



# International Journal of Rural and Urban Development (IJRUD)

VOLUME 2 ISSUE 1 (2025)



PUBLISHED BY  
E-PALLI PUBLISHERS, DELAWARE, USA

## Gendered Dimensions of the Distance Decay Model: Evidence from Female Migration in Rural Nigeria

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### Article Information

**Received:** January 07, 2026

**Accepted:** March 29, 2026

**Published:** December 30, 2025

### Keywords

*Distance Decay Model, Female Migration, Nigeria Ondo West, Rural Labour, Spatial Interaction*

### ABSTRACT

With an emphasis on Nigerian rural areas, this study explores the gendered aspects of the distance decay model. With a focus on the relationship between migration volume and distance from source regions, it uses the distance-decay model to investigate how geographic proximity, socioeconomic inequality, and cultural factors influence female migration patterns. The selection of 1,047 female migrant workers from 30 rural villages in the Ondo West Local Government Area was accomplished through the use of a multi-stage sampling technique. Data were obtained through structured questionnaires and analysed using descriptive statistics and Pearson's Product Moment Correlation (PPMC). The correlation between the volume of migration and the distance was examined, and coefficients that were more than or equal to 0.5 were deemed to be statistically significant. Findings indicate that female migrants are primarily middle-aged, married, and have minimal formal education. The majority are part of medium-sized households and have moderate salaries, however they report enhanced living conditions relative to their prior circumstances. Migration was predominantly self-directed and economically driven, influenced by poverty, unemployment, and land degradation, whereas pull factors encompassed employment possibilities and facilitation of integration. Spatial study indicated that most migrants came from adjacent southwestern states, notably Osun (34.09%) and Oyo (16.04%), highlighting the influence of proximity. Statistical research established a substantial negative association between distance and migration volume ( $r = -0.423$ ,  $p < 0.05$ ), thereby supporting the distance decay model and emphasizing its gendered aspect. The results indicate that distance is a crucial factor influencing female movement, hence reinforcing local mobility trends and constraining access to remote, higher-paying prospects. The research expands spatial interaction theory by including gendered dynamics, demonstrating that distance decay is influenced by socio-economic and cultural factors. Policy interventions must prioritise gender-sensitive rural development initiatives, enhanced infrastructure, and inclusive labour policies to mitigate geographical inequities and improve female mobility. This study enhances migration studies by providing a comprehensive picture of female migration in Nigeria, incorporating spatial, socio-economic, and gender dimensions.

### INTRODUCTION

Migration is a vital demographic and socio-economic phenomenon that influences labour markets, household economies, and regional development patterns throughout the Global South. Migration patterns in Nigeria are extremely dynamic, reflecting the interaction of cultural norms, economic necessity, and geographical limitations (Adepoju, 2003; Lucas, 1997). Historically, male-led migration movements were the dominant force in migration; however, contemporary evidence underscores the growing autonomy of female migrants, especially in rural labour markets in which agricultural opportunities offer accessible entry points for women who possess little formal education (Okafor & Okonkwo, 2017; Olaleye, 2023).

A theoretical framework for comprehending these dynamics is offered by the distance decay model. It asserts that spatial contact decreases with increasing distance, indicating that migration flows are more probable over shorter distances (Tobler, 1970; Wilson, 1971). Empirical research indicates that migrants generally favour nearby locations, but long-distance migration is

limited by economic costs, cultural barriers, and limited mobility resources (Lee, 1966; Fotheringham & O'Kelly, 1989). Despite advancements in transportation and communication diminishing certain elements of distance decay (Cairncross, 1997), data indicates that women continue to be disproportionately hindered by distance, hence supporting localised migratory trends (Donato, Gabaccia, Holdaway, Manalansan & Pessar, 2006; Mahler & Pessar, 2012).

The Ondo West Local Government Area (LGA) in Ondo State illustrates these dynamics. The region's vast cocoa and kolanut farms draw considerable female migrant labour, mostly from adjacent southwestern states like Osun and Oyo, where geographic closeness and cultural connections enhance mobility (Author Analysis, 2025). Migration to Ondo West is primarily self-directed and economically driven, influenced by poverty, unemployment, and land degradation in origin areas, as well as attractive elements like employment prospects and seamless integration into rural communities (Adepoju, 2010; Olaleye, Ogunboye & Olanusi, 2014).

