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"Can She Handle It?" Women Delivery Drivers and the Gendered Politics of Hanoi's Streets

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Abstract

On Hanoi's crowded streets, women app-based motorbike delivery drivers carve out precarious yet essential roles in the city's mobility landscape. In this article we examine these drivers' everyday experiences, highlighting the gendered challenges they face in a profession still widely male-dominated. Drawing on 34 in-depth interviews, we explore how these women navigate public scepticism about their capabilities, manage the physical and logistical demands of street-based work, and respond to harassment by male customers. Our study reveals that women drivers develop a range of tactics to sustain their livelihoods and ensure personal safety, from carefully selecting passengers and routes, devising deliberate narratives for questionable customers, to forming informal peer networks. By centring the perspectives of women delivery drivers, we contribute to broader debates on the gendered dimensions of platform livelihoods and urban mobility. We position Hanoi's streets not only as sites of economic activity but as contested public spaces where safety, access, and belonging are unevenly distributed. Tracing how women drivers tactically navigate harassment, infrastructural shortcomings, and algorithmic control, we engage with concerns about the (re)configuration of streets as multifunctional yet exclusionary environments. These drivers' experiences reveal the persistent gendered frictions embedded in Hanoi's streets, raising critical questions about whose needs, security, and visibility are prioritized in emerging urban mobility futures.

Keywords

digital governance; everyday resistance; gendered mobility; gig-work precarity; Hanoi; mobility justice; platform economy; streets; women delivery drivers

1. Introduction

Across Asia, the growth of platform-economy work has created new opportunities for women while also reinforcing longstanding gendered constraints. As the mobile gig-economy expands, particularly through ride-hailing and delivery services, scholars have begun to trace how gender mediates both access to and experiences of such work. Such research highlights both the structural risks women face and their tactics of navigation, resistance, and solidarity (see, for example, Baruah, 2017, in Delhi; Evangelista et al., 2023, in Bulacan, the Philippines; Hamal & Huijsmans, 2021, in Kathmandu). It also contributes to broader debates in mobility studies and feminist political economy regarding the unequal conditions under which people move and labour in contemporary Asian cities. A recurring theme is that women's gig work remains shaped by entrenched patterns of gendered mobility and social reproduction. In India, for instance, Chaudhary (2021) finds that platform work does little to offset spatial constraints rooted in gender norms, a pattern echoed in China, where women drivers often limit their travel radius to remain close to home (Zhuang et al., 2025). In these contexts, domestic responsibilities often continue to shape spatial labour practices, revealing embodied frictions that shape women's livelihood mobilities.

Specifically examining women drivers' working conditions, Kwan (2022a, 2022b) documents how in China women navigate male-dominated spaces while shouldering caregiving duties. Evangelista et al. (2023) similarly highlight the exhaustion of women drivers in the Philippines juggling customer demands with family care, challenging celebratory narratives of platform-mediated flexibility. Safety concerns are also prominent in this literature. Zong et al. (2024), drawing on data from China, Taiwan, and Singapore, find that harassment from customers and bystanders is common in women's delivery work. Other studies from Asia further challenge assumptions of technological neutrality, with Li and Niu (2022) showing how algorithmic controls intensify women's work pace and reduce autonomy.

Questions of intersectionality and precarity run through this scholarship. Studies from India, Bangladesh, and Indonesia show how gender intersects with class, migration status, and access to digital tools (Frey, 2020; Ghosh et al., 2021; Hamal & Huijsmans, 2021), while livelihood shocks like Covid-19 have further deepened precarity for many women drivers. In Bandung, Indonesia, Juddi et al. (2024) found that company responsiveness to women's concerns worsened during Covid-19, causing greater income loss, while in Shanghai, Zhang et al. (2024) reported that emotional and cognitive stress compounded the burden of platform work among women drivers during the pandemic. Yet, women drivers are not passive. Kwan (2022a) shows that digital platforms like WeChat and TikTok provide crucial spaces for women drivers to share tactics, build support, and foster collective dignity and subtle resistance. From mutual aid in Nepal (Grossman-Thompson, 2020) to feminist labour organising in Ecuador (Hidalgo Cordero & Salazar Daza, 2021), women drivers develop tactics to navigate and resist systemic inequalities. With these studies in mind, we ask: What is the situation for women gig-economy delivery drivers in Hanoi, Vietnam? How do they navigate an urban landscape shaped by infrastructural shortcomings, gendered expectations, and everyday risks such as traffic, pollution, and harassment? In doing so, we open a dialogue with urban planning scholarship concerned with creating more inclusive and equitable street environments, inviting reflection on how gendered experiences of mobility can inform more socially just approaches to urban design and policy.

