Road Transport Insecurity as Constraint to Agricultural Food Produce Marketing in Ilorin, Nigeria

Usman Bolaji Abdulkadir* & Yusuf Temitope Aishat

Abstract

Efficient and reliable transportation is essential for facilitating the production, distribution and marketing of agricultural and other products. However, insecurity in many parts of Nigeria is resulting in the disruption of road transportation, thus restricting the movement of people and making the distribution and marketing of farm produce difficult. The study examined the effects of transport insecurity on the marketing of agricultural food produce in Ilorin, Nigeria. Agricultural produce traders (n = 125) were sampled from the six major produce markets in Ilorin metropolis using a simple random sampling technique. Data were collected through a questionnaire, and analysed using frequency counts, percentages and ranking. The results show that most of the agricultural products sold by traders are sourced from locations experiencing security challenges. Armed robbery was the major (64%) road transport security problem faced by traders. Insecurity on the roads had various effects, including the creation of fear for travel among the traders (85.6%), and a reduction in the quantity of produce available (79.2%). However, ranking of the effects showed that high cost of transport, higher selling prices and high cost at source markets were ranked 1st, 2nd and 3rd, respectively. The major coping strategies adopted by traders included avoiding night travel (31.2%), and changing to safer locations to buy produce (22.4%). It is recommended that the government should improve security on Nigerian roads and develop other modes of transport to reduce overdependence on road transportation.

Keywords: road transport, agricultural produce, insecurity, marketing

1. Introduction

Transport plays a very important role by facilitating the mobility of people and goods. It provides the means for the flow of people, information, raw materials and finished products required for the survival and advancement of society. Generally, transport has been identified as a vital factor in agricultural development because it provides the means for assembling inputs, and through which farm products are moved from farms to different markets, as well as individual homes. Therefore, the availability, efficiency and effectiveness of transport facilities are vital for facilitating production, distribution, marketing and consumption of agricultural and other products (Kozlak, 2017; Donalson,

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2018; Morgan et al., 2019). As rightly observed by Hassan and Acheneje (2021), efficient transportation is one of the major requirements for growth in agriculture and economic output in developing countries. As a major function of marketing system, transportation connects all other stages of production systems from assembling to the distribution and sale of products (Kozlak, 2017; Stankovic, 2021).

In the developing world, road transport particularly plays a very important role of promoting agricultural produce marketing by providing access to market centres, accelerating delivery of farm inputs and products, and increasing productivity and profitability (Tegebu, & Seid, 2017; Morgan et al., 2019). Therefore, bearing in mind the vital role of transportation in agricultural marketing, inefficiency or disruption in the transportation system makes assembling difficult, reduces the amount of farm produce distributed, causes delays in the supply markets, encourages scarcity, and raises the prices of agricultural products (Ajiboye, 2016; Limi et al., 2019; Abdulraheem et al., 2021).

By nature, agricultural products are usually bulky and highly perishable; and need to be moved from areas of production to areas of consumption at minimum delay and cost. In Nigeria, agricultural zones are closely related to the country's three broad ecological zones consisting of the southern tree and root crop zone of the rainforest belt, the mixed crop zone of the Guinea savannah, and the northern grain zone of the Sudan savannah. Thus, agricultural production is widely dispersed geographically, which makes it a great challenge to link several production areas to consumption centres. In such situations agricultural products often have to be transported over long distances to get to the final consumer by every available and conceivable method. This has resulted in long distance exchange of agricultural produce among different parts of the country. Due to the poor development of other modes of transportation, road transport has become the major means of moving agricultural produce in Nigeria. As the dominant mode of transportation, road transport is estimated to be responsible for the movement of almost 90% of goods and passengers in the country (Akujor et al., 2022).

