

# Transport and mobility decisions of consumers with disabilities

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## Abstract

People with disabilities are the world's largest minority stakeholder group, and they continue to face significant challenges in every aspect of their lives. This study explored the transport and mobility decisions of consumers with disabilities (CWDs) in the context of Nigeria, one of the world's largest developing countries, using the conservation of resources theory and the intersection of travel decisions, disability and country context regarding consumer behaviour. A total of 32 individuals with varying disabilities were interviewed. A thematic analysis of qualitative data revealed that CWDs make travel decisions based on their ability, as well as the availability, accessibility, affordability and reliability of different modes of transport. This study presents a conceptual framework illustrating the transport and mobility decisions of CWDs and highlights practical implications for various stakeholders.

## 1 | INTRODUCTION

Transportation is an essential human activity; it opens opportunities for work, education and engagement in social activities (Farinloye et al., 2019). However, there is a lack of theoretical insights into the impact of disability on consumers' transport and mobility decisions. Mogaji and Nguyen (2021) noted researchers' and practitioners' neglect concerning the transport and mobility decisions of consumers with disabilities (CWDs), which has hindered the acquisition of theoretical and practical knowledge about this consumer group. Transport and mobility decisions of CWDs are based not only on choosing a mode of transportation but also deciding whether to go out at all (Echeverri & Salomonson, 2019). According to Andrews et al. (2018), while many people take moving from one place to another for granted, this is not the case for many CWDs, whose travel experiences are being disrupted because of inequitable access to transportation. Many of them cannot take advantage of the numerous benefits of travelling and using various modes of transportation independently.

Individuals' travel decisions might be influenced by features in their built environment (Farinloye et al., 2019). Efforts in providing equitable access to transportation by many developed countries and the global community have been recognised. For example, Sustainable Development Goal 11 promises access to safe, affordable, accessible

and sustainable transport systems for all; the United States Americans with Disabilities Act ensures access for disabled people; and the United Kingdom's Inclusive Transport Strategy indicates that the government will ensure that people with disabilities (PWDs) have the same access to transportation as everyone else and are able to travel confidently, easily and without extra costs (Transport for London, 2018). However, previous studies have often focused on the immediate needs and rarely considered PWDs as CWDs who can decide, explore options and request good customer service when engaging with their transport service providers.

Often, the focus has been on students and children with disabilities as they navigate their way to schools through approved and regulated transport service providers (Lindsay, 2020; Lindsay & Lamptey, 2019; Ross et al., 2020), and few studies have attempted to gain a wider understanding of consumers who are presented with a variety of choices in an unregulated market. Moreover, although Dunnett et al. (2016) highlighted the need to understand how CWDs explore various marketplaces and service interactions, the business management insights of CWDs are few. With the exception of Echeverri and Salomonson (2019), who explored the mobility choices of vulnerable consumers in southwest Sweden, research on CWDs has been conducted through the lens of transportation and disability studies. More importantly, previous studies on the experiences of CWDs

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have been contextualised in developed countries with considerable equitable access to transportation, whereas the social model of disabilities (Oliver, 2013; Shakespeare, 2006) in many developing countries where an individual is disabled due to the disabling barriers they face in society has rarely been explored. Therefore, it is imperative to identify the inherent challenges with transportation infrastructures in many parts of the developing world. Even though 1 billion people worldwide have some form of disability, accounting for around 15% of the global population, most PWDs live in developing countries (World Bank, 2020).

Despite having the largest share of PWDs, only a few studies, such as those conducted by Page and Assa (2017) and Mogaji and Nguyen (2021), have explored the public transportation decisions of PWDs in a developing country. Consequently, there is a lack of insight into the experiences of CWDs, as transport services consumers in many developing countries still struggle with insufficient transport infrastructures (Kett et al., 2020; Mogaji, 2020). This study, therefore, aims to fill this gap and contribute to much-needed insights. It aims to gain an understanding of the transport and mobility decisions of CWDs by investigating their levels of involvement, as well as the functional and symbolic motivational factors affecting their mobility decisions. To achieve these objectives, we collected and analysed qualitative data from CWDs, using the conservation of resources (COR) theory (Hobfoll et al., 2018) as the theoretical framework for exploring their transport and mobility decisions.

The COR theory is a stress theory that explains the motivation that drives individuals to pursue new resources while maintaining current resources (Arachchige et al., 2022). It is considered suitable for gaining an understanding of how CWDs navigate the transport service features and their personal characteristics (Dunnett et al., 2016; Echeverri & Salomonson, 2019). Therefore, the COR theory is well-suited for studying the behaviours of CWDs, as they recognise their limited resources, especially in developing countries, and are motivated to conserve these resources to meet their transport needs.

This study contributes significantly to the theoretical understanding of consumer behaviour and transport services. First, it identifies the behaviours of CWDs to gain an understanding of their transport and mobility decisions, highlighting how their limited resources, level of disability and other demographic factors influence their mobility choices. These insights expand on existing knowledge about these consumer groups (Dunnett et al., 2016; Echeverri & Salomonson, 2019) and have practical implications for addressing their service needs. Second, this study provides insights from consumers in developing countries, moving beyond Western, educated, industrialised, rich and democratic (WEIRD) societies (e.g., Echeverri & Salomonson, 2019; Eskyté, 2019; Smith et al., 2021) and deepening our understanding of these consumers' unique infrastructural characteristics and challenges in shaping mobility decisions. Third, it applies the COR theory to consumer behaviour, beyond the traumatic stress strands of research (Arachchige et al., 2022; Hobfoll et al., 2018), particularly for CWDs who are trying to conserve their limited resources and need to make informed decisions about their transport and mobility needs. In addition, it offers managerial implications for policymakers, transport operators, prospective investors and

social enterprise start-ups interested in meeting the transport needs of these marginalised consumers.

## 2 | LITERATURE REVIEW

### 2.1 | Transport consumer behaviour

The usage of public transportation has reduced dramatically over the years in many parts of the world owing to the growing number of people who have their own vehicle and prefer to travel in it (Cox, 2010). Many countries are concerned about this because of the long-term consequences, such as air pollution, traffic congestion, noise pollution and fuel shortage (Mogaji et al., 2022; Sumaedi et al., 2012). To encourage individuals to shift from private to public transportation, it is imperative to study the behaviour of both public and private transport users and develop appropriate plans and strategies to persuade private vehicle users to switch to public transport (Lai & Chen, 2011).

When providing services, businesses, including public transportation firms, prioritise offering excellent quality of service and experience to their customers so that they will return in the future (Jin et al., 2019; Moslem & Çelikkilek, 2020). An extensive amount of research has been conducted on the impact of delivering good-quality service to consumers, and the findings indicate that providing quality services has a positive effect on consumers' future purchase intentions (Clemes et al., 2008; Mogaji et al., 2021; Soetan et al., 2021). Therefore, to retain their regular clients and attract new consumers to their businesses, public transportation supervisors should prioritise customer satisfaction (Wen et al., 2005). Constantly evaluating and refining their services with the government's aid has a significant positive impact on the advancement of their transportation businesses (Mogaji & Nguyen, 2021; Sumaedi et al., 2012).

