

# ADDRESSING GENERATION Z'S MOBILITY, PERCEPTIONS OF TRAVEL MODES, AND WELL-BEING

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**Abstract.** This study investigates the travel experiences and perspectives of Generation Z (Gen Z) individuals, focusing on various travel modes and their potential impact on well-being. This research used a retrospective qualitative approach to recall their travel journeys and how these experiences shape current travel behavior. Drawing from twenty-five Gen Z individuals living in urban Jakarta, the research suggests the perception of travel modes and travel attitudes among Gen Z is influenced by travel experiences across the life course including the socialization agents such as parents and peers, and the quality of transport infrastructures. Adding with increased transport technology, engagement in digital technology and higher interest in more sustainable transport options, Gen Z's transition from childhood to adulthood may radically disrupt travel behavior to be more independent and complex which contribute to travel satisfaction and well-being.

**Keywords:** generation Z, mobility, travel mode, well-being

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## INTRODUCTION

Transportation is crucial in enabling young individuals' well-being to exercise their right to the city (Waygood *et al*, 2017). The emergence of new and novel transport modes can influence the demand and perspectives of

younger cohorts on transport modes and vehicle ownership (Kuhnimhof *et al*, 2012; McDonald, 2015).

The empirical evidence suggests that satisfaction during making trips may enhance quality of life (QoL). In contrast, transport barriers may result in travel dissatisfaction and exclusion from engaging extensively in urban activities (Bergstad *et al*, 2011; Thompson and Schofield, 2007).

The term “young generation” in this research pertains specifically to Gen Z, which encompasses individuals born between the mid-1990s and early 2010s ([https://en.wikipedia.org/wiki/Generation\\_Z#Date\\_and\\_age\\_range](https://en.wikipedia.org/wiki/Generation_Z#Date_and_age_range)) and accounts for more than 32% of the global population and 25% of Indonesia’s population (Chhetri *et al*, 2014; Wood, 2018).

Recent studies reveal that Gen Z exhibits a higher environmental consciousness than preceding generations (Prayag *et al*, 2022; Ribeiro *et al*, 2023). Their travel behaviors can indicate their sustainability concern and a higher level of engagement with digital media and various applications (Seyfi *et al*, 2023; Seyfi *et al*, 2022).

There has been a notable growth in the body of work examining the travel behavior of Gen Z, particularly within the field of tourism (Prayag *et al*, 2022; Ribeiro *et al*, 2023). However, relevant studies on daily travel behavior and its relation to well-being are scarce. Exceptions for some works, even though they do not explicitly refer to Gen Z, instead use the term young people/young adults that can also comprise Generation Millennial in the research scope (Kuhnimhof *et al*, 2012; Delbosc and Vella-Brodrick, 2015; Nash and Mitra 2019). Some studies on travel behaviors of different generations, including Gen Z, predominantly utilized a quantitative methodology (Olsson *et al*, 2020; Prayag *et al*, 2022; Ribeiro *et al*, 2023).

Previous studies on children and teenager travel satisfaction on

well-being suggest more investigation into the relationship between the everyday travel behavior of Gen Z and their QoL (Waygood *et al*, 2017; Olsson *et al*, 2020). Hence, the study addressing Gen Z's travel experiences and how they choose and use certain travel modes offers more profound insights into Gen Z travel experiences and their impact on their well-being, focusing on their perception of various travel modes. Examining Gen Z's travel behavior can provide valuable insights into potential enhancements for transportation services and policies to increase people's QoL.

Gaps in knowledge remain across various research contexts (Olsson *et al*, 2020). Choosing Indonesia as a research focus can substantially benefit the existing body of literature, as most existing research focuses on developed urban societies (Belgiawan *et al*, 2016).

## MATERIALS AND METHODS

In this research, participants were drawn from twenty-five Gen Z individuals born between 1995 - 2008, living in urban Jakarta Greater Area (including Jakarta buffer cities such as Bogor, Depok, Tangerang, and Bekasi) for at least five years in 2022. They were recruited through purposive and snowballing techniques to ensure demographic variety.

This study used retrospective qualitative approaches to obtain in-depth analyses of relevant factors affecting life events and mobility journeys. It is a reliable method for recalling important events and covering a relatively long period (Schoenduwe *et al*, 2015). Face-to-face interviews allow participants to recall past and present decisions about their travel journey, including specific travel experiences alongside a particular key event. They can share the impact of their journey related to

their QoL that can be described as perceptions and emotions that emerge when asked about their travel journey and important events in their life.

The data analysis proceeded in five steps. First, respondents' written information was compiled. Second, each tape-recorded interview was transcribed and reviewed to understand the context and nuances of the responses. Third, the raw interview was coded into meaningful explanations and thematic analysis. Fourth, respondents' travel-related and other life-domain trajectories were charted for major occurrences. Lastly, travel mode used, travel mode preferences, parents and peers influence on travel mode used, perceptions on electric cars and satisfaction during travel were coded in an in-depth analysis of the transcripts. The iterative process was applied by systematically repeating analysis to achieve the desired results.