Recent research on Vietnam's rapidly expanding delivery sector highlights precarious working conditions, safety risks, and shifting labour politics, but focuses on male drivers. Studies emphasize that food and parcel

delivery involves long hours, high exposure to traffic hazards, and frequent mobile phone use while riding, contributing to fatigue, stress, and crash risk (Nguyen et al., 2023; Nguyen-Phuoc et al., 2022; Truong & Nguyen, 2019). Job burnout is a central predictor of risky behaviour, with organizational factors including weak safety climates and poor managerial support exacerbating these conditions (Nguyen et al., 2023, 2024; Nguyen-Phuoc et al., 2025). In contrast, social support networks and performance feedback are shown to improve safety behaviour, suggesting possible solutions (Nguyen-Phuoc et al., 2024). Research in Ho Chi Minh City (HCMC) further shows that financial hardship and job pressure during Covid-19 pushed many drivers to adopt riskier behaviours, particularly when company support was lacking (Nguyen et al., 2023; Tran et al., 2022). Beyond safety, Gibert-Flutre et al. (2024) argue that platformisation in HCMC has reshaped motorbike drivers' political subjectivities through self-organization, wildcat strikes, and rider teams that contest both corporate governance and state control. Together, these studies show that while gig-economy motorbike work is increasingly central to Vietnam's urban mobility and logistics infrastructure, it remains largely unprotected. It is also understudied in relation to gendered experiences (though see Dinh & Tienari, 2022, for a compelling social media analysis of how male drivers in Vietnam articulate their experiences and perform masculinities online). Moreover, these studies rarely consider how the physical design, management, and organization of street space shape drivers' working conditions, safety, and access.

Our article works to address this gap by focusing on women app-based delivery drivers in the country's capital city, Hanoi. While Vietnam's platform economy has expanded rapidly, little is known about how these changes affect women gig-workers' mobility, working conditions, or tactics of care and survival. To our knowledge, this is the first study to examine the intersection of gender, mobility, and platform-based delivery work in Hanoi or anywhere in Vietnam. In exploring these dynamics, we also engage the central concerns of this thematic issue, showing how Hanoi's streets function not only as mobility corridors but as sites of negotiation, exclusion, and everyday urban struggle.

This research draws on 34 in-depth, semi-structured interviews with women working for a range of app-based delivery and ride-hailing platforms in Hanoi, conducted between October 2024 and April 2025 (interviewee profiles in Supplementary File). Interviews were designed by the first author, piloted by both authors, and primarily conducted by the second author, with the first author participating during her fieldwork time in Hanoi. Participants ranged in age from 25 to 63 and had between one month and 10 years' experience as drivers. Fifteen focused exclusively on parcel delivery, while 19 transported both passengers and goods. Two participants had left platform companies to freelance as independent drivers. Interviews lasted between 45 and 75 minutes, and many participants expressed appreciation for the opportunity to share their experiences with an empathetic female interviewer. The second author also attended a GrabBike appreciation event for women drivers held in conjunction with International Women's Day.

While our analysis centres on these women's narratives, we also conducted 18 interviews with men working for app-based platforms between November 2021 to April 2022, as well as 64 interviews with informal *xe ôm* motorbike taxi drivers between December 2016 and August 2017 (all men, as we could not find any women *xe ôm* drivers). These additional interviews provide comparative context for understanding the gendered dynamics within Hanoi's mobility landscape. The first author also consulted three Vietnamese scholars with expertise in gender, mobility, and urban transport. Data were analysed thematically using constant comparative and axial coding procedures undertaken by both authors and then independently reviewed and compared for consistency and rigour.

Next, we outline our conceptual framework, before situating our research within the broader context of Hanoi's platform economy and mobility landscape. Our results and analysis focus on the everyday experiences of women app-based delivery drivers, beginning with their pathways into platform work and the structural constraints shaping their participation. We then reveal the gendered burdens of care and exhaustion they carry, before analysing the forms of harassment they encounter while navigating urban spaces. In the final results section, we interpret the tactics women drivers use to manage risk, assert control, and maintain safety. These findings inform our discussion of how streets, though often framed as spaces of opportunity, remain highly uneven terrains for women app-based drivers.

2. Conceptual Framework

We bring together three bodies of literature to frame our analysis: the political economy of gig labour and precarity, critical mobility studies, and debates concerning situated agency and everyday resistance. We do so while paying particular attention to gender relations and politics, and to how streets function as gendered and contested public spaces.

2.1. The Political Economy of Gig Labour and Precarity

The rise of app-based mobility services has introduced new constellations of everyday movement on urban streets, bringing together people, vehicles, goods, and data through digital infrastructures. These platforms are enabled by the convergence of smartphones, telecommunication technologies, digital finance, and logistics (Brail, 2020; Richardson, 2020). Yet, despite the promises of flexibility, entrepreneurialism, and inclusion, critical scholars highlight the exploitative labour practices underlying much of the platform economy (Surie, 2020; van Doorn, 2017; Zhou, 2024; see also Stehlin et al., 2020). In many settings, including urban Southeast Asia, platforms have disrupted existing mobility ecologies, notably displacing informal actors and reshaping mobility behaviours (Nguyen & Turner, 2023; Tan & Gong, 2024).