Several researchers have reported that current service quality may fall short of perceived consumer quality standards (De Oña, 2020; Mogaji et al., 2021; Mugion et al., 2018). Therefore, various scholars have proposed that service quality be measured based on consumers' perceptions, as meeting their expectations is crucial to retaining them (Erkan, 2019; Gökerik et al., 2018; Soetan et al., 2021). Furthermore, Erkan (2019) suggested that a company can deliver excellent service to its consumers based on their standards yet still fail to impress the consumers or meet their expectations. Therefore, to retain existing consumers and encourage people to switch from private to public transport, policymakers and transportation firm supervisors must implement appropriate measures to ensure that the quality of service provided is consistent with consumers' perceived service quality (Clemes et al., 2008).

### 2.2 | Consumer disability

The World Health Organization (WHO) defines disability as any physical or mental condition that makes it more difficult for individuals to

perform certain activities (activity limitation) or interact with the world around them (participation restrictions). CWDs have limited access to society; some have a physical disability and cannot move parts of their bodies, whereas others have an intellectual disability that prevents them from performing most everyday activities (Park & Chowdhury, 2018). Therefore, the availability and convenience of public transportation play a significant role in their lives. Accessibility to public transportation is beneficial, allowing them to move freely and interact with others as they commute, which can uplift their mood (United Nations, 2007).

WHO (2020) reported that over 1 billion people in the world live with some form of disability due to demographic trends and increases in chronic health conditions. As the number of PWDs has increased over the years and individuals who do not have a disability have grown accustomed to their presence in society, they are increasingly being viewed and identified as consumers exploring various marketplaces and service interactions (Dunnett et al., 2016; Echeverri & Salomonson, 2019). PWDs are also being portrayed positively in the media since television shows, films and advertisements have started to present them as regular human beings. According to Burnett and Baker (2001), there is less stigma attached to them; therefore, people have started to change their attitudes and accept them as equal members of society. Nevertheless, most people have a long way to go in becoming familiar with them and recognising them as equal members of society (Burnett & Baker, 2001).

According to Yau et al. (2004), among all industries, tourism is one in which PWDs have not received numerous benefits, as complete physical and mental well-being is often required to participate in such activities. However, it has been predicted that the number of PWDs will increase continuously over time due to disabilities acquired during one's life as a result of accident or illness, as well as the rapidly ageing population (Chang & Chen, 2012). Consequently, PWDs have recently been recognised as potential consumers (Yau et al. (2004)). Chang and Chen (2012), however, claimed that the facilities provided to PWDs by airlines and other modes of transportation are inadequate to fulfil their special requirements. Issues such as the inability to travel with ease, long queues, and the lack of adapted toilets and onboard wheelchairs may deter PWDs from travelling (Chang & Chen, 2012; Daniels et al., 2005).

### 2.3 | The theoretical framework

The COR theory (Hobfoll et al., 2016; Hobfoll et al., 2018) was adopted as the theoretical underpinning for this study to gain an understanding of how CWDs conserve their limited resources to evaluate their transport and mobility decisions. The COR theory is a stress theory that describes the motivation that leads people to seek new resources while conserving their current ones (Hobfoll et al., 2018). According to the COR theory, stress does not emanate from the individuals' appraisal of events; instead, it is based on the central social, environmental and cultural demands on people to obtain and protect the circumstances that enhance their well-being and to distance

themselves from threats to it (Hobfoll et al., 2018). Therefore, stress arises from the difficulties in achieving the common goals that enable members of a society to thrive. In this study, we recognise that certain consumers' disabilities present a form of difficulty and a limit to their resources in accessing different modes of transportation (Mogaji & Nguyen, 2021).

Resources include objects, conditions, personal attributes or energies of value to an individual that enable them to access other valuable possessions (Holmgren et al., 2017). The fundamental concept of the COR theory is that people strive to build, protect and retain resources; any threat to the individual is a potential or actual loss of valuable resources. Disability presents that threat and expects the individual to explore alternative options (Mogaji & Nguyen, 2021). The COR theory is centred on resources, the loss of which culminates in stress. According to one of its principles, "resource loss is disproportionately more salient than resource gain" in both the degree and speed of impact (Hobfoll et al., 2016, p. 117). This principle implies that the loss of a certain resource causes more stress than its corresponding gain. According to this theory, tension mainly stems from the loss and threat of loss of resources (Holmgren et al., 2017). The theory also states that individuals must invest resources to safeguard against and recover from resource depletion, as well as acquire additional assets (Hobfoll et al., 2018). This principle describes how the complex relationships between resource gain, loss and distress influence various health behaviours.

The basic tenet of the COR theory states that PWDs are motivated to use transportation as a means to help them protect their current resources and acquire new ones (Hobfoll et al., 2018). They use transportation to perform income-generating activities such as getting to work and performing other duties, which allows them to gain more financial resources. Based on the theory, PWDs are pressured to use transportation because of the central environmental, social and cultural demands on individuals to enhance and avert threats to their well-being (Hobfoll, 2001). In this case, the main threat to PWDs' well-being is a lack of sufficient financial assets, the existence of which would enable them to conserve their existing resources and seek more resources. The environmental, social and cultural contexts also require individuals to engage in suitable income-generating activities for survival.

Beyond the medical model of disability, which has been the predominant perspective on disability for centuries, where disability is perceived as an individualistic medical problem and impediments are contextualised within the person (Bunbury, 2020; McMillan et al., 2020), the theoretical positioning of this study recognises the social model of disability (Oliver, 2013; Shakespeare, 2006), especially in developing countries with limited infrastructures to enhance the well-being of the consumers (Mogaji & Nguyen, 2021). CWDs are disabled due to the disabling barriers they face in society and a lack of support, further highlighting the need for the society to recognise that transportation provides a vital link for them to participate in daily activities that enhance their social welfare. They are also influenced by the COR theory's second principle, which is that they must invest resources to protect themselves against losses, recover from losses and gain resources (Halbesleben et al., 2014). Thus, transportation serves as a means that enables them to conserve their existing resources.

### 3 | METHODOLOGY

#### 3.1 | Interpretivist, qualitative research

Interpretivist, qualitative research (Bell et al., 2018) involving CWDs in Nigeria was conducted to gain an understanding of their transport and mobility decisions. This approach has been deemed appropriate for gaining an in-depth understanding of the lived experiences of CWDs beyond just a numerical and quantitative measure (Farinloye et al., 2019). It also recognises the various interactions and intersections of the person, the disability and the decision-making processes (Echeverri & Salomonson, 2019). This method allows for open and detailed answers to be obtained from participants as they share their experiences (Baker et al., 2015). Notably, this approach was adopted by Echeverri and Salomonson (2019), who explored the mobility choices of vulnerable consumers in southwest Sweden, as well as in an Mogaji and Nguyen (2021), which was part of a larger study that investigated the travel satisfaction of CWDs in Nigeria.