The study received an ethical approval from the University of Queensland with the approval number 2019001904.

## RESULTS

The result revealed Gen Z's travel attitudes and their perception toward certain travel modes. Table 1 illustrates the socio-demographic characteristics of research participants. The majority of participants are university students who are predominantly unmarried and reside in the outskirts of Jakarta. Most households possess private vehicles, primarily motorcycles with a few households owning cars.

Several participants relocated from smaller regions to Jakarta and its surrounding areas to pursue their education, as it was a home to numerous prestigious universities. During this period, some participants

had acquired driving licenses, some still regularly used public transport and some drove cars.

Table 1  
Participants' demographic data (N = 25)

Variable	Frequency <i>n</i> (%)
Gender	
Male	12 (48)
Female	13 (52)
Marital status	
Married	3 (12)
Single	22 (88)
Main activities	
Studying	17 (68)
Working	5 (20)
Unemployment	3 (12)
Residential areas	
Jakarta City	10 (40)
Jakarta Buffer Cities	15 (60)
Recent and highest education level	
College/University	20 (80)
Middle/High School	5 (20)
Private vehicles at home	
Cars	6 (24)
Motorcycles	12 (48)
Cars and motorcycles	4 (16)
None	3 (12)

Most participants mentioned they were concerned with the availability of public transport and the quality of transport infrastructures where they relocated for university and work. They started to identify what it was like to drive cars and ride motorcycles and to sort out what types of public transport were preferred.

Early adulthood is characterized for most as a time of relatively low income with high economic demands. Even though some participants lived independently, they still depended financially and transport resources on their parents. Some parents felt responsible for ensuring comfortable travel for their children by providing cars, motorcycles, or sufficient transport budget.

After graduating from college, their further goals are mainly getting jobs. When working for the first time, participants often did not have enough budget to buy a car. Public transport was the option available for most. They could use private vehicles if families have them.

With the increase mobility, participants started experimenting and learning to solve the problems they face with public transport and transport environment especially for those who had less access to private vehicles. Several participants reported reluctance to use public transit. They revealed that many public transport modes ignored traffic signs and other traffic rules, had unclear timetables, and forced passengers to wait at an unidentified time. They had garnered a reputation for providing poor services with increased air pollutants, the absence of air conditioning, and their hazardous behavior such as excessive speed, careless driving, and unrestricted smoking aboard the bus. Their inconvenient experiences shaped their negative sentiment toward public transit.

Safety and security are important issues. They shared they encountered crimes in transit such as pickpocketing and sexual harassment.

Both of these often occurred on full and crowded buses. Many female participants described public transit as 'scary' and 'traumatic'. Groping and catcalling are the most sexual harassment incidents they encountered in public transit. As a result, their motivation for traveling decreased unless they had companions when using public transit. Participants emphasized the impact of stress, fatigue, and trauma to their physical and mental health resulting from crimes in public transit, longer commute times and uncomfortable journeys.

Hence, many participants developed certain strategies to have pleasant trips. They would avoid crowded buses and travelling during nighttime as the likelihood of confronting verbal and physical violence in public spaces increased under those circumstances. In contrast, other participants tried to adapt by more selectively in choosing public transit. They would use more secure public transit even though their fare was relatively higher. Others might choose to be a fighter by developing defensive strategies such as installing personal safety applications, carrying pepper spray, or quickly capturing the license plate of the ride-sharing vehicle they are in and sending it to their families and peers.

Whilst majority of participants mentioned the disadvantages of public transit, most participants agreed problems with comfort, safety and security of land-type public transit were gradually being overcome by the introduction of new mass public transit in Jakarta Greater Area such as Transjakarta (Bus Rapid Transit), Microtrans, Jakarta Mass Rapid Transit (MRT) and Light Rail Transit (LRT). These modes reduced their negative sentiments of public transit as they offered comfort trips, integrated public transportation, offering fixed timetable, and catering broader area and more diverse locations.

Due to improved public transit, the presence of applications helped

them to plan their trips. Several participants highlighted their new behaviors by frequently checking applications for detecting travel route and time, familiarizing with one flat fare system and cashless transactions that might ensure accountability and improve service speeds across the network. However, those who had been dependent on private vehicles were more reluctant to use them. They maintained the belief that all forms of public transport were uncomfortable and would consider using them only when the route services entered their residential area.

Most participants showed higher reliance on ride-sharing taxi services. They mentioned brands such as *Gojek* and *Grab*. They perceived their mobility had been greatly improved with the advent of ride sharing services on smartphone applications as they offered specific routes, fixed fare prices, insurances, and other shipping and delivery services.

