

Understanding the Key Factors That Drive Service Quality and Customer Satisfaction in Malaysia's E-Hailing Industry

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Abstract: *The e-hailing industry in Malaysia has revolutionized urban transportation, reshaping the way people access rides through platforms such as Grab, MyCar, and AirAsia Ride. This paper explores the key factors influencing customer satisfaction and service quality in the Malaysian e-hailing market. As e-hailing services become more popular, especially in urban areas, understanding the drivers of customer loyalty and satisfaction is crucial for maintaining competitive advantage. This study investigates the roles of technology, driver behavior, pricing transparency, and safety concerns in shaping the customer experience. Technological infrastructure, including app functionality, AI-driven algorithms, and payment integration, plays a significant role in improving operational efficiency and customer convenience. The behavior of drivers, including professionalism, communication, and safety, is also a critical determinant of service quality. Moreover, dynamic pricing models, such as surge pricing, while necessary for demand management, often lead to customer dissatisfaction when not transparently communicated. Pricing transparency and clear communication are therefore essential in building trust and retaining customers. The paper also delves into regulatory challenges faced by e-hailing platforms, including inconsistent regulations across Malaysia's states, which create operational inefficiencies. Additionally, safety concerns, particularly regarding driver background checks and data security, remain a significant challenge for the industry. By examining these factors, the study provides insights into how e-hailing platforms can enhance service quality, improve customer experiences, and increase long-term customer loyalty. The findings offer practical recommendations for addressing these issues and ensuring the continued success of e-hailing services in Malaysia.*

Keywords: e-hailing, customer satisfaction, service quality, technology, driver behavior

1. Introduction

The e-hailing industry has undergone a significant transformation over the past decade, changing the way people access transportation services in major cities around the world. In Malaysia, e-hailing platforms like Grab, MyCar, and AirAsia Ride have disrupted traditional transportation models, offering consumers convenience, affordability, and accessibility. The popularity of e-hailing services has soared, especially in urban areas where traffic congestion and limited parking space make conventional taxis less attractive. With the ability to request rides at the touch of a button, passengers no longer need to hail a taxi on the street or navigate through complicated pricing structures. Instead, customers can book rides via user-friendly apps, track their journey in real-time, and pay seamlessly using their smartphones (Goh & Tan, 2021).

This shift in how people access transportation has been accompanied by increasing expectations regarding the quality of the service provided by e-hailing platforms. Service quality in e-hailing platforms is a critical determinant of customer satisfaction, retention, and loyalty. Factors like the responsiveness of drivers, the reliability of the mobile app, the comfort of the ride, and the transparency of pricing all contribute to customers' overall experience. Given the growing reliance on e-hailing services in Malaysia, understanding how customer experiences influence perceptions of service quality is essential for businesses to sustain competitive advantages (Lee et al., 2020). As the market becomes more competitive with the entry of new players, ensuring high service quality is imperative for customer retention and long-term success (Abdullah et al., 2021).

The concept of customer experience refers to the cumulative interaction a customer has with a company, encompassing every touchpoint in the customer journey. For e-hailing services, this includes the booking process, the communication with the driver, the ride experience, and the post-ride evaluation (Nguyen et al., 2021). The quality of these interactions significantly influences customer satisfaction. Recent studies have indicated that customer satisfaction and loyalty are closely linked to how customers perceive the service quality at each stage of their interaction with e-hailing platforms (Tan et al., 2020). Thus, it is essential to understand the specific factors that affect these perceptions and how they contribute to shaping customer behavior in the highly competitive e-hailing market.

Service quality is often conceptualized through several dimensions, including reliability, responsiveness, tangibility, assurance, and empathy, based on the SERVQUAL model (Parasuraman et al., 1988). These dimensions are traditionally applied to various industries, including transportation services. In the e-hailing context, these dimensions are reflected in factors such as the dependability of the app, the professionalism of drivers, the clarity of pricing, and the ease of the booking process (Santos & Pinto, 2020). However, with the rapid technological advancements in the sector, such as the incorporation of AI, machine learning, and dynamic pricing models, it is crucial to update and expand our understanding of what constitutes service quality in the digital age (Zhou et al., 2020).

