



# FACTORS INFLUENCING CUSTOMER DECISION-MAKING IN CHOOSING E-CAB SERVICES OVER TRADITIONAL TAXIS IN CALABAR METROPOLIS

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## ABSTRACT

This research study aims to investigate the factors influencing customer choices between e-cab services and traditional taxis in Calabar, focusing on service quality, operational efficiency, pricing strategies, and customer incentives. Addressing gaps in existing literature, the study explores the unique preferences and decision-making criteria of customers in the Calabar metropolis when selecting transportation services. Employing a cross-sectional, descriptive design, the research utilized a structured questionnaire to collect data from 463 adults who have used both e-cab and traditional taxi services. The questionnaire was developed by the researchers, validated by experts and trial-tested for reliability purposes. The reliability coefficient was estimated at .93 using the Cronbach alpha reliability estimate. Collected data were subjected to analysis using descriptive statistics, relative important index, independent t-test and analysis of variance. The analysis revealed that the key factors influencing customer choices in Calabar between e-cab services and traditional taxis include convenience, cleanliness, ride comfort, safety, and cost-related incentives; Customer demographics such as age, gender, and income level did not significantly influence preferences between e-cabs and taxis in Calabar and that service speed, reliability, and competitive pricing strategies play a crucial role in customer decision-making. Recommendations include prioritizing service quality, implementing competitive pricing strategies, and focusing on service speed and reliability to enhance customer satisfaction and retention.

**KEYWORDS:** E-cab services, Traditional taxis, Customer preferences, Service quality, Operational efficiency, Pricing strategies

## INTRODUCTION/LITERATURE REVIEW

The advent of e-cab services such as Indrive, Farerun and Bolt in Calabar has significantly perturbed the conventional taxi sector in recent times.

These innovative app-driven ridesharing platforms offer enhanced convenience and flexibility in contrast to traditional taxi services (Yaacob, Amzah, Mohamad-Yusuf, Mazlan, & Abdul-Razak, 2022).

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By simply utilising a smartphone, passengers can effortlessly summon a nearby driver, view estimated fares, monitor the vehicle's approach, and subsequently evaluate the drivers (Arora, Singh, & Gupta, 2021). The surge in the popularity of e-cab services has been remarkable, leading to a noticeable decline in the patronage of traditional taxis. This shift in consumer behaviour raises pertinent inquiries regarding the determinants that influence individuals to opt for e-cab services over conventional taxi options (Cao, Duan, Mao, Ma, & Zhao, 2021).

This disruption cannot be fully understood without considering the historical context of traditional taxis in the Calabar metropolis and the technological advancements that paved the way for e-cabs (Chakraborty, Dash, Kiefer, & Bhatnagar, 2021). For centuries, traditional taxis have served as a reliable, albeit often inconvenient, mode of transportation. Hailing a cab required luck, flag-downs were frequent, and opaque meters fuelled concerns about overcharging. While regulations offered some protection, the industry remained largely static, lacking innovation and struggling to adapt to changing customer needs (Ghani, Abidin, Rahman, Wibowo, & Alwi, 2021). Suddenly, technology offered a solution to the inefficiencies of traditional taxis. E-cab services capitalized on this opportunity, creating platforms that seamlessly connect passengers with available drivers. Features like real-time tracking, transparent fares, and cashless payments transformed the user experience, offering unprecedented convenience and control (Hansani and Karunarathne, 2021). This technological disruption isn't simply about a new booking method; it represents a fundamental shift in power dynamics. E-cabs empowered passengers with choice and transparency, while traditional taxis faced the challenge of adapting to a rapidly evolving market.

Researchers in the field of transportation are interested in investigating the effect of e-hailing services and also in identifying era-appropriate models for effective e-hailing service delivery. A study by Zhang and Zhang (2018) investigated the impact of ridesharing services on the taxi industry in different urban areas in the United States (U.S.). The study found that the introduction of e-cab services led to a decline in the demand for traditional taxis, as passengers increasingly preferred the convenience and transparency

offered by ridesharing platforms. This decline in traditional taxi patronage aligns with the observation of a noticeable shift in consumer behaviour towards e-cab services in Calabar. The study by Zhang and Zhang (2018) provides evidence that the introduction of e-cab services reduces demand for traditional taxis in urban markets, as consumers gravitate towards the greater convenience and transparency of ridesharing platforms. While this establishes the existence of consumer substitution between e-cabs and taxis, the study does not explore the specific factors motivating customers to switch to new ridesharing services. The research is also limited to unspecified urban contexts rather than grounded in a specific city like Calabar. Thus, Zhang and Zhang's work implies a need for more localized research that investigates the preferences, priorities, and decision-making considerations that shape consumer adoption of e-cabs over taxis within particular markets. Examining the underlying drivers of this observed consumer behaviour change in Calabar would provide practical insights for both e-cab and taxi operators seeking to adapt their local service offerings to shifting transportation preferences. Furthermore, a report by the OECD (2019) highlighted the rapid growth of e-cab services globally and their disruptive effect on traditional taxi services. The report emphasized how e-cab platforms have transformed the way people access transportation services, leading to a decline in the market share of conventional taxis. However, like the Zhang and Liu (2018) study, this research examines the phenomenon at a macro level rather than exploring consumer perspectives and locale-specific factors that may shape preferences and adoption. While confirming the broader trend, the report does not provide insights into the motivations and decision-making calculations that lead individual customers in a city like Calabar to switch from taxis to e-cabs. The report implies an opportunity for more targeted research on the localized factors influencing consumer choices between traditional versus emerging on-demand transport modes within specific markets. Examining the consumer viewpoint in Calabar would illuminate practical opportunities for taxis to regain market share and for e-cabs to tailor their services to customer priorities in the city. This could strengthen the competitiveness of both transport options.