As they started living away from their parents, their influence decreased gradually and was replaced by peers and social networks. Some participants reported getting help from their peers to learn to drive and practiced carpooling for education and entertainment purposes. They gained independent mobility as they could decide travel modes and activities without parents' intervention.

The interview also demonstrated notable characteristics of participants' values of more environmentally friendly transport options. They believed that implementing active transport such walking and cycling, energy-efficient cars and mass public transportation systems would effectively decrease reliance on conventional cars, reduce air pollution and traffic congestion. However, despite active transport being one of their most desirable travel options, they were discouraged from doing them since transport infrastructure in their neighborhood was insufficient for pedestrians and cyclists. The long distance between homes and colleges or workplaces made applying for these modes also difficult.

## DISCUSSION

The findings indicate that young individuals exhibit a reduced reliance on cars and a greater willingness to experiment with various transport modes, such as public transit and ride-sharing services. It is consistent with a previous study that demonstrates Gen Z tend to use less cars while Baby Boomers (born 1946-1965) and Generation X (born 1966-1982) are more likely to use cars as their primary transport modes and value them as symbol of social status and freedom (Olsson *et al*, 2020). The finding implies that young individuals may have different perspectives on cars and face less societal pressure compared to previous generations in terms of car ownership. Increasing transport mode options that offer similar benefits as cars is arguably contributing to this transition.

The research finding confirms a prior study that the younger generation demonstrates greater proficiency in utilizing digital technology for travel activities and decision-making (Seyfi *et al*, 2022). The finding demonstrates that digital applications offering navigation routes, schedules, and contactless payment options are beneficial and perfectly suited for the transportation needs of young individuals. By harnessing digital technology and other technical advancements, they can enhance their travel satisfaction and effectively overcome any challenges they may encounter during traveling.

For young individuals, freedom can be achieved without owning cars. Car ownership may not be fully advantageous, particularly when considering variables such as traffic congestion, restricted parking, toll, fuel, and car maintenance expenses. This suggests an increasing inclination towards alternate transport modes which is consistent with previous research that indicates younger individuals are more open to trying out different travel options (Brown *et al*, 2015). In other words,

they are more likely to have a diverse transport mode option rather than relying primarily on a single mode. A prior study conducted among university-aged students has demonstrated that the utilization of various transport modes has a positive impact on their travel satisfaction, hence enhancing their well-being (Nash and Mitra, 2019).

Due to increased benefits offered by public transit and other modes, young individuals tend to delay obtaining driving licenses. Although they may consider obtaining driving licenses in the future, especially after finding a job, they do not prioritize this issue in the current manner. The challenging nature of the driving test and the expenses associated with driving courses and tests make the process of obtaining licenses unappealing. Young individuals can still gain travel satisfaction from accessible and reasonably priced public transport and ride-sharing services. This finding validates prior studies indicating that the younger generation is more likely to delay acquiring driving licenses due to their preference for using public transport, restricted car availability, and financial dependence (Delbosc and Nakanishi, 2017; Kuhnimhof *et al*, 2011).

The result demonstrates that their travel-mode preferences are driven by the need for freedom. Freedom plays a significant role in shaping their identity during adulthood. They enjoy exploring unspecified locations and embarking on spontaneous journeys using convenient and cost-effective transport modes. This finding supports Gen Z travel behavior that tend to embrace a frugal lifestyle, leading to their identification as budget-conscious travelers that enjoy venturing without predetermined destinations (Robinson and Schänzel, 2019).

It can be assumed young individuals attain independent mobility when they reach the age at which they can drive or travel without the need for adult or parental supervision. As they mature, individuals often

decrease their reliance on parents for transportation. Their hesitancy can be perceived as their ability to show their agency to choose journeys and transportation options without intervention. Delbosch and Vella-Brodrick (2015) suggest that the capacity for gaining independent mobility has the potential to enhance mental health of young individuals.

At this life stage, they also acquire necessary knowledge and abilities to effectively overcome challenges in transportation settings because enhanced mobility often corresponds to an increased probability of encountering travel barriers, such as lack of public transit services, potential crimes, and sexual harassment. However, these barriers often deter people from utilizing public transport and active transport (Bergstad *et al*, 2011), leading to frustration and isolation among young individuals, ultimately affecting their ability to participate in urban activities (Nash and Mitra, 2019).

The finding raises concerns over the physical and mental well-being of commuters who experience frustrations due to uncomfortable trips, including long commuting durations. A previous study confirms that extended travel time to work has been linked to increased levels of stress and a decrease in overall quality of life (Sandow, 2014). It can be understood that prior to undertaking long-distance journeys, young commuters exhibit proactive behavior such as carrying umbrellas, water, raincoats, headphones, and fully charged mobile phones to ensure comfortable trips. It is necessary for them to adopt measures to reduce stress and prevent issues related to commuting.