The role of technology in e-hailing platforms is one of the most significant factors influencing customer experiences. The effectiveness of the mobile application, the speed of the booking process, and the accuracy of the estimated arrival time are all influenced by the technological infrastructure behind the platform (Goh & Tan, 2021). Furthermore, the integration of artificial intelligence (AI) has allowed e-hailing companies to optimize various operational aspects, such as matching drivers with passengers, predicting demand, and determining the most efficient routes (Cheng et al., 2020). However, as technological advancements continue to shape the industry, issues related to app reliability, glitches, or crashes remain a common source of frustration for users (Tee et al., 2021). This highlights the need for continuous improvement in the technical infrastructure of e-hailing platforms to ensure that customers have a seamless experience.

Another key factor that significantly influences customer satisfaction in e-hailing services is driver behavior. While technology facilitates the booking and payment process, it is the human element, specifically the interaction between the customer and the driver, that often determines the quality of the service (Lai et al., 2021). Customers expect their drivers to be punctual, courteous, professional, and knowledgeable. The behavior of the driver can greatly impact the overall perception of the service. Negative interactions with drivers can lead to a significant decrease in customer satisfaction, even if other aspects of the service, such as app performance

and pricing, are satisfactory (Lee et al., 2020). Moreover, drivers who exhibit poor driving habits, fail to follow prescribed routes, or engage in inappropriate conversations with passengers may cause passengers to feel uncomfortable or unsafe, thereby undermining the entire service experience (Santos & Pinto, 2020).

Pricing transparency is another critical issue that affects customer satisfaction in e-hailing platforms. Dynamic pricing, also known as surge pricing, is a common practice used by e-hailing companies to adjust fares based on demand and supply (Chen et al., 2021). While this model ensures that drivers are incentivized to meet the demand during peak hours, it can also lead to customer dissatisfaction when prices increase unexpectedly. Customers may feel that surge pricing is unfair or that they are being overcharged, especially when there is a lack of clarity or communication about the reasons for the price hikes (Jiang et al., 2020). Pricing transparency and clear communication about surge pricing policies are essential to maintaining customer trust and avoiding dissatisfaction (Liu et al., 2021).

In the context of Malaysia, cultural factors also play a significant role in shaping customer expectations and experiences with e-hailing platforms. Malaysia is a multicultural society with diverse ethnic groups, languages, and cultural values. This diversity means that customer expectations regarding service quality may vary across different demographic groups (Tan et al., 2020). For instance, certain groups may place a higher emphasis on politeness and respect in interactions with drivers, while others may prioritize the convenience and affordability of the service. Understanding these cultural differences is essential for e-hailing companies operating in Malaysia, as it allows them to tailor their services to meet the diverse needs of their customers (Tan & Tan, 2021). Providing culturally appropriate and personalized experiences can enhance customer satisfaction and foster brand loyalty among different customer segments.

In recent years, e-hailing services in Malaysia have faced several challenges. One of the most significant challenges is the regulatory landscape. While the Malaysian government has implemented regulations to ensure the safety of passengers and fair competition among e-hailing providers, issues related to the enforcement of these regulations remain. For example, there have been concerns about the safety of passengers, with incidents of accidents or crimes involving e-hailing drivers, which have impacted the public's perception of the service (Goh & Tan, 2020). Additionally, the proliferation of e-hailing platforms has led to increased competition, with both global players like Grab and local players like MyCar vying for market share (Abdullah et al., 2021). In such a competitive environment, maintaining high levels of customer satisfaction is crucial for e-hailing platforms to differentiate themselves and secure long-term customer loyalty.

Given these challenges, e-hailing companies in Malaysia must continually assess the factors that influence customer experiences and service quality. Understanding the needs and expectations of customers, improving driver behavior, enhancing technological infrastructure, and ensuring pricing transparency are key to enhancing service quality and maintaining customer satisfaction. Moreover, the integration of new technologies, such as AI and big data analytics, can further improve customer experiences by offering personalized services and optimizing various operational aspects (Cheong et al., 2021). However, these technological advancements must be implemented responsibly, with careful consideration of privacy concerns and customer data security.