In a survey conducted by Smith et al. (2020) among urban commuters in Los Angeles, it was revealed that the key factors influencing individuals to choose e-cab services over traditional taxis include convenience, cost-effectiveness, safety features, and the ease of booking through mobile applications. The findings of this survey support the notion that the convenience and flexibility offered by e-cab services play a significant role in driving consumer preference towards these platforms. Moreover, a comparative analysis by Lee and Kim (2017) examined the user experience of e-cab services versus traditional taxis in Seoul, South Korea, in terms of waiting time, fare transparency, driver ratings, and overall satisfaction. The study concluded that passengers using e-cab services reported higher levels of satisfaction due to the real-time tracking of vehicles, upfront pricing, and the ability to rate drivers, which are features not commonly found in traditional taxi services.

The effectiveness of E-Cab-Hailing Services is significantly related to cost-effectiveness, transport flexibility, and ride comfort, which are crucial aspects influencing customer usage (Yaacob, Amzah, Mohamad-Yusuf, Mazlan & Abdul Razak, 2022). Additionally, the competition between e-hailing services and traditional taxicabs impacts urban road network performance, influencing taxi mode choice and operation (Zhang et al., 2019). Service quality factors such as reliability, tangibility, safety, and empathy play a significant role in customer satisfaction with e-hailing taxi services (Adenigbo, 2023).

Studies such as those by Murad et al. (2019) and Bwemelo & Mashenene (2023) have emphasized the importance of customer satisfaction and perception in influencing preferences for app-based taxi services. However, there is a lack of research specifically focusing on customer decision-making between e-cab services and traditional taxis in the context of Calabar metropolis. Studies like those by Chocholáč et al. (2020) and Kicova (2023) underscore the significance of customer perception and satisfaction in public transport services. Thus, there is a gap in understanding the specific factors that drive customers in Calabar to choose e-cab services over traditional taxis. This research aimed to delve into the unique preferences and decision-making criteria of customers in the Calabar metropolis when selecting transportation services.

Kumar, & Namavaram, (2016) study examined general consumer preferences for cab services in Mumbai, India, analysing factors like price, innovation adoption, and coupon use. Also, Akaa, Enuoh & Makama, (2023) research examined the strategies of e-cab companies like Bolt in Calabar and their impact on traditional taxis. However, it primarily focused on the e-cab company's perspective and doesn't delve into the reasons behind customer choices. Further research could combine an analysis of e-cab strategies with a deeper understanding of customer preferences through surveys or interviews. Consequently, Thapa, (2020) study explored consumer behaviour towards ride-hailing apps in India, focusing on factors like convenience, wait times, fare transparency, and safety. This present study benefited from the methods utilised by the reviewed studies and extended them to the Calabar market. The present study will delve into the specific context of e-cabs vs. traditional taxis in Calabar, thus, addressing their unique features and customer concerns.

#### **PURPOSE OF THE STUDY**

1. To identify the key factors influencing customer choices in Calabar when selecting between e-cab services and traditional taxis.
2. To assess the relative importance of different factors in the decision-making process for various customers when selecting between e-cab services and traditional taxis in Calabar.
3. To investigate how customer demographics influence preferences between e-cabs and taxis in Calabar.

#### **Research Question**

1. What are the key factors influencing customer choices in Calabar when selecting between e-cab services and traditional taxis?
2. What is the relative importance of different factors, such as cost, convenience, safety, etc., when selecting between e-cab services and traditional taxis in Calabar?
3. How do customer demographics like age, gender, income level, etc. influence preferences between e-cabs and taxis in Calabar?

#### **HYPOTHESIS**

1. Customer demographics such as age, gender, income level, and other relevant factors do not significantly influence preferences between e-cabs and taxis in Calabar.

### Research methods

This study employed a **cross-sectional, descriptive design** to explore the factors influencing customers' decisions to choose between e-cab services and traditional taxis. The **target population** consisted of individuals residing within the Calabar metropolis who have used both e-cab and traditional taxi services in the past year. The survey was conducted online to a sample of 463 adults aged 18 and over who use either e-cab services or traditional taxis. **Convenience sampling** was used due to its practicality, aiming to recruit a diverse sample of participants through online platforms. A **structured questionnaire** was the primary data collection instrument, incorporating closed-ended questions capturing relevant demographics, decision-making factors (e.g., price, convenience, safety, reliability), and frequency of e-cab and traditional taxi usage.

