasted for two and half weeks. In addition to the descriptive statistics used which include, simple percentages, frequencies, mean and tables, Analysis of Variance (ANOVA) was adopted in explaining the perceived influence of the different demographic factors that include age, gender, marital status while other factors considered are years of farming experience and educational attainment on agricultural output and welfare of farmers among the different respondents' group surveyed.

Results and Discussion

The size of the observed respondents often determine technique to be adopted in administering questionnaire, other determinants include agricultural characteristics of the local government chosen, and availability of landmass for agriculture.

Demographic Characteristics of Farmers

Respondents' demographic attributes are shown table 1. Age range of respondents is between 20 and 65 years. Respondents' that their age ranged between 51-65 years have the highest number of representatives of about 37%. Next to this is the sample population that ranged between 36 and 65 years constituting about 35% of the sample and 26.5% represented respondents that are between 20 and 35 years of age. Meanwhile, respondents whose age ranged above 65 years accounted for 2.27%. The mean age of the sample population stood at 40 years, which is assumed and categorised as not only productive but active labour force. This supports the report of Oluwatosin (2013) that younger people are actively involved in agricultural activities in Nigeria. Moreover, 64.9% of the respondents were males, while 35.1% females. This indicates the active involvement of men in agricultural activities. The results suggested farming production could only be practised by the naturally energetic, thus informing its dominance by more men than other gender. This is in conformity with results of earlier researcher (Esther et al., 2021). Marital status statistics revealed that 61.1% of the respondents were married, 36.2% remained single while 2.7% were divorced. The high involvement of the

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married in agricultural activities cannot be divorced from the need to be alive to their responsibility both at home and in the society. However, this contradicts the findings of earlier researchers that marital status has no influence on agricultural activities (Javan et al., 2015).

Observation about the household size showed that some families have on the average 5 persons, this representing 47.6% of the population, however, other family size ranged from 6 to 10 accounting for 52.4% of the population. In sum, the size of each family sampled is 6 on the average, suggesting that family size of respondents sampled remained somewhat high. In terms of educational attainment, the respondents differ. Respondents without formal education represents 18.9%, 43.2% had a primary school education, 15.7% had secondary school education, 17.8% with national diploma, 3.2% had higher national diploma or degree while 1.1% had other higher degrees. Obviously, 81.1% of the respondents had formal education. Given the significance attached to education by people in the area studied, this high percentage is not surprising and as expected influenced their productivity. This corresponds to Habtmu (2019) that high level of education is supposed to positively influence agricultural output. Farming experience statistic shows that 19.5% of the sample population had garnered about 7 years of farm practice, nevertheless 23.8% accumulated between 8 and 14 years' experience. However, 56.7% had more than 14 years' experience. The mean experience is seven years. Experience is an asset that assist farmers in making informed decisions. This study findings agree with the reports from (John & Johnny, 2014).

Table 1. Respondents' Demographic Characteristics

Characteristics	Frequency	Percentage	Mean	SD
Age				
(Years)				
20 -35	49	26.5	40	8.46
36 -50	64	34.6		
51 -65	67	36.2		
66 and above	5	2.7		
Number			**Size of Household**	
1 -5	88	47.6	6	3.11
6 -10	97	52.4		
Number of Years			**Farming Experience**	
1 -7	36	19.5	7	3.25
8 -14	44	23.8		
15 -21	57	30.8		
22 and above	48	25.9		
Gender				
Male	120	64.9		
Female	65	35.1		
Marital Status				
Single	67	36.2		
Married	113	61.1		
Divorced	5	2.7		
Educational status				
No Formal Education	35	18.9		
Primary school	80	43.2		
Secondary School	29	15.7		

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National Diploma	33	17.8		
Higher National Diploma/Degree	6	3.2		
Masters and above	2	1.1		

Source: Authors' Computation, 2021

Key: SD- standard deviation

Perceived Impact of Covid-19 Pandemic and Lockdown on Agricultural Output and Welfare

Table 2 gives details about the pandemic impacts and lockdown measures on agricultural activities. Larger proportion of the sample population with highest mean of 4.36 responded and disagreed that lockdown measures will enhance agricultural practices. This is in tandem with the earlier study (Ayodeji, Ajayi, et.al 2021). Another reflection of the concern of the farmers is finance, as it is known that finance in agricultural production is indispensable. According to Chandio et al., (2017) & Marina (2015), finance is highly demanded by farmers as a capital requirement to farming land preparing and for the purchase of farming inputs like machinery, seeds, breeding stocks, and fertilizers as well as for payment of hired labour wages. Majority of the respondents about 70% agreed that access to finance during covid-19 pandemic would be impeded.