#### 3.2 | The developing country context

Contextualising this study in Nigeria is significant for many reasons. First, it is one of the largest developing countries and emerging global economies (Sharma et al., 2020; Soetan et al., 2021), has an estimated 200 million inhabitants – accounting for about 20% of Africa's population (Hinson et al., 2021), and has inherent challenges regarding transport infrastructure (Mogaji et al., 2021), socio-economic context (Soetan et al., 2021), technological limitations (Abdulquadri et al., 2021) and dissatisfied CWDs (Mogaji & Nguyen, 2021). Second, according to WHO, about 29 million of Nigeria's 195 million total population were living with a disability in 2018 (World Bank, 2020). The number of PWDs in Nigeria exceeds that of many other countries' whole populations. Third, given its size, position and influence within developing countries, Nigeria serves as a template for many other developing countries, as they often share similar challenges, such as a growing population, insufficient infrastructure and limited financial resources (Mogaji, 2020). These unique features make it an ideal context for theoretically exploring the transport and mobility decisions of CWDs.

#### 3.3 | Sampling and participant recruitment

Participants were recruited through a non-governmental organisation (NGO) in Nigeria that is heavily involved in advocating for and supporting PWDs. The invitation was sent out by email, social media and personal contact. Interested participants were asked to contact the NGO to register. Participants were chosen based on the following criteria: they were aged 18 or over, had a form of physical disability, and could travel using different means of transportation (Mogaji & Nguyen, 2021). This study used the same demographics as Mogaji and Nguyen (2021): 32 participants. Their ages ranged from 18 to over 60, with males (59.4%,  $n = 19$ ) outnumbering females (40.6%,  $n = 13$ ). Most participants had mobility impairments/physical disabilities (59.4%,  $n = 19$ ). This group was followed

by those with vision disabilities (25%,  $n = 8$ ) and those with hearing disabilities (15.6%,  $n = 5$ ). Most of the participants were employed (40.6%,  $n = 13$ ), whereas some were self-employed (28.1%,  $n = 9$ ) or unemployed (25%,  $n = 8$ ), and a couple (6.25%,  $n = 2$ ) were university students. Moreover, most of them lived in an urban region (53.2%,  $n = 17$ ), while some resided in a diverse area ( $n = 9$ ; 28.1%), and only six (18.7%) lived in a rural area. Table 1 presents the participants' full details.

#### 3.4 | Data collection

To collect the primary data, semi-structured interviews were conducted in person between October 2020 and February 2021 using an interview guide (see Appendix for interview protocol and interview guide). The questions were based on the COR theory, which was employed as the framework for identifying the factors influencing the transport and mobility decisions of CWDs. The questions were also based on the COR theory's four key constructs, which postulate that individuals are motivated to acquire and conserve resources while minimising their loss (Hobfoll et al., 2018). The questions centred on the four key constructs of resources as they pertain to CWDs:

1. Objects: Access to different modes of transportation;
2. Condition: The level and complexity of disability;
3. Personal characteristics: Gender, residential location, level of education and work experience; and
4. Energies: Level of awareness and knowledge of accessible means and alternative modes of transportation.

The open-ended questions aimed to qualitatively explore the consumers' challenges, decision-making processes and cognitive judgements. A coded serial number was used to distinguish each participant, removing all identifiable information such as age, place of employment and residence.

#### 3.5 | Data analysis

This study's first author analysed the qualitative data progressively on NVivo, a qualitative analysis software tool, using Braun and Clarke's (2006) six phases of thematic analysis, as illustrated in Figure 1. The analysis yielded themes that describe consumer transport and mobility decisions, which were subsequently collated and assigned to a relevant overarching theme. Table 2 summarises the 77 initial codes (derived from the third phase of thematic analysis) that were later sorted into 19 sub-themes (derived from the fourth phase of thematic analysis) and finally into five main themes addressing the research objectives (derived from the fifth phase of thematic analysis).

#### 3.6 | Credibility and authenticity

As described in Mogaji and Nguyen (2021), considerable effort was made to ensure this study's credibility and authenticity. On

**TABLE 1** Demographics of participants.

Participant code <sup>a</sup>	Gender	Age	Disability	Education	Employment	Residential location
M/24/MP/SS/ST/U	Male	18–24	Mobility/physical	Secondary school	Student	Urban
M/29/MP/BD/EM/U	Male	25–29	Mobility/physical	Bachelor's degree	Employed	Urban
M/34/V/PS/EM/M	Male	30–34	Vision	Primary school	Employed	Mixed
M/39/HR/PS/EM/U	Male	35–39	Hearing	Primary school	Employed	Urban
M/44/HR/BD/EM/R	Male	40–44	Hearing	Bachelor's degree	Employed	Rural
M/49/HR/BD/EM/U	Male	45–49	Hearing	Bachelor's degree	Employed	Urban
M/54/MP/MS/EM/U	Male	50–54	Mobility/physical	Masters	Employed	Urban
M/59/MP/MS/EM/U	Male	55–59	Mobility/physical	Masters	Employed	Urban
M/60/MP/MS/SE/M	Male	60+	Mobility/physical	Masters	Self employed	Mixed
M/24/MP/SS/SE/R	Male	18–24	Mobility/physical	Secondary school	Self employed	Rural
M/29/V/SS/UE/M	Male	25–29	Vision	Secondary school	Unemployed	Mixed
M/34/V/SS/EM/U	Male	30–34	Vision	Secondary school	Employed	Urban
M/29/V/SS/SE/U	Male	25–29	Vision	Secondary school	Self employed	Urban
M/34/MP/BD/UE/R	Male	30–34	Mobility/physical	Bachelor's degree	Unemployed	Rural
M/29/MP/PS/UE/M	Male	25–29	Mobility/physical	Primary school	Unemployed	Mixed
M/24/V/BD/UE/U	Male	18–24	Vision	Bachelor's degree	Unemployed	Urban
M/24/MP/BD/SE/M	Male	18–24	Mobility/physical	Bachelor's degree	Self employed	Mixed
M/24/V/MS/EM/R	Male	18–24	Vision	Masters	Employed	Rural
M/24/MP/SS/ST/U	Male	18–24	Mobility/physical	Secondary school	Student	Urban
F/24/MP/BD/EM/U	Female	18–24	Mobility/physical	Bachelor's degree	Employed	Urban
F/29/MP/BD/SE/R	Female	25–29	Mobility/physical	Bachelor's degree	Self employed	Rural
F/34/MP/BD/SE/U	Female	30–34	Mobility/physical	Bachelor's degree	Self employed	Urban
F/29/MP/BD/UE/U	Female	25–29	Mobility/physical	Bachelor's degree	Unemployed	Urban
F/34/MP/PS/EM/M	Female	30–34	Mobility/physical	Primary school	Employed	Mixed
F/44/MP/BD/SE/U	Female	40–44	Mobility/physical	Bachelor's degree	Self employed	Urban
F/49/MP/BD/UE/U	Female	45–49	Mobility/physical	Bachelor's degree	Unemployed	Urban
F/54/MP/MS/UE/U	Female	50–54	Mobility/physical	Masters	Unemployed	Urban
F/54/MP/MS/EM/U	Female	50–54	Mobility/physical	Masters	Employed	Urban
F/59/HR/PS/SE/M	Female	55–59	Hearing	Primary school	Self employed	Mixed
F/60/V/BD/UE/M	Female	60+	Vision	Bachelor's degree	Unemployed	Mixed
F/39/V/PS/SE/R	Female	35–39	Vision	Primary school	Self employed	Rural
F/39/HR/PS/EM/M	Female	35–39	Hearing	Primary school	Employed	Mixed