The agricultural sector in Nigeria is already faced with many problems, such as increasing risk of climate change, inadequate funding and increasing energy prices. However, in recent times agricultural development has been highly impacted by the problem of insecurity. Farmers have become usual targets for kidnappers, bandits and armed herdsmen across various geopolitical zones in the country. Many areas of the country producing important economic crops are under pressure due to activities of armed bandits, marauding herders, kidnappers and terrorists: all of which have resulted in the restriction of free flow of agricultural produce from one place to another. For instance, important

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food producing states like Borno, Katsina, Niger, Kaduna, Zamfara, Benue, Nasarawa and Ebonyi, among others, are experiencing violent attacks from armed bandits, terrorist agitators, and other violent groups (Gadzama et al., 2018; Mahmoud, 2020; Ibirogba, 2022).

High prevalence of violent crimes in many parts of the country has made travelling on Nigerian roads very hazardous. A few examples of dangerous highways in Nigeria are the Benin-Ore, Benin-Auchi-Okene, Okigwe-Uturu, Enugu-Port-Harcourt, Birnin Gwari-Kaduna, Abuja-Kaduna, Keffi-Akwanga, Minna-Kontogora, Zaria-Sokoto-Gusau, Bauchi-Tafawa-Balewa, Wukari-Takum, Maiduguri-Damaturu, Akure-Akoko, and Akure-Ilesa highways, among others (Anyaogu, 2021; Chukwujama, 2021; Okotie, 2022). In many areas, due to the fear of being attacked, kidnapped or robbed on the road, even local journeys such as to farms and local markets are undertaken under great fear and with much caution.

One of the effects of the restriction of free flow of farm produce resulting from insecurity is large-scale spoilage of farm products, especially in some northern states of the country like Kaduna, Katsina and Zamfara (Gadzama et al., 2018; Mahamoud, 2020; Sanchi et al., 2022). This is principally of great concern because local production of many staple foods in Nigeria are already grossly insufficient, thus necessitating imports (International Trade Administration, 2020). For instance, Nigeria is estimated to have a deficit of 10m metric tonnes of maize per annum, and this may become more intensified as production in producing states continue to be disrupted (Ibirogba, 2022). In particular, long distance interregional trade has been highly affected because insecurity has become a serious hindrance to the movement of people and goods in many parts of Nigeria. Consequently, various reports have shown that transportation and logistics providers now factor in security risks, and are charging higher rates to high risk regions (Anyaogu, 2021; Onyedinefu, 2022). The resultant higher cost of transportation has been reflected in the cost of agricultural products. In addition, increasing security risks associated with road travel create delays in moving farm produce to the market, reduce the amount of farm produce moved, and encourage scarcity of essential food items (Olesin & Orjime, 2021; Babatunde-Lawal, 2022; Ewing-Chow, 2022; Okojie & Odifa, 2023)). For instance, according to the NBS (2022), from April 2021 to April 2022 the average price of 1kg of beans increased by 44.32%, the average price of 1kg of yam rose by 42.88%, and the average price of 1kg of unripe plantain increased by 38.66%.

Like other urban centres in Nigeria, residents of Ilorin city depend on agricultural food produce derived from various rural areas within and outside the state. However, much of these products are obtained and transported from other states of the country by agricultural produce traders, and sold at

designated markets within the city. Agricultural produce traders depend mainly on road transportation, and are thus exposed to the multitudes of security risks associated with road transportation in the country. This study examines the effects of road transport insecurity on agricultural produce trading activities in Ilorin. The specific objectives are to: examine the forms of transport security risks encountered by traders; investigate the impact of transport insecurity on trading operations; and examine the coping strategies adopted by traders to ameliorate the effects of transport insecurity on their trade.

2. Context and Methods

2.1 Study Area

The study area was Ilorin, the capital of Kwara State, located between latitudes 8° 30′ and 8° 50′ N, and longitudes 4° 20′ and 4° 35′ E (Adediji, Ajayi & Olawole, 2009; Usman et al., 2015). The city spreads across parts of local government areas of Ilorin East, Ilorin West and Ilorin South (Figure 1).