Table 2. Perceived Impact of Covid-19 Pandemic and Lockdown Measures on Agricultural Production

Statements	SA(1) (Freq)	A(2) (Freq)	U(3) (Freq)	D(4) (Freq)	SD(5) (Freq)	Mean	Rank
Covid-19 will enhance agricultural production.	5 (2.7)	6 (3.2)	4 (2.2)	72 (38.9)	98 (53.0)	4.36	1
Covid-19 will cause labour shortage.	103 (55.7)	65 (35.1)	10 (5.4)	4 (2.2)	3 (1.6)	1.59	7
Covid-19 hinders transportation of farm produce.	96 (51.9)	71 (38.4)	11 (5.9)	4 (2.2)	3 (1.6)	1.63	6
Covid-19 limits farmers' investment.	85 (45.9)	79 (42.7)	14 (7.6)	4 (2.2)	3 (1.6)	1.71	4
Declining agricultural output as a result of Covid-19 will fuel inflation.	74 (40.0)	91 (49.2)	13 (7.0)	4 (2.2)	3 (1.6)	1.76	3
Covid-19 will hinder farm inputs supply, such as pesticides, spraying machine etc.	71 (38.4)	97 (52.4)	10 (5.4)	4 (2.2)	3 (1.6)	1.76	3
Covid-19 may affect accessibility to finance.	46 (24.9)	77 (41.6)	56 (30.3)	3 (1.6)	3 (1.6)	2.14	2
Covid-19 causes cost of production to soar.	85 (45.9)	82 (44.3)	9 (4.9)	6 (3.2)	3 (1.6)	1.70	5

Source: Authors' Computation, 2021.

(1): Strongly Agreed; (2): Agreed; (3): Undecided; (4): Disagreed; (5): Strongly Disagreed.

ISSN 2721-0960 (Print), ISSN 2721-0847 (online)

Figures in Parentheses Represent Percentage Frequencies.

Earlier researchers' submission remains that accessibility to farm inputs often produces positive results in form of high agricultural output ultimately impacting national output and enhancing farmers' income (Anyasi et al., 2020). Substantial majorities (90.3%) admitted that restriction on human and vehicular movements will hinder smooth supply of farm inputs such as pesticides, fertilizers, spraying machines among others. This shortage in input supply will lower output and consequently cause their price to soar due to output supply shortage. With a mean value of 1.76, reduction in farm input supply due to transport restriction could be identified as the possible vulnerabilities farmers are exposed too in the area. This finding is in consistent with earlier study (Ayansina & Mena, 2020), that concluded that input shortage will manifest in form of output reduction and skyrocketed prices. The significance of transport system in distribution of agricultural produce has been empirically confirmed, such that transport is identified to be pivotal to the growth of agricultural production and capable of generating more income to farmers and improving their living standard as well as that of inhabitants of their communities, and it is important to agriculture competitiveness (Tunde & Adeniyi, 2012; Blanton, 2017). The least concern and identified impact of Covid-19 is the transportation of farm produce. This might be because these small-scale farmers are small quantity producers who only produce for their immediate family and perhaps make sales at local markets around them. In essence, prolonged lockdown measures can increase the cost of production, limit investment level, reducing level of production and ultimately fuelling inflation within the economy, all these which could not be divorced from inputs shortage occasioned by lockdown measures implementation.

Table 3 below draws attention to few information elicited about the effects of the pandemic on farmers' welfare. About 90 % of the population sampled expressly declared that the pandemic negatively impacted farm practice and agricultural income. Similarly, less than 90% were worried over the negative impact of the disease on their profit margin. Considering that response categories are on a 5-point scale, from 1 = "strongly disagree" to 5 = "strongly agree, the highest means for the responses is "limit to agricultural income" (1.83). From the Table 3, with a mean of 1.83, limit in farmers' income can be deduced to be the major concern and major welfare vulnerability faced by farmer regarding welfare impact of covid-19. This corresponds to Sena et al (2020) which concluded that Covid-19 will push more people into poverty due to reduced farm income.

Table 3. Farmers' Welfare Perceived Impact of Covid 19

Statements	SA(1)	A(2)	U(3)	D(4)	SD(5)	Mean	Rank
Covid-19 limits farmers' income.	62 (33.5)	103 (55.7)	13 (7.0)	4 (2.2)	3 (1.6)	1.83	1
Covid-19 causes farmers' profit reduction.	73 (39.5)	93 (50.3)	12 (6.5)	4 (2.2)	3 (1.6)	1.76	2
Covid-19 impairs farmers' welfare	83 (44.9)	79 (42.7)	16 (8.6)	4 (2.2)	3 (1.6)	1.73	3

Source: Authors' Computation, 2021.