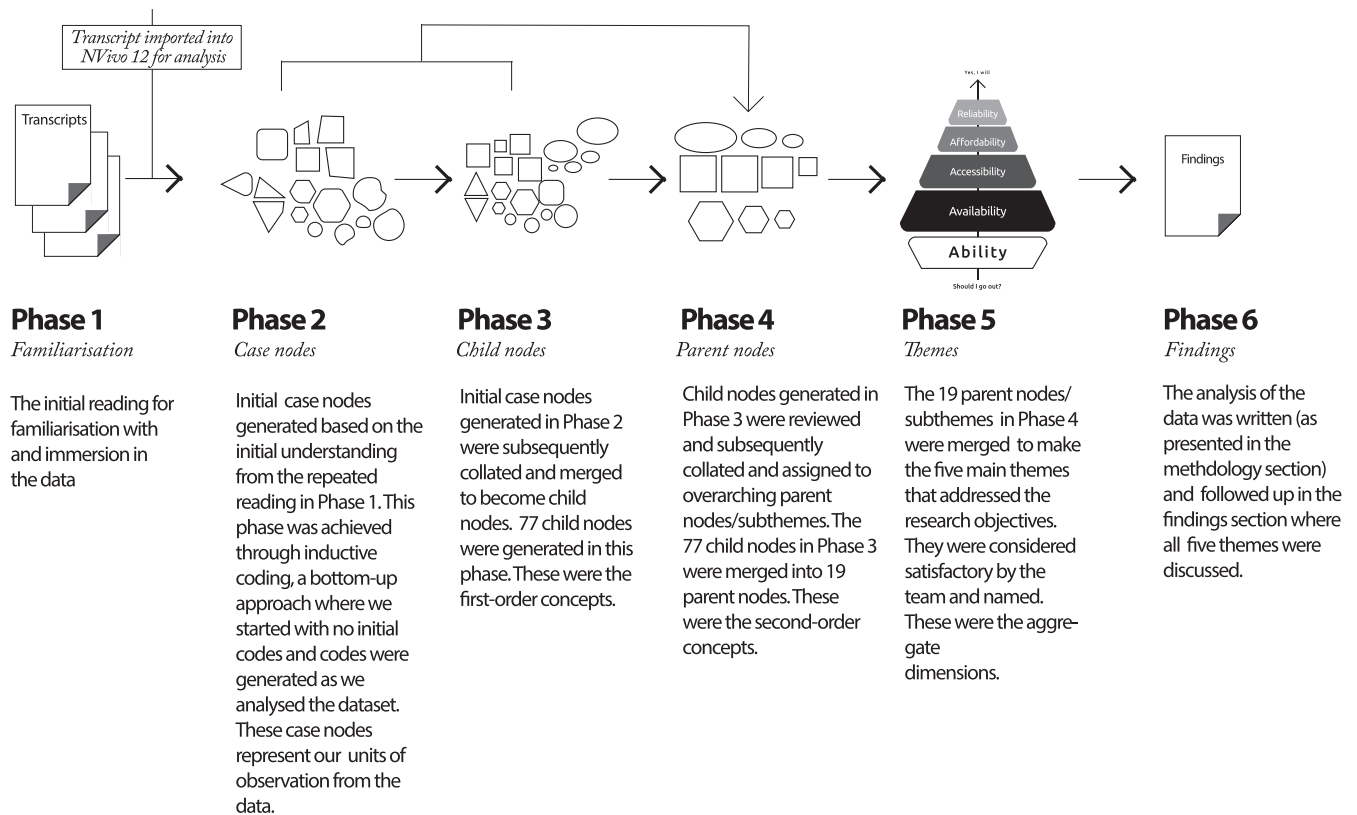
<sup>a</sup>The participants code is generated through combination of the personal characteristics - Gender: (F, female; M, male); Age: (highest age on bracket); Disability: (HR, hearing; MP, mobility/physical; V, vision); Education: (PS, primary school; SS, secondary school; BD, bachelor's degree; MS, master's degree); Employment: (EM, employed; SE, self-employed; UE, unemployed; SS, students) and Residential Location: (M, mixed; U, urban; R, rural).

15 September 2020, the third author's University Ethics Committee granted ethical approval for this research (decision no: 906/QD-DHKY-QLKHHTQT). All ethical considerations were implemented (see Mogaji and Nguyen, 2021). After obtaining informed consent, data were collected from participants and stored in a secure location where no unauthorised person had access. The participants' identifying details were separated from the data, which was published in an anonymised form. We ensured that the data collection process did not harm or distress any individual. There was also a member check (Merriam & Tisdell, 2015), which involved sharing the transcribed data with participants to confirm that their responses were documented

accurately. Furthermore, the team and partners performed rigorous peer debriefing, check-coding and constant data comparison (Miles et al., 2013), providing a detailed account of the methods, procedures and decision points as this study was conducted (Shenton, 2004).

## 4 | FINDINGS

Thematic analysis of qualitative data on transport and mobility decisions of CWDs identified five themes that affect their decision-making process: ability, availability, accessibility, affordability and



**FIGURE 1** Data analysis stages. Adapted from Braun and Clarke's (2006), Badejo et al. (2021) and Kaur et al. (2022)

reliability. These themes will be discussed in this section. Selected quotes will also be used to support these themes.

#### 4.1 | Ability

The study recognises that each participant's disability varies. In deciding which travel mode to use, participants often consider whether they can operate it based on their level of disability. This decision is primarily about their independence and control. Participants indicated that their disability had not prevented them from using modes of transport that enhance their freedom. This ability evaluation could mean owning a car or cycling within the neighbourhood.

One participant shared his experience of how having a custom-built car allowed him to use his wheelchair in it:

"I needed to transport myself around without the struggle of this public transport, and I looked around to see if I could get a custom-built car. I was introduced to a local engineer who did a very good job; he seemed to know what I wanted. It's like a minivan, in which I ride on my wheelchair from the back, and I can control the steering wheel with my hands as I drive. People who see me through the window may not even know I am in a wheelchair". (M/59/MP/MS/EM/U)

A participant who is deaf and who can cycle shared her experience of riding her bicycle around her neighbourhood:

"My disability has not stopped me from cycling to the shop, and I don't need to wait for anybody to come and support me outside. I only struggle when I go on public transport, but I feel safe using my bicycle; I am independent in this area. People will often be surprised when they see me cycling, but you need to know that my ear doesn't affect my leg; although I get some imbalance when I cycle, I can manage myself". (F/39/HR/PS/EM/M)

Many CWDs, particularly those with physical disabilities, must consider their mode of transportation. Participants shared their experiences with motorised (automatic car) and non-motorised (walking) modes of transport:

"I had an accident, and that's why I cannot walk again. I used to drive manual cars before; I have the skills and enough ability to drive an automatic car, and that's what I have now. I can get to my car and drive it; it's easier, and I still have my independence". (M/59/MP/MS/EM/U)

"Walking is a form of transportation, and I use it often; it is free and offers a form of independence. I am aware of my environment, and I walk with my cane. I know my boundaries, but I am very safe". (M/34/VS/SS/EM/U)



