



Perception and Challenges of Small-Scale Farmers to Human Labour Access in North Central Nigeria

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Abstract

The study evaluated perception and challenges of small-scale farmers to human labour access in north central Nigeria. Multi-stage sampling technique was used for sample selection while questionnaire was used for data collection. A total of 1,750 farmers were randomly interviewed. Data were analyzed using descriptive statistics and two-way mixed factorial analysis of variance and mean separation was done at 5% probability level. Result shows that the farmers are aware of lack of access to labour. Mean separation showed Abuja (2.01) and Kwara State (1.72) having least access to labour. High cost of labour is the biggest challenge for farmers in accessing labour in north central Nigeria. Based on the findings, the research concluded that there is an ongoing decline in the availability of agricultural labour which will result in increased cost of production for the small-scale farmers. The study recommends that government should implement sector-specific policies that would protect the sectors most vulnerable from minimum wage shocks in order to boost their outputs and exports

KEYWORDS: Small Scale farmers, Access, Perception, Challenges, Nigeria

Introduction

Nigeria's food deficient situation has been worsened by declining farm productivity owing to inefficient production techniques, poor resource base and insufficient farm labour supply among others. Labour has been found to constitute a large proportion of cost in the food crop production process in Nigeria and its productivity has become

increasingly low because farm households largely comprised fairly old people and very young children coupled with the use of crude implements which impede their ability to raise yield of food crops and income with subsequent reduction in poverty level (Nmadu and Akinola, 2015).

Assefa (2018) highlighted that Small-scale farmers try to adjust

cropping patterns and farming systems to fit labour availability and they do this by limiting the area cultivated and planted (leaving some portion of their land fallow), the amount of weeding or fertilizer applied, or by growing less labor-intensive crops.

This coping strategy leaves the farmers with less output and food insecure; affecting their capacity both in terms of buying inputs for the farm and also being nutritionally fit for the farm activity in the coming season and creating a vicious circle of hunger and deep poverty (Assefa, 2018).

The sharp decline in labour supply for agricultural production in the country is attributed to a host of factors such as rural-urban migration, increase enrolment in school, increased employment opportunities accompanying industrialization, urbanization as well as increased off farm employment. Because of the increased participation of labour in off-farm activities which culminated in scarcity of farm labour and rising

Materials and Methods

The study was carried out in the north central zone of the Nigeria. It is one of the six geo-political zones in the country, the population of the study consists of all small-scale farmers in selected communities in the north central region of Nigeria. Five states were randomly selected out of the 7 states

labour wage rate, there is great fear that agricultural growth and development may be retarded and our whole effort of achieving self-sufficiency in food crop production would be a mirage (Christiaensen, Sheahan and Shimeles, 2017).

Based on the above, this study therefore evaluate the perception and challenges of small small-scale farmers to human labour access in North Central Nigeria.

The specific objectives were to:

1. determine level of access to labour input in north central Nigeria, and
2. identify challenges of small-scale farmers' access to Human labour input.

The Hypothesis of the study stated that

H₀: Small-scale farmers in north central Nigeria do not significantly perceive the lack of access to labour input.

in the zone which are Kwara State, Niger State, Federal capital Abuja, Nasarawa and Plateau State.

Multi stage sampling technique was used to select the sample size. In the first stage, three (3) agricultural zones was selected from each of the states while in the second stage six (6) agricultural extension blocks from each of the agricultural zones

were randomly selected giving a total of 18 blocks. In the third stage, 5 cells were randomly selected from each of the 18 agricultural extension blocks resulting in a total of 90 cells. Finally, in each of the 90 cells (fourth stage), 4 farmers were randomly selected giving a total of 360 respondents from each of the states. In total 1,800 respondents from the five North Central States were interviewed for this study.

Data collected were subjected to descriptive statistics while one-way ANOVA was used to test the hypothesis.