Female migration in Nigeria is increasingly influenced by

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spatial, socio-economic, and gender-specific factors, with current research affirming the continued significance of the distance decay model in elucidating localised mobility trends. Migration literature has historically highlighted the significance of distance in influencing mobility, with the distance decay model asserting that interactions between locations decrease as distance increases (Tobler, 1970; Wilson, 1971). Empirical research repeatedly indicates that migrants favour shorter distances, whereas long-distance movement is hindered by economic expenses, cultural obstacles, and restricted resources (Lee, 1966; Fotheringham & O'Kelly, 1989). Recent data substantiates this principle, especially in the Global South, where migratory patterns largely involve short distances due to structural limitations (Lucas, 2006; Adepoju, 2010).

In Nigeria, female migration has become a separate phenomenon, differing from historically male-dominated trends. Research indicates that women are increasingly migrating independently due to poverty, unemployment, and environmental degradation, while rural areas provide accessible livelihood prospects despite inadequate infrastructure (Okafor & Okonkwo, 2017). Recent assessments indicate that female migrants face significant limitations due to distance, with localised flows predominating in rural labour markets (Adebayo, 2023; Aweda, 2025). This gendered aspect corresponds with global research indicating that women's mobility is influenced by domestic duties, cultural conventions, and limited access to resources (Donato et al, 2006; Mahler & Pessar, 2012).

Recent studies emphasize the significance of social networks and intervening opportunities in mitigating distance deterioration. Migrant networks reduce costs and risks, enabling certain women to surmount geographical obstacles (Massey, Arango, Hugo, Kouaouci, Pellegrino & Taylor, 1993; Boyd, 1989). Nonetheless, spatial selectivity persists, since migrants congregate in nearby areas, exacerbating regional disparities (Plane & Bitter, 1997; Simini, González, Maritan & Barabási, 2012). Recent studies in Nigeria emphasize climate change and land degradation as significant factors influencing female migration, especially in the South-East, where reduced fallow periods intensify rural poverty and compel women to migrate to adjacent agricultural areas (Aweda, 2025).

The literature indicates that although the gravity/distance decay model is a strong framework for migration analysis, its explanatory capacity is improved when combined with gender, socio-economic, and environmental factors. This multifaceted viewpoint is crucial for comprehending female migration in Nigeria, where localized movements prevail yet are increasingly influenced by overarching structural and ecological forces.

Although there is increasing acknowledgement of female migration as a unique phenomenon, research on Nigerian migration frequently neglects its gendered aspects. Most research focus on rural-urban migration or male-centric movement patterns, resulting in a lack of information regarding the geographical and socio-economic factors

influencing female mobility in rural areas (Olaleye, 2025; 2026). The enduring impact of distance decay effects on female migrants prompts essential enquiries regarding the degree to which geographical obstacles limit women's access to economic possibilities.

Empirical evidence from Ondo West indicates a statistically significant negative connection between distance and migration volume ( $r = -0.423$ ,  $p < 0.05$ ), demonstrating that female migration decreases as distance from source regions increases. This discovery emphasizes the moderating influence of distance on gendered migratory patterns, while also revealing the shortcomings of conventional gravity models that neglect social and gender factors (Fotheringham & O'Kelly, 1989; Poot, Alimi, Cameron & Maré, 2016). Without a comprehensive knowledge of these processes, policy initiatives may overlook the structural constraints that restrict women's mobility and sustain regional inequality.

This study enhances migration studies by contextualizing female mobility within spatial interaction theory and emphasizing its gendered aspects. This research empirically validates the distance decay model by analyzing the socio-demographic features, source regions, and migration drivers of female workers in Ondo West, thereby extending its application to gender-specific situations.

The results possess both theoretical and practical importance. Theoretically, they enhance migration research by illustrating that distance decay varies among groups, influenced by gender, social networks, and livelihood opportunities. They effectively inform policymakers and development practitioners aiming to formulate inclusive rural labour strategies. Identifying the limitations encountered by female migrants might inform strategies that improve access to education, infrastructure, and economic opportunities, thus mitigating spatial disparities and bolstering rural development.

This study fills a significant void in migration research by incorporating spatial, socio-economic, and gender perspectives, thereby providing a comprehensive knowledge of female migration dynamics in Nigeria.

### **Aim**

With a focus on the relationship between migration volume and distance from source regions within the context of the distance decay model, the study intends to investigate the spatial characterization and migration dynamics of female migrant workers in Ondo West Local Government Area (LGA), Nigeria.