**TABLE 2** Summary of key themes.

Sl. No.	Initial codes	Sub-themes	Main themes
1.	Able to use lower limb to drive automatic car	Level of their disability	Ability
2.	Able to use lower limb to cycle		
3.	Ability to navigate the environment	Skills for independency	
4.	Ability to converse and engage to find way		
5.	Ability to explore different transport mode		
6.	Existing knowledge before transition		
7.	Being able to drive before accident		
8.	Ability to cycle even with disability	Financial ability	
9.	Ability to walk even with disability		
10.	Custom-built car		
11.	Access to manual or automatic car		
12.	Access to manual or electric wheelchair		
13.	Ability to maintain equipment		
14.	Easy access to transport mode	Options of other means of transportation	Availability
15.	Availability of self-service operators		
16.	Availability of bus stops		
17.	Awareness about immediate environment	Residential location	
18.	Awareness about routes		
19.	Availability of transport to work	Huge reliance on road transportation	
20.	Shared mobility on road (e.g., Uber)		
21.	Public transport on roads		
22.	Limited access to train		
23.	Limited access to ferry		
24.	Can be easy to book		
25.	Easy access to transport		
26.	Drivers' reluctance		
27.	Entering buses in a rush	Ease of access	Accessibility
28.	Being rushed		
29.	Lack of patience from other customers	Level of disability	
30.	Missing their stops		
31.	Blind people needing cues		
32.	Audio-visual announcements for deaf and dumb commuters.		
33.	Ramp and entrance doors for wheelchair users		
34.	Inadequate doors and entrance		
35.	No ramp to access trains/platform		
36.	Ticket barriers on buses		
37.	Unsuitable mode like Tricycles		
38.	Custom built cars		
39.	Accessible ramp	Design of the mode of transportation	
40.	Way finders		
41.	the layout		
42.	Information about the site		
43.	Parking spaces for disabled drivers		
44.	Need a chauffeur		
45.	Not struggling to move around		
44.	Need a chauffeur	Comfort	Affordability
45.	Not struggling to move around		

(Continues)

TABLE 2 (Continued)

Sl. No.	Initial codes	Sub-themes	Main themes
46.	Paying for quality service		
47.	Pay an additional cost for being disabled	Cost implication	
48.	Drivers' reluctance unless commuters pay extra		
49.	Custom-built cars		
50.	Last mile travel		
51.	Reluctance in going out		
52.	Paying more for available mode	Convenience	
53.	May choose to walk, not minding the risk		
54.	Using motorcycle while others walk last mile		
55.	Falls	Health and safety because they cannot afford travel mode	
56.	Attack		
57.	Abuse		
58.	May not be guaranteed	Reliable transport services	Reliability
59.	Inherent challenges with transport infrastructures,		
60.	Poorly designed built environment		
61.	Unreliable drivers and operators	Operators' poor service	
62.	Delayed services		
63.	Ignores disabled commuters' request		
64.	Operates irregular services		
65.	Need for timely service delivery		
66.	Need more women as transport operators		
67.	scheduled time of departure and arrival	Structured service provision	
68.	Designated time		
69.	Notifying family and friends of pickup time		
70.	Planning with reliable transport operators for safety		
71.	Planning with reliable transport operators for timely arrival		
72.	Aware of their vulnerability	Security concerns	
73.	Seeking transport operators that are reliable and can guarantee their safety		
74.	Custom-built care		
75.	Using the train		
76.	Using known operator		
77.	Deciding on right time to travel		

These findings illustrate the varying degrees of ability of the CWDs, particularly those with non-physical forms of disability, for example, those with neurodivergence or autism, as this also limits their independence and control.

## 4.2 | Availability

Those who cannot afford a custom-built car (a custom-designed or bespoke car adapted to the customer's specific needs, for example, hand pedals besides the gear or elevated seats) or use non-motorised modes of transportation rely on the availability of other means of

transport, especially public transport. Participants had to ensure that they had transport services around their residences and workplaces. This research found that CWDs' transport and mobility decisions were based on readily available modes. Their immediate residential area (last-mile journey) and outward journey plan influenced this availability. For example, many CWDs noted that getting to the bus stop was difficult but their subsequent journey was more manageable:

"I struggle to get to the bus stop from my house. I use the wheelchair, and getting to the bus stop is not easy. The roads in my area are not good (poor physical infrastructure; potholes in roads, untarred roads or flooded



motorways make movement risky and exacerbate the risk of injury), and it's not easy using my wheelchair, but once I get to the bus stop, it's easier to get to work". (F/49/MP/BD/UE/U)

In addition to the availability of modes of transport at the designated stop, consumers shared their concerns about relying solely on road transportation. Most noted that the choices were limited since they can only use available road transportation:

"Why can't I use the ferry to work? Why can't I travel on the train to the north? We all rely on public transportation, which is congested; other forms of transport are not available, and we have to choose what we have". (F/44/MP/BD/SE/U)

"I am blind and I have to rely on buses, which are the only ones available for me. I would like to use a train that I know has a designated time to leave; I could plan for myself and feel safer. I might have to change my job or move house to benefit from other available modes of transportation". (M/24/VS/MS/EM/R)

Even those who want to share transportation to make their travel easier often have problems with drivers failing to pick them up. Some participants gave their thoughts on shared-mobility drivers and ride availability:

"You request these rides, and the driver starts complaining about the stress you are causing them. It's a struggle to help you put your wheelchair away; they can be very rude, and I noticed that some people have started cancelling my request. These Ubers are no longer available". (F/34/MP/BD/SE/U)

"I requested a ride on my phone, and I tried to describe where I was, but this driver actually cancelled my trip, saying he couldn't locate me. At least if I were visible, I would have stopped him myself. These little things can disrupt your whole day". (F/39/VS/PS/SE/R)

### 4.3 | Accessibility

Accessibility refers to the ease of accessing and commuting in a mode of transport. Accessibility features include entrance doors for wheelchairs, tactile features for those who are blind, and audio-visual announcements for commuters who are deaf and blind. Participants revealed their frustration at being unable to access available modes of transport. They referred to their difficulties getting on buses, missing stops and being unfairly treated:

"These public transports are not accessible for disabled commuters. I struggle to use them with my wheelchair; it's not convenient at all, and these operators have not invested much in making them accessible. I guess they see no value in doing that". (F/44/MP/BD/SE/U)

"Accessibility is also about making you feel safe and secure on the bus, and you don't want to miss your stop because someone [the conductor] has ignored your bus stop request; you don't want to be ignored because people just can't be bothered." (F/39/HR/PS/EM/M)

Accessibility includes not only the mode of transportation but also all other connecting points of the journey. The lack of accessibility could be due to the absence of a ramp or a lack of signage and information about the site. One participant, who had a custom-built car, shared his experience:

"I remember changing the meeting venue because there was no accessible entrance. Even though I came in my car, I felt it would be difficult to access this place, so my travel decisions are also influenced by how accessible the building is". (M/59/MP/MS/EM/U)

A participant who is visually impaired expressed her concerns about attending an event with a poor layout:

"I don't feel comfortable travelling to some places. I was invited to a networking event, and I just could not find my way; it was a very odd place to navigate. I just couldn't continue, and I had to go back home. There are some places that are not accessible and difficult to navigate for people who are visually impaired like me". (F/60/VS/BD/UE/M)

Feelings of frustration surface and may impede social life, as flexible seating arrangements on various modes of transport are not readily available. Accessibility problems are present not only in transportation to a venue but also in public spaces, as there are limited accessible toilets, changing facilities and lifts that make it easy to navigate public areas.