The finding shows that young individuals have greater apprehension around crimes in public areas, especially women who experience heightened fear about confronting sexual harassment. Therefore, many young women devote substantial effort to cultivating precautionary and protective measures for a safe journey. However,

women's fear in transit environment may result in their reluctance to be present in public areas and decrease their utilization of transport services (Pojani, 2014).

Previous studies have demonstrated the impact of parents and peers as socialization agents on the travel behavior of young individuals (Döring *et al*, 2014; Döring *et al*, 2019). The study's findings align with the notion that socialization continues to impact travel behavior throughout adulthood (Baslington, 2008). The research result indicates that individuals who were raised by parents who did not own a car have a notably higher level of familiarity with walking, cycling, and utilizing public transport. Conversely, those who are raised by parents who own vehicles in their family are more likely to rely on cars throughout their lives and are more prone to feeling dissatisfied while using alternative transport modes.

As individuals begin to live independently, the impact of their peers becomes more significant, as they experience a strong urge to be accepted and distinguish themselves within their social groups. For example, if a group of friends shows enthusiasm for environmentally conscious travel or carpooling, other members could feel obliged to conform in order to be accepted within their social circle.

Active transport is considered a very favorable way of travel for Gen Z, as opposed to passive transport (Waygood *et al*, 2017). Nevertheless, the finding reveals young individuals tend to do less walking and cycling. Most commuters living in Jakarta Greater Area face significant travel barriers due to inadequate infrastructure to support the mobility requirements of pedestrians and cyclists. Along with the frequent violation of traffic restrictions by transport users and combinations of hot and humid temperatures and high levels of air pollution, both walking and cycling are inconvenient for the majority of people. This highlights

the crucial need to develop inclusive transportation infrastructure that can be accessible to all individuals.

Prior studies suggest that Gen Z has a significant tendency to adopt sustainable and efficient transportation alternatives (Prayag *et al*, 2022; Ribeiro *et al*, 2023). Their stance corresponds with findings demonstrating how young individuals value travel options that prioritize not only safety, security, comfort, but also energy efficiency. They highlight the detrimental effect of automobiles that rely heavily on fossil fuel as a major contributor to the escalating air pollution problem in Jakarta. Young individuals exhibit a negative sentiment regarding reliance on conventional cars and prefer hybrid, electric cars and alternative fuel vehicles as the optimal choices.

However, despite being aware of environmental issues, Gen Z tends to perform limitedly in real-life environmental context. They still choose cars and motorcycles instead of public transport, engage in minimal walking and cycling, and express a desire to own cars in the future, which contradicts their environmental values.

Given that young individuals' preferences are shaped by their parents, peers and environment (Döring *et al*, 2014; Döring *et al*, 2019), it is crucial to recognize that their interest in cars may correspond to their daily travel experiences and the way their parents have taken care of their mobility throughout their lives. Some personal circumstances may discourage them from expressing their environmental beliefs in transport mode choices. For young individuals, they prioritize accessibility rather than car ownership. Even though they might prefer cars, they can switch to other eco-friendly and fuel-efficient vehicles once they are available and affordable. Cars are perceived as tools for movement and accessibility rather than symbols of status and prestige as they can be substituted by other modes that provide comparable benefits.

The finding reveals that despite facing a more complex travel experience, young individuals display a positive outlook on the future, including optimism for sustainable transportation, and increased availability of mass public transit, which in turn leads to greater socio-economic opportunities. This optimism is bolstered by the energy and vitality that characterize the attributes of younger generations (Arnett *et al*, 2014). By harnessing technological advancement and embracing various transport options, Gen Z can enhance their travel experience, thereby improving their overall quality of life.

Emphasizing this generation in the government's strategy to develop more sustainable transport policies is crucial, as they are expected to take leadership roles in the future and significantly impact the travel market and industry. Hence, further investigation into the relationship between Gen Z, their travel behavior, and quality of life is important. The future research should enhance the inclusiveness of Gen Z by incorporating their diverse heterogeneity demographic data.

In conclusion, the finding demonstrates how accessibility and independent mobility notably affect young individuals' well-being as they contribute to navigate their transition into adulthood. As Gen Z starts to shape their identity and develop the necessary character traits for becoming independent, such as forming social connections beyond their family and assuming adult duties, the growing obstacles in mobility further exacerbate their load. Nevertheless, their capacity for critical thinking, expansion of social connections, proficiency in utilizing digital technology, and alignment with their environmental beliefs can enhance their aptitude for navigating public spaces and overcoming transport barriers. This, in turn, leads to heightened travel satisfaction and an improvement in quality of life.

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## CONFLICT OF INTEREST DISCLOSURE

The author declares no conflict of interest.

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