The model is a one-way analysis of variance (ANOVA). By interpretation, the model states or hypothesizes that perception of labour availability in the study are (Y_{ij}) depends on the level of access to labour. It is mathematically expressed as:

$$Y_{ij} = \mu + A_i + e_{ij} \dots\dots\dots 1$$

Where:

Y_{ij} = Perception of labour availability

- i denotes the level of factor A

μ = population mean

A_i = This measures farmer's levels of access to human labour using a scale (where 4 = very highly accessible, 3 = highly accessible, 2 = fairly accessible; 1 = very low access, and 0 = not accessible at all.)

e_{ijk} = error term

Result and Discussion

Socioeconomic Characteristics of Respondents

Results in Table 1 show that small scale farmers in north central Nigeria are between the ages of 30 and 50 years, they are young and active adults and if proper inputs are set in place, they can produce more from their present production rate. This study correlate with the research of Akintobi, Evinemi and Achagwa (2018) which stated that most of the farmers in north central Nigeria are agile and in their productive ages who are active in arable crop production and have potential drive to sustain agricultural production for many years. The educational status shows that a larger portion of small scale farmers in North Central Nigeria are educated. These results imply that level of awareness and adoption of agricultural innovations among the farmers would be very high. Literate farmers are expected to be more innovative because of their ability to obtain and comprehend information more quickly and their ability to take more risk. Bawa, Donye and Nuhu (2010).

The years of farming experience accrued by the farmers shows that over 70% of the farmers have more than 10 years of farming experience, this result shows that small scale farmers in the study area have considerable years of

farming experience. This is in line with Apata *et. al* (2010) who stated that farmers who have an experience of over ten years are no more novices in agricultural production. The gender status shows that majority of the farmers are male, this implies that the males are actively involved in farming activities in the study area which tends to increase agricultural production because of their strength and energy. This also corroborate with Akintobi *et al* (2018) who reported that gender is a significant factor in agriculture because of its vital role in determining farming activities, and this could influence the adaptive capacity to employ various indigenous agricultural methods.

The household size of the farmer is the number of family members who are currently living in the same physical building with the head farmer and are dependent on the farmer for food and basic needs. The data reveals the farming households are large with more than 60% of the respondent's household size above 6 persons.

Level of Access to Labour Input in North Central States of Nigeria.

Table 2 shows the analysis of variance result of small scale farmers' perception on access to labour input in North Central Nigeria, it test the hypothesis which stated that small scale farmers do not significantly perceive lack of access to human labour. The result of $F(4, 1745) = 86.38, p = 0.00$ indicated that the small scale farmers perceived a lack of access to human labour for agricultural activities in the zone. Hence, the null hypothesis was rejected and alternative hypothesis is accepted. Which states that "Small scale farmers in North Central Nigeria significantly perceive a lack of access to human labour".

Table 1: Socio-Economic distribution of respondents

Variables	Frequency (n= 1750)	Percentage
Age of the farmers (years)		
≤ 30	234	13.4
31 -40	463	26.4
41 -50	669	38.3
50 – 60	255	14.5
>60	129	7.4
Educational status		
No formal education	392	22.4
Primary school	431	24.6
Secondary school	565	32.3
Post- secondary school	362	20.7
Years of farming experience		
≤ 10	409	23.4
11 -20	497	28.4
21 – 30	475	27.1
31- 40	286	16.4
>40	83	4.7
Gender		
Male	1056	60.3
Female	694	39.7
Marital Status		
Single	139	7.9
Married	1491	85.2
Divorced	57	3.3
Widowed	63	3.6
Household Size		
5 ≤	546	31.2
6 – 10	875	50
11 - 16	278	15.9
> 16	51	2.9

Source: Field data, 2020

Table 2: ANOVA results of small-scale farmers' perception on access to labour input

Sources of variation	Df	SS	MS	F-cal	P-value
Access to Labour	4	221.59	55.40	86.38	.00
Error (between subjects)	1745	1119.18	0.64		.00
Total	1749	1340.77			

Source: Field data, 2020

The mean separation is indicated in Fig 1, this indicates the perceived level of access to human labour by farmers in each of the state

Fig. 1 shows the Farmers' rating of access to labour input in each of the states which are Niger, Nasarawa, Plateau, Abuja and Kwara. The result shows that Niger state had mean response of 2.72 which ranked the highest, this is followed by Nasarawa state with an average mean of 2.51, Plateau state had a low mean of 2.32, Federal capital Abuja had a very low mean response of 2.01 while Kwara had the least mean response on rating of access to labour with a mean of 1.72.