### 4.4 | Affordability

Everyone wants to be comfortable while navigating a place. Many participants shared that they would prefer a chauffeur or a dedicated tour guide to accompany them from their home to their destination if affordability was not an issue. They expressed their concerns about the financial implications of their transport and mobility decisions. They also noted that they pay an additional cost since they are

disabled and require access to available means of transportation. Participants with custom-built cars highlighted this cost implication:

“It was not cheap to build a car; you can't find this type of car on the market, and I know how much it cost me to get it up here. Though it's not perfect yet, I like it, and I have my independence. So many people have asked me about it, but they are often discouraged by the cost implication. This customisation is expensive”. (M/59/MP/MS/EM/U)

Furthermore, the additional cost and security implications of shared mobility and last-mile travel concern CWDs. One participant shared how they had to take an Uber to get to work since it is the safest and most convenient means of transport; however, it is expensive to maintain. Another shared her concerns about using a commercial motorcycle:

“Many people can walk the distance between the junction [bus stop] and my house, but I have to take an Okada [commercial motorcycle]. You can imagine how much that costs every day to go from one to the other. It's expensive, but I have to work and still feel safe”. (F/54/MP/MS/EM/U)

Participants must also decide whether or not to attend social and religious events because of the financial implications. They carefully consider whether it is necessary to go or whether they would prefer to save their money:

“My friends invite me to different parties, but I tell them I am not coming out unless they can get me an Uber. If it's not work- or business-related, I sometimes choose to stay at home; I am very mindful of incurring another cost for transportation”. (M/24/MP/BD/SE/M)

Moreover, participants discussed affordability based on the available mode of transportation. Some may take an Okada (a commercial motorcycle), which is cheaper than Uber (shared mobility), whereas others may choose to walk and not mind the risk since they cannot afford other modes of transportation:

“In the morning, I try to use the Okada because I leave very early and it is dark. Although it's expensive, it's for my safety. But in the evening, I walk back. To me, it is very risky, but I am surviving, and I am saving some money”. (M/34/VS/PS/EM/M)

“I have fallen many times because I couldn't figure out my steps. I am struggling to navigate, and I wish I could use Okada. But how many times would I use Okada? How much will I have to spend on transportation?

I have to make some hard decisions”. (M/34/VS/SS/EM/U)

Financial considerations also influence CWDs' travel decisions. For example, one participant shared how he bought a car and hired a driver to take him anywhere he wanted to go:

“I know how difficult it is to manoeuvre myself around this city with my disability, and I know I could afford to buy a car, and I have done this; I hired a driver on a part-time basis to chauffeur me around when I need to go to a meeting. I think it's easier, but I know not everyone can afford to make such a decision”. (M/60/MP/MS/SE/M)

## 4.5 | Reliability

Reliability is considered the primary decision-making factor when participants select which mode of transport to use. According to 87% of participants, reliable transport services are essential for their travel needs. However, they did acknowledge that reliability is not guaranteed, considering the inherent challenges with transport infrastructures, the poorly designed built environment and even the attitude towards CWDs. Participants discussed their efforts to ensure that the selected means of transport are reliable, prompt, responsive and safe.

“I have been using this Okada man regularly because he understands my situation and is very respectful. Even if he is busy with another customer when I call him, I always want to wait for him.” (M/54/MP/MA/EM/U)

“Many bus drivers are not patient with us, which always causes accidents; everyone is in a hurry. Now I plan my journey; I go out in the afternoon when it's more relaxed, and I want a reliable service that I can use without getting injured.” (M/39/HR/PS/EM/U)

Additionally, participants highlighted their concerns about operators' poor service, ill treatment, occasional borderline dismissive customer service and unwillingness to accommodate the needs of CWDs or provide an adequate level of care. One participant even suggested that they need more women as transport operators, as perhaps they would be more empathetic:

“Most of these transport operators are men, always in a rush. I once had a female Uber driver, and I could see the difference. She was very understanding and empathetic. We need more women in this sector. More women support disabled commuters, as they can be more supportive than the men”. (F/59/HR/PS/SE/M)

Furthermore, participants noted that they avoid operators and modes of transport that provide irregular services. They often base their transport and mobility decisions on previous experiences with timely service delivery. This behaviour reinforces their reluctance to travel on public transport if the system does not properly display and adhere to scheduled arrival and departure information. Due to this uncertainty, 84% of participants preferred to use ride-sharing apps, for example, Uber or Bolt, because of their reliability in terms of schedule and effective planning. Participants offered some examples of how they used reliable transport services within their control:

“I want to leave my house at a particular time to get to my destination at a specific time, and I wouldn't say I like waiting at the bus stop, struggling to see who will wait for me. So I prefer to use Uber when I can afford it. I want a reliable service that gets me to my destination on time”. (M/29/VS/SS/SE/U)

“I have a regular Keke (tricycle) that I use. The driver is on my speed dial and is very responsive. I don't mind paying to be the only one he carries because it is easier to have my wheelchair there. Even when I am going to an event, I always call him to take me.” (M/54/MP/MA/EM/U)

Interestingly, many participants often make arrangements with dependable transport operators to guarantee their safety and timely arrival:

“I find it easier to use Okada (motorcycle) to commute to work. I have a regular rider that I use. He picks me up in the morning and drops me at work, and then he comes back to pick me up. He is very good, and I like him. I pay him at the end of the journey. It has been a good arrangement for over 9 months”. (M/29/MP/BD/EM/U)

“An Uber driver lives in my compound, and I often make arrangements with him when I go out. It is more dignified and convenient, but it can sometimes be expensive.” (F/24/MP/BD/EM/U)

Moreover, security concerns influenced travel decisions of CWDs. They recognised their vulnerability and therefore preferred to use means of transport that guarantee safety for at-risk customers. A participant with a custom-built car shared his experience of feeling secure in his vehicle, and others discussed their experience with using the train, emphasising its reliability and safety:

“I had to get this custom-built car to ensure my security to some extent. I am very vulnerable when in that wheelchair, and therefore I want a reliable mode of transport that can guarantee my safety; I want to be in

control, safe and able to manage my time”. (M/59/MP/MS/EM/U)

“I used the train to Lagos, which I found very safe. The only challenge was getting to the platform and onto the train. The train left at the scheduled time; I had my seat and arrived at my destination on time for my host to pick me up.” (F/54/MP/MS/UE/U)