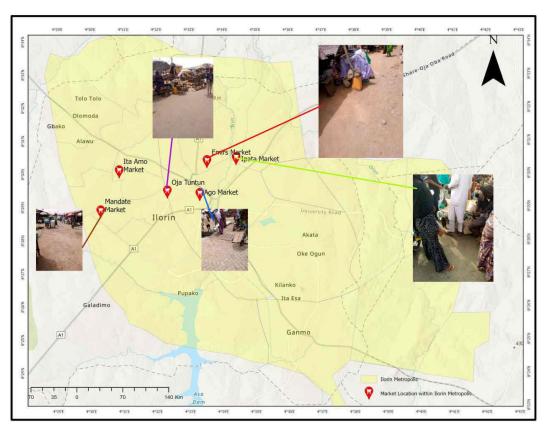


Figure 1: Ilorin Metropolis Showing Major Markets Source: Produced by Foladare Geospatial Technology, 2022

As a result of its strategic location as a gateway between the northern and southern parts of Nigeria, Ilorin city has witnessed rapid expansion in economic activities, population and physical growth. For instance, the population, which was 552,088 in 1991, increased to 780,771 in 2005 (Olanrewaju, 2009). The population of the city was estimated to have increased to 1,000,477 by 2022 (World Population Review, 2022). There are many markets spread across the city; where traders sell various items, ranging from traditional products to modern manufactured goods. However, the major markets important for the sale of agricultural produce are Baboko, Ipata, Ago, Mandate, Ita Amo and Emir's markets (Figure 1). The agricultural produce sold in Ilorin markets are obtained by traders from both within and outside the State. While some of the agricultural products are brought into the city from surrounding rural areas and other areas within Kwara State, most are obtained and transported from other states of the country.

2.2 Types and Sources of Data

The data used for this study are basically primary in nature. These include socio-economic data of the traders such as age, sex, marital status, level of education, years of experience, average turnover and profit per day. Other primary data include the types and sources of agricultural produce sold, mode of transportation, forms of transport security threats faced, effects of road insecurity on the supply and prices of agricultural produce, and coping strategies adopted by traders.

All the six major markets where agricultural produce are sold (Emir's (*Oja Oba*), Ipata, Ago, Mandate, Ita Amo and Baboko) were used for the study. A total of 623 agricultural produce traders registered with their market unions were identified, out of whom 125 (20%) were sampled for the study as it is believed that this will be representative of the population. The data were collected using a structured questionnaire, which was administered on 20% of the produce traders in each of the markets through simple random sampling technique, using ballot without replacement (Table 1). The questionnaire survey was carried out with the aid of two research assistants.

Table 1: Distribution of Sampled Traders

| Markets | Number of | Sampled | | | |
|------------|--------------------|---------|--|--|--|
| Markets | Registered Traders | - | | | |
| 1. Emir's | 87 | 17 | | | |
| 2. Ipata | 97 | 19 | | | |
| 3. Ago | 69 | 14 | | | |
| 4. Mandate | 158 | 32 | | | |
| 5. Ita Amo | 136 | 27 | | | |
| 6. Baboko | 78 | 16 | | | |
| Total | 623 | 125 | | | |

Source: Field Survey, 2022

2.3 Data Analysis

The data were analysed using descriptive statistics to derive the percentage distribution of the respondents' socio-economic characteristics, road transport insecurity problems experienced by traders, and the effects of road transport insecurity on trading activities. The traders' responses on the effects of road transport insecurity on their trade were ranked to show the order of their importance. In addition, the coping strategies adopted by the traders were displayed using bar charts.