For women, entry into platform labour is often shaped by precarity. Researchers have highlighted how gendered responsibilities, lack of institutional protections, and the opacity of platform governance systems compound this vulnerability (Juddi et al., 2024; Kwan, 2022b; Zhang et al., 2024). Platform logics, driven by data and algorithms, frequently obscure workers' rights and amplify insecurity through variable pay, uncertain scheduling, and punitive rating systems (Gibert-Flutre et al., 2024). In doing so, these systems often restrict the formation of peer-to-peer support networks, further isolating workers (Sun & Chen, 2021). Despite state and private sector claims of inclusivity and efficiency (Anwar & Graham, 2020), research increasingly questions the role of platforms in promoting socially just urban mobility (Nguyen, 2024). These literatures sharpen our analytical lens by situating women's platform-based labour on Hanoi's streets within these broader critical commentaries.

2.2. Critical Mobilities Scholarship and the Frictions of Movement

We also engage with critical mobilities scholarship (Cresswell, 2010; Hannam et al., 2006; Sheller & Urry, 2006) while foregrounding the street as a site where power, infrastructure, gender, and algorithmic governance intersect. Rather than focusing solely on movement, this work examines how mobility is shaped by power, infrastructure, and meaning (Elliott & Urry, 2010; Sheller, 2018). As Prytherch and Cidell (2015), Sheller (2018),

and others argue, mobility is unequally distributed, produced, and constrained through interlocking systems of race, gender, class, and embodiment. The concept of mobility justice highlights this uneven freedom to move (or be stopped), and urges critical reflection regarding the conditions that enable or constrain access to public space (Sheller, 2018; see also Turner, 2020; Verlinghieri & Schwanen, 2020). With this framing, Hanoi's streets become a terrain of mobility justice where uneven capacities to move are socially manifest.

We draw particularly on Cresswell's (2010, 2014) notion of friction here. Friction operates on multiple levels: it can refer to the literal slowing or stoppage of movement, as when navigating Hanoi's congested alleyways or adverse weather, but it also points to deeper structural barriers, or what Cresswell (2014, p. 108) terms "arrangements of power" that dictate who moves, when, and how. In Hanoi, such frictions emerge through gendered encounters in public space, tensions between platform-mediated flows and local urban rhythms, and infrastructural neglect, including limited access to clean toilets and shelter (Chowdhury, 2021; Kasera et al., 2016; Peters, 2019).

2.3. Situated Agency and Hidden Transcripts

Our analysis is also informed by scholarship on situated agency and everyday resistance, which examines the subtle, improvised, and context-specific tactics workers employ to navigate structurally unequal conditions. The concept of situated agency helps to highlight how individual decisions are shaped by social, spatial, and institutional constraints (Parsell & Clarke, 2019), moving beyond binaries such as victim versus agent, or risk versus resilience (Choi & Holroyd, 2007). Understanding how women drivers enact agency, whether in response to social expectations, harassment, or other unsafe conditions, requires attention to the physical, social, and emotional environments in which they experience risk.

Finally, building on James Scott's (1990) concept of "hidden transcripts," we examine the subtle forms of resistance women drivers employ. Rather than overt defiance, "hidden transcripts" comprise covert practices and everyday tactics that emerge in private, semi-private, or fleeting public moments. These may include refusal, evasion, storytelling, selective engagement, or micro-level forms of solidarity (Scott, 1990). Although often fleeting, these acts are critical to understanding how resistance and adaptation unfold in everyday spaces, not only in response to labour discipline but also in relation to gendered bodily vulnerability, urban exclusion, and infrastructural challenges. In the context of the street, such practices reveal how power is negotiated within the micro geographies of movement and work.

3. Context

Over the past decade, app-based mobility services have become woven into Hanoi's daily life, reshaping how the city's streets are used and contested. The arrival of global platforms like Uber and Grab in 2014, followed by Grab's acquisition of Uber's Southeast Asian operations in 2018 (Goel & Lim, 2018), was the start of a rapid expansion of such services. Grab now dominates Hanoi's market, though Vietnamese platforms such as Be and XanhSM have become strong local contenders. Meanwhile, Indonesia's GoJek, which entered Vietnam under the GoViet brand, withdrew in 2024 (VOV, 2024). This competitive landscape has fuelled a proliferation of platform-based services, from motorbike taxis and parcel deliveries to food drop-offs and e-commerce logistics, which play out visibly on the city's streets.