The existing body of literature on service quality in e-hailing platforms has primarily focused on operational factors such as app performance, driver behavior, and pricing. However, there is a gap in the research regarding the emotional and psychological aspects of customer experiences. As customer satisfaction is influenced by both functional and emotional factors, further research is needed to explore how emotional engagement and trust in e-hailing platforms impact customer loyalty (Santos & Pinto, 2020). Additionally, while much of the research has focused on developed markets, there is a lack of studies examining service quality in e-hailing services in emerging markets like Malaysia, where the customer base may have different expectations and experiences (Zhou et al., 2020).

This study aims to bridge these gaps by assessing the influence of customer experiences on service quality in Malaysian e-hailing platforms. By examining both the functional and emotional dimensions of customer experiences, the research will provide valuable insights into how e-hailing companies can improve service quality, foster customer loyalty, and ultimately enhance their competitive position in the Malaysian market. The findings of this study will contribute to the ongoing discourse on service quality in the digital age and provide practical recommendations for e-hailing platforms looking to meet the evolving needs of their customers in Malaysia and beyond.

2. Literature Review

The rapid expansion of e-hailing services in Malaysia has transformed the transportation industry, with platforms such as Grab, MyCar, and AirAsia Ride revolutionizing how people commute. With the adoption of these platforms growing, the focus on service quality and customer experience has intensified. The importance of providing a reliable, transparent, and efficient service is paramount in a competitive industry where customer retention is key. This literature review explores five primary elements that shape customer experiences and the perceived service quality in e-hailing platforms in Malaysia: technology and app functionality, driver behavior and customer service, pricing transparency, safety and security, and customer loyalty and retention. These factors have been identified as critical in influencing customer satisfaction, loyalty, and retention in the rapidly growing e-hailing market.

2.1 Technology and App Functionality

The core of e-hailing services lies in the mobile application that connects customers to drivers. Therefore, the technology behind the app is the most important factor influencing customer satisfaction. It encompasses the app's functionality, performance, and reliability, which have direct consequences on how users perceive the quality of the service provided (Goh & Tan, 2021). This section examines the essential components of app functionality and their impact on service quality in the e-hailing industry.

2.1.1 Reliability of the App

A reliable and stable app is crucial for a seamless customer experience. Customers expect the app to function consistently, especially when booking rides, tracking drivers, or processing payments. Any failure in app performance, such as slow loading times, crashes, or bugs, leads to frustration and a negative perception of the service (Cheng & Wang, 2019). Grab, for instance, frequently updates its app to fix performance issues and improve reliability, showcasing the importance of this element in retaining customers (Tan et al., 2020). A study by Cheong et al. (2021) emphasized that e-hailing platforms must maintain consistent app performance to enhance customer satisfaction and prevent dissatisfaction, particularly during peak times when the demand for services is high.

2.1.2 User Interface and Experience

The design and usability of the app's interface play a crucial role in the customer experience. A clean, intuitive, and user-friendly design ensures that customers can easily book, track, and pay for their rides. A complex or difficult-to-navigate app could alienate new users, which is why platforms should prioritize simplicity and ease of use (Santos & Pinto, 2020). A smooth interface allows users to navigate through the app quickly, reducing the cognitive load and making the process of booking a ride more enjoyable (Tan & Tan, 2020).

2.1.3 Algorithmic Efficiency

The algorithms that power e-hailing platforms determine how efficiently customers are matched with drivers. Efficient algorithms minimize waiting times by dispatching the nearest available driver to the passenger (Cheong et al., 2021). An efficient matching system, combined with optimized routing to avoid traffic congestion, can significantly improve the customer experience by reducing waiting and travel times (Ahmad et al., 2023). Slow or inaccurate algorithms, on the other hand, contribute to longer wait times and customer dissatisfaction, which underscores the importance of continual improvement in algorithmic matching systems (Cheng & Wang, 2019).

2.1.4 Payment Integration

A smooth and secure payment process is vital for customer satisfaction. E-hailing platforms that offer flexible payment options, such as credit cards, e-wallets, and cash, increase the convenience for customers (Goh & Tan, 2021). Secure payment methods ensure customers' personal and financial information is protected, thereby fostering trust. Platforms like Grab have adopted secure payment gateways, allowing customers to feel confident in their transactions (Liu et al., 2021). Ensuring a seamless payment process is essential to avoid friction during the booking and payment stages, which contributes to an overall positive experience (Cheong et al., 2021).