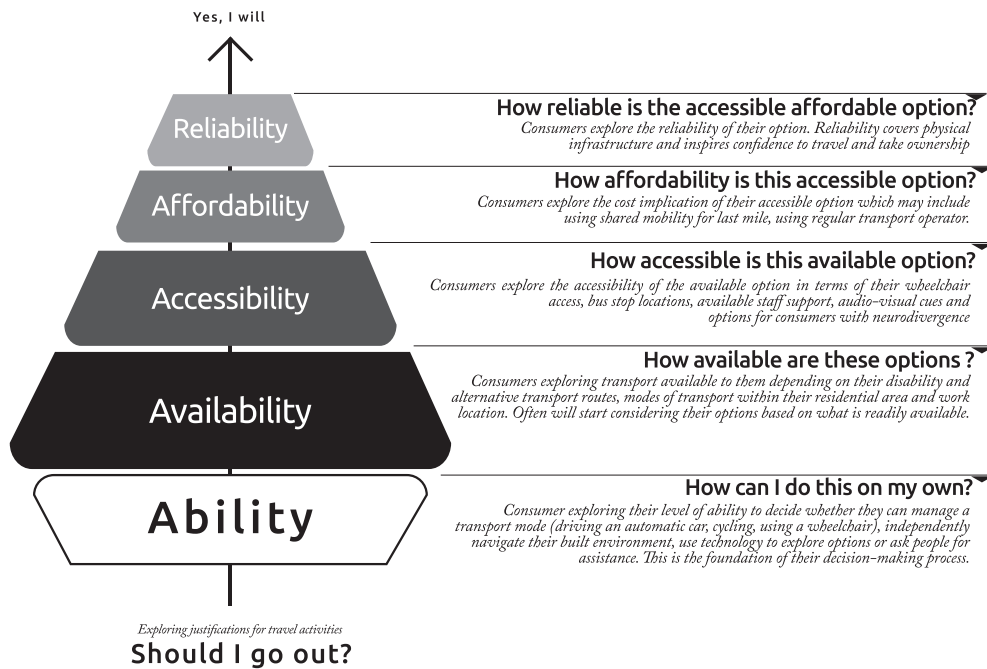
“I got on the train knowing that I was going to the last terminal; I didn't need to remind any conductor about my destination. I was able to follow the signs and see where we were. I think the provision of that information can be helpful for deaf people who may not hear the stops being called.” (F/34/MP/PS/EM/M)

## 5 | DISCUSSION

Using the COR theory (Bove & Pervan, 2013; Hobfoll et al., 2016; Hobfoll et al., 2018), this study explored the transport and mobility decisions of CWDs. It presented consumer behaviour connections that integrated travel decisions, disability and country context. While most CWDs in developed countries may have the needed support and infrastructure, many CWDs in Nigeria, one of the world's largest developing countries, struggle to use the available modes of transport. Poor infrastructure, negative attitudes and inept services may have negatively affected their mobility decisions.

As illustrated in Figure 2, the conceptual framework that emerged from our thematic data analysis showed how consumers seek justifications for their travel activities, questioning whether they should go out to work and social or religious events. Furthermore, consumers go through different stages of evaluation, starting with their ability to use and operate means of transportation and progressing to the reliability of these modes of transport. According to the COR theory, many CWDs manage their limited resources; however, this is often insufficient, as they must make compromises regarding their safety, arrival time, comfort, convenience and financial implications.

This study identified CWDs' reluctance, vulnerability and anxiety as they explore alternatives outside their immediate residential environment, which led to further disadvantages. Their social status, transport infrastructure and convenience level influence their immediate residential environment. Therefore, many are reluctant to leave their present location due to their familiarity with the area. Moreover, they have an established network of transport service providers, limiting their opportunity to explore other areas that may enhance their job prospects and access to education or training. This constraint aligns with findings from the United States Bureau of Transportation Statistics, which indicate that 3.6 million Americans with travel-limiting disabilities do not leave their homes, and 70% of them reduce their day-to-day travel (Brumbaugh, 2018). Similarly, in England, adults with a disability made 26% fewer trips than those without a disability (Department of Transportation, 2021). If these challenges are



**FIGURE 2** Conceptual framework for disabled consumers' transport and mobility decisions.

encountered in developed countries with considerable support, the experiences of CWDs in developing countries with limited infrastructures are possibly worse.

Consumers' levels of disability and their transition towards disability (Davenport et al., 2022) have influenced their transport and mobility decisions. Some individuals are self-sufficient enough to navigate their cities, whereas many have to rely on family members and friends for support (Mogaji & Nguyen, 2021). As seen in participants with custom-built cars, consumers' transition into disability highlights those who were previously able to drive cars but became disabled, either by accident or sickness, yet continue to find ways to apply this skill.

Other personal characteristics were also found to impact consumers' transport and mobility decisions. Female participants, for example, were more mindful of their safety and travel time, as they feared being attacked. Moreover, employed participants preferred to use reliable modes of transport to get to work on time. Although it may be costly, young participants use technology to aid their transport decisions. Notably, irrespective of these characteristics, making transport decisions is frequently difficult, as these individuals must still evaluate their stress thresholds and identify strategies to conserve and manage their resources (Bove & Pervan, 2013; Hobfoll et al., 2016; Hobfoll et al., 2018).

## 5.1 | Theoretical contributions

First, this study expands the current body of knowledge concerning CWDs (Dunnett et al., 2016; Echeverri & Salomonson, 2019; Navarro et al., 2014; Navarro et al., 2015), especially in developing countries (Mogaji & Nguyen, 2021), and highlights the social model of disabilities (Oliver, 2013; Shakespeare, 2006), where CWDs are left in a

precarious state as they navigate their environment. As there is a lack of theoretical understanding of these marginalised and under-represented consumers (Khan et al., 2019; Yau et al., 2004), this research's insights extend existing data on these consumer groups and offer practical implications in addressing their service needs.

Second, this study contributes significantly to the theoretical literature on consumer behaviour and transport services. As stated in the introduction, there is limited understanding of how CWDs explore various marketplaces and service interactions, and the business management insights of CWDs are few. Therefore, this study contributes to identifying behaviours of CWDs to understand their transport and mobility decisions, highlighting how these were influenced by their limited resources, level of disability and other demographic factors. Our findings align with those of studies conducted by Watermeyer et al. (2019), Echeverri and Salomonson (2019) and Kett et al. (2020), which explored transport infrastructure and CWDs' preference for personal cars and taxi services that guarantee safety and reliability.

Third, this paper expounds the COR theory (Bove & Pervan, 2013; Hobfoll et al., 2016; Hobfoll et al., 2018) by going beyond the traumatic stress strands of research on CWDs with limited resources and access to transport facilities. Broadening this theory allowed us to gain a better understanding of consumer behaviour, particularly how CWDs conserve resources and make informed decisions about their transport and mobility needs. We also moved beyond WEIRD societies to investigate how consumers in developing countries manage their resources, deepening our understanding of how their unique infrastructural characteristics and challenges shape their mobility choices and decisions (Kett et al., 2020; Nguyen & Mogaji, 2022b).

This study's final key contribution is the development of a theoretical framework (Figure 2) that increased our knowledge of CWDs' transport and mobility decisions. Based on our findings, this

framework illustrates the different decision-making stages that CWDs go through as they explore their travel options. We posit, based on the theoretical framework, that an individual's ability forms the basic foundation of their transport and mobility decisions, and this is followed by a different exploratory context for discerning whether or not to engage in travel activities.

## 5.2 | Practical implications

Transport providers must make an effort to improve their service quality. Their staff must be well trained in supporting CWDs. The different modes of transport should be modified to ensure equitable access, and audio-visual cues should be installed to enhance customers' experience. Operators must guarantee that their service offerings are reliable in terms of arrival time, security and staff attitude. Furthermore, concession fees for CWDs should be considered by transport operators, as this policy could help those with financial difficulties.