This result shows that Niger state had the highest access to labour in north central Nigeria, and this means that Niger state small scale farmers has good access to human labour on their farm compared to other states. Nasarawa state also showed good access to human labour by the small-scale farmers.

Plateau state showed an average access to human labour followed by Abuja the federal capital of Nigeria showed that small scale farmers in the state do not have smooth access

to labour while Kwara state showed the least labour accessible state.

Implication of this result is that cost of agricultural production in these states might be capital intensive and many of the farmers would be hindered from producing at an optimum level, Abuja farmers might be experiencing this labour shortage due to the administrative nature of the state as the administrative capital of the country (Akintobi *et.al*, 2018).

This result showed that majority of the north central states do not have good access to human labour on the farm. This was corroborated by Osugiri, Ugochukwu, Onyaguocha, and Ben-chendo (2012) who stated that Labour contributed to the highest factor cost. This phenomenon was attributed by farmers to drift of the work force to urban centers for white collar jobs to the neglect of the agricultural sector. However, residents/inhabitants of the urban areas depend on the output (produce) of farmers in the neglected rural areas for sustenance. This has adversely affected price of food items leading to reduced standard of living for the people.

This result is also confirmed by IFPRI (2016) whose recent evidence suggests that the share of those youth working in the agricultural sector, especially in the production value chain, is slowly declining. On-farm agricultural activities, especially those related to crop production, are seasonal in most rural areas of Nigeria. Consequently, young labourers involved in agriculture during the production season often tend to exit this sector to take nonfarm jobs to ensure stable income in the off-season (Nagler and Naudé 2014). Some even migrate to urban areas until the next planting season. This exit occurs at a relatively higher rate than in other sectors since the discovery of oil (Yeboah and Jayne, 2016).

A recent study by Maïga, Christiaensen, and Palacios-Lopez (2015) indicates that youth in Nigeria now spend 62.8 percent less time employed in agriculture than adults. Youth in the southern parts of the country exit at a faster rate than those in the North. Active youth involvement and employment in the agricultural sector began to decline with the discovery of oil in Nigeria in the 1970s. The average age of the labor composition for farmers when only household heads are considered is 52, according to the recent NBS Living Standard

Measurement Study (LSMS) 2013 survey, indicating that the agricultural production population is aging. When all household members are considered, the average age of the labor composition is 38, providing additional evidence that a relatively limited proportion of youth are engaged in agricultural production in Nigeria.

These are able bodied men and women exiting agriculture for more stable jobs and leaving the farming environment resulting into a very low access to human labour on the farm. According to a Didar and Rajat (2017) higher wages in other locally available jobs was among various reasons while agricultural workers are leaving the farms, they reported that this was because higher wage rates prevailing in non-agricultural works like masonry, carpentry, electrical and plumbing, which were locally available, attracted agricultural labourers. As the skill set required in agriculture is negligible, labour tend to adapt other skill sets if they get higher wages.

Didar and Rajat (2017) further claimed agricultural jobs being seasonal, labourers remain unemployed during lean season. This makes them seek a regular / permanent job that could provide them income throughout the year.

