ANALYSIS OF THE SPATIO-TEMPORAL VARIATIONSIN THE NATURE AND VOLUME OF MIGRANTS' REMITTANCES IN KOGI STATE, NIGERIA

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Abstract

This study assessed the spatio-temporal variation of the nature and volume of Remittance in Kogi State Nigeria. The data utilized were the socio-demographic characteristics of migrants and the nature and volume of remittance in the study area. 400 samples of questionnaires were administered purposively to two (2) communities each of Ajaokuta, Ogori, Okene, Ankpa, Dekina, Ibaji, Lokoja, Kabba Bunu, and Yagba West LGAs. Descriptive statistics and GIS were used to analyze the data. The result revealed that 43.2% of the migrants were between 20 - 30 years old, and 69.4% had stayed more than 6 years away from home. With regards to the form of remittance, the study revealed that 74% of respondents receive monetary remittance, as against a few (26%) who receive non-monetary remittance. 34.8% of respondents who receive monetary gifts receive between ₦20,000 – ₦40,000 while 16.2% receive more than ₦50,000. Also, 34.9% of respondents get non-monetary items like electronics, while a few 3.0% get farm tools. The study further revealed that, in terms of the temporal distribution of monetary remittances, most LGAs in the study area received more remittances in 2012. A total of ₦5,851,000 was received in 2012, with Lokoja LGA receiving the highest (26.8%) with ₦1,573,000 and Ibaji LGA receiving the lowest (2.2%) with ₦180,000. The lowest (₦1,367,000) amount of remittance was received in 2020 during the study period. In 2020, Lokoja LGA also received the highest (26.04%) remittance with ₦356,000 while Yagba-West had the least (2.9%) of the total remittance with

₦40,000. The spatial distribution of remittances indicates that the total average remittance received during the study period ranged between ₦958,000 - ₦11,786,000. For the period of the study, Lokoja LGA received the highest monetary remittance, which ranged between ₦8,580,000 - ₦11,786,000 while Ibaji and Yagba-West received the lowest monetary remittance, which ranged between ₦958,000 – ₦1,443,000. The study thus recommends that policies and programs aimed at enhancing the positive impacts of remittances should focus on promoting entrepreneurship and reducing the dependency of households on remittances.
Keywords: Migration, Migrants, Remittance, Spatial, Temporal

Introduction

Migration, which is the movement of people over defined space and time, is a phenomenon that has been part of mankind over ages. Humans have been on the move in the quest for sustenance in geographic space as they exploit the existing resources and socio-economic opportunities. The reasons why people choose to migrate are complex and cannot be generalized (Afolayan et al., 2011). In all migration contexts, remittances play an important role in the livelihoods of many people in the world. Remittances is the transfer of money by a foreign worker to an individual in the home country (World Bank, 2016) and also one of the most important outcomes of migration which has also become an important source of income and foreign exchange for many developing countries. Remittances are monetary and non-monetary items that migrants send to members of their families and communities in their countries of origin (Ohiomoje, 2019). Remittances are associated with increased households' investments in education, entrepreneurship and medical services, all of which have social return in most cases. Although remittances are spent primarily for consumption, especially in the case of poorer households, remittances also provide funds for education, medical services, and business investments in many poor countries and for asset accumulation (Kangmennaang et al., 2017).

Remittances play a crucial role in the socio-economic dynamics of nations, particularly in regions where migration is prevalent. They represent the financial and social contributions made by migrants to their home countries, often serving as a lifeline for families and communities left behind. In the context of Nigeria, the study of remittances is of paramount importance, given its status as one of the leading sources of remittance inflows in Sub-Saharan Africa. Kogi State, situated in the central region of Nigeria, has not been exempt from this phenomenon. The spatio-temporal variation of remittances in Kogi State is a multifaceted and

dynamic issue that warrants comprehensive exploration. Kogi State, like many other regions in Nigeria, has experienced a significant influx of remittances over the years, primarily driven by the migration of its residents to various parts of the world in search of economic opportunities. While remittances are known to contribute significantly to the well-being of recipient households and communities, there is a paucity of comprehensive research that examines the spatio-temporal variation of the nature and volume of remittances in Kogi State, Nigeria.

