



## Women's Mobility and Activity Trends in Urban Areas of Ogun State, Nigeria

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**Abstract.** In the dynamic landscape of modern life, the movement of people and goods fuels economic progress. However, transportation disparities between genders persist globally. Recognizing distinct mobility needs and behaviours between women and men is crucial. This study delves into the travel and activity patterns specifically among women in urban centers of Ogun State, Nigeria. Employing a cross-sectional community survey design, the study sampled women from four cities in Ogun State. A total of 1,597 respondents participated, with analysis focusing on descriptive statistics. Patterns in women's travel, including trip duration, distance, purpose, and mode of transportation, were examined. Results highlighted purpose-driven travel, predominantly for work, household tasks, and religious engagements within town. Motorcycles, tricycles, and walking were common modes of transportation, influenced by factors like trip speed and purpose. Additionally, leisure and visiting friends and relatives constituted frequent out-of-town travel motives. Three distinct daily activity patterns emerged. Addressing challenges like limited access to private vehicles, inadequate infrastructure, and security concerns is vital to enhancing women's travel experiences in the region.

**Keywords:** Women's mobility, Activity patterns, Urban centres, Ogun State.

### 1. Introduction

The rhythm of modern life revolves around the movement of people and goods, essential for economic vitality. Transportation plays a pivotal role in facilitating these movements, particularly in urban settings, where telecommunication infrastructure may be limited. As Munby (1968) aptly noted, there's no escaping the significance of transportation.

Transportation encompasses the movement of people and goods within cities, serving various needs at different times and through diverse modes. Given the spatial disconnect between home and workplaces for

many individuals, travel behaviour becomes a crucial aspect of urban life and development (Oyesiku, 2002; Grzegorz, 2011; Solanke, 2014; Aderibigbe & Gumbo, 2022; McIlroy 2023). Understanding how individuals navigate their journeys—choosing modes, routes, and timings—is integral to shaping effective transportation systems.

Studies consistently show gender disparities in travel behaviours, with women often undertaking shorter, purpose-driven trips compared to men (Guiliano, 1979; Mashiri, Naude, Ralehoko, 2005; ITF, 2021; Hoy & Obiedowska, 2021; McIlroy, 2023). Yet, traditional analyses often overlook these nuances, necessitating gender-specific investigations. This study focuses exclusively on women's travel and activity patterns, recognizing their pivotal role in shaping transportation dynamics.

### 2. Research Methodology

The study centers on four urban centers in Ogun State: Ota, Abeokuta, Sagamu, and Ijebu-Ode, chosen for their commercial and transport significance. Survey data were collected between January and March 2020 from women aged 15 to 65, representing the active demographic age group. A total of 1,597 respondents were analyzed using descriptive statistics.

### 3. Results

The findings unveil distinctive travel and activity patterns among women, both within and beyond urban confines.

#### Within Town (Intraurban) Travel

Within-town travel primarily serves work, religious, household, and leisure purposes. Motorcycles and tricycles dominate for work and household errands, while walking and private vehicles are favored for religious activities and health-related trips, respectively (see table 1).

**Table 1:** Womens' travel behaviour – transportation reasons, means, regularity, duration, cost and choice (within Town)

	<b>Reasons for Travelling</b>	<b>Means of travel</b>	<b>Regularity of travel</b>	<b>Duration of travel</b>
	Work/Official (n = 1597)	Motor/tricycles (n=1339)	Six times (n=1339)	Less than 1 hour (n=1339)
Frequency	1,339	399	454	818
Percentage	84	30	34	61
	Religious (n = 1597)	Walk/cycling (n=1165)	Once (n=1165)	Less than 1 hour (n=1165)
Frequency	1165	505	511	922
Percentage	73	43	44	79
	Personal Household (n = 1597)	Motor/tricycles (n=1127)	Twice (n=1127)	Less than 1 hour (n=1127)
Frequency	1127	652	342	801
Percentage	71	58	30	71
	Leisure (n = 1597)	Motor/tricycles (n=631)	Once (n=631)	Less than 1 hour (n=631)
Frequency	631	267	439	303
Percentage	40	42	70	48
	School-Personal Children (n = 1597)	Motor/tricycles (n=592)	Five times (n=592)	Less than 1 hour (n=592)
Frequency	592	172	465	367
Percentage	37	29	79	92
	Health (n = 1597)	Private/Public Vehicles (n=631)	Once (n=303)	Less than 1 hour (n=303)
Frequency	303	100	149	157
Percentage	19	33	49	52

*Source: Author's field survey, 2020*

### Regularities of Travel

Regularities in travel vary across purposes, with work-related journeys occurring frequently throughout the week. Leisure trips and visits to friends and relatives feature prominently in out-of-town travel motivations, highlighting women's multifaceted roles and social engagements.

### Duration of Travel

Travel duration within the town for women typically spans one hour. They engage in various activities such as official purposes (61%), religious activities (79%), leisure (48%), schooling for themselves and children (62%), and health-related reasons (52%).