2.2 Driver Behavior and Customer Service

Driver behavior is another essential element that influences the overall customer experience in e-hailing services. Unlike traditional taxi services, e-hailing platforms rely on the interactions between customers and drivers to create a positive or negative impression of the service. Several studies have shown that driver professionalism, communication skills, and behavior directly impact customer satisfaction (Lai et al., 2021).

2.2.1 Professionalism and Courtesy

Drivers who maintain professionalism, including punctuality, proper attire, and polite behavior, play a significant role in improving customer satisfaction. Lee et al. (2020) suggest that passengers who interact with courteous and well-mannered drivers are more likely to rate the service highly and use it again. Professionalism covers all aspects of the driver's behavior, such as greeting passengers and offering assistance with luggage. Positive interactions are essential for building customer trust and ensuring repeat business.

2.2.2 Communication and Transparency

Clear communication between the driver and passenger is a key aspect of creating a pleasant experience. Drivers should inform passengers about delays or changes in routes and provide updates on estimated arrival times (Santos & Pinto, 2020). Transparent communication reduces uncertainty and helps manage customer expectations. When drivers fail to communicate effectively, passengers may feel neglected or frustrated, which negatively impacts their perception of the service.

2.2.3 Safety and Comfort

Ensuring a safe and comfortable ride is paramount for e-hailing drivers. Passengers expect drivers to follow traffic rules, maintain a clean vehicle, and ensure their comfort during the ride. A study by Lai et al. (2021) showed that safety-related factors, such as driving behavior and vehicle cleanliness, have a significant impact on customer satisfaction. Drivers who prioritize safety and comfort are more likely to deliver a positive experience, leading to repeat usage and better reviews.

2.3 Pricing Transparency

Pricing is a major concern for customers using e-hailing services. E-hailing platforms often use dynamic pricing models, which adjust fares based on supply and demand, such as during peak hours or adverse weather conditions. While surge pricing ensures that drivers are incentivized to meet high demand, it can also cause dissatisfaction if customers feel they are being overcharged or if the pricing lacks transparency.

2.3.1 Surge Pricing

Surge pricing, which increases fares during times of high demand, has been a source of frustration for customers who perceive it as unfair. According to Tan et al. (2020), customers are more likely to use e-hailing services when surge pricing is clearly communicated and explained in advance. Platforms that notify customers of surge pricing before booking are more likely to receive positive reviews and avoid customer backlash (Jiang et al., 2020).

2.3.2 Transparency and Trust

E-hailing platforms that provide customers with upfront pricing estimates build trust and foster a sense of fairness. Research by Chen et al. (2021) emphasized that transparent pricing practices, such as showing estimated fares before confirming a ride, contribute to higher customer satisfaction. When customers can predict how much they will pay, they are more likely to trust the platform and return for future rides.

2.3.3 Consistency in Pricing

Pricing consistency is crucial for customer retention. Customers expect fair prices for the service provided, and inconsistent pricing may create confusion or dissatisfaction. Platforms that maintain consistent pricing, even during periods of high demand, are more likely to retain loyal customers and generate positive word-of-mouth (Liu et al., 2021). Fair pricing practices contribute to customer satisfaction, which is directly linked to increased usage and retention (Santos & Pinto, 2020).

2.4 Safety and Security

Safety is a critical concern for passengers using e-hailing services. The protection of passengers' personal and physical safety during the ride, as well as the security of their personal information, are key determinants of customer satisfaction in e-hailing platforms.

2.4.1 Passenger Safety

Passengers expect e-hailing platforms to prioritize their physical safety. To address this, platforms like Grab have introduced safety features such as in-app emergency buttons, driver background checks, and real-time tracking (Yousafzai et al., 2018). Studies show that customers who feel safe during their ride are more likely to rate the service highly and use it again (Lee et al., 2020). E-hailing platforms that consistently ensure passenger safety through stringent policies and proactive measures tend to foster higher levels of trust.

2.4.2 Driver Background Checks

E-hailing platforms conduct comprehensive background checks on their drivers to ensure their suitability. These checks include verifying criminal records and driving histories. Passengers are more likely to trust a platform that screens drivers carefully, as they feel confident that they will be in safe hands (Goh & Tan, 2021). Platforms that communicate these safety measures clearly build trust and enhance the perceived quality of service.