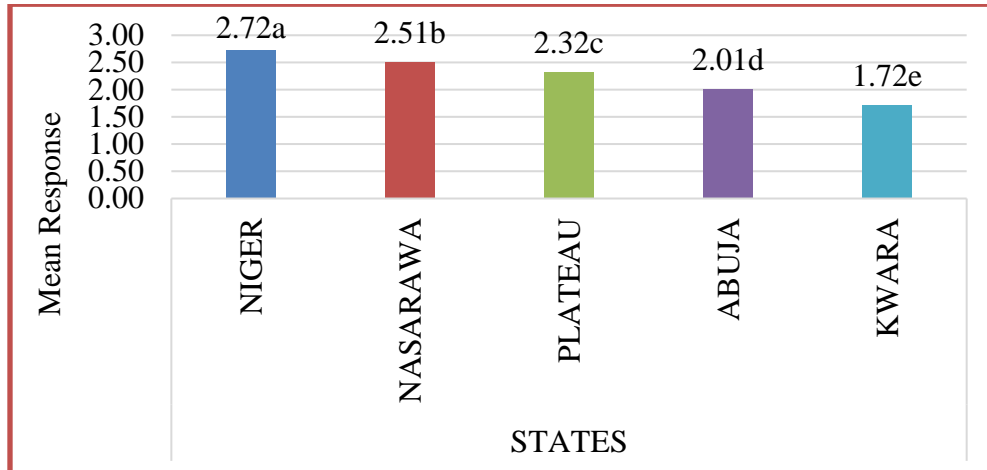


Fig 5: Farmers' rating of access to labour input in each of the states

Note: Means with the same alphabet do not significantly differ from each other

Source: Field data, 2020

Challenges of Small-Scale Farmers' Access to Human Labour Input.

Table 3 presents the challenges faced by small scale farmers in accessing human labour for agricultural production. The result shows that high cost of acquiring labour is the most experienced challenge encountered by the small-scale farmers in North Central Nigeria. This result indicates that labour per day cost in north central Nigeria is very high as small scale farmers who are barely surviving pay more for human labour and it has serious effect on their expense and profitability. This study correlate with the study of Issa, Kagbu & Abdulkadir (2016) who stated that high cost of labour is a key challenge experienced by small scale farmer in Nigeria.

The result also showed that lack of fund by the small-scale farmer to engage human labour on the farm is

also a challenge they face in agricultural production. This result indicated that small scale farmers are incapacitated fund wise in order to engage human labour to improve agricultural production in north central Nigeria, This result support the report of Rapsomanikis (2015) who stated that small scale farmers are not capacitated with financial opportunity and are unable to meet up with the cost of acquiring human labour which is crucial in any agricultural production process. International fund for agricultural development (2009) observed that one of the negative factors that militate against high productivity in small scale farming in Nigeria is vicious circle of low productivity and income, total shortage of cash and limited investment resulting into human labour input deficiencies.

The result also shows that human labour scarcity as one of the challenges, there is a decline in agricultural labour force in north

central Nigeria as many of the workers has opted for less drudgery and service-oriented jobs. This assertion is supported by Lobeck (2018) who reported that labour shortage has threatened export opportunities of agriculture, Duvall (2019) claimed farm labour shortage is costing billions of dollars across the world and it is expected to rise a trend that would place more agricultural businesses at risk and seriously impede the agricultural sector's growth potential.

Another report stressed that More than 40% of farmers in the past five years have been unable to obtain all the workers they needed for the production of their main crop, according to the survey, of the total reporting shortages, it found about 70% or more indicating they have experienced more trouble hiring in 2017 and 2018 (Daniels, 2019). Tasker (2018) claimed farm human labour shortage is worse than expected.

Also, 9.43% north central small-scale farmers reported that Inadequate credit facility to help with funding to engage more labour is a factor militating against access to human labour, this result reveals that farmers in north central Nigeria would be able to have access to human labour if access to credit facility is made available. This study corroborate with the study of Mgbenka and Agwu (2011) who stated Small-scale farmers' productivity and growth are hindered by limited access to credit

facilities, agricultural credit encompasses all loans and advances granted borrowers to finance and service production activities relating to agriculture, if farmers are avail of loan provision they will improve production level thereby increasing the amount of labour engaged for those production.

Competitiveness of preferred labour category occurs when the demand for the available labour category needed for a particular agricultural production is in short supply which cost small scale farmers time and capital to acquire the said labour category. This result indicates that there is a labour demand and supply strain due to the seasonality of agricultural production. According to Agwu *et.al* (2013) who supported this claim reported that bush clearing, bush burning and gathering of stumps, mound making, planting, weeding and harvesting operations are male dominated activities, this means that bush clearing is an exclusive type of operation reserved for the male gender. While female category is mostly engaged in bush burning and stump collection, post-harvest processing activities are female dominated farming operations which means that when these activities are being carried out and with the scarcity of human labour already experienced the competition to get capable labour category deepens and cost small scale farmers more.

Rural-urban exodus of agricultural worker is a challenge that has been

felt by small scale farmers in north central Nigeria, this result indicates rural migration of youth and able-bodied agricultural workers from the rural to the urban centers in search of less drudgery non seasonality jobs in the service sector. This is in consonance with the study of Lawal and Okeowo (2014) who stated that rural- urban exodus is one of the major reason why agricultural production is still low despite the vast resources that abound in Nigeria, they also identified that rural-urban migration as a key factor in labour force reduction with its consequent decline in productivity and output.