3. Results

3.1 Socio-economic Characteristics of Agricultural Produce Traders in Ilorin

The socio-economic characteristics of the respondents show that 53.6% are males, while females constitute 46.4%, as seen in Table 2. The age distribution of the respondents show that a large proportion (64.8%) were between 31-50 years old, while only 7.2% were above 60 years old. As can also be seen in Table 1, only 13.6% had no formal education; while 20.8% were educated up to tertiary level. Table 1 also shows that 45.6% of the traders engage in other occupations. An examination of the average turnover of the respondents shows that only 23.2% had a turnover above \$100,000 per day. A large proportion of the traders (35.2%) indicated making profit of less than \$10,000 per day, while only 4% made more than \$30,000 profit per day.

Table 1: Socio-economic Characteristics of Produce
Traders in Ilorin Markets

| Characteristics | Frequency | Percentage |
|--------------------|-----------|------------|
| Sex | | |
| Male | 67 | 53.6 |
| Female | 58 | 46.4 |
| Total | 125 | 100 |
| Age | | |
| Less than 20 years | 0 | 0 |
| 20–30 years | 14 | 11.2 |
| 31–40 years | 32 | 25.6 |
| 41–50 years | 32 | 39.2 |
| 51–60 years | 21 | 16.8 |
| Above 60 years | 9 | 7.2 |
| Marital Status | | |
| Single | 19 | 15.2 |
| Married | 73 | 58.4 |
| Divorced | 0 | 0 |
| Separated | 27 | 21.6 |
| Widowed | 6 | 4.8 |

| Education Status | | |
|------------------------------|-----|------|
| No formal education | 17 | 13.6 |
| Primary education | 33 | 26.4 |
| Secondary education | 49 | 39.2 |
| Tertiary education | 26 | 20.8 |
| Other occupation | | |
| Yes | 57 | 45.6 |
| No | 68 | 54.4 |
| Years in Business | | |
| Less than 2 years | 11 | 8.8 |
| 2–5 years | 23 | 18.4 |
| 6–10 years | 39 | 31.2 |
| Over 10 years | 52 | 41.6 |
| Average Turnover/Day (Naira) | | |
| Less than 20,000 | 17 | 13.6 |
| 20,000-50,000 | 43 | 34.4 |
| 51,000-100,000 | 36 | 28.8 |
| Over 100,000 | 29 | 23.2 |
| Average Profit/Day (Naira) | | |
| Less than 10,000 | 44 | 35.2 |
| 10,000-15,000 | 37 | 29.6 |
| 15,001-20,000 | 15 | 12.0 |
| 20,001-25,000 | 12 | 9.6 |
| 25,001-30,000 | 12 | 9.6 |
| Over 30,000 | 5 | 4.0 |
| Total | 125 | 100 |

Source: Field Survey, 2022

$3.2\ Types\ and\ Sources\ of\ Agricultural\ Produce\ Sold\ in\ Markets\ in\ Ilorin$

Results show that a variety of agricultural produce are sold at markets in Ilorin city. These farm produce are transported by road from different parts of Nigeria. These range from tuber crops like yams and cassava, to cereals like maize, guinea corn, rice, millet and wheat. They also include beans and soya bean, as seen in Table 2. Some of these crops are transported from areas within Kwara State; while most are obtained from other parts of the country and beyond. As also shown in Table 2, some of these agricultural products—e.g., cassava flour, yam flour and vegetables—are obtained and transported from surrounding rural areas and other local government areas within Kwara State. For instance, as seen in Table 2, cassava flour is commonly transported from Kaiama, Tsaragi and Osi; while yam flour is brought from Kaiama and Alapa: all within the Kwara State.