2.4.4 Data Security

Data security is also a significant concern for passengers, as e-hailing platforms collect sensitive information such as payment details, ride history, and personal data. E-hailing platforms that prioritize data protection and communicate their data security policies effectively ensure that customers feel secure when using the platform (Cheng & Wang, 2019). Secure payment methods and encryption are essential for protecting user data and fostering customer trust (Yousafzai et al., 2018).

2.5 Customer Loyalty and Retention

Customer loyalty is the key to long-term success in the e-hailing industry. Loyal customers are more likely to continue using the service and recommend it to others. Customer loyalty is strongly influenced by the overall quality of service, including app functionality, driver behavior, pricing, and safety.

2.5.1 Customer Satisfaction and Loyalty

Customer satisfaction is a predictor of customer loyalty in e-hailing services. Studies have consistently shown that satisfied customers are more likely to return for future rides and recommend the service to others (Santos & Pinto, 2020). Research by Zhou et al. (2020) found that satisfaction is closely linked to loyalty, as customers who feel valued and satisfied with their experiences tend to remain loyal to the platform.

2.5.2 Loyalty Programs

Many e-hailing platforms have introduced loyalty programs to reward frequent customers with discounts, free rides, or priority access. These programs can increase customer retention and drive repeat usage (Goh & Tan, 2021). However, research by Tan et al. (2020) suggests that loyalty programs are most effective when combined with high service quality. Loyalty incentives work best when customers are already satisfied with their overall experience.

2.5.3 Word-of-Mouth and Referrals

Positive word-of-mouth is one of the most effective ways to grow a customer base. Satisfied customers who feel a strong emotional connection to the service are more likely to recommend it to friends and family (Lee et al., 2020). Research by Tan and Tan (2020) highlighted the importance of emotional engagement, showing that customers who feel personally invested in the service are more likely to spread positive recommendations, contributing to organic growth.

3. Issues in E-Hailing Services in Malaysia

The e-hailing industry has become an integral part of urban transportation in Malaysia, offering customers a convenient, flexible, and efficient way to commute. However, the rapid growth of this industry has brought about numerous challenges that affect service quality, customer satisfaction, and long-term sustainability. While platforms like Grab, MyCar, and AirAsia Ride are widely used, they are not without their issues. From operational inefficiencies to regulatory hurdles, pricing transparency to concerns regarding safety, there are several factors that e-

hailing platforms must address to remain competitive and maintain customer loyalty. This section explores some of the primary issues facing the e-hailing industry in Malaysia, focusing on operational challenges, regulatory constraints, pricing transparency, safety concerns, and customer loyalty dynamics.

3.1 Operational Challenges and Service Efficiency

The operational efficiency of e-hailing platforms is critical for ensuring a positive customer experience. Several operational challenges affect the ability of these platforms to provide fast, reliable, and seamless services.

3.1.1 Driver Shortages and Supply-Demand Imbalance

One of the most prominent operational challenges in Malaysia's e-hailing market is the imbalance between the supply of drivers and the demand for rides, particularly during peak hours. The mismatch in supply and demand results in longer waiting times for customers, leading to frustration and dissatisfaction. According to Lee et al. (2020), e-hailing platforms often struggle to ensure a consistent supply of drivers, especially during rainy weather, public holidays, or after major events, when demand surges unexpectedly. This shortage can lead to significant delays, forcing customers to look for alternative options, thus diminishing brand loyalty and overall satisfaction (Tan et al., 2020).

3.1.2 Inefficient Matching Algorithms

The algorithms that match customers with available drivers are another critical operational challenge. While these algorithms are designed to minimize wait times and optimize routes, they are often not efficient enough to handle high demand periods effectively. The failure to match passengers with the nearest drivers or optimize routes based on real-time traffic data leads to longer travel times, increased fuel consumption, and ultimately, lower customer satisfaction (Goh & Tan, 2021). Furthermore, if customers experience inaccurate or delayed ride allocations, they may view the service as unreliable, which can harm the platform's reputation (Cheong et al., 2021).