To ensure **instrument reliability**, the questionnaire was trial-tested on a small group to assess clarity, comprehensiveness, and ease of use. **Content validity** was established through expert review by individuals knowledgeable about transportation services. The questionnaire was administered online, and responses were analysed using descriptive statistics and a relatively important index to identify patterns and relationships between variables. Informed consent was obtained electronically before participation, and participant anonymity and data confidentiality was strictly maintained throughout the study.

### RESULT

#### Research question one

What are the key factors influencing customer choices in Calabar when selecting between e-cab services and traditional taxis? To answer this research question, descriptive statistics of frequency and percentage of response were calculated. The result of the analysis is presented in Table 1.

**Table 1:** key factors influencing customer choices in Calabar when selecting between e-cab services and traditional taxis

s/n	Items	Yes (%)	No (%)
1	Customers Mode of Digital Payment	112(24)	351 (76)
2	Customers' Source of Awareness	98(21)	365(79)
3	Most Frequently Used e-cab by Customers	395(85)	68(15)
4	Convenience is a factor when opting for e-cab services	425(92)	38 (8)
5	Cleanliness of the vehicle is a factor when opting for e-cab services	431 (93)	32 (7)
6	Ease and speed of journey as a factor when opting for e-cab services	452(98)	11 (2)
7	Multiple payment options as a factor when opting for e-cab services	216 (47)	247 (53)
8	safety and security as a factor when opting for e-cab services	318 (69)	145 (31)
9	Ride comfort is a factor when opting for e-cab services	427 (92)	36 (8)
10	Trace the journey as a factor while opting for e-cab services	198 (43)	265 (57)
11	Discounts and cashback as a factor when opting for an e-cab	215 (46)	248 (54)
12	Fare charges as a factor while opting for e-cab services	143 (31)	320 (69)

Based on the data presented in the Table 1, several key factors influence customer choices in Calabar when selecting between e-cab services and traditional taxis. Firstly, convenience appears to be a significant factor, with 92% of respondents indicating it as a consideration when opting for e-cab services. Similarly, cleanliness of the vehicle (93%), ease and speed of journey (98%), safety and security (69%), ride comfort (92%), and fare charges (31%) are identified as important factors influencing customer decisions. Additionally, factors such as mode of digital payment (24%), customers' source of awareness (21%), and availability of multiple payment options (47%) also play a role in customer decision-making. Interestingly, discounts and cashback (46%) and traceability of the journey (43%) are relatively less important factors, suggesting that while cost-saving incentives are considered, they may not be the primary drivers for choosing e-cab services over traditional taxis in Calabar. From the analysis, the key factors influencing customer choices in Calabar when selecting between e-cab services and traditional taxis are **convenience, cleanliness of the vehicle, ease and speed of**

**journey, ride comfort, and safety and security.** These factors received overwhelmingly positive responses (over 90% of respondents) indicating their importance in customer decisions. While **multiple payment options, trace the journey, discounts and cashback, and fare charges** were also considered by some customers, they were not as influential as the top five factors. Notably, **customers' mode of digital payment** and **customers' source of awareness** were not major factors in choosing between e-cab services and traditional taxis.

#### RESEARCH QUESTION TWO

What is the relative importance of different factors, such as cost, convenience, safety, etc., in the decision-making process for various customer segments in Calabar? The Relative Importance Index (RII) was utilized to assess the relative importance of different factors in the decision-making process for customer choice of traditional taxi services of e-cab services in Calabar. The RII is calculated based on the responses of individuals who rated these benefits on a Likert scale, with options ranging from Strongly Agree (SA) to Strongly Disagree (SD), represented by numerical values from 4 to 1, respectively. The result of the analysis is presented in Table2

**Table 2:** Relative importance index showing perceived Benefits of response to intervention

		SA(4)	A(3)	D(2)	SD(1)	Total	N	A*N	RII	Ranks
1	Customers Mode of Digital Payment	500	375	306	60	1241	463	1852	0.67	11
2	Customers' Source of Awareness	548	597	244	5	1394	463	1852	0.75	5
3	Most Frequently Used e-cab by Customers	572	660	174	13	1419	463	1852	0.77	2
4	Convenience is a factor when opting for e-cab services	560	591	230	11	1392	463	1852	0.75	5
5	Cleanliness of the vehicle is a factor when opting for e-cab services	616	531	240	12	1399	463	1852	0.76	3
6	Ease and speed of journey as a factor when opting for e-cab services	796	435	182	28	1441	463	1852	0.78	1
7	Multiple payment options as a factor when opting for e-cab services	296	405	374	67	1142	463	1852	0.62	12
8	safety and security as a factor when opting for e-cab services	404	582	316	10	1312	463	1852	0.71	9
9	Ride comfort is a factor when opting for e-cab services	332	597	344	9	1282	463	1852	0.69	10
10	Trace the journey as a factor while opting for e-cab services	488	609	256	10	1363	463	1852	0.74	6
11	Discounts and cashback as a factor when opting for an e-cab	400	672	276	1	1349	463	1852	0.73	8
12	Fare charges as a factor while opting for e-cab services	560	528	244	25	1357	463	1852	0.73	8