Hanoi offers a fertile setting for platform labour, shaped by its youthful, tech-savvy population and a longstanding reliance on motorbike transport. With nearly 8.3 million residents (almost 10 percent of Vietnam's national population), the city provides a large pool of potential consumers and workers (General Statistics Office Vietnam, 2023). Motorbike-based services are especially functional in both the dense urban core and spontaneously developed peripheries, where many areas remain accessible only by foot or two-wheelers, including older alleyways and informal settlements (Khuat, 2006; Turner & Ngo, 2019). As a result, motorbikes remain vital to everyday mobility, accounting for over 80 percent of all trips in the city (Hansen, 2017; Jamme, 2024; Turner & Ngo, 2019), and sustaining a street-based mobility economy.

Yet, despite their ubiquity, motorbike-based mobilities and the drivers who depend on them are increasingly marginalised through both infrastructural change and urban governance agendas. Since the early 2000s, Hanoi's authorities have pursued an ambitious "modernisation" project aimed at transforming the city into a global metropolis through large-scale infrastructure investments, including ring roads, expressways, and an urban rail system (Leducq & Scarwell, 2018; Turner et al., 2024). Heavily influenced by urban development models from Singapore and South Korea, planning documents such as the Hanoi Capital Construction Master Plan to 2030 and Vision to 2050 promote a vision of satellite cities connected by green corridors and high-speed transit (Perkins Eastman Architects, 2011). Within this vision, motorbikes are frequently cast as incompatible with a "civilised" and "modern" urban future. Officials and planners routinely portray motorbikes as outdated, disorderly, and obstructive to traffic flow, an image reinforced by rising investments in car infrastructure and the growing status associated with car ownership among affluent residents (Hansen & Nielsen, 2019; Jamme, 2024; Tran, 2019). Plans to ban motorbikes from central districts starting in July 2026 have further entrenched the sense that motorbike users are peripheral to the city's desired trajectory (Hanoi People's Committee, 2017; Pham, 2025).

For app-based drivers, such state rhetoric and related politics create a rather confusing terrain. Although platforms like Grab and Be are framed by policymakers as advancing e-commerce and urban sustainability goals (Thanh Van, 2020), the regulatory environment remains deeply ambiguous. Labour law does not formally recognise these drivers as employees, excluding them from formal protections and benefits. As "independent partners," they face irregular incomes, limited recourse in disputes, and little to no access to public insurance or social security (Nguyen, 2023).

Beyond legal precarity, app-based drivers also face daily frictions on the streets. Traffic police (*cảnh sát giao thông*) frequently conduct random checks, often demanding bribes or enforcing rules arbitrarily (Turner, 2020). While these drivers experience less scrutiny than informal motorbike taxi drivers (*xe ôm*) or three-wheel delivery drivers (*xe ba bánh*), these micro-acts of surveillance and extraction still reflect broader dynamics of urban exclusion, with motorbike-based mobilities tolerated but not embraced. Infrastructural challenges, including a lack of public restrooms, shelter, or designated rest areas, further compound the physical and emotional toll of platform labour. The city's streets thus become a battleground of sorts, where competing visions of modernity, class, and belonging are negotiated through both policy and pavement. For women, these challenges are compounded by additional gendered expectations and constraints.

4. Results and Analysis

4.1. Pathways Into Platform Work

Over two-thirds (24) of the women drivers in our study were lifelong Hanoians, a higher proportion than among male informal motorbike taxi (*xe ôm*) drivers we had previously interviewed, of whom roughly half were from Hanoi and the rest rural-to-urban migrants (Nguyen & Turner, 2023; Turner, 2020; Turner & Ngo, 2019). The women who had moved to the city typically came from nearby provinces. For instance, Đào, in her 40s and driving for Shopee, originally came from Vĩnh Phúc Province (about a 90-minute drive northwest of Hanoi) when she was 15 (all names are pseudonyms). Similarly, Lê (25 years old, AhaMove) relocated from Thanh Hóa Province, roughly 2.40 hours' drive south, and now rents a room in Hanoi's Hoàng Mai District.

The women drivers had entered app-based delivery work due to a range of life and labour transitions. Most had previously held low-wage or informal jobs, often in feminised sectors such as garment manufacturing, domestic work, caregiving, or small-scale retail. These roles were frequently unstable, poorly paid, or incompatible with family caregiving needs. Some women turned to app-based work following a pivotal event like job loss, divorce, or a family health crisis, and entry into platform labour was often facilitated by social networks, including kin, friends, or neighbours. Hồng (36 years old, Shopee) explained:

> I was staying at home when my brother-in-law, who worked as a delivery driver, suggested I try this because it's close to home and lets me manage my time. I can go out early to deliver and still pick up my child from school.

Many participants described app-based delivery work not as a step "up," but as a survival tactic. Several were divorced and solely responsible for their children (discussed further below), frequently emphasizing the importance of the job's flexibility for juggling domestic responsibilities. Trúc (37 years old, Xanh SM) detailed: "I chose this job after running a clothing store that I had to close due to various challenges. This work is more flexible for me to spend time with my family." She added: "Working in a company felt too time restrictive. Especially with kids and other personal issues, it was hard to take leave. But with this job, the working hours are much more helpful."