### **Objectives**

1. To analyze the socio-demographic characteristics and source regions of female migrant workers in Ondo West LGA in order to understand how age, marital status, education, household size, and income influence their migration decisions and settlement patterns.
2. To investigate the relationship between migration

volume and distance from source regions by applying the distance decay model, thereby assessing how spatial barriers and proximity shape female migration flows into rural Ondo West.

### Research Questions

1. How do socio-demographic characteristics such as age, marital status, education, household size, and income influence the migration decisions and settlement patterns of female migrant workers in Ondo West LGA?
2. What is the relationship between migration volume and distance from source regions, and to what extent does the distance decay model explain the spatial distribution of female migrants into Ondo West?
3. In what ways do socio-economic drivers, cultural norms, and regional disparities interact with spatial constraints to shape the gendered dynamics of female migration flows in rural Nigeria?

### Theoretical Framework: Distance Decay Model

The distance decay model is a fundamental concept in geography and spatial analysis, describing how interaction between places decreases with increasing distance (Tobler, 1970). This model has been widely applied to understand various spatial phenomena, including migration, trade, and communication patterns.

The distance decay model can be expressed as:

$$I_{ij} = f(D_{ij})$$

where  $I_{ij}$  is the interaction between places  $i$  and  $j$ , and  $D_{ij}$  is the distance between them (Wilson, 1971). The model suggests that interaction decreases as distance increases, often represented by a negative exponential or power function (Fotheringham & O'Kelly, 1989).

Numerous studies have demonstrated repeatedly that migration patterns are influenced by the decrease in distance (Olaleye, 2026). According to Lee (1966), migrants, for instance, are more likely to migrate over shorter distances. Research in Nigeria indicates that proximity is a crucial determinant in migration choices, with a greater number of individuals relocating to adjacent cities rather than to remote locations (Adepoju, 2003). The distance decay model offers a valuable foundation for comprehending spatial interaction. Even though it has several drawbacks, such as the assumption that the distance decay function is uniform (Fotheringham & O'Kelly, 1989), it is nevertheless useful. In addition, developments in transport and communication technology have altered the relationship between distance and decay, which has made it possible for interactions to take place over larger distances (Cairncross, 1997). Despite these changes, the distance decay model continues to be an important instrument for analysing spatial interaction.

The distance between people might be a big obstacle for people who want to move to rural locations. According to research, migrants in general have a preference for shorter

distances, and rural communities frequently encounter difficulties in recruiting migrants due to the restricted work possibilities, infrastructure, and services that are available in rural areas (Lucas, 1997). Research in Nigeria indicates that distance significantly influences migration choices, since several migrants prefer metropolitan regions offering superior facilities and employment opportunities (Adepoju, 2003). Rural regions frequently have challenges in attracting migrants due to inadequate infrastructure, healthcare, and educational facilities (Okafor & Okonkwo, 2017).

### MATERIALS AND METHODS

#### Study Area

The study was conducted in the Ondo West Local Government Area (LGA) of Ondo State, Nigeria, a region characterised by the presence of vast cocoa and kolanut plantations that draw migrant labour. The Local Government Area consists of 12 political wards, with seven designated as urban and five as rural. The rural wards were intentionally chosen as the study's focal point because of the high proportion of female migrant workers.

The target group comprised female migrant labourers aged 18 and older living in rural areas. In homes without a female head, the eldest female migrant involved in productive activities was interviewed. Utilising assumptions from the 1991 census with a 2.6% annual growth rate, the anticipated female population of the designated rural villages reached 10,466 in 2018. A multi-stage sampling method was employed. A selection of five rural wards was made at the beginning. A random selection was made from each ward, and six rural villages were selected, resulting in a total of thirty settlements. In each community, households were methodically chosen (every third structure following the initial one). Respondents were allocated in accordance to the population size of the settlements. In accordance with recognised guidelines for rural research, 10% of the female migrant population was sampled, yielding 1,047 respondents throughout the wards.

Data were gathered through standardized questionnaires distributed during household visits. Prior to the major survey, a reconnaissance phase was conducted to evaluate research instruments, recruit support workers, and determine community approval. The primary survey entailed the direct distribution of questionnaires to the chosen respondents. The data were analysed via the Statistical Package for Social Sciences (SPSS). Descriptive statistics encapsulated demographic and socio-economic attributes, whereas inferential statistics evaluated hypotheses. Pearson's Product Moment Correlation (PPMC) was utilised to analyse the link between migration volume and distance from source regions, with coefficients of  $\geq 0.5$  deemed significant.