3.1.3 App Functionality and Performance Issues

E-hailing platforms are heavily reliant on their mobile applications, which act as the primary interface for users. Any technical glitches, crashes, or delays in processing ride requests directly affect the customer experience. The instability of the app during high-traffic periods, such as rush hour or inclement weather, can lead to negative customer experiences and even drive customers to competitors (Santos & Pinto, 2020). Grab, for instance, has faced multiple complaints regarding slow loading times and app crashes, particularly during high demand periods (Tan et al., 2020). These performance issues contribute to customer dissatisfaction, and platforms need to continually update and improve their technology to mitigate such concerns.

3.2 Regulatory and Legal Challenges

The regulatory framework governing e-hailing services in Malaysia has been evolving since the inception of the industry. While there have been strides made in formalizing the legal landscape for e-hailing services, several issues remain.

3.2.1 Inconsistent Regulations Across States

In Malaysia, e-hailing services are subject to varying regulations across different states. This lack of uniformity in rules creates confusion for operators and customers alike. Some states enforce stricter regulations regarding the licensing of drivers and vehicles, while others are less stringent. This inconsistency can hinder the expansion of services, especially for platforms like

Grab, which must navigate a patchwork of rules (Jais & Marzuki, 2020). Inconsistent regulations also affect the quality of service, as drivers may not be subject to the same safety or vehicle standards in all regions.

3.2.2 Licensing and Vehicle Standards

Another legal issue revolves around the licensing and vehicle inspection requirements for e-hailing drivers. While the government has introduced several regulations aimed at ensuring the safety and legitimacy of e-hailing services, the enforcement of these regulations is still inconsistent. Some drivers struggle to meet vehicle inspection standards, particularly in more rural areas where access to inspection centers is limited. This has created a shortage of compliant drivers, particularly in areas outside of urban centers (Nguyen et al., 2021). Consequently, e-hailing platforms face challenges in maintaining a fleet of compliant drivers, which affects the availability and quality of service (Cheng & Wang, 2019).

3.2.3 Resistance from Traditional Taxi Operators

E-hailing platforms in Malaysia have faced resistance from traditional taxi operators, who argue that e-hailing services should be subject to the same regulatory oversight as their industry. This has led to ongoing legal disputes between taxi unions and e-hailing companies, further complicating the regulatory landscape. According to Jais and Marzuki (2020), while the Malaysian government has made efforts to address these issues, the conflicts between the traditional taxi industry and e-hailing platforms remain a challenge that could potentially slow down the growth of e-hailing services.

3.3 Pricing Transparency Issues

Pricing transparency remains one of the most contentious issues in the e-hailing industry, particularly with the use of dynamic pricing models like surge pricing. The lack of clear communication regarding pricing can lead to customer dissatisfaction and loss of trust in the platform.

3.3.1 Surge Pricing and Customer Perception

Surge pricing, which increases fares during periods of high demand, is a common practice among e-hailing platforms. While this pricing model helps ensure that drivers are available when demand is high, it often leads to dissatisfaction when customers feel that the price increase is excessive or unfair. According to Chen et al. (2021), customers are more likely to accept surge pricing if they are notified in advance and given an explanation of the reasons behind the price hikes. Lack of transparency regarding surge pricing leads to frustration and confusion, particularly when customers are unaware of the factors influencing the price increase (Jiang et al., 2020).

3.3.2 Lack of Clear Fare Estimates

Another pricing issue arises from the lack of clear fare estimates before booking a ride. Many e-hailing platforms provide an estimated fare based on distance and traffic conditions, but this estimate often differs from the final fare due to factors such as detours or changes in route. Customers who experience significant discrepancies between the estimated and actual fares may feel cheated, leading to a negative perception of the service (Liu et al., 2021). Transparent pricing models, where customers are informed about potential price adjustments before confirming the ride, can help mitigate these issues (Santos & Pinto, 2020).

3.3.3 Inconsistent Pricing Across Platforms

The lack of standardization in pricing across different e-hailing platforms further complicates the issue. For instance, Grab and MyCar have different surge pricing models, leading to confusion among customers. The inconsistency in pricing structures between platforms makes it difficult for consumers to compare services and choose the best option. Goh and Tan (2021) argue that standardizing fare structures would enhance transparency and simplify the decision-making process for customers.

3.4 Safety and Security Concerns

Safety is one of the most significant concerns for passengers using e-hailing services. While e-hailing platforms have implemented various safety measures, the industry continues to face challenges in ensuring both physical safety during rides and the security of personal data.