The farmers also noted non-availability of preferred labour category as a challenge in accessing labour for agricultural production, None of Kwara state and Nasarawa state farmer claim unavailability of human labour. This result shows that there is availability of labour in north central Nigeria even though they are not enough in relation to demand hence the cost of acquisition is high for small scale farmers who are financially incapacitated.

This study relates with the study of Prabakara, Devia and Selvamb (2011) who stated that there is an acute labour non-availability for agricultural works in most rural areas affecting consequently the productivity levels of almost all the crops grown in the area. He further warned that if this trend continues, the cropping pattern of the rural areas may even get a shift towards tree crops like cashew and coconut,

which are comparatively less labour-intensive. The reasons identified for the labour unavailability include higher wages in other locally available jobs, seasonal nature of agricultural job and presumption of an agricultural job as a low-esteem one.

Unfavorable labour law is the least of the challenge small scale farmers experienced in accessing human labour, 4.51% of the farmers claimed the laws guiding labour engagement has not favour them, based on this factor 13.7% of Niger state farmers claimed unfavorable labour laws has limited their access to labour, 3.7% of Nasarawa state farmers feel they are marginalized from having full access to labour due to the labour laws in the country, 2.9% and 1.7% of plateau and Abuja farmers blamed the labours laws for their limited access to labour while only 0.6% of Kwara farmers feel their limited access to labour is as a result of the impending labour laws.

This shows that labour laws which guide and bind both farmers and agricultural workers do not really favour the farmers who do not always have access to adequate support structures to solve problems they encounter daily on their farms, this instance can be related to when the government increases minimum wage of workers in a country and farmers who do not have good financial support are coarse to pay minimum wage to the farm workers this result into impoverishing the

farmers as their farm produce are largely underpriced and the already high cost of labour will skyrocket and leaves the farmers with little or no income as cost of labour already takes up most of the income generated from their farm.

Table 3: Challenges to small-scale Farmers' access to Human labour in the north central zone

Challenges	States										Pooled Data	
	Plateau		Niger		Abuja		Kwara		Nasarawa		Frq	%
	Frq	%	Frq	%	Frq	%	Frq	%	Frq	%		
High cost of labour	87	24.9	25	7.1	59	16.9	231	66	89	25.4	491	28.06
Lack of fund to engage labour	93	26.9	111	31.7	66	18.9	4	1.1	101	28.9	375	21.43
Human Labour scarcity	5	1.4	6	1.7	37	10.6	100	28.6	88	25.1	236	13.49
Inadequate credit facility	76	21.7	0	0	51	14.6	8	2.3	30	8.6	165	9.43
Competitiveness of Preferred labour category	13	3.7	37	10.6	95	27.1	1	0.3	11	3.1	157	8.97
Rural-Urban Migration	53	15.1	23	6.6	29	8.3	4	1.1	18	5.1	127	7.26
Non-availability of preferred labour	13	3.7	100	28.6	7	2.0	0.0	0.0	0.0	0.0	120	6.86
Unfavourable labour laws	10	2.9	48	13.7	6	1.7	2	0.6	13	3.7	79	4.51

Source: Field data analysis, 2020

Conclusion and Recommendations

The small-scale farmers perceive the lack of access to human labour as such labour scarcity is an ongoing challenge for the farmers which means there is an ongoing decline in the availability of agricultural labour. This means that a lot of the state's able-bodied agricultural workers have exited agriculture for other non-farm jobs. The farmers' key limiting factor to access to human labour was high cost of acquiring labour, which will lead to high cost of production and consequently high cost of agricultural products, that may lead

to many of the small-scale farmers not being able to afford production. Consequently, many of these farmers will have to borrow or go out of business leading to abandoning of farms to engage in non-farms activities. The rural farmers are most vulnerable when there is a shift in the economy of a country due to the small scale level at which they operate. Hence the government should implement sector-specific policies that would protect the sectors most vulnerable from minimum wage shocks in order to boost their outputs and exports

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