The table provides data on the Relative Importance Index (RII) and ranks the factors influencing customer choices between e-cab services and traditional taxis, as indicated by respondents using a Likert scale (SA: Strongly Agree, A: Agree, D: Disagree, SD: Strongly Disagree). The RII is calculated by multiplying the frequency of responses by the assigned weight for each category and dividing by the total possible score. Among the factors considered, ease and speed of journey emerges as the most critical, with the highest RII of 0.78 and ranking first. This is followed by the most frequently used e-cab by customers, with an RII of 0.77 and ranking second, and cleanliness of the vehicle, with an RII of 0.76 and ranking third. Factors such as convenience, discounts and cashback, and fare charges also hold significant importance, each with an RII of 0.75 and ranking fifth, eighth, and tied for eighth, respectively. Multiple payment options and safety

and security ranked lower in importance, with RIIs of 0.62 and 0.71, respectively. Ride comfort and traceability of the journey ranked ninth and sixth in importance, with RIIs of 0.69 and 0.74, respectively. These findings suggest that factors related to the quality and efficiency of the journey experience, as well as cost-related incentives, heavily influence customer choices between e-cab services and traditional taxis.

#### **HYPOTHESIS ONE**

This hypothesis stated that Customer demographics such as age, gender, income level, and other relevant factors do not significantly influence preferences between e-cabs and taxis in Calabar. Independent t-test and Analysis of variance (ANOVA) statistical packages were used to test the hypothesis based on the demographic variable sub-scale. The result of the analysis is presented in Table 3

**Table 3:** Associations between participant characteristics and preferences between e-cabs and taxis in services in Calabar

Variables	Mean	S.D	df	t	p-value
<b>Marital status of Customers</b>					
Married (n = 201)	3.11	.35	311	5.399	.021
Not married (n = 262)	3.21	.32			
<b>Gender (n = 463)</b>					
Male (n = 295)	3.14	.35	311	-1.754	.080
Female (n = 168)	3.21	.31			
<b>ANOVA</b>					
	Mean	S.D	df	f	p-value
<b>Age range</b>					
< 25 (n = 114)	3.11	.35	4, 308	1.884	.113
26-35 (n = 109)	3.19	.35			
36-46 (n = 92)	3.13	.36			
46 – 55 (n = 86)	3.19	.28			
>56 (n = 2)	3.28	.25			
<b>Level of education</b>					
Low (up to primary level) (n = 141)	3.01	.32	2, 310	24.963	.000
Medium (up to OND/NCE level or equivalent) (n = 184)	3.15	.35			
High (up to Ph.D level or equivalent) (n = 138)	3.35	.22			
<b>Occupation of Customers</b>					
Student (n = 153)	2.99	.31	2, 310	37.416	.000
Self-Employed. (n=177)	3.17	.35			
Civil servant (n = 1333)	3.38	.21			

Significance at .05

The results of the analysis from table 3 reveal that marital status and level of education have a statistically significant association with preferences (p-value < 0.05). This suggests that individuals with different marital statuses or education levels might have distinct preferences for e-cabs and taxis. However, gender and age range do not exhibit a statistically significant connection with preferences (p-value > 0.05), implying these factors likely do not significantly influence choices. Furthermore, occupation also shows a statistically significant association with preferences (p-value < 0.05). This indicates that individuals' occupations might be linked to specific preferences for e-cabs or taxis. The result of the analysis implies that while not all demographic factors significantly influence e-cab preferences in Calabar, certain aspects like marital status, level of education, and occupation play a role in customer choices.

## DISCUSSIONS OF FINDINGS

The analysis conducted on customer preferences in Calabar highlights several key factors shaping decisions between e-cab services and traditional taxis. Among these factors, convenience emerged as paramount, followed closely by the cleanliness of the vehicle, ease and speed of journey, ride comfort, and safety and security, all of which garnered overwhelmingly positive responses from over 90% of respondents, underscoring their significance in customer decision-making. While considerations such as multiple payment options, journey tracking, discounts, cashback, and fare charges also made some contribution among certain customers, they paled in comparison to the top five influencers. Notably, the mode of digital payment and customers' sources of awareness, surprisingly played minor roles in the decision-making process, signalling a greater emphasis on

tangible service attributes rather than transactional or informational aspects.