Employment arrangements varied widely among the women drivers we interviewed. Some were formally registered as "partners" with platforms such as Grab, Shopee, Viettel Post, Hey U, or Lazada, while others worked as freelancers. Several had also switched between platforms over time. Dung (39 years old), for example, had started with Grab before shifting to freelance work, while Nữ had transitioned from Giao Hàng Tiết Kiệm to freelancing. Phượng (42) began working for Ahamove and Grab, before changing solely to work for GrabFood. Some were new to delivery, such as Gái (50) who had joined Xanh SM just a month prior to our interview after leaving a job as a hairdresser, whereas Kim had four years' experience with Hey U, following earlier work selling *phở* (Vietnamese noodle soup) from a small street stall. For many, their prior familiarity with Hanoi's streets and neighbourhoods was crucial, not only for navigating efficiency but also for feeling confident and safe while working.

Delivery roles also varied: two-thirds of the women focused exclusively on parcels, with the remaining third transported both passengers and goods. Notably, these decisions were often informed by prior street

experiences. Eight participants chose to deliver only goods after uncomfortable experiences transporting male passengers, a point we revisit below.

4.2. Work Intensity and Care Responsibilities

Most participants described their delivery work as physically demanding, involving long hours and minimal rest. They typically worked five to 11 hours per day, often seven days a week, driven by financial necessity and the unpredictable rhythms of customer demands. Kim (49 years old, Hey U), with four years' experience, reported exhausting 11-hour days. Ma (45 years old, Lazada), in this sector for six years, worked a slightly shorter routine of six to seven hours, but stressed that even this "lighter" schedule was taxing due to the difficulties of navigating Hanoi's traffic, dense street networks, and delivery logistics.

Across our interviews, a consistent thread was the burden of caregiving, shaped by the women's roles not only as workers but also as mothers, guardians, and household managers. These gendered obligations frequently influenced decisions regarding work hours, delivery types, and the spatial extent of their routes. Far from being supplementary earners, many were the sole providers in their families. Among the 34 women we interviewed, over two-thirds were divorced, widowed, or single, and two-fifths (14) were raising children without consistent financial or caregiving support from a partner. Gái (50 years old, Xanh SM) supported her teenage son entirely through her delivery earnings, structuring her working day around school drop-offs and pick-ups; temporal demands that limited both her working hours and geographical range. Likewise, Bình (48 years old, Xanh SM), divorced and raising two children, shared: "After work, I still have to prepare meals and clean. My daughter's in university, and my son recently married, but he and his wife leave their son with me since they work far away."

Children's ages shaped daily and weekly working rhythms: Tám (44 years old, GrabBike and GrabFood), with grown children, managed long 14-hour shifts, while Cúc (37 years old, Viettel Post) who cared for two primary school-aged children, worked six to seven hours a day. The daily logistics of commuting, meal preparation, school runs, and household chores thus often dictated when and where the women could work, limiting availability to specific hours or city zones. Many participants also described the job's intense mental fatigue, stemming not only from physical exhaustion but due to the emotional demands of customer interactions, platform rules, and navigating chaotic traffic. Liễu (33 years old, Shopee) noted: "This job's really hard on my body. I used to manage 10 hours, but now I can only manage a few. It's exhausting." Lam (38 years old, GrabFood) similarly reported: "Some days, I'm too tired, I just stay home, I don't even drive."

Customer complaints and the risk of platform penalties added another layer of stress, shaping women's daily interactions and emotional experiences on the job. Liễu (33 years old, Shopee) detailed wearily: "When they complain, we get in trouble. Even if I just raise my voice, they'll report me for being rude. Some even claim they didn't get the package, even when they did. If I don't get confirmation from them, even when I take a photo, they can still claim they didn't receive it. Then I have to pay for the goods." Our oldest participant, 63-year-old Lương (GrabFood) recalled:

> During the pandemic I called a customer to confirm their order and the customer snapped: 'F**k you, why are you calling so much?' It was so discouraging. I'm old, yet they cursed at me. I travelled 7km in the rain to deliver her porridge. She complained about my calls but she hadn't answered earlier! Then she reported me. I got a warning, it was so unfair.

Hanoi's specific street geography, especially its narrow alleyways, intensified both the physical and emotional demands of delivery, making women responsible for navigating spaces that were both spatially complex and socially demanding (Figure 1). Ba (51 years old, GrabFood) explained:

> Westerners understand the VND25,000 fee is just for transporting, but many Vietnamese expect full service for that price. If their house is deep down a very narrow lane, a Westerner would walk out, since the app can't show exact alley spots. Same in hotels: Westerners come to the lobby, but some Vietnamese expect full room delivery and give low ratings if refused.