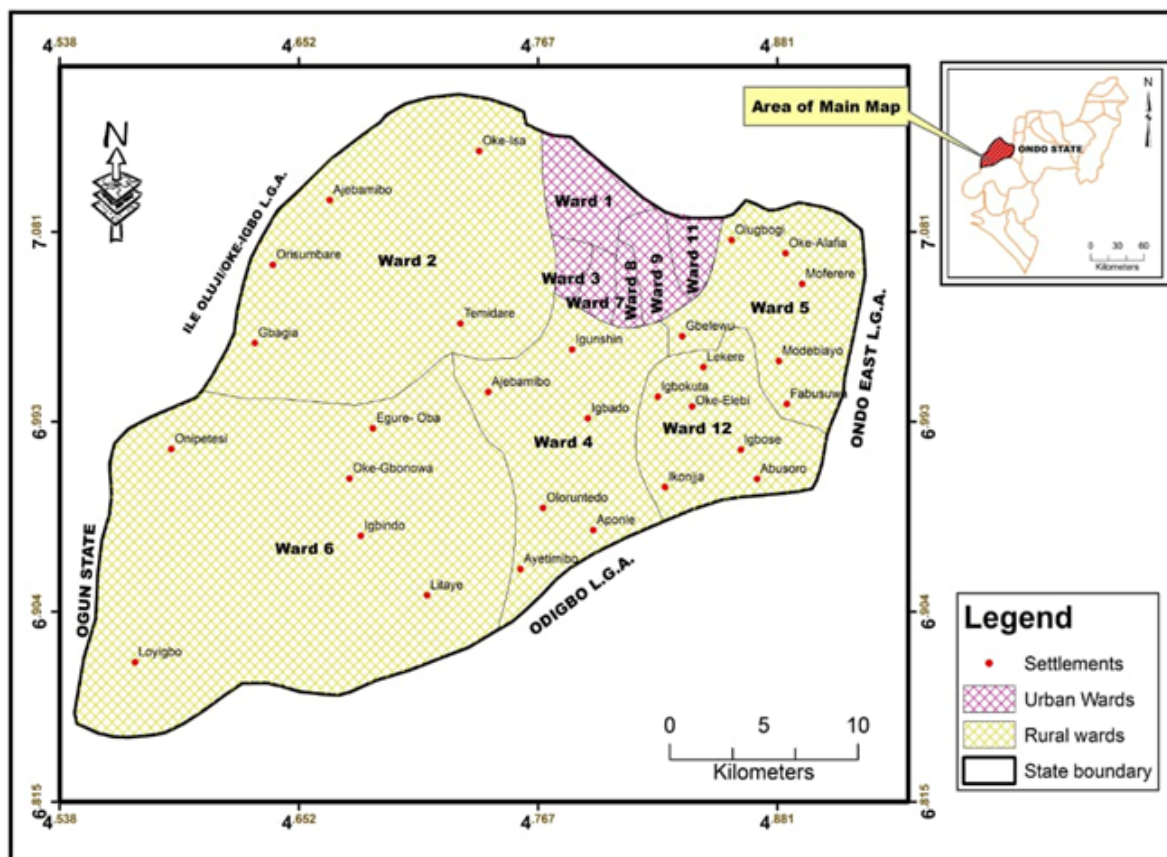


Figure 1: Ondo West LGA showing Political Wards  
 Source: Independent National Electoral Commission, Akure

## RESULTS AND DISCUSSION

### Discussion of Findings

#### Socio-Demographic Characteristics of Female Migrant Workers in Ondo West LGA

**Age Distribution:** The majority of respondents (86.3%) are in the age range of 20 to 59, making up the population that is actively employed. Individuals aged 50–59 years comprise 30.3%, and those aged 40–49 years constitute 28.7% of the migrants. The mean age among wards is 45.7 years. Only a small fraction are under 20 years old (1.2%) or beyond 60 years old (12.4%). The age distribution indicates a predominance of female migrants within the youthful, labour force segment of the migration continuum.

**Marital Status:** 1% of the respondents were divorced, 78.4 percent were married, 11.8% were widowed while 8.8% were single. More than half (53.3%) live with their spouses, whilst 25.1% reside separately due to migration for economic purposes. This indicates that a greater proportion of respondents are married, while the previous age distribution revealed that the migration chain predominantly consisted of adult females.