Moreover, the results further show that most of the cereal crops are obtained and transported by road from the northern parts of the country; from as far as Kano, Sokoto, Kaduna, Jigawa and Borno States. Also, as shown in Table 2, pepper and

Table 2: Sources of Agricultural Produce Sold in Ilorin Markets

| Types of Produce | Location/States |
|-----------------------|---|
| Yam | Kaiama, Kosubosu Gberia (Kwara), Benue, Nasarawa, FCT |
| Maize | Kaiama, Gwane, Tsaragi (Kwara), Benue, Katsina, Sokoto, Jigawa, Oyo |
| Guinea corn | Jigawa, Kano, Katsina, Sokoto, Zamfara, Niger, Bauchi |
| Tomato | Sokoto, Kano, Gombe, Jigawa, Katsina, Kano, Plateau |
| Cassava | Kaiama, Osi (Kwara), Benue, Oyo, Edo |
| Cassava flour (garri) | Kaiama, Tsaragi, Osi (Kwara) |
| Yam flour (elubo) | Kaiama, Alapa (Kwara) |
| Beans | Sokoto, Tsaragi |
| Soya bean | Benue, Kogi, Kano, Plateau |
| Imported Rice | oyo, Lagos, Benin Republic |
| Local Rice | Tsaragi, Pategi (Kwara), Jigawa, Katsina |
| Millet | Katsina, Jigawa, Benue, Yobe, Kaduna, Zamfara |
| Wheat | Katsina, Jigawa, Kano, Benue |
| Vegetables | Alapa, Otte (Kwara) |
| Pepper | Katsina, Sokoto, Kano |
| Onions | Borno, Sokoto, Kaduna, Jigawa, Kano, Kebbi |

Source: Field Survey, 2022

onions are brought from some of northern states like Kasina, Sokoto, Jigawa and Borno. However, some southern states—Oyo and Edo—are the supply sources of cassava to markets in Ilorin; while some maize is also obtained from Oyo State. The traders also claimed to obtain imported rice from Lagos and Oyo States (believed to be smuggled due to the official ban on rice importation).

3.3 Forms of Road Transport Security Problems Experienced by Agricultural Produce Traders in Ilorin

An analysis of the forms of security challenges experienced by the respondents while travelling to procure agricultural products for sale at Ilorin markets revealed that the majority of traders (64.8%) have been victims of highway robbery (Table 3).

Table 3: Road Transport Security Problems Experienced by Agricultural Produce Traders in Ilorin

| Security Threats | Freq. | Perc. | Security Threats | Freq. | Perc. |
|-------------------------|-------|-------|-------------------------|-------|-------|
| Armed Robbery | | | Attempted Kidnap | | |
| Yes | 81 | 64.8 | Yes | 52 | 41.6 |
| No | 44 | 35.2 | No | 73 | 58.4 |
| Total | 125 | 100 | | | |
| Kidnap | | | Pilfering | | |
| Yes | 3 | 2.4 | Yes | 103 | 82.4 |
| No | 122 | 97.6 | No | 22 | 17.6 |
| | | | Total | 125 | 100 |

Source: Field Survey, 2022

A further analysis of the transport security problems faced by the traders show that many of the states from which the agricultural products are sourced experience various security issues. Figure 2 gives an explicit representation of the sources of the agricultural produce sold at Ilorin, and the major insecurity problems at the producing states. For instance, Zamfara, Katsina, Niger and Kaduna states were experiencing insecurity problems associated with banditry activities, while Plateau and Benue were plagued by farmers-herdsmen conflicts. Other states like Yobe and Borno faced the menace of Boko Haram insurgents, as seen in Figure 2.

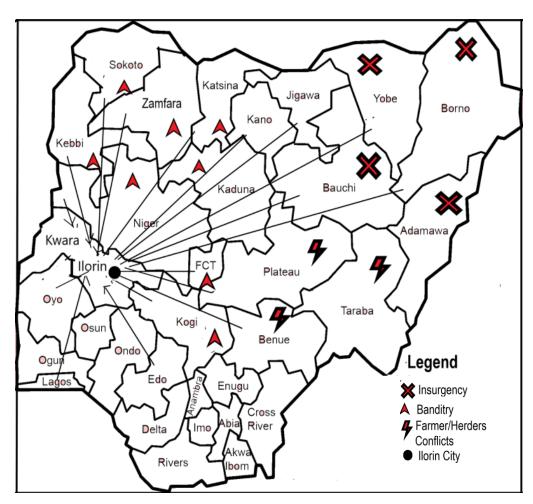


Figure 2: Major Insecurity Problems at Sources of Agricultural Produce Sold at Markets in Ilorin