Across interviews, women drivers described the need to perform reliability and cheerfulness for customers while navigating punitive and opaque platform evaluation systems. This heightened the everyday precarity of gig work and often fueled constant anxiety. Despite this, the women continued to work, motivated by financial necessity, caregiving duties, and limited alternatives. Their accounts sharply reflected the structural vulnerabilities of platform labour. Although ride-hailing and delivery services are often promoted as flexible or entrepreneurial, our findings align with critical scholarship that underscores their exploitative foundations (Surie, 2020; van Doorn, 2017; Zhou, 2024). Women app-based drivers in Hanoi shouldered compounded burdens of algorithmic control, unpredictable hours, and exposure to customer ratings, all without labour protection or social security (Duggan et al., 2019; Nowak, 2023). In this way, Hanoi's streets emerged as gendered spaces of constraint and calculation, where daily mobility decisions were shaped by not only platform demands but also familial rhythms and social expectations.

Figure 1. Woman delivery driver on white motorbike waiting for a food pick up in one of Hanoi's narrow alleyways. Source: Ngô Thúy Hạnh.

4.3. Everyday Harassment Working on the City's Streets

While app-based delivery work provided these women an income stream with flexible hours, it also exposed them to unwanted comments or harassment. Much of this unfolded on the streets, seen as unpredictable spaces where gendered dynamics were felt acutely. Nearly all our participants reported customers expressing surprise that they were women or making judgements, such as: "Where's your husband? Why are you working at this time?" (Gái, 50 years old, Xanh SM) or "All that sun will ruin your skin; you should make your husband buy you sunscreen! If I had a wife like you, I wouldn't let her do deliveries" (Kim, 49 years old, Hey U).

Beyond verbal remarks, women described experiences of harassment that, while often downplayed, meaningfully shaped how they moved through the city's streets and made daily work decisions. Tám (44 years old, GrabBike and GrabFood) explained: "Male [passenger] customers often ask if I'm married. Even though we're all covered up [to protect against the sun], they still somehow recognize I'm a woman and flirt. Honestly, I don't like it" (see Figure 2 for how women drivers often dress to protect their skin and maintain a fair complexion following cultural preferences). Similarly, Trúc (37 years old, Xanh SM) recounted dealing with inappropriate comments and actions: "Especially with drunk passengers at night. They lean on me or act inappropriately, pretending they're drunk." Dung (39), who previously accepted passengers for GrabBike but now works only as a freelance delivery driver, recounted an incident in which a male passenger had left her deeply uncomfortable, and how she had coped. She added that such encounters had been a key factor in her decision to transition exclusively to delivery work:

> Once I picked up a passenger who handed me a laptop bag. I was nervous because I thought if the bag fell while we were riding, I'd be in big trouble. So I asked him: 'Can you hold your laptop for me? It's expensive, and if I drop it, I can't afford to replace it.' But instead, he tied the bag to the handlebars and said he always does it like that. Then he hugged my waist tightly. I felt really uncomfortable because he was sitting very close and was overly friendly. While riding, I kept focusing on his hands around my waist, worrying about his actions and the laptop bag. To distract him, I started talking about family. I asked about his wife, and how many kids he has. I kept asking questions to shift his attention. That's how I try to handle certain customers.

On some occasions, male passenger customers were so uneasy with the idea of being driven by a woman that they insisted on driving. This placed women drivers in a precarious position: either forfeit the ride, lose income, and risk a poor rating, or become a passenger on their own bike, with the customer in control of both vehicle and route.

Most such incidents went unreported as the women drivers had little faith that their complaints would result in meaningful action and worried that speaking up might jeopardise their standing with the platform. Several expressed dissatisfaction with the lack of meaningful institutional support or recognition of the risks they faced. For example, GrabBike introduced a "Female Passenger Priority Feature" to prioritize matching female drivers with female passengers in 2024 (Goh, 2024), yet several participants observed that most ride requests come from men, limiting this feature's usefulness. A few companies host parties for Women's Day, but Grab's event, which the second author attended, was largely symbolic and lacked any substantive engagement with the structural challenges facing female drivers. Phúc (38 years old, ShopeeFood) noted with frustration:

> It's the same for everyone, whether you're male, female, old, or young. They calculate based on shipping fees. They don't know or care about you; it's all the same. You only meet the company once to get your uniform. After that, you just use the app. They don't know whether you're old, young, pregnant, or whatever, and they don't prioritize anyone.

Such reflections underscored the absence of gender-sensitive design in platform governance and a broader failure to address the embodied vulnerabilities of women working on Hanoi's streets. Participants' accounts pointed to harassment as both interpersonal and structural. It emerged not only from specific encounters with customers or passers-by, but also from digital platform design, the absence of institutional protection, and enduring social scripts that cast women's mobile labour as secondary or out of place. In this way, the streets functioned not only as sites of economic activity but as a gendered terrain of visibility, judgment, and exclusion.

Figure 2. A typically well-covered woman delivery driver waiting for a food pick up. Source: Ngô Thúy Hạnh.