**Education:** 39.3% of the population lacks any form of formal education, 39.1% have completed the primary school certificate, 18.6% have discontinued their formal education at the secondary school level, and only 3% of

the population (primarily teachers and health professionals from the South West) have completed tertiary education. A significant proportion of respondents indicated that a primary factor for their decision to reside in rural areas was their absence of formal education.

**Household Size:** 55.8% of the respondents have 4–6 members in terms of household size. This is the highest and most common, 26.9% have 1–3 members. These are often single/divorced women, 17 % have 7–9 members, while households with 10+ members account for just 0.3%. Household size influences livelihood participation and mobility.

**Average Annual Income:** Only 10.5% of individuals earn less than ₦30,000. Respondents who earn between ₦31,000 and ₦60,000 are the largest category, accounting for 44.9% of the total. Additionally, 17.1% of people earn between ₦61,000 and ₦90,000 annually. Furthermore, 16.6% of female migrant workers earn between ₦91,000 and ₦120,000, while 10.9% earn more than ₦120,000. 70.2% of respondents reported that their living conditions had improved in comparison to their previous status, despite their low incomes. Given the ease of entrance and their impoverished economic circumstances, numerous employees chose to participate in livelihood activities.

In Ondo West, the majority of the female migrant workers are of middle age, married, and have a secondary level of

education. Most belong to medium-sized households and earn low wages, however many feel their living conditions have improved. Migration is motivated by economic prospects accessible even without formal education, with rural locations allowing easier admission compared to urban centers. As part of its development plan, the

government may establish rural self-employment training institutes. These can be conducted in partnership with banks, microfinance institutions, and state governments (Singh & Kumar, 2025). The adoption of digital technology may also aid in improving rural entrepreneurship, which in turn strengthens entrepreneurial ecosystems and caters to

**Table 1:** showing major Source Regions of Female Migrant Workers

	State	Frequency	Percent
1.	Kogi	76	7.25
2.	Osun	357	34.09
3.	Oyo	168	16.04
4.	Benue	98	9.36
5.	Ondo	40	3.82
6.	Delta	47	4.48
7.	Cross River	30	2.87
8.	Ebonyi	50	4.77
9.	Kwara	82	7.83
10.	Edo	38	3.62
11.	Ekiti	13	1.24
12.	Anambra	5	0.47
13.	Enugu	6	0.57
14.	Akwa Ibom	5	0.47
15.	Abia	7	0.66
16.	Ogun	3	0.28
17.	Kaduna	6	0.57
18.	Non-Nigerian	16	1.52
	<b>Total</b>	1047	100