Study Area and Methodology

Kogi State lies between Latitude 6º25′03″and 8º 40′02″North of the Equator and between Longitude $5^0$15′00”and 7º50′00″ East of the Greenwich Meridien (Otupuru, 2014). The State is located in North Central Nigeria sharing boundaries with nine other states and the Federal Capital Territory (FCT). It shares boundaries with Niger State and the FCT to the North, Benue State to the East, Enugu, Anambra, Edo and Ondo States to the South and Ekiti and Kwara States to the West.

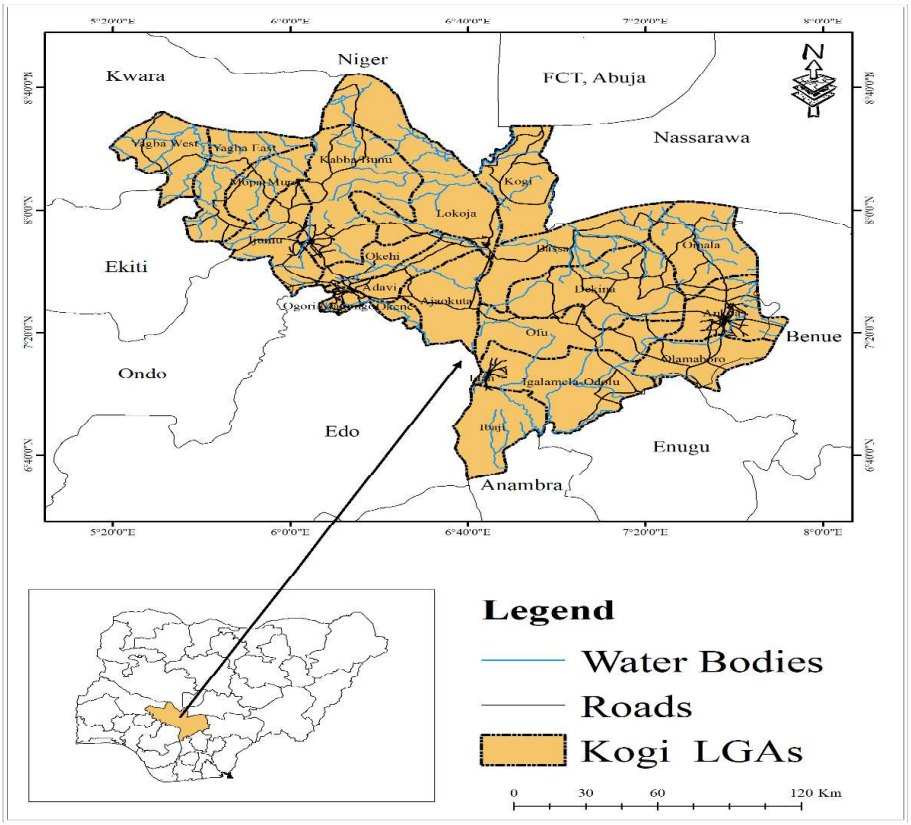

Figure 1: Map of Kogi State

Source: Modified from Administrative Map of Kogi State, (2020)

It has a landmass of about 75,000 km^2. The location of Kogi State in absolute and relative terms is shown in Figure 1. An examination of Kogi State in the location within Nigeria reveals that it has numerous borders with other states and the Federal Capital Territory (FCT). This location no doubt is advantageous for outmigration from Kogi State to other parts of Nigeria. In terms of international migration (focusing on air transport) the proximity to the Nnamdi Azikwe International Airport in Abuja has the likelihood to aid movement to other countries of the world. In a nut shell, the location of Kogi State provides ample opportunities for out-migration and consequently the potentials for remittances to the state.