3.4.1 Passenger Safety

Despite the introduction of safety features such as in-app emergency buttons, real-time ride tracking, and driver background checks, incidents of assaults, robberies, and accidents involving e-hailing drivers continue to be reported. According to Yousafzai et al. (2018), passengers are more likely to use e-hailing platforms that offer comprehensive safety features and provide reassurances about the driver's background. Passengers expect to be informed about the driver's identity and vehicle details before they enter the car, as this helps to build trust (Goh & Tan, 2021). However, when these safety protocols are not properly enforced or communicated, customers may feel unsafe, leading to a decline in usage.

3.4.2 Driver Background Checks

While many e-hailing platforms perform background checks on drivers to ensure safety, the adequacy and thoroughness of these checks can vary. Passengers may not always trust the platform's safety assurances if they feel the driver may not have been properly vetted. Platforms like Grab and MyCar have implemented more stringent background checks in response to safety concerns, but incidents still occur (Cheng & Wang, 2019). Passengers are more likely to choose platforms that offer greater transparency about driver vetting processes.

3.4.3 Data Security and Privacy

E-hailing platforms handle sensitive personal data, including payment details, travel history, and personal information. Data breaches or misuse of this information can lead to identity theft and loss of customer trust (Yousafzai et al., 2018). A study by Cheng & Wang (2019) highlighted that customers are more likely to stay loyal to platforms that provide clear communication about data security policies and invest in robust encryption technologies to protect user information.

3.5 Customer Loyalty and Retention

Building and maintaining customer loyalty is one of the most significant challenges for e-hailing platforms, especially as competition intensifies in the Malaysian market.

3.5.1 Inconsistent Service Quality

Inconsistent service quality, such as varying driver professionalism or vehicle cleanliness, can undermine customer loyalty. Customers who experience negative interactions with drivers or poor ride quality may decide to switch to competing platforms (Santos & Pinto, 2020). According to Tan et al. (2020), ensuring that customers consistently receive high-quality service is crucial for retaining them. This includes addressing issues like long wait times, poor communication with drivers, and unclear pricing structures.

3.5.2 Effectiveness of Loyalty Programs

Many e-hailing platforms have introduced loyalty programs to retain customers by offering rewards, discounts, and priority access to drivers. However, the effectiveness of these programs depends on the alignment between the loyalty incentives and the needs of the customers. If customers do not see enough value in the rewards offered, they may lose interest in the loyalty program and switch to a competitor. Goh & Tan (2021) argue that loyalty programs work best when they are paired with consistent, high-quality service.

3.5.3 Word-of-Mouth Recommendations

Word-of-mouth remains a powerful driver of customer loyalty. Customers who have positive experiences are more likely to recommend e-hailing platforms to friends and family, which can help attract new users. Research by Lee et al. (2020) found that satisfied customers are more likely to share their experiences, particularly on social media platforms, where they can influence the opinions of others. E-hailing platforms that deliver excellent service and foster positive emotional connections with customers are more likely to benefit from organic word-of-mouth marketing.

4. Discussion on Challenges Facing E-Hailing Services in Malaysia

As e-hailing services become increasingly embedded in the transportation fabric of Malaysia, numerous challenges continue to emerge. These challenges, while varied, impact both the operational efficiency of the services and customer satisfaction. The issues identified in the previous section, such as operational inefficiencies, regulatory concerns, pricing transparency, safety, and customer loyalty, represent core areas that e-hailing platforms must address to ensure continued growth and success. This discussion explores these issues in greater depth, providing a critical examination of how these challenges influence the overall customer experience and the future direction of the e-hailing industry in Malaysia.

4.1 Operational Challenges and Service Efficiency

Operational efficiency is a key pillar of success for e-hailing services. However, many e-hailing platforms in Malaysia struggle with operational challenges that affect both driver availability and the efficiency of matching algorithms.

4.1.1 Driver Shortages and Supply-Demand Imbalance

One of the most pressing operational issues for e-hailing platforms is the imbalance between supply and demand. This issue is most evident during peak times, such as rush hours, rainy days, or after major public events when demand for rides peaks. E-hailing platforms such as Grab often experience significant difficulty in matching riders with available drivers during these peak periods (Lee et al., 2020). The result is increased wait times for customers, leading to frustration and dissatisfaction. A study by Tan et al. (2020) found that in cities like Kuala Lumpur, the demand for rides far exceeds the supply of drivers, which contributes to delays and affects overall customer experience. Additionally, this shortage in supply can lead to lower customer retention, as users are forced to seek alternatives when their preferred platform is unavailable or inefficient.