Major Source Regions of Female Migrant Workers  
*Source: Author Analysis, 2025*

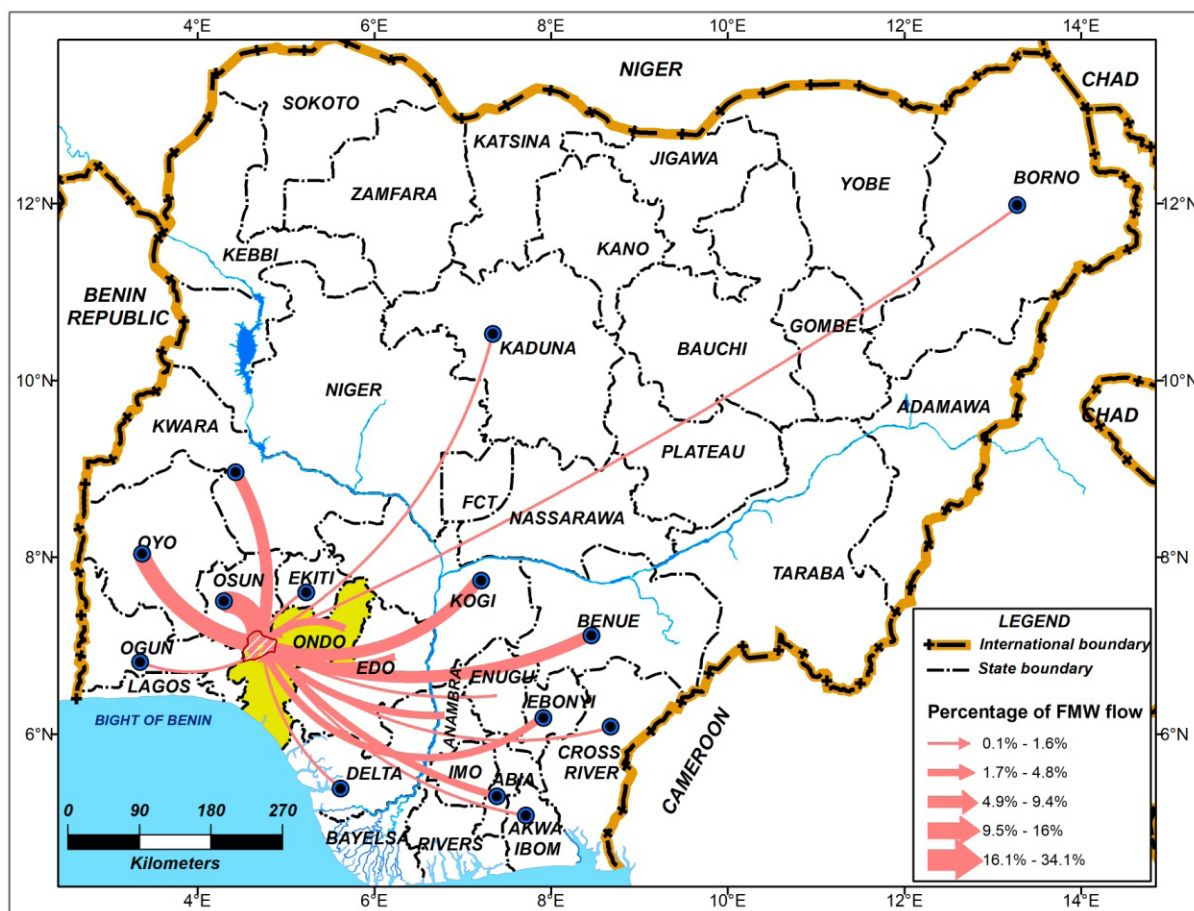
the unique demands of rural populations (Olalekan, 2024). This study examines the spatial distribution and socio-cultural factors affecting the migration of female workers to rural regions of Ondo West Local Government Area (LGA), Nigeria. The study, based on data from 1,047 respondents, uncovers a complex interaction of physical proximity, socio-economic inequalities, and cultural influences that shape female migration patterns. Participants hailed from 17 Nigerian states and adjacent West African nations. The South-West region comprised the largest share (55.5%), with Osun (34.09%) and Oyo (16.04%) states making the most significant contributions, attributed to physical proximity and cultural affinity. In the following order, the North-Central zone provided 24.5%, while the South-East zone contributed 12.7%. This was mostly caused by the lack of available land and the degradation of the environment. The South-South region represented 6.7%, while the North-West and North-East regions exhibited the lowest participation rates at 0.6% and 0.1%, respectively, hindered by socio-religious norms and geographical distance. The results indicated that a significant proportion of female migrant workers in the research area originated from the adjacent southwestern states of Osun and Oyo, capitalizing on the proximity between these states.

**Migration Drivers**

The primary drivers of migration were economic and self-motivated factors. Unlike previous male-dominated movement trends, modern female migration demonstrates autonomous decision-making, especially among younger women. There were a number of issues that acted as push factors, including as poverty, unemployment, land degradation, and socio-cultural pressures. Pull factors, on the other hand, included chances for livelihood and facilitation of integration in rural Ondo West.

**Regional Disparities**

The movement in the South-East zone was driven by elevated rural population density and reduced fallow times, resulting in land depletion. Participants from Ebonyi, Anambra, Enugu, and Abia constituted 6.47% of the overall sample. Conversely, the North-West and North-East regions demonstrated negligible female migration attributable to stringent cultural standards, weather variations, and extensive travel distances. The research emphasizes the dynamic characteristics of internal migration in Nigeria, showcasing the growing independence of female migrants and the importance of regional socio-economic and cultural circumstances. The results of this study contribute to a more nuanced



**Figure 2:** Major source regions of female migrant workers  
*Source: Author Analysis, 2025*

understanding of the gendered migratory dynamics and rural labour mobility in sub-Saharan Africa.

**Relationship between volume of female migrants and distance from the source**

At a p-value of 0.10, the data presented in table 1.2 demonstrates that there is a statistically significant inverse relationship between the distance from the source region and the volume of migrants. As the distance from the source regions increases, the number/percentage of female migrants decreases, as indicated by the negative correlation coefficient ( $r = -0.423$ ). This aligns with the principles of the distance decay model. The identified inverse correlation between distance and migrant volume offers robust empirical support for the gravity hypothesis, which asserts that spatial contact diminishes as distance increases. The relationship ( $r = -0.423$ ) signifies a moderate yet significant decay impact, aligning with extensive empirical literature in spatial and migration research.