 ${\bf Source:}$ Base Map adapted from Nigeria Map Images, 2022

3.4 Effects of Transport Insecurity on Agricultural Produce Trading Activities in Ilorin

The study results show that transport insecurity has negatively impacted on the trading of agricultural produce in Ilorin city in various ways. For instance, all the respondents (100%) indicated that the problem of road insecurity has contributed to high cost of produce at the source markets, higher costs of transportation, and higher selling prices (Table 4). In addition, it has resulted in the reduction of the quantity of agricultural produce available in the markets. This was the opinion of 79.2% of the respondents as seen in Table 4.

Table 4: Effects of Road Transport Insecurity on Agricultural Produce Trade In Ilorin

| Ti cc | Cı ı | A . | TT 1 • 1 1 | D' . | Q ₄ .1 | 7D 4 1 |
|--|----------|--------|------------|----------|-------------------|--------|
| Effects | Strongly | Agree | Undecided | Disagree | | |
| | Agree | | | | Disagree | |
| Contributed to reduction in | 45 | 42 | 3 | 29 | 6 | 125 |
| the varieties of produce available in markets in | (36.0) | (33.6) | (2.4) | (23.2) | (4.4) | (100) |
| Ilorin | | | | | | |
| Contributed to reduction in | 43 | 56 | 0 | 17 | 9 | 125 |
| quantity of produce in the market | (34.4) | (44.8) | (0) | (13.6) | (7.2) | (100) |
| Made me develop fear for | 31 | 76 | 3 | 13 | 2 | 125 |
| travel to purchase produce for sale | (24.8) | (60.8) | (2.4) | (10.4) | (1.6) | (100) |
| Contributed to increasing cost | 55 | 70 | 0 (0) | 0 (0) | 0 (0) | 125 |
| of produce at the source | (44.0) | (56.0) | , , | , , | . , | (100) |
| Contributed to increase in the | 56 | 69 | 0 (0) | 0 (0) | 0 (0) | 125 |
| price I sell my goods | (44.8) | (55.2) | | | | (100) |
| Increased the cost of | 57 | 68 | 0 (0) | 0 (0) | 0 (0) | 125 |
| transportation | (45.6) | (54.4) | | | | (100) |

Note: Percentages in parentheses Source: Field Survey, 2022

As also seen in Table 4, the problem of transport insecurity was observed to discourage traders from travelling to purchase products for sale at the markets. This was the observation of 85.6% of the respondents, who noted that they had developed fear of travelling to buy produce for sale due to the high risks involved. Furthermore, security risks on the roads had contributed to the reduction in the varieties of produce available for sale in the markets, as confirmed by 69.6% of the respondents (Table 4).

The ranking of the effects of transport insecurity on traders shows that increase in transport cost is ranked 1st. This is followed by increase in price of agricultural produce (2nd); while reduction in varieties of produce available is ranked 6th, as seen in Table 5.

Table 5: Ranking of Effects of Road Transport Insecurity On Agricultural Produce Traders in Ilorin

| Effects | S/ | Agree | Undec. | Disagree | S/ | | | |
|---|-------|-------|--------|----------|----------|-------|------|------|
| | Agree | , | | _ | Disagree | Total | Mean | Rank |
| | (5) | (4) | (3) | (2) | (1) | | | |
| Contributed to reduction in the varieties of produce available in the market. | 225 | 168 | 9 | 58 | 6 | 446 | 3.6 | 6 |
| Contributed to reduction in quantity of produce in the market. | 215 | 224 | 0 | 34 | 9 | 482 | 3.8 | 5 |
| Made me develop fear for travel to purchase produce for sale. | 155 | 304 | 9 | 26 | 2 | 496 | 4.0 | 4 |
| Contributed to increasing cost of produce at the source. | 275 | 280 | 0 | 0 | 0 | 555 | 4.4 | 3 |
| Contributed to increase in the price I sell my goods. | 280 | 276 | 0 | 0 | 0 | 556 | 4.4 | 2 |
| Increased the cost of transportation. | 285 | 272 | 0 | 0 | 0 | 557 | 4.5 | 1 |