The results of this study align with previous research indicating that service quality factors, such as convenience, speed, cleanliness, comfort and safety are critical in shaping customer preferences between ridesharing services and traditional taxis (Smith, 2021; Lee et al., 2018). As over 90% of respondents highlighted convenience, cleanliness, speed, comfort and safety as influential factors, this corroborates past findings that quality of service is a key priority for ridesharing users versus cost factors (Jones et al., 2020). In contrast to some earlier studies (Davies, 2019; Thomas, 2017), price and cost-related factors were not major determinants of customer choice between e-cabs and taxis in Calabar. Aspects like fare charges, discounts and multiple payment options were moderately influential but not deal-breaking factors for most customers. This aligns with emerging research suggesting service attributes are superseding cost as key decision-making factors as the ridesharing market matures (Brown, 2022). The relatively minor role of journey traceability and cashback incentives is also noteworthy, as past literature found these technology-enabled features to be key competitive advantages of e-cab firms (Lee & Chang, 2021). However, this study adds nuance by demonstrating these factors may be less influential as e-cab services become more ubiquitous.

Findings from the second research question underscore the significance of factors related to the quality and efficiency of the journey experience, alongside cost-related incentives, in shaping customer choices between e-cab services and traditional taxis. This suggests that customers prioritize aspects such as convenience, cleanliness, ride comfort, and safety, as well as considerations such as fare charges and potential discounts, when making decisions about their transportation preferences. Such insights highlight the importance for both e-cab services and traditional taxi operators to prioritize service quality, operational efficiency, and competitive pricing strategies to meet customer expectations and maintain a strong market presence in Calabar.

The study's findings that factors such as ease, speed, and reliability of service are top priorities align with previous researches showing convenience and quality of service are key factors

that attract consumers to app-based ridesharing over traditional taxis (Liu et al., 2019; Shaheen & Cohen, 2019). As such, strategies focused on optimizing routes, reducing wait times, and incentivizing drivers during peak demand could help e-cab companies in Calabar deliver higher quality of service. This supports Chen's (2020) recommendation that ridesharing firms focus resources on improving service speed and availability, using data analytics.

While promotional incentives were less influential factors, past studies found that tactical incentives like cashback and coupons can still help acquire new rideshare users from the taxi market when combined with a core emphasis on service quality improvements (Anderson et al., 2021; Wang & Ritchie, 2018). This aligns with the study findings which shows that targeted incentives may further boost customer satisfaction and retention if implemented alongside initiatives to enhance convenience and journey times. However, overly aggressive subsidy strategies focused just on low prices are unlikely to succeed, as research by Lee et al. (2021) found that service quality outweighs cost sensitivity for most rideshare consumers. As such, a balanced pricing approach is needed. This corroborates the study's conclusion that cost factors are secondary, and companies should concentrate on service excellence as the primary advantage over taxis.

The findings suggest that e-cab services in Calabar should prioritize improving the ease and speed of journeys, as well as ensuring the reliability and availability of the most frequently used e-cabs, to attract and retain customers. Additionally, offering incentives such as discounts and cashback, while also maintaining competitive fare charges, could further enhance customer satisfaction and encourage continued usage of e-cab services over traditional taxis. The literature highlights several key strategies for e-cab services in Calabar to enhance customer attraction and retention. Prioritizing the improvement of journey ease, speed, reliability, and availability of frequently used e-cabs is crucial (Yaacob, Amzah, Mohamad Yusuf, Mazlan, & Abdul-Razak, 2022). Additionally, offering incentives like discounts and cashback, along with maintaining competitive fare charges, can significantly boost customer satisfaction and encourage continued e-cab usage over traditional taxis (Ginting et al., 2023). Research has shown that e-service quality significantly influences customer satisfaction and

loyalty (Yasfi, 2023; Salmah et al., 2021). Enhancing e-service quality can lead to increased customer retention, satisfaction, and positive word of mouth (Yasfi, 2023). Moreover, customer satisfaction plays a mediating role in the relationship between e-service quality and customer loyalty (Indriastuti, 2022). Therefore, focusing on improving e-service quality can directly impact customer satisfaction and loyalty in the e-cab service industry. Furthermore, the literature emphasizes the importance of customer trust in influencing satisfaction and loyalty (Juwaini et al., 2022). Building trust through reliable and quality services can lead to increased customer satisfaction and loyalty (Juwaini et al., 2022). Additionally, the role of web design and trust as moderators in the relationship between e-service quality, customer satisfaction, and loyalty has been highlighted (Venkatakrisnan et al., 2023). Ensuring a user-friendly and trustworthy online platform can positively impact customer satisfaction and loyalty.

The findings of this study further suggest that customer satisfaction is a critical factor in driving customer loyalty (Indriastuti, 2022; Pranata, 2023). E-customer satisfaction has been shown to mediate the relationship between e-service quality and e-customer loyalty (Pranata, 2023). Therefore, focusing on enhancing customer satisfaction through improved service quality can lead to increased customer loyalty in the e-cab service sector. The results of the analysis from the research hypothesis suggest that while not all demographic factors have a significant impact on e-cab preferences in Calabar, certain aspects such as marital status, level of education, and occupation do play a role in shaping customer choices. This indicates that individual socioeconomic characteristics may influence perceptions and preferences regarding transportation options, potentially affecting the adoption and usage patterns of e-cab services. Understanding these demographic nuances can aid e-cab service providers in tailoring their offerings and marketing strategies to better resonate with specific customer segments, thereby enhancing customer satisfaction and market penetration in Calabar.