The foundational study by Karemera, Oguledo, and Davis (2000) established that distance has a statistically significant adverse effect on international migration patterns, even when accounting for economic and demographic factors. Andrienko and Guriev (2004) similarly identified significant distance decay effects

in interregional migration within Russia, indicating that the likelihood of migration diminishes markedly with increasing distance. Recent extensive evaluations corroborate this trend. Simini et al. (2012) shown in their radiation model that human movement adheres to systematic spatial limits, with distance serving as a fundamental limiting factor, even when opportunities are considered. Similarly, Stillwell and Thomas (2016), utilising UK internal migration data, discovered that most movement transpires over small distances, with significant decreases in flow strength as distance increases.

Both Lucas (2006) and Adepoju (2010) made the same observation in the context of the Global South, which is that migration in African countries is primarily short-distance and is determined by economic restrictions and restricted mobility resources. The current conclusions closely correspond with both classical and modern empirical evidence, affirming that distance decay is a fundamental organising element of migration systems. This study's principal contribution is the recognition of a gendered aspect within the distance decay relationship. The results demonstrate that the percentage of female migrants diminishes markedly with greater distance, implying that women face more limitations due to geographical obstacles than men.

This outcome is robustly corroborated by empirical

**Table 2:** Relationship between volume of female migrants and distance from the source.

		Percentage of Female Migrants	Distance to the source region	Freq of Migrants
Percentage of Female Migrants	Pearson Correlation	1	-.423*	1.000**
	Sig. (2-tailed)		.010	.000
	N	36	36	36
Distance to the source region	Pearson Correlation	-.423*	1	-.423*
	Sig. (2-tailed)	.010		.010
	N	36	36	36
Freq of Migrants	Pearson Correlation	1.000**	-.423*	1
	Sig. (2-tailed)	.000	.010	
	N	36	36	36

\*. Correlation is significant at the 0.05 level (2-tailed).

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

literature concerning gender and migration. Donato et al. (2006) contend that migratory processes are profoundly gendered, with women encountering structural barriers that restrict their mobility. Hondagneu-Sotelo (1994) illustrated that women’s migration choices are influenced by domestic obligations, cultural conventions, and restricted resource availability. Empirical information from developing nations further corroborates this trend. Thadani and Todaro (1984) discovered that female migration frequently occurs across shorter distances because of social and economic limitations. Research by Adepoju (2010) indicates that women in sub-Saharan Africa are more inclined to participate in local or regional migration as opposed to long-distance relocation. Recent research by Mahler and Pessar (2012) underscores that gender affects both migration decisions and the geographical scope of movement. Women are often embedded in social networks that restrict long-distance mobility, reinforcing localized migration patterns. Consequently, the results of this study enhance the gravity model by illustrating that distance decay varies among populations and is influenced by gender. This highlights the necessity for more inclusive spatial interaction models that integrate social elements. Although distance is a crucial issue, the moderate correlation value ( $r = -0.423$ ) indicates that migration is affected by other variables. This corresponds with Stouffer’s (1940) idea of intervening opportunities, which asserts that migration choices are influenced by the presence of possibilities between the point of origin and the destination. Empirical research provide robust evidence for this notion. Niedomysl (2011) discovered that migrants frequently select places based on perceived prospects rather than only on distance. Poot et al. (2016) similarly found that labour market conditions and geographical appeal greatly affect migration trends. The significance

of social networks is particularly pronounced. Massey et al. (1993) shown that migrant networks diminish the costs and dangers linked to migration, hence attenuating the distance decay effect. Boyd (1989) further asserted that networks enable long-distance migration by offering information and assistance. The dataset’s mention of characteristics like relatives at the destination and livelihood opportunities corroborates this conclusion. These characteristics presumably function as facilitating mechanisms that mitigate distance-related limitations, enabling certain migrants to surmount spatial obstacles. The results also emphasise geographical selection, indicating that migrants tend to favour nearer destinations. This tendency is well recorded in empirical literature. Plane and Bitter (1997) demonstrated that migrant flows exhibit significant localisation and pronounced geographical grouping. Simini et al. (2012) further illustrated that migration adheres to expected geographical patterns, characterised by predominance of short-distance migrations owing to reduced costs and increased familiarity. This corresponds with the current data, indicating that migration volume diminishes with increasing distance. Nevertheless, spatial selectivity may result in inefficiencies in labour distribution. Todaro (1969) contended that migration choices are influenced by anticipated wage disparities; nevertheless, geographical barriers may hinder individuals from pursuing more remote, higher-paying prospects. This may sustain regional disparities and hinder economic advancement. The prevalence of short-distance migration identified in this study has significant ramifications for regional development. It indicates that migration patterns are focused within specific regions, hence strengthening the significance of adjacent urban centers. Empirical research corroborates this trend. Tacoli (1998) discovered that small and intermediate cities are pivotal in rural-