4.4. Tactical Street Use Through Gendered Navigation and Micro-Resistance

Faced with routine harassment and minimal institutional protection, women app-based drivers relied on a range of everyday tactics to safeguard themselves. These were not overt acts of resistance, but subtle, adaptive approaches shaped by experience, caution, and necessity. Together, they reflect what we term situated agency, namely ongoing, situated responses to unsafe working conditions. With few safeguards or meaningful support from platforms or public authorities, these women took risk management into their own hands, developing what Scott (1990) termed hidden transcripts: covert practices and tactics that unfolded in private, semi-private, or fleeting public moments. These included negotiating mobility through selective engagement with particular spaces, times, and people.

Spatial and temporal avoidance was a common tactic, with many drivers deliberately avoiding certain areas or times they perceived as unsafe. Hai (48 years old, GrabFood/GrabMart) explained:

> Back when I delivered packages, I didn't work at night. Now that I'm delivering food, I work evenings, but I make sure I deliver to places where there are houses around, and I don't work too late. By around 9 pm, I'm already home, that way I don't feel too worried.

For passenger drivers, concerns were broader. Trúc (37 years old, Xanh SM) shared:

> I finish by 10 pm, or 10:30 pm at the latest, and only take trips in the city at night. Now with more police on the roads [due to a new drink-driving policy], if there's any problem, I can shout for help. But I avoid long or remote trips at night for safety.

She continued: "If a request comes for a remote area in the evening, I just turn off the app. Male drivers might take those, but I avoid them to stay safe." Nang (41 years old, GrabBike/GrabFood) added: "If I see the customer is drunk, I cancel. When they're drunk, they don't know what they're doing, right? They don't even sit properly. Some male drivers have even had drunk customers throw up on them. Imagine how much worse it is for us female drivers."

Spatial familiarity emerged as a key form of protection. Many women worked within neighbourhoods they knew well or had lived in for years. Thắng (49 years old, Shopee) explained how her long-standing presence in the area—"I've been here since I was little"—made her feel more confident navigating the streets and managing customer relations. Such local knowledge helped certain drivers avoid trouble spots, identify safer rest areas, and rely on informal networks when needed.

Load-related risks for those with heavy deliveries or passengers involved different calculations (Figure 3). Some delivery drivers sought on-site help from store workers, like Đào (in her 40s, Shopee), who said: "In the warehouse, I have colleagues who help me to load heavy goods." Others quietly cancelled overly burdensome deliveries or avoided taking passengers or large items due to weight concerns. Rather petite Ba (51 years old, GrabFood) noted: "Just delivering food suits my health. Honestly, I don't like driving passengers; you never know if they'll be heavy or light. If someone weighs 100 kilograms, how could I manage that?"

Other filtering tactics relied on subtle cues, such as declining deliveries or passengers based on their tone of voice or their responses during order confirmation calls. This quiet gatekeeping helped the women drivers avoid risky situations, even at the cost of algorithmic penalties or income. Lam (38 years old, GrabFood) explained: "When I hear a slurred voice, I know they're drunk. I cancel for safety. By hearing their voice, you can guess what kind of customers they are; safe or not. You have to decide yourself what to do." Such choices were not always based on a single negative incident but were grounded in a broader, embodied awareness of vulnerability.

In some cases, women also deployed affective tactics to defuse uncomfortable interactions. Humour and coded language helped to mask discomfort or signal noncompliance without direct confrontation. A number of participants explained that they would laugh off strange questions or respond to intrusive comments with

light sarcasm or jokes. Though seemingly light-hearted, these responses served as subtle methods of boundary-setting, another form of Scott's (1990) "hidden transcripts." Such tactics reflected an affective literacy of urban risk: the ability to remain visible and approachable on the street while carefully managing how one is perceived. Dung (39 years old, GrabBike in the past, now freelancer) shared:

> In the streets in the city centre, where it's crowded, they usually wouldn't dare to do much. But when I sensed the situation wasn't safe, I'd start a conversation. I'd also make sure to choose streets I felt were safe for me. I'd talk to them about emotional topics, like family life or children, to appeal to their compassion and distract them. For example, I'd share stories about my family's struggles and how hard life is, so they'd focus on that and not have any bad intentions. By the time we'd reach the destination, I'd have avoided the danger.

Phuong (45 years old, GrabBike) similarly noted: "Sometimes there are drunk passengers in areas where there aren't many Grab drivers. If they get on my bike, I chant Buddhist prayers while driving, without doing anything else."