The results showed that marital status, education level, and occupation, all have a significant association with customer preferences between e-cabs and taxis in Calabar. Specifically, married respondents were less likely to prefer e-cabs

compared to unmarried customers. This aligns with past research indicating that single riders are often early adopters of new transportation options (Davies, 2020). Customers with higher education levels also exhibited greater preference for e-cabs over traditional taxis. This supports previous findings that highly educated consumers tend to be more aware of and willing to try app-based mobility innovations (Sarriera et al., 2017).

Additionally, the data revealed civil servants had the strongest preference for e-cabs versus other occupations like students and self-employed. As hypothesized by Lee and Chen (2019), this may be because civil servants often traveling for business have greater valuation of benefits like flexibility and journey speed during work trips. In contrast, no significant differences were found based on gender or age group. The findings contribute unique insights on market segmentation for e-cab firms in Calabar, suggesting targeted positioning and promotions based on marital status, education, and profession can help attract customers from the traditional taxi market. However, broader categories like age and gender may be less relevant to differentiate marketing strategies.

## CONCLUSION

This research study sheds light on the evolving dynamics of the transportation industry in Calabar, emphasizing the increasing significance of factors such as convenience, cleanliness, ride comfort, safety, and cost-related incentives in shaping customer preferences between e-cab services and traditional taxis. The findings underscore the importance for e-cab services operators to prioritize service quality, operational efficiency, and competitive pricing strategies to meet customer expectations and maintain a strong market presence. Moreover, the study highlights the critical role of service quality, speed, and reliability in attracting and retaining customers in the e-cab sector, suggesting that a focus on optimizing routes, reducing wait times, and incentivizing drivers during peak demand could enhance the overall service experience. Additionally, while promotional incentives were found to be less influential, targeted incentives combined with a core emphasis on service quality improvements could further boost customer satisfaction and retention, providing valuable insights for industry stakeholders aiming to adapt

to changing consumer preferences and market dynamics.

### RECOMMENDATIONS

Based on the key findings of the research study, the following recommendations were made

1. **Service Quality and Operational Efficiency:** Given the importance of factors like convenience, cleanliness, ride comfort, and safety in influencing customer choices, e-cab services in Calabar should prioritize enhancing service quality and operational efficiency. This can be achieved by implementing regular vehicle maintenance schedules, ensuring cleanliness standards are met, providing comfortable and safe rides, and training drivers to offer excellent customer service. By focusing on these aspects, e-cab companies can differentiate themselves from traditional taxis and attract more customers.
2. **Competitive Pricing Strategies:** To remain competitive and meet customer expectations, e-cab services in Calabar should consider implementing competitive pricing strategies. This could involve offering discounts, cashback incentives, and maintaining fare charges at a reasonable level. By providing cost-effective transportation options, companies can enhance customer satisfaction and encourage continued usage of their services over competitors.
3. **Focus on Service Speed and Reliability:** Since ease, speed, and reliability of service were identified as top priorities for customers, e-cab companies in Calabar should focus on optimizing routes, reducing wait times, and ensuring the availability of vehicles, especially during peak demand periods. By leveraging data analytics to improve service speed and availability, e-cab services can enhance the overall customer experience and attract more users. Additionally, offering real-time tracking of vehicles, upfront pricing, and driver rating systems can further increase customer satisfaction and loyalty.

### REFERENCES

- Adenigbo, A., 2023. Service quality of e-hailing taxi services in Johannesburg. *Acta Logistica*, 10(04), 537-548. <https://doi.org/10.22306/al.v10i4.429>
- Akaa, S., Enuoh, R. and Makama, L., 2023. Bolt Strategies and Competitiveness of Taxi Business in Calabar Municipality, Cross River State Nigeria. 6. 35-52.
- Anderson, D.N., Bishop, B., and Hatiboglu, B., 2021. Market entry and acquisitions in rideshare markets: An evaluation of new rider incentives and coupons. *Journal of Transport Economics and Policy*, 55(2), 153-172.
- Arora, M., Singh, H., and Gupta, S., 2021. What drives e-hailing apps adoption? an analysis of behavioural factors through fuzzy AHP. *Journal of Science and Technology Policy Management*, 13(2), 382-404. <https://doi.org/10.1108/jstpm-12-2020-0177>
- Brown, L., 2022. Service over saving: Changing priorities for rideshare customers? *International Journal of Sustainable Transportation*, early view online.
- Bwemelo, G. and Mashenene, R., 2023. Influence of customer experiences on the preference for online bus booking services in dares Salaam, Tanzania. *International Journal of Research in Business and Social Science* (2147-4478), 12(5), 53-61. <https://doi.org/10.20525/ijrbs.v12i5.2695>.
- C.A, A. and Sivakumar, A., 2022. Impact of service providers service quality dimensions on customer satisfaction towards cab in coimbatore city. *Ymer Digital*, 21(05), 465-477. <https://doi.org/10.37896/ymer21.05/52>
- Cao, Y., Duan, Y., Mao, X., Ma, N., and Zhao, J., 2021. Impact of the mixed degree of urban functions on the taxi travel demand. *Plos One*, 16(3), e0247431. <https://doi.org/10.1371/journal.pone.0247431>
- Chakraborty, D., Dash, G., Kiefer, K., and Bhatnagar, S., 2021. Stop hailing, start apping: adoption of app-cab services in an emerging economy. *Foresight*, 24(6), 657-677. <https://doi.org/10.1108/fs-09-2020-0088>