Kogi State had a population of 3,314,043 in 2006 (National Population Commission, 2009). This figure is projected to be about 4,466,000 using the annual growth rate of 1.9 as at December 2022 (National Population Commission,

2023; National Bureau of Statistics, 2023). This was used for determining the sample size for the study. However, the choice of the 1991 population was because it is the only population census that disaggregated population distribution at ward level. To obtain the sample size, the population census figure of Kogi state for the year 1991 was used and projected for the year 2021 using the Newman (2001), formula with 3.04% growth rate for Kogi State.

The formula is given as: $PO = \frac{Pn + (Pn \times 1 + r)n}{100}$

PO = Population at the future date 2021

Pn= 328,753 (Base year population 1991)

r = growth rate (3.04%)

n = number of intermediary years (1991 – 2021 = 30)

$Po = \frac{328{,}753 + (328{,}753 \times 1 + 3.04)30}{100}$

= 727,201

Yamane (1967) formula was used to determine the sample size at 95% confidence level and 5% sampling error assumption.

$n = N/N+1(e)^2$

n = sample size

N = Population size = 727,201

e = sampling error

$= 0.05\ 93\ 727{,}201\ 1+727{,}201\ (0.05)^2$

= 399.51

The sample size was 400.

A multi-stage sampling procedure used to select the respondents for the study. Nine (9) LGAs are randomly selected from the twenty-one (21) LGAs in the state. They were selected using lottery method. The nine LGAs are Ajaokuta, Ogori and Okene LGAs in Kogi central, Ankpa, Dekina and Ibaji LGAs in Kogi east while in Kogi west are Lokaja, Kabba Bunu and Yagba West LGAs. This followed by a purposive selection of two (2) wards in each of the Local Government Areas selected. The major criterion considered for the selection of the wards are socio-economic condition such as with high rate of unemployment and poverty, social inequality, abundant relatively youthful population and education population that have been documented as drivers of migration. To determine the spatio-temporal variation in nature and volume of remittance in the study area, GIS technique and Inferential statistics were utilized. The spatial variation was determined by using data on nature and volume of remittance collected via questionnaire. Inferential statistics involved Z-score and time series

analysis. Nature and volume of remittance graph were drawn against number of months and years.

Result and Discussion

Age Group and Length of Stay of Migrants

Table1 reveals that majority (43.2%) of the respondents were between the age of 20 – 30 years while a few (3.1%) were above 50 years. This implies that the migrants in the study area belonged to the youthful population. This scenario is not unexpected as young people are generally known to be more likely to migrate. In many cases, young migrants may be more likely to send remittances than older migrants, as most of them usually include those who are newly married or have young families back home. They are also often more likely to be employed in low-skilled, low-paying jobs that require less experience and education. However, the amount of remittances sent may vary depending on the individual's earnings and expenses, as well as the level of support they receive from their family and community. In addition, Table 1 reveals that 69.4% of the migrants had stayed more than 6 years away from home, and 2.8% had migrated for a period of less than 1 year. This might have a positive implication on remittance. This is because it is believed that the longer a migrant has been away from home, the more likely they are to send remittances back to their families and communities.

Table 1: Age Group and Length of Stay of Migrants

Age Group	**Frequency**	**Percentage**
< 20 years	16.4	4.1
20 - 30 years	172.8	43.2
31 - 40 years	120.4	30.1
41 - 50 years	78	19.5
Above 50	12.4	3.1
Total	**400**	**100**
Length of Stay		
< 1 year	11.2	2.8
1 - 2 years	18.8	4.7
3 - 4 years	43.2	10.8
5 - 6 years	49.2	12.3
Above 6 years	277.6	69.4
Total	**400**	**100**

Source: Field Survey (2023)

One reason for this assertion is that migrants who have been away from home for a longer period of time may have established stronger social and economic ties at their base, which can provide them with more stable and better-paying jobs. This, in turn, can increase their ability to send money back home. In addition, as migrants spend more time away from home, they may become more familiar with the needs and challenges facing their families and communities. This increased awareness can motivate them to send more remittances in order to provide support for their loved ones. However, it is important to note that the relationship between the lengths of time a migrant has been away from home and remittance is not always straightforward. Other factors, such as the migrant's income, expenses, and family obligations, can also play a role in determining the amount and frequency of remittances sent.