urban migration, serving as accessible destinations for migrants. Cohen and Sirkeci (2011) contend that migratory networks are frequently confined to specific regions, especially in developing nations. Adepoju (2010) emphasises that in Africa, the majority of migration transpires within national or regional confines, motivated by economic imperatives and hindered by resource limitations. The results of this study align with these observations, indicating that distance decay influences the spatial configuration of migration systems. For female migrants, these limitations may be more acute, restricting access to remote urban areas and reinforcing localised migration trends.

The gravity model offers a valuable framework, although the results of this study underscore its limits. Conventional models emphasise population size and distance; however, empirical data indicate that migration is affected by numerous factors. Fotheringham and O'Kelly (1989) contend that spatial interaction models must integrate behavioural and contextual elements to accurately represent real-world processes. Recent research similarly proposes for incorporating social networks, economic situations, and demographic factors into gravity models (Poot et al., 2016). The gendered distance decay effect identified in this study emphasises the necessity for such extensions. Incorporating gender and social variables enables researchers to create more comprehensive models that elucidate migratory dynamics more effectively. These findings robustly endorse the gravity/distance decay concept, indicating that migration volume markedly decreases with greater distance. The statistically substantial negative association ( $r = -0.423$ ,  $p < 0.05$ ) validates the continued importance of spatial interaction theory. The study underscores the significance of incorporating social and gender factors into migration analysis. The considerable distance decay effect among female migrants highlights the necessity for multidimensional models that encapsulate the intricacies of migration processes.

### Summary of Findings

According to the findings of the research, the majority of female migrant workers in Ondo West Local Government Area are of middle age (between 20 and 59 years old), married, and has a limited amount of formal education. The majority belong to medium-sized households (4–6 members) and earn moderate wages; yet, most reported enhanced living standards relative to their prior circumstances. Migration was predominantly self-directed and economically driven, influenced by poverty, unemployment, land degradation, and sociocultural pressures, whereas pull factors encompassed livelihood possibilities and the facilitation of integration into rural communities.

Spatial study indicated that most migrants came from adjacent southwestern states, notably Osun (34.09%) and Oyo (16.04%), demonstrating the influence of physical proximity. In contrast, involvement from remote northern areas was limited, hindered by socio-religious

conventions and extensive travel distances. Statistical research established a substantial negative association between distance and migration volume ( $r = -0.423$ ,  $p < 0.05$ ), hence confirming the distance decay hypothesis. The findings emphasised a gendered aspect: female migration flows were more significantly restricted by distance than the male migration patterns observed in previous studies.

### CONCLUSION

The study explores female migration patterns in Nigeria, emphasizing the strong influence of distance on mobility. Short-distance migration dominates due to economic, cultural, and social constraints, reinforcing the distance decay hypothesis. Women face disproportionate challenges from spatial barriers, which limit their access to distant, potentially better-paying opportunities. This gendered dimension of migration highlights how socioeconomic and cultural factors shape spatial interaction differently across groups. The study contributes to migration research by integrating gender into spatial interaction theory, underscoring the need for multidimensional models that account for social networks, domestic responsibilities, and economic opportunities within traditional gravity frameworks.

1. Government and development agencies should invest in areas such as rural infrastructure, healthcare, and education.
2. Migration policies must address the challenges encountered by women by offering tailored assistance.
3. Initiatives that utilize migrant networks might mitigate the expenses and dangers linked to migration, empowering women to surmount distance-related limitations and access wider opportunities.
4. Gender factors must be considered in spatial interaction models to accurately reflect the intricacies of migratory dynamics and guide inclusive development initiatives.
5. Neighbouring states should partner with Ondo State to formulate synchronized labour mobility policies that align labour supply with rural development requirements.

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