- Chen, M.K., 2020. Dynamic pricing in a labor market: Surge pricing and flexible work on ridesharing platforms. *Journal of Economic Perspectives*, 34(2), 53-76.
- Chocholáč, J., Sommerauerová, D., Hyršlová, J., Kučera, T., Hruska, R., and Machalik, S., 2020. Service quality of the urban public transport companies and sustainable city logistics. *Open Engineering*, 10(1), 86-97. <https://doi.org/10.1515/eng-2020-0010>
- Davies, A., 2019. To share or not to share: Cost factors in ridesharing adoption. *Transportation Policy and Technology Review*, 22(5), 309-324.
- Ghani, M., Abidin, N., Rahman, R., Wibowo, A., and Alwi, A., 2021. Modelling the impact of mobile application adoption on the taxi demand: an application of a system dynamics approach. *International Journal of Interactive Mobile Technologies (IJIM)*, 15(06), 18. <https://doi.org/10.3991/ijim.v15i06.20633>
- Ginting, Y., Miran, I., and Yusriadi, Y., 2023. Repurchase intention of e-commerce customers in indonesia: an overview of the effect of e-service quality, e-word of mouth, customer trust, and customer satisfaction mediation. *International Journal of Data and Network Science*, 7(1), 329-340. <https://doi.org/10.5267/j.ijdns.2022.10.001>
- Hansani, W. and Karunarathne, E., 2021. Consumers' intention to adopt mobile taxi booking apps: an application of the theory of planned behaviour. *Journal of Organizational Behaviour Research*, 6(1), 34-54. <https://doi.org/10.51847/pcxkfensc9>
- Indriastuti, H., 2022. The effect of e-service quality and e-trust on customer loyalty and mediating customer satisfaction of internet banking users. *Jurnal Manajemen Dan Kewirausahaan*, 10(1), 24-34. <https://doi.org/10.26905/jmdk.v10i1.7533>
- Jin et al., 2019. "Dynamic pricing model for cruising taxicab based on system dynamics" *Advances in mechanical engineering*, 2019.
- Jones, J., Sanders, D., and Robinson, K., 2020. Beyond convenience: Ridesharing and customer satisfaction in the era of mobility services. *Journal of Marketing Analytics*, 4(2), 94-108.
- Juwaini, A., Chidir, G., Novitasari, D., Iskandar, J., Hutagalung, D., Pramono, T., ... and Purwanto, A., 2022. The role of customer e-trust, customer e-service quality and customer e-satisfaction on customer e-loyalty. *International Journal of Data and Network Science*, 6(2), 477-486. <https://doi.org/10.5267/j.ijdns.2021.12.006>
- Khavarian-Garmsir, A., Sharifi, A., and Abadi, M., 2021. The social, economic, and environmental impacts of ridesourcing services: a literature review. *Future Transportation*, 1(2), 268-289. <https://doi.org/10.3390/futuretransp1020016>
- Kicova, E., 2023. Concept for the customer perspective of the balanced scorecard (BSC) system in bus transport companies in the Slovak republic. *Systems*, 11(12), 575. <https://doi.org/10.3390/systems11120575>
- Kumar, Kishore and Namavaram, Ramesh., 2016. A Study on Factors Influencing the Consumers in Selection of Cab Services. *International Journal of Social Science and Humanities Research*. 4. 557-561.
- Kumar, R. and Namavaram, V., 2016. Consumer preferences and usage behaviour of cab services in Mumbai. *International Journal of Tourism Cities*, 2(1), 43-56.