 $\label{eq:Note: Note: Note: Note: S/Agree = Strongly Agree; S/Disagree = Strongly Disagree; Undec. = Undecided$

Source: Field Survey, 2022

3.5 Coping Strategies Adopted by Agricultural Produce Traders in Ilorin The coping strategies adopted by agricultural produce traders in Ilorin are presented in Figure 3.

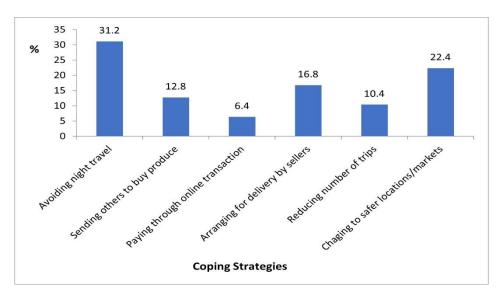


Figure 3: Coping Strategies Adopted by Agricultural Produce Traders in Ilorin Markets

Source: Field Survey, 2022

Figure 3 shows that the major strategy adopted by the respondents was to avoid night traveling (31.2%). The next most common strategy adopted (22.4%) was changing to markets located in areas perceived as safer with lesser risks of hazards. Other important strategies adopted were arranging for delivery by sellers (16.8%), sending others to buy produce for them (12.8%); and reducing the number of trips made to markets (10.4%).

4. Discussion

As seen in the gender representation of the traders, there is a fairly even distribution between males and females. This is not surprising because agricultural produce trading business in Nigeria is commonly associated with both males and females. Also the high representation of educated people among the traders may be explained by the limited opportunity for formal employment, both in the government and private sectors, which has driven many highly educated Nigerians into the informal sector for survival (Nwakoma, 2021). Many educated individuals now engage in small-scale businesses like trading, commercial vehicle driving, commercial motorcycles riding, and other informal activities to make ends meet. Furthermore, many Nigerians now engage in multiple occupations to earn more income and better their living standards (Wilson-Bassey, 2023). For instance, many civil servants are also engaged in farming, trading or other occupations to augment their incomes. Furthermore, as indicated in the results, most of the respondents were small-scale traders with low turnover and daily profit margin. This is an indication that they were likely to be severely affected by any small disruptions to their businesses, such as those that may be associated with the insecurity of road transport.

The agricultural food products marketed by the traders—which consisted of cereals, tubers and vegetables—were generally transported by road from source to market. One may expect that the traders should also be using other modes of transportation like rail and water to move products, but this was not the case. The situation was the same for farm products obtained from both far and near. This considerable dependence on road transportation may be explained by the state of near collapse of railway transport services in the country, and the very limited inland water transport development: all of which have restricted the transport options available to traders. This situation was also acknowledged by Badejo (2011) and Babatunde (2020), who noted that due to poor development of other forms of transportation, road transport is responsible for over 70% of the movement of goods and passengers in the country.

The traders faced a lot of transport security problems in moving agricultural food products from the different sources to the markets in Ilorin. The fact that most of these products were brought from areas of the country experiencing various insecurity problems meant that the traders were highly exposed to

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many dangers. Consequently, many of the traders had been victims of highway robbers and other criminals in the past. As per Uroko (2019), the hazards associated with road travel in Nigeria have been observed to be adversely affecting transport haulage and logistic businesses in the country.