(1): Strongly Agreed; (2): Agreed; (3): Undecided; (4): Disagreed; (5): Strongly Disagreed.

Figures in Parentheses Represent Percentage Frequencies

One-way between-groups analysis of variance was employed to examine effects of age, gender, educational attainment, years of farming experience and marital status on agriculture production, this result is presented in Table 4. Significant value for Levene's tests for each of

ISSN 2721-0960 (Print), ISSN 2721-0847 (online)

the independent variables such as age, gender, educational attainment, years of farming experience and marital status all showed that assumption of homogeneity of variance has not been violated since the significant values were greater than the chosen P-value of 0.05. This implies that all the variables have equal variances suggesting that there is no variation among the variables of interests.

For the independent variable age, subjects were divided into four groups, Group 1: 20-35; Group 2: 36-50; Group 3: 51-65; Group 4: 65 and above results showed no statistical significant difference at the P>0.05 level on perceived impact of pandemic on agriculture production for the earlier identified age brackets [F (3, 181) = 0.681, P = 0.565]. Size effect is 0.0111. This indicated that only 1 percent of the variance in the agriculture production is explained by age. In other words, age could be considered as having a small effect on agriculture production. This might not be unconnected with the fact that the age groups sampled are at their youthful age, as expected they are to optimally perform alike given the fact that they are all at their prime with little or no variation among the groups.

Also, gender factor also has two levels (Group 1: Male; Group 2: Female). Obviously, no statistical significant difference at P>.05 level on the agriculture production for the two groups [F (3, 181) = 0.009, P = 0.926]. The effect size was 0.0000477 which is by far less than 1 percent of the variance in the agriculture production caused by gender. This suggests that gender is not a critical factor determining agriculture production. This is not surprising because most agricultural activities are technologically driven in this era requiring little strength from participants unlike past decades when farm practices were done in crude way, demanding much in terms of energy thereby causing highly sizeable variance in the production levels of the two groups. Educational attainment, years of farming experience and marital status are the remaining explanatory variables following the same direction as the earlier explained variables, that is, age and gender, in impacting agriculture production. From all indications, none of the levels in each of the chosen categorical variables is found to be statistically different from the other ones in impacting agriculture production. This follows that people of different working age can actively be involved in agriculture to contribute positively. Also, without discriminating against any gender, female and male gender can equally and positively impact agriculture. Similarly, varying marital status is not a limiting factor impacting agriculture production and at the same time agricultural output would not be differently defined by different educational attainment levels.

Table 4. Analysis of Variance

Variables	Levenes Test	F-Ratio	ANOVA (sig.value)	Eta squared	Welch	Brown Forsythe
Age	0.274***	0.681	0.565***	0.0111	0.898	0.762
Gender	0.312***	0.009	0.926***	0.0000477	0.922	0.922
Educational Attainment	0.609***	0.644	0.666***	0.0176	0.606	0.495
Years of Farming Experience	0.550***	0.410	0.746***	0.00675	0.747	0.741
Marital Status	0.735***	0.014	0.986***	0.000156	0.980	0.980

*** 5 percent level of significance

Source: Authors' Computation, 2021

ISSN 2721-0960 (Print), ISSN 2721-0847 (online)

Conclusion

The study examined perceived impacts of Covid-19 pandemic on both productivity and welfare of farmers in Ekiti State, Nigeria, so as to identify possible vulnerabilities and prioritize interventions. The descriptive statistics shows that greater number of the sample population are in their youthful and active age. Most respondents agreed that Covid-19 affected agricultural output and subsequently impacted their income level negatively. Not only that, their profit level had largely been reduced due to the increased wastage of their produce informed by the restriction on vehicular movement impeding the movement of their produce from farm to where they are needed. Moreover, none of the levels in each of the chosen categorical variables is found to be statistically different from the other ones in impacting agriculture production as revealed by the ANOVA results. It therefore follows that none of the explanatory variables that include age, gender, educational status, years of farming experience and marital status should not be sentimentally allowed to drive government policies aimed at motivating farmers and stimulating their activities but all categories of farmers, without regard for age, gender, years of farming experience, educational level and marital status, should be placed on the same pedestal and treated alike.

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ISSN 2721-0960 (Print), ISSN 2721-0847 (online)