Form of Remittance

Figure 2 shows the form of remittances sent by migrants. The figure reveals that there were two types of remittances; monetary and non-monetary remittances. As resented in Figure 26.0% of the respondents regularly received monetary remittances, while 74.0% received non-monetary remittances. The monetary form involved sending money while the non-monetary forms of remittance that were common among migrants included medical/healthcare products, clothing, foodstuff, computer/electronic gadgets as gifts to families back home. Others included prepaid debit cards, handsets and mobile airtime to their families. The distribution by location did not reveal any spatial lop-sidedness in the type of remittances received by respondents.

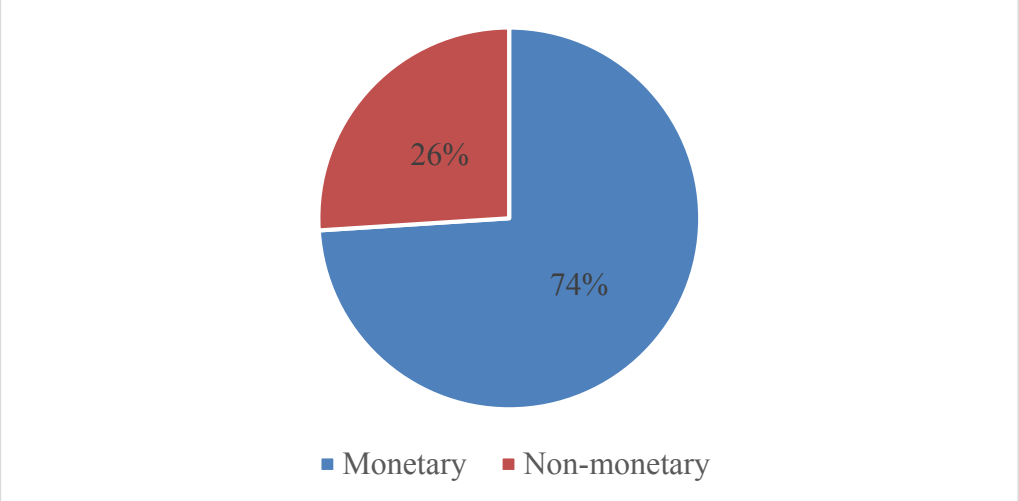

Figure 2: Distribution by Forms of Remittances Received
Source: Field Survey (2023)

Indeed, people value money than any other gifts across the world since money can be used to obtain materials which would otherwise be sent as non-monetary remittances. Also, sending money is less cumbersome for the sender and receiver than non-monetary remittances which may be bulky, perishable or with other limitations. This signifies that migrant send more monetary remittances in the study area. This finding agrees with the result of Zohry (2017), that Egyptian migrants send home more monetary remittance than non-monetary remittance. The preference for monetary remittances no doubt is that most migrants send remittances to their families back home to support their basic needs such as food, clothing, shelter, and education. Monetary remittances provide direct financial support to the recipients, and this is usually the most urgent and pressing need for most families (Hassan and Shakur, 2017). In addition, sending monetary remittances is often more convenient for both the sender and the recipient. It is easier and faster to send money electronically through formal channels such as banks or money transfer operators, than to send physical goods or non-monetary forms of remittance. Also, sending money directly through formal channels can build trust between the sender and the recipient. It provides a level of transparency and accountability that may not be present with non-monetary forms of remittance (Iheke, 2016). This is also in accordance to the assertion of the New Economics of Labor Migration theory which highlighted the economic rationale behind migration decisions and how they relate to the sending of remittances. According to the theory, migrants often send remittances home as a means to improve their families' economic well-being, mitigate risks, and invest in human capital.

Range of Monetary and Non-monetary Remittance Received

The range of monetary remittance and non-monetary items regularly received in the study area was examined and the result is presented in Table 2. It indicates that majority (34.8%) of the respondents who receive monetary remittance got between ₦20,000 – ₦40,000 while a few (16.2%) receive more than ₦50,000.