### Cost of Travel

Concerning transportation expenses within the town, women generally spend less than N1,000 NGN daily on any of these activities.

### Rationale for Chosen Mode of Travel

Analysis from Table 1 highlights that accessibility and speed are primary considerations leading to the predominant use of motor/tricycles for transportation within towns. Accessibility is prioritized for work/official purposes (40%), religious activities (55%), and health needs (38%), while speed is a determining factor for personal/household tasks (51%), leisure (52%), and schooling for both personal and children (46%).

### Out of Town (Interurban) Travel

#### Reasons for Travel

Table 2 illustrates that women's travel outside of town is motivated by leisure (59%), work or official duties (44%), personal/household tasks (34%), religious reasons (26%), children's schooling (24%), and health-related reasons (15%).

**Means of Travel**

Public transportation is predominantly used by women for out-of-town travel, particularly for leisure (65%), work or official purposes (60%), personal/household tasks (42%), religious purposes (32%), and children's schooling (43%). A smaller percentage (42%) opt for private vehicles, mainly for health-related travel.

**Table 2:** Womens’ travel behaviour – transportation reasons, means, regularity, duration, cost and choice (Outside Town)

	<b>Reason for Travelling</b>	<b>Means of travel</b>	<b>Regularity of travel</b>	<b>Duration of travel</b>	<b>Average cost on transportation</b>	<b>Reason for choice of transportation</b>
Frequency Percentage (%)	Leisure (n = 1597)	Private/Public Vehicles (n=944)	Once (n=944)	1 hour- 2 hours (n=944)	N1,000- N2,999 (n=944)	Available
	944 59	638 64	618 62	461 46	390 39	584 59
Frequency Percentage (%)	Work/Official (n = 1597)	Private/Public Vehicles (n=709)	Once (n=709)	1 hour- 2 hours (n=709)	N1,000- N2,999 (n=709)	Available
	709 44	428 60	203 29	332 47	222 31	377 53
Frequency Percentage (%)	Personal (n = 1597)	Private/Public Vehicles (n=541)	Once (n=541)	1 hour- 2 hours (n=541)	Less than N1,000 (n=541)	Cheap
	541 34	228 42	162 30	281 52	194 36	270 50
Frequency Percentage (%)	Religious (n = 1597)	Private/Public Vehicles (n=416)	Once (n=416)	1 hour- 2 hours (n=416)	Less than N1,000 (n=416)	Fast
	416 26	132 32	186 45	178 43	137 33	238 57
Frequency Percentage (%)	School Personal/Children (n = 1597)	Private/Public Vehicles (n=381)	Five Times (n=381)	1 hour- 2 hours (n=381)	Less than N1,000 (n=381)	Available
	381 24	163 43	171 45	196 51	111 29	192 50
Frequency Percentage (%)	Health (n = 1597)	Private/Public Vehicles (n=234)	Once (n=234)	1 hour- 2 hours (n=234)	N1,000- N2,999 (n=234)	Fast
	234 15	98 42	83 35	45 48	70 30	111 47

*Source: Author's field survey, 2020*

**Travel Patterns Analysis**

**Travel Frequency:**

Table 2 illustrates that women predominantly engage in out-of-town travel once for most activities, except for childcare or schooling purposes, which occurs five times weekly among 171 women (45%).

**Travel Duration:**

When traveling out of town (Table 2), women typically spend a maximum of two hours for all daily activities.

**Travel Costs**

Regarding transportation costs, out-of-town travel for leisure (39%), work (31%), or health reasons (30%) typically costs at most 3,000 NGN. It's notable that recent removal of fuel subsidies has increased transportation costs for all travelers.