There are various transport service options targeted towards CWDs. While it is recognised that providing transport services could be capital-intensive (Nguyen & Mogaji, 2022a), the goal is to position this service as a social enterprise, with entrepreneurs pursuing business ventures for the social good. This social enterprise may offer custom-built cars for wheelchair users, on-demand transport, as well as accessible, timely and reliable services.

Holstein et al. (2021) identified the benefits of the digitisation of services for PWDs. Therefore, developers in developing countries must explore avenues for transportation's digital transformation, which may involve the following: collaborating with social entrepreneurs to allow customers to book customised cars on their mobile phones; enabling customers to share their location on service providers' secured platforms; and integrating artificial intelligence and assistive technologies to enhance CWDs' transport and mobility decisions. Moreover, this digital transformation must be inclusive, transparent and easy to use for the target customers (Mogaji, 2022).

Considering that the built environment impacts consumer transport satisfaction (De Vos et al., 2016; Farinloye et al., 2019), developers must improve their designs to make them more inclusive and accessible. For example, they could design ramps with a suitable gradient to support wheelchair users, provide wayfinders, incorporate tactile and audio features into traffic lights, and ensure that walkways have appropriate tactile paving to allow customers with a visual impairment to access their environment.

Charities and NGOs working with PWDs should provide more support and raise awareness of various transport options. They could also apply for financial assistance via the corporate social responsibility initiatives of various firms to provide CWDs with carers and support workers, travel vouchers that help with transportation costs, as well as funds for electric wheelchairs, wheelchair repair, hearing aids and other devices that enhance their travel experiences. Moreover, there should be training on assistive technology, mobility as a service and mobile apps to aid with their travel planning. Furthermore, PWDs

must seek work and learning opportunities beyond their comfort zone. They should be aware of how and where to obtain support to access their communities safely.

Governments and policymakers bear significant responsibility for enhancing the transport and mobility experience of CWDs. According to Mogaji, Adekunle, et al., (2021); Mogaji, Balakrishnan, et al., (2021), the COVID-19 pandemic provided a reason for increased investment in developing countries' transport infrastructure. Therefore, governments must upgrade their countries' insufficient transport infrastructure, provide discounted travel fares for CWDs, and implement policies to guarantee that means of transportation and built environments are inclusive and easily accessible.

This study has identified critical practical implications for CWDs, as well as their friends and family. While they work hard to manage their resources, their friends and family must be understanding, given the government's or transport operators' limited support. This suggestion is consistent with those in Page and Assa's (2017) study on the social exclusion of public transport users with disabilities in Papua New Guinea and Mogaji and Nguyen's (2021) research on transportation satisfaction of PWDs in Nigeria, where they rely on their family and friends to aid them in accessing transportation.

## 6 | CONCLUSION, LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

In this study, the transport and mobility decisions of CWDs have been investigated, and we revealed that CWDs make travel decisions based on their ability, as well as the availability, accessibility, affordability and reliability of different modes of transport. This study has limitations, however, which will hopefully be addressed in future research. First, since it was qualitative in nature, the factors affecting transport and mobility decisions of CWDs could not be adequately quantified. Therefore, future studies could adopt a quantitative approach to test this research's proposed framework. Second, the study's context is centred only on Nigeria. While the country holds a unique position among the developing countries globally, this study's findings cannot be generalised to developed countries. Therefore, future studies should endeavour to yield results that are also valid in advanced economies. Since the findings indicated that CWDs are reluctant to leave their present locations, future research should examine the impact of disability on residential locations and travel activities. Moreover, the results indicate that there is an emotional burden attached to disability due to the impatience of others and the rudeness of bus drivers; therefore, future studies should explore this in greater detail to determine whether and how it affects the consumers' overall experience. Finally, future research should investigate and validate the proposed conceptual framework for transport and mobility decisions of CWDs.

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**CONFLICT OF INTEREST**

The authors declare no conflicts of interest.

**DATA AVAILABILITY STATEMENT**

The data that support the findings of this study are available from the corresponding author, (Emmanuel Mogaji), upon reasonable request. The data are not publicly available due containing information that could compromise the privacy of research participants.

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## APPENDIX A: INTERVIEW PROTOCOL AND INTERVIEW GUIDE

### INTERVIEW PROTOCOL

Semi-structured interviews, conducted face to face, recorded and transcribed.

For all interviews, the following information is collected by the interviewer.

Title of Project:

Time of interview:

Date:

Interviewer:

Interviewee:

“At the beginning of each interview, the interviewer thanks the participant for joining the research project by granting this interview. After confirming that the interview will be recorded, the interviewer assures confidentiality of responses in line with ethical standards of research and asks for the participant's availability for potential future interviews.”

### Opening questions: Background information about yourself

- Tell us a bit about yourself

- How was your childhood?
- How about your parent and siblings?
- Where do you live? (Probing question to include asking if there are many locations)
- What is your educational background (probing question to include which University they attended)?
- What do you like to do? What are your hobbies?
- Would you what to tell me about your disability (be very sensitive here, probing question to include when they became disabled)
- How would you describe your day to day living experiences?

### Objects – Access to different modes of transportation

- How would you describe your access to transportation?
- Which mode of transportation do you mostly use?
- Which mode of transportation do you find easy to use?
- What are the factors that influence your choice of mode of transportation?
- Do you have your mode of transportation? (Probing question about having a car, motorcycle, or bicycle)
- Why have you (or have you not) gotten your mode of transportation?
- How well are you managing your transport needs with (or without)

### Condition – The level and complexity of disability

- How would you describe the complexity of your disability?
- How does this complexity affect your choice of transportation?
- What do you do to cope and manage yourself with this situation?
- How do you motivate yourself to go out and explore the environment?
- Do you think being in Nigeria makes the disability more complex? (Probing question about the social model of disability)
- Have you travelled outside Nigeria?
  - What was the transport like?
  - Did you compare it to Nigeria?
  - What was the experience?
  - How well were you able to move around and commute?
- Are there places you feel comfortable going using public transportation?

### Personal characteristics – Gender, residential location, level of education and work experience

- Do you think your disability affects the way people treat you?
- Would you share one of the pleasant experiences?
- Do you have any unpleasant experiences you are willing to share? If yes, please do
- How does your gender affect how people treat you?
- How does being a man (or woman) affects how your access transportation?

- Do you think your gender makes you strong or weaker to find your way around?
- How does your environment affect how you travel and which transport mode you take?
- How about access to bus stops, train stations and airports? How do you access these places?
- What is the impact of your level of education on your travel experiences?
- What is the impact of your level of education on your travel decision?
- Does your work influence your mode of travelling?
- How does the work you do affect your choice of transport mode?
- Do you have any support system in place (probing questions about family, friends, or care workers)
- Are you exploring other alternatives? Please share some with us. (Probing questions for details about these options, reliable, affordable, or even sustainable)
- Are there any challenges in exploring other alternative modes of transportation?
- Have you considered how technology can improve your transportation?
- Are you aware of any organisation that can improve your travel experience?
- Based on your experience, are there any challenges in transportation in Nigeria?
- Is there anything else you would like to add?

#### **Energies – Level of awareness and knowledge about accessible means and alternative modes of transportation**

- How are you coping with the transportation?
- What has been the worst experience in your travel?
- What did you do? How did you react?

#### **Concluding remarks**

The interviewer thanks the participant for joining the research project and confirms their availability for the member check.