Table 2: Monetary and Non-monetary Remittance in the Study Area

Monetary	Frequency	Percentages
<₦20,000	78	26.4
₦20,000 - ₦40,000	103	34.8
₦41,000 - ₦50,000	67	22.6
>₦50,000	48	16.2

Total	**296**	**100**
Non-monetary		
Educational materials	6	5.7
Foodstuffs	24	23.4
Clothes	18	17
Drugs	7	7
Farm tools	3	3
Electronics	36	34.9
Means of Transportation	9	9
Total	**104**	**100**

Source: Author's Analysis (2023)

This is because most migrants in the study area are mostly within Nigeria and low-income earners who may not be able to afford to send large amounts of money back home. It is also explainable that the money sent is usually to cover basic needs such as food, clothing, and healthcare. Smaller amounts of remittance may be sufficient to cover these basic needs, especially in rural areas where the cost of living is relatively lower.

Furthermore, Table 2 reveals that 34.9% of the respondents got non-monetary items like electronics while a few (3.0%) got farm tools. The preference of non-monetary items like electronics might be because personal preference as migrants may have personal request or interests in certain electronic items and may want to share these items with their families back home. This usually include items such as smartphones, laptops, or tablets, which can be useful for communication and accessing information.

Temporal Distribution of Monetary Remittance

Temporal variation refers to changes or fluctuations that occur over time in a particular phenomenon or variable. It can refer to any kind of change that occurs over time, including seasonal changes, diurnal (daily) changes, or longer-term trends. The temporal variation of the amount of monetary remittance received in the study area was examined and the result is presented in Figure 3.

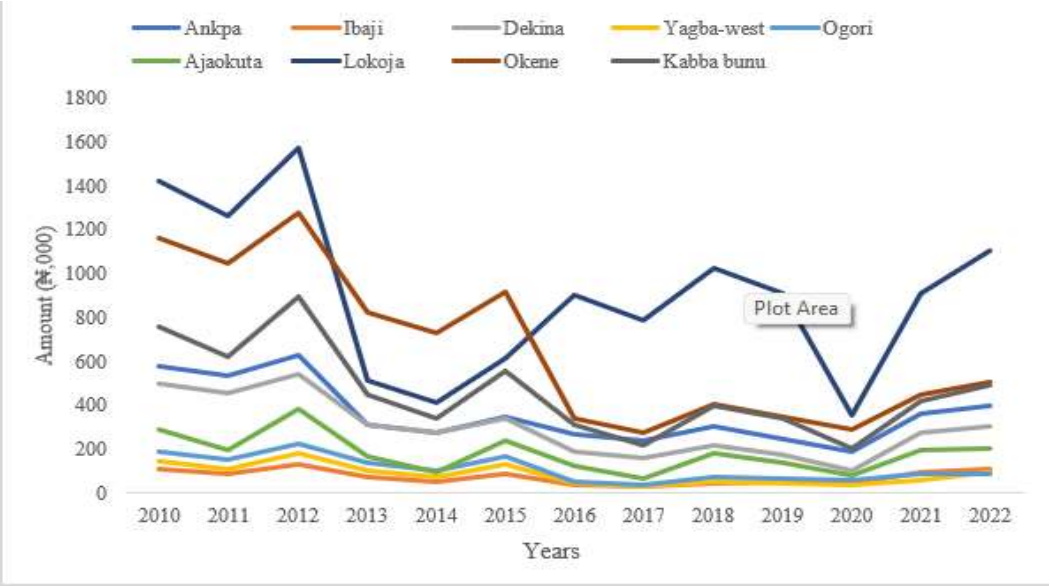

Figure 3: Temporal Variation of Monetary Remittances
Source: Author's Analysis, (2023)

Figure 3 obviously shows that most LGAs in the study area received more monetary remittance in 2012 for the period under study. A total of ₦5,851,000 was collected in 2012 with Lokoja LGA receiving the highest amount of ₦1,573,000 (26.8%) while Ibaji LGA had the lowest of ₦180,000 (2.2%). This could be attributed to the flood that occurred in 2012. This is because during a disaster, the affected area may experience a significant increase in the need for financial support. This is owing to loss of income, damage to property, or increased healthcare expenses among the victims. Migrants may send more remittances during this time to help their families cope with the increased financial burden. Also, migrants may feel a sense of responsibility to help their families during times of crisis. They may feel a moral obligation to send more money to support their loved ones during disasters, particularly if they are unable to be physically present to provide assistance. Also, the increased awareness and significant media coverage the disaster got may increase migrants' awareness of the situation and motivate them to send more remittances.