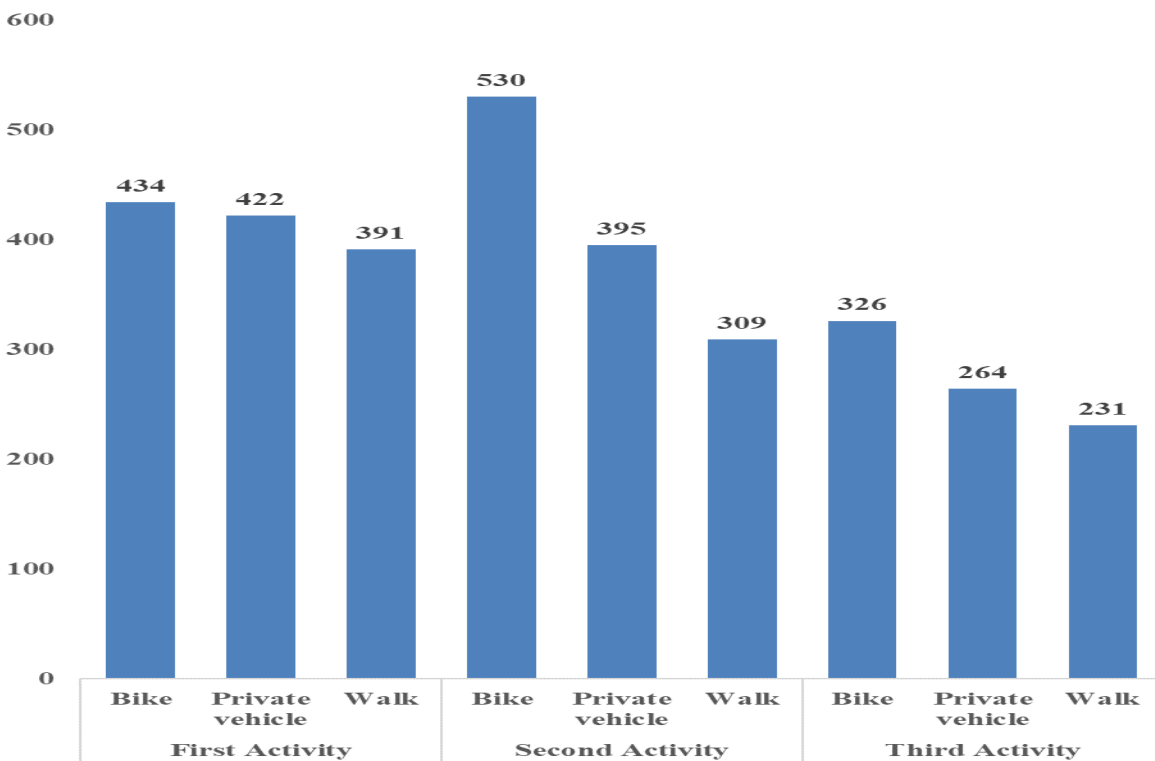
**Transportation Selection**

Table 2 demonstrates that availability influences transport choices for leisure (59%) and personal/children schooling (50%), while speed is prioritized for religious (57%) and health (47%) purposes. Affordability drives choices for personal/household reasons (50%) outside of town.

**Women's Daily Activity and Transportation Modes**

To outline women's daily activity patterns and transportation preferences, the data highlights prevalent daily activities and transportation modes. Initially, a significant portion of women commutes to their workplace or official duties (40%), followed by visits to 'other places' (27%), which denote flexible movements based on daily demands. Additionally, some attend to childcare or personal schooling needs (17%). Subsequently, activities include returning home (26%), market visits (21%), and work or official errands (17%). Lastly, women may return home (19%), visit the market (13%), or attend religious meetings (12%).

Regarding transportation modes, Figure 1 indicates that bikes are predominantly used for the top three daily activities, followed by private vehicles, with walking being the least utilized means



*Figure 1: Types of transportation used for daily activities*

#### 4. Discussion of Findings and Conclusion

The study reveals significant insights into women's travel patterns within towns, emphasizing various purposes such as official engagements (61%), religious activities (79%), personal/household tasks (71%), leisure (48%), schooling for both personal and children's needs (62%), and health-related reasons (52%). Despite the diverse purposes, trips within town typically last for about an hour, indicating a focus on short-distance travels. Transport costs within the town were found to be relatively low. This gendered aspect of daily mobility is evident from the analysis of trip duration, distance, purpose, and mode of transport. Most women opt for purposeful, short-term trips using motorcycles, private/public vehicles, or walking, with the latter contributing positively to physical activity and public health (Rahul, Oyinlola, Louise, Lambed, Christopher & James, 2022). However, concerns about safety, including kidnapping and harassment, deter many women from walking, highlighting the need for safer environments. Gender disparities in access to private vehicles, poor infrastructure, and security issues pose challenges to women's travel patterns in cities across Ogun State. Many women rely on public transportation or motorcycles due to limited private vehicle ownership and inadequate road networks, particularly in cities like Abeokuta, Sagamu, Ijebu-Ode, and Ota. This finding supports the views held by Olaniyi (2020); Mulli & Yakubu, (2019) that motorcycle operation on mobility of residential plays a crucial role in urban development.

The study also explores women's travel patterns beyond town limits, revealing a shift in purposes and means of transportation. Leisure emerges as a prominent reason for travel outside the town, along with visits to friends and relatives. The bond between women and children plays a significant role in travel decisions, with many prioritizing their children's needs. This contrasts with men, who often prioritize work obligations. Women tend to enjoy leisure activities, contributing to their overall life expectancy. Moreover, women prefer travelling outside the town when the speed and safety conditions align with global best practices, resulting in fewer road accidents among female drivers. This is in tune with the submission of Goel *et al* (2021) on the fact that women enjoy travelling outside the town when the speed is reasonable.

However, challenges persist, as women share experiences of poor infrastructure, safety concerns, and conflicts with drivers due to reckless behavior. These issues underscore the importance of addressing access to private vehicles, infrastructure deficiencies,

and security concerns to improve women's travel experiences and activity patterns. Government intervention is crucial in addressing these tri-issues and fostering safer and more accessible transportation systems for women in urban areas.

Understanding women's travel behaviours is essential for crafting inclusive transportation policies and infrastructure. By acknowledging their diverse needs and preferences, policymakers can foster safer, more accessible, and efficient transportation systems, ultimately contributing to broader societal well-being and economic prosperity.

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