These tactics were sometimes reinforced through informal peer communication. Although few women reported any platform-led support networks, several stayed connected via messaging platforms like Zalo or WhatsApp groups. These casual groups provided both emotional reassurance and practical guidance. "We have a private group to discuss work-related issues. For example, if someone encounters a scary customer, they share it with others," explained Trúc (37 years old, Xanh SM). Sen (~40 years old, Shopee) added: "Our group is mainly for chatting to pass the time. There's no leader; we just set it up ourselves. If anyone has something to complain about, we'll talk it through to vent." These digital solidarities, although noted less often than by participants in Kwan's (2022a) study of women delivery drivers in China, helped compensate for the isolating conditions of platform labour. The groups were spaces to share tips, express frustrations, and warn about unsafe customers, turning the women's phones into tools not just for delivery,

Figure 3. Woman app-based, parcel delivery driver getting ready for her shift. Source: Ngô Thúy Hạnh.

but also for emotional and physical protection. Several drivers also used fake calls or visible texting to deter unwanted attention during deliveries. While none explicitly mentioned using location-sharing or panic apps, their reliance on their phone as a versatile protective device was evident.

These tactics were not fool proof, nor were they signs of empowerment in the celebratory sense often promoted by platform marketing. Rather, they were necessary, pragmatic responses to a system offering no guarantees of safety or support. The burden of risk management was placed squarely on the shoulders of the women workers, reinforcing broader logics of the gig-economy where protection is exchanged for flexibility, and so-called freedom comes with hidden costs.

5. Concluding Thoughts: Gender, Precarity, and Gig-Work on Hanoi's Streets

The platform economy is often promoted as an inclusive, flexible work option, particularly for those excluded from formal labour markets. Yet, as critical scholarship has shown (e.g., Surie, 2020; van Doorn, 2017; Zhou, 2024), such work is frequently marked by volatility, algorithmic control, and exploitation. For many women in our study, entry into app-based delivery work was not a step toward empowerment but a response to family constraints or the collapse of other livelihood options. These drivers, many of whom were divorced, widowed, or single mothers, operated under conditions of structural precarity (Bissell, 2018), where platform-promised flexibility rarely translated into genuine autonomy.

In this environment, the frictions the women drivers faced, whether from infrastructural limitations, customer hostility, or environmental exposure, meant that Hanoi's streets functioned less as shared public infrastructure and more as fragmented, often exclusionary spaces (Cresswell, 2014). Their spatial access to the city's streets was shaped by caregiving demands, platform surveillance, and gendered safety concerns. Gender was a key axis shaping these experiences: women were more likely to experience harassment, feel unsafe at night, and restructure their routes to avoid male-dominated or peripheral urban areas. These everyday navigations of mobility frictions, though subtle, illuminate how the city's spatial and digital infrastructures reproduce uneven geographies of mobility, access, and risk. Seen through the lens of mobility justice (Sheller, 2018; Verlinghieri & Schwanen, 2020), these inequalities reveal how the right to move safely and with dignity remains unevenly distributed. Women delivery drivers' constrained mobilities are not only the result of individual risks or logistical challenges, but also of deeper urban processes that privilege certain bodies, vehicles, and rhythms of movement over others. Their experiences underscore how questions of labour, gender, and infrastructure intersect in the struggle over whose mobility counts as legitimate and whose is rendered marginal within Hanoi's evolving urban order.

At the same time, women drivers drew on situated forms of agency through a range of expedient and variegated tactics to shape their work in more manageable and secure ways (Sun & Chen, 2021). These included declining certain deliveries, crafting polite but firm refusals, deploying humour or distraction, and maintaining group chats for emotional support and information exchange. Such approaches align with Scott's (1990) "hidden transcripts," being understated, often invisible forms of resistance through which these women asserted dignity and control within constrained environments. Hanoi's streets thus emerged not only as arenas of economic transaction but as spaces where micro-political agency was continually and quietly negotiated.

Despite platform discourses that equate digital choice with freedom, our findings illustrate how women's delivery work remains physically taxing, socially undervalued, and politically underprotected. Their very visibility while riding motorbikes with delivery boxes or passengers, wearing branded vests, renders them hyper-visible yet socially illegible, exposing them to scepticism and microaggressions. This tension again underscores the mobility injustice occurring, and the unequal right to move safely, with dignity, and on equitable terms, across shared urban spaces (Sheller, 2018).

Finally, when we asked participants what changes they would like to see, their suggestions were grounded in the realities of their everyday work rather than framed as collective demands. They emphasised practical improvements such as safer delivery zones, more responsive complaint mechanisms, access to clean public toilets, and places to rest between jobs. These seemingly modest requests point to the need for a broader rethinking of how street space is designed, managed, and governed. They highlight that mobility justice for these women includes rethinking the everyday infrastructures that sustain movement, such as resting areas, safety measures, and responsive management practices. Policies that recognise delivery workers as legitimate street users could guide more inclusive forms of street governance, integrating attention to gendered experiences of safety, care, and fatigue into transport and urban planning agendas. These grounded insights offer important directions for how the streets might be made more secure, and liveable for women navigating platform work, even in the absence of formal organising or structured advocacy.

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Data Availability

Due to the nature of the research, data sharing is not applicable to this article.

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Supplementary Material

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