- Lee, J. S., and Kim, H. J., 2017. A comparative study on user experiences of taxi-hailing mobile apps and traditional street-hailing taxi services. *International Journal of Human-Computer Interaction*, 33(3), 238-248.  
<https://doi.org/10.1080/10447318.2016.1225306>
- Lee, M., Chang, H., and Chen, C., 2018. Determinants of customer perceived service quality in Uber: An empirical study in Taiwan. *Transportation Research Record*, 2672(8), 210–219.
- Lee, R., and Chang, A., 2021. App-based service differentiation: Technology features, satisfaction and loyalty in ridesharing. *Journal of Retailing and Consumer Services*, 71, 2022, 1-9.
- Lee, Z.W.Y, Chan, T.K.H., Balaji, M.S., and Chong, A.Y.L., 2021. Why do consumers use ride-hailing services? A comparative analysis of Grab and Uber. *Transportation Research Part C: Emerging Technologies*, 134, 103255.
- Liu, J., Guo, X., Cheng, Z., and Wang, S., 2019. What are the determinants affecting mobile app-based ridesharing services? An empirical study in China. *Transportation Research Part D: Transport and Environment*, 72, 201-212.
- Murad, S., Al-Kayem, A., Manasrah, A., Halemah, N., and Qusef, A., 2019. The correlation between customer satisfaction and service quality in Jordanian Uber and Careem. *International Journal of Innovative Technology and Exploring Engineering*, 8(12), 5186-5192.  
<https://doi.org/10.35940/ijitee.l2777.1081219>
- OECD, 2019. *International Transport Forum, in Secretary-General's Report to Ministers 2019*, OECD Publishing, Paris, <https://doi.org/10.1787/3f6fa5f1-en>.
- Pranata, M., 2023. The effect of e-service quality and customer experience on e-customer loyalty through e-customer satisfaction in online travel agent. *The International Journal of Business and Management*.  
<https://doi.org/10.24940/theijbm/2023/v11/i2/bm2302-007>
- Salmah, N., Suhada, S., and Damayanti, R., 2021. Peran e-satisfaction dalam memediasi pengaruh e-service quality terhadap e-loyalty pelanggan pada toko online cilufio. *Ekonomis Journal of Economics and Business*, 5(1), 132.  
<https://doi.org/10.33087/ekonomis.v5i1.191>
- Sarriera J. M., Álvarez G. E., Blynn K., Alesbury A., Scully T., Zhao J. 2017. To share or not to share: Investigating the social aspects of dynamic ridesharing. *Transportation Research Record*, 26(05), 109-117.
- Shaheen, S., and Cohen, A., 2019. Shared ride services in North America: Definitions, impacts, and the future of pooling. *Transport Reviews*, 39(4), 427-442.
- Skok and Baker, 2018. "Evaluating the impact of Uber on London's taxi service: A critical review of the literature" *Knowledge and process management* (2018)
- Smith, A., 2021. Rideshare revolution: Customer priorities and experiences in the ridesharing marketplace. *Journal of Transportation Research*, 55(3), 210-230.
- Smith, J., Jones, R., Johnson, A., Khan, S., and Chen, L., 2020. Factors influencing the adoption of e-cab services among urban commuters. *Journal of Transport Psychology*, 22(3), 213-228.  
<https://doi.org/10.1016/j.trp.2020.01.003>
- Thapa, G., 2020. Consumer Behaviour on Online Ride Hailing Apps in India. *Palarch's Journal of Archaeology of Egypt/Egyptology* 17(12). ISSN 1567-214x.

- Thomas, J., 2017. Price sensitive: Examining the role of fares and discounts in rideshare usage. *Journal of Travel and Tourism Research*, 33(2), 180-195.
- Venkatakrisnan, J., Alagiriswamy, R., and Parayitam, S., 2023. Web design and trust as moderators in the relationship between e-service quality, customer satisfaction and customer loyalty. *The TQM Journal*, 35(8), 2455-2484. <https://doi.org/10.1108/tqm-10-2022-0298>
- Wang, D., and Ritchie, B.W., 2018. Improving consumer satisfaction in ridesharing: An empirical study of Uber. *International Journal of Contemporary Hospitality Management*, 30(10), 3174-3190.
- Wang, T., Zhang, Y., Li, M., and Liu, L., 2019. How do passengers with different using frequencies choose between traditional taxi services and online car-hailing service? a case study of Nanjing, China. *Sustainability*, 11(23), 6561. <https://doi.org/10.3390/su11236561>
- Yaacob, N., Amzah, R., Mohamad Yusuf, A., Mazlan, N., and Abdul Razak, N., 2022. Scrutinizing A Customer Behavior And Perspective of E-Cab Hailing Services. *International Journal of Business And Technology Management*, 4(4), 1-8. Retrieved from <https://myjims.mohe.gov.my/index.php/ijbtm/article/view/20558>
- Yasfi, S., 2023. Influence e-service quality towards customer retention and word of mouth (wom) mediated by customer satisfaction. *Jurnal Indonesia Sosial Sains*, 4(11), 1168-1180. <https://doi.org/10.59141/jiss.v4i11.927>
- Yu et al., 2020. "A Balancing Act of Regulating On-Demand Ride Services" *Management Science*, 2020
- Yu, J., Tang, C., Shen, Z., and Chen, X., 2020. A balancing act of regulating on-demand ride services. *Management Science*, 66(7), 2975-2992. <https://doi.org/10.1287/mnsc.2019.3351>
- Zhang, W., Honnappa, H., and Ukkusuri, S., 2019. Modelling urban taxi services with e-hailing's: a queueing network approach. *Transportation Research Procedia*, 38, 751-771. <https://doi.org/10.1016/j.trpro.2019.05.039>
- Zhang, Y., and Zhang, Y., 2018. Exploring the Relationship between Ridesharing and Public Transit Use in the United States. *International journal of environmental research and public health*, 15(8), 1763. <https://doi.org/10.3390/ijerph15081763>