Cumulatively, the lowest amount of remittance (₦1,367,000) was received in 2020 during the period of study. In the year 2020, Lokoja LGA also received the highest remittances of ₦356,000 (26.04%) while Yagba-west received the lowest of the total remittance with ₦40,000 (2.9%). This could be attributed to COVID-19 lockdown. This is because the lockdown and other COVID-19 related

measures led to widespread job losses and reduced income opportunities, which likely affected many migrants' ability to send remittances. Without a stable income, migrants may have had less money available to send to their families back home. In addition, the pandemic caused significant economic uncertainty, which may have made migrants hesitant to send remittances. They may have been concerned about their own financial stability and may have wanted to hold onto their money in case of future emergencies. Also, the restriction of movement may have made it more difficult for migrants to access financial services, including money transfer services. This could have made it more challenging for them to send remittances.

Spatial Distribution of Monetary Remittances

Spatial distribution refers to the arrangement or pattern of a particular phenomenon or variable across space or geographical area. It is concerned with understanding how a particular variable, such as population, resources, or economic activity is distributed across a geographic region. The spatial distribution of the total average remittance received during the study period was mapped and the map is presented in Figure 4.

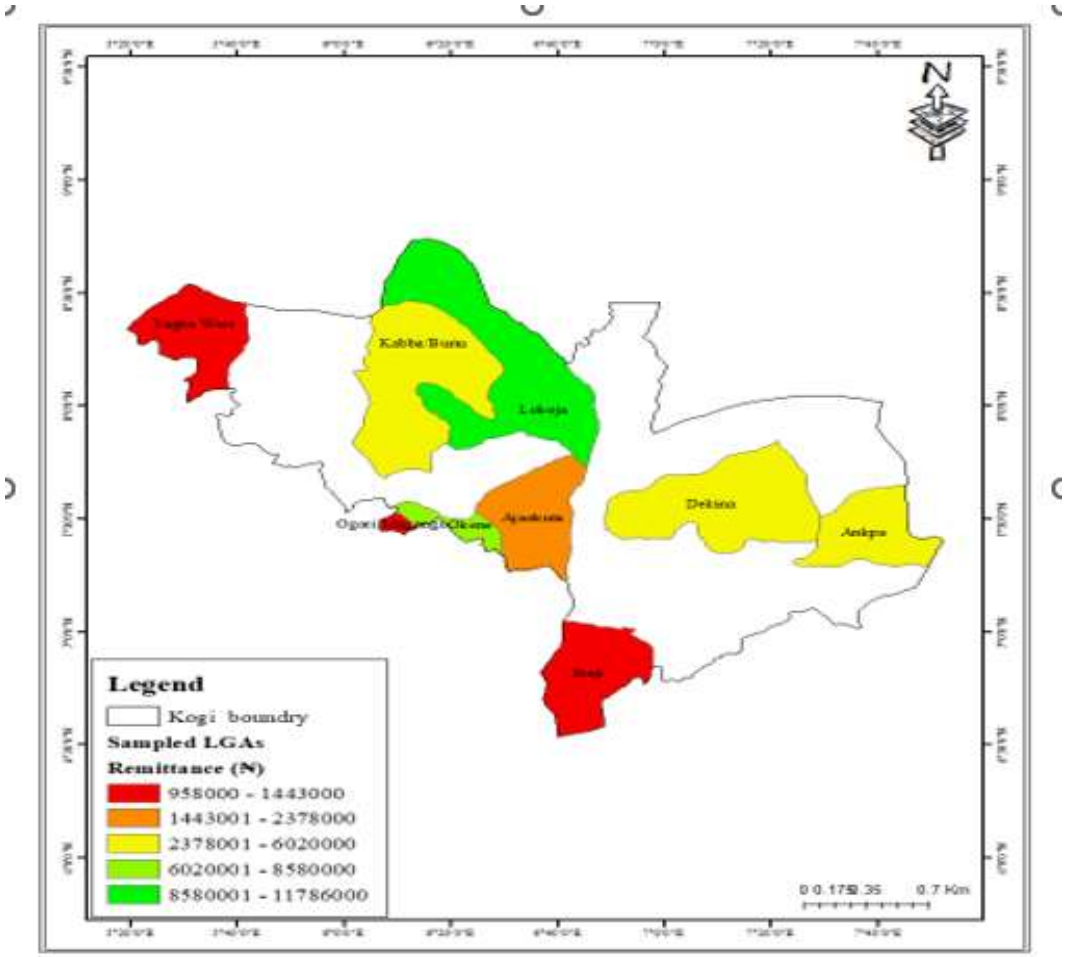

Figure 4: Spatial Distribution of Monetary Remittance in the Study Area
Source: Author's Analysis (2023)

It indicates that the total average occasional remittances collected during the period of the study ranged between ₦958,000 - ₦11,786,000. During the period of the study respondents in Lokoja LGA received the most monetary remittance that ranged between ₦8,580,000 - ₦11,786,000 while those in Ibaji and Yagba-West LGAs received the lowest monetary remittance that ranged between ₦958,000 – ₦1,443,000. This implies that no matter what remittance receiving households in Lokoja LGA tends to always receive the highest monetary remittance. This is not unconnected to the fact that Lokoja LGA is the capital of Kogi State and is home to a large number of people. The larger the population of an area, the more likely it is to receive more remittances from migrants living

outside the area. Also, Lokoja LGA is home to several higher education institutions, including Federal University Lokoja and Kogi State Polytechnic. These institutions attract students from other parts of Nigeria and may also attract migrants who come to work in the universities. This could contribute to higher remittances in the area. Overall, the reasons for higher remittances in Lokoja LGA are likely complex and multifaceted.