Road transport insecurity has constrained the free movement of agricultural produce from many of the source areas to Ilorin. The observation by the traders that insecurity has led to a reduction in the variety and quantity of agricultural produce supplied to markets was expected. This is because insecurity had been observed by many earlier studies as a major factor in the disruption of the movement of agricultural products in many parts of the country. For instance, this result corroborates the findings of Aluko et al. (2016) and Ibirogba (2022), who reported that banditry and Boko Haram insurgency have contributed to the disruption of the supply of food items to several areas of the country.

Also, the result show that high cost of transport and high selling prices are ranked first and second among the effects of transport insecurity by the traders. These two factors may partly explain the increasing prices of food items in the city. The complaint of increasing cost of transportation by the traders is also anticipated because transport operators in the country now factor in security risks into their charges, as previously reported by Anyaogu (2021) and Onyedinefu (2022). This is evidenced by the rising cost of transportation and the resultant skyrocketing prices of food items in the country.

Furthermore, the results revealed that many of the traders indicated developing fear of travelling to buy produce for sale. The fear of travel expressed has had major adverse implications for the traders and the society at large. This is because, in addition to being a serious risk to the livelihood of the traders and their dependants, it portends a great danger to the growth of the agricultural sector in the country. Fear of travel may result in the avoidance of journeys by the traders even when required to replenish dwindling stock. Such situations are usually associated with glut at the source, and shortages at destinations. For instance, Mahamoud (2020) reported that banditry has resulted in spoilage of surplus crops in many agrarian communities in Katsina State; which is a major source of the supply of agricultural produce to Ilorin city. Furthermore, the expression of fear of travel by traders also agrees with the findings of Aluko et al. (2016), who noted that due to the activities of Boko Haram insurgents, cowpea traders in Ibadan developed fear of embarking on business trips to troubled zones. They also reported that some traders even abandoned the business to engage in other forms of livelihood activities. Thus, road journeys in Nigeria are now undertaken with a lot of caution, and are usually limited to very essential purposes due to the high risk of armed robbery, kidnapping and other violent crimes.

The coping strategies adopted by traders were all aimed at reducing the risks they are exposed to. Therefore, traders were able to reduce their exposure to security hazards by avoiding night travel, reducing the number of trips, and changing to other safer locations to buy produce for sale. For instance, traders had been avoiding night travel due to the fact that many of the highway crimes are committed at night under the cover of darkness. This decision is not surprising because even the Nigeria Police and Federal Road Safety Commission have been discouraging night travel across the country due to the higher security and safety risks associated with it (Olufemi, 2021). Furthermore, the traders are evolving strategies to reduce their exposure to the nefarious activities of kidnappers, armed robbers and other criminals on the highways by reducing the number of trips to buy produce, and taking advantage of online transactions.

5. Conclusion and Recommendations

The paper concludes that road transport insecurity has negatively impacted agricultural produce marketing in Ilorin, with highway robbery being the major insecurity problem encountered by traders. While the agricultural produce traders have adopted various strategies to cope with the persistent road transport security challenges, the business operations of the traders have continued to experience distress.

It is imperative from the findings that there is need for the Nigerian government to decisively address the problems of rural banditry, highway robbery and kidnapping that pose serious risk to road travellers in Nigeria. This could be achieved through the promotion of community policing and increasing security patrols on Nigerian roads. Such measures will help ensure unrestricted movement of people, and the distribution of agricultural produce in the country. Also, there is a need to develop other modes of transportation, particularly the railway, to ensure alternative modes of moving agricultural produce within the country. This will help reduce the present over-dependence on road transport in the country. Furthermore, traders should be encouraged to embrace online banking services and pre-arranged delivery of produce. This will reduce the need to travel, thereby limiting their exposure to the risks involved.

Conflicts of Interest

The authors are not involved in any conflict of interest from funds, personal and institutional or any other relationship from this research.

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