Rate at Which Respondents Received Remittances

The rate at which respondents receive remittance in the study area was examined and the result is presented in Table 3.

Table 3: Rate of Receiving Remittances in the Study Area Rate

Rate	Frequency	Percentage
Weekly	14	3.4
Monthly	149	37.3
Quarterly	107	26.7
Bi-annual	73	18.2
Annual	58	14.4
Total	**400**	**100.0**

Source: Field Survey (2023)

Table 3 shows that most of the respondents (37.3%) received remittances monthly while 3.4% received remittances weekly. Sending money on a monthly basis ensures that these regular expenses were covered. A regular stream of income can provide a greater sense of financial stability and security, which may be particularly important in areas where economic conditions are unstable. By sending money on a regular basis, families avoided the need to take loans when expenses arose (Loto and Alao, 2016). This is important in areas with limited access to credit, as it can provide a way to cover unforeseen costs without incurring high levels of debt. Additionally, when families receive money on a regular basis, they can budget more effectively, allowing them to plan well into the future. Regular and periodic remittances help to ease financial stress and improve overall financial stability and enables families to plan well for the future.

Conclusion

The pattern of remittances received revealed significant fluctuations in remittances over time. Different years witnessed varying levels of remittance inflows, with some LGAs consistently receiving higher amounts than others.

These findings underscore the dynamic nature of remittance behaviours and highlight the need for a nuanced understanding of the factors influencing these patterns. Additionally, the frequency of remittances received by respondents varied, with a notable proportion reporting monthly receipt of remittances. This frequency speaks to the regularity of financial support received by many individuals within the study area, potentially impacting their livelihoods and economic well-being. These insights into the temporal distribution of remittances emphasize the importance of tailored policies and strategies to address the specific needs and challenges faced by different LGAs and individuals within the community. Understanding these nuances is essential for effective decision-making and interventions aimed at optimizing the positive impact of remittances on both local and regional development.

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