To address these issues, platforms need to consider strategies such as surge pricing and driver incentives to encourage drivers to work during peak hours. However, as highlighted by Goh and Tan (2021), the use of surge pricing must be transparent to customers to avoid dissatisfaction, particularly when customers are unable to see a clear rationale behind the price

increase. To maintain high levels of customer satisfaction, platforms must not only address driver supply issues but also ensure that the service is reliable during times of peak demand.

4.1.2 Inefficient Matching Algorithms

Another operational concern for e-hailing services is the inefficiency of the algorithms that match passengers with available drivers. These algorithms are designed to allocate the nearest driver to the passenger, reducing waiting times and ensuring efficient travel routes. However, they do not always function optimally. According to research by Cheong et al. (2021), many platforms fail to account for real-time traffic data, resulting in longer travel times and suboptimal ride routes. These inefficiencies exacerbate customer dissatisfaction, particularly when passengers experience delayed arrivals or are routed through traffic-heavy areas. The failure to efficiently match riders with drivers is a direct contributor to declining service quality, and platforms must invest in more advanced algorithmic solutions to optimize the matching process.

Additionally, platforms must incorporate machine learning and artificial intelligence (AI) to improve these algorithms over time. Lai et al. (2021) argue that AI-driven solutions can enhance the accuracy of matching algorithms by factoring in traffic patterns, historical data, and even weather conditions, ensuring more timely and efficient services for passengers.

4.1.3 App Functionality and Performance Issues

The functionality of the e-hailing app is central to the user experience. When the app experiences crashes, delays, or other technical issues, customers are likely to become frustrated and dissatisfied. E-hailing platforms are heavily reliant on their mobile applications, and poor app performance can lead to significant disruptions in the service. According to Santos and Pinto (2020), app malfunctions can cause delays in booking rides, hinder payment processing, and disrupt real-time tracking features, which ultimately impacts the reliability of the service. These technical failures erode user trust and reduce the likelihood of customers returning to the platform. Grab, for example, has faced multiple complaints regarding slow loading times and app crashes, especially during periods of high demand (Tan et al., 2020). Regular maintenance and updates to the app are essential to prevent such issues from impacting service delivery and customer retention.

4.2 Regulatory and Legal Challenges

Regulatory frameworks for e-hailing services in Malaysia are still evolving, which presents various legal challenges for operators and regulatory bodies.

4.2.1 Inconsistent Regulations Across States

One of the major regulatory challenges faced by e-hailing platforms in Malaysia is the lack of uniformity in regulations across different states. Some states have enacted stricter rules regarding the licensing of drivers and vehicle inspections, while others have not, leading to confusion and operational inefficiencies for e-hailing companies. This inconsistency creates difficulties for platforms like Grab, which must navigate various regulatory requirements depending on the location of its services (Jais & Marzuki, 2020). The lack of uniform regulations results in a fragmented e-hailing landscape that complicates expansion efforts, especially for companies attempting to scale nationwide.

To address this issue, a more standardized regulatory framework is needed, one that applies consistently across all states. According to Jais and Marzuki (2020), a national licensing framework would help streamline operations and ensure that e-hailing platforms meet

consistent safety and service standards nationwide. A standardized approach would also help mitigate confusion for drivers and users alike, improving both operational efficiency and customer trust.

4.2.2 Licensing and Vehicle Standards

Licensing requirements for e-hailing drivers and vehicle standards are also a significant regulatory issue. To comply with the regulations set forth by the Land Public Transport Commission (SPAD), e-hailing drivers must meet certain vehicle inspection and safety standards. However, these requirements can be difficult for some drivers to meet, especially in rural areas where access to vehicle inspection centers is limited (Nguyen et al., 2021). This has resulted in a shortage of compliant drivers in these regions, negatively affecting the availability of rides in less urbanized areas.

Research by Goh and Tan (2021) suggests that the implementation of more accessible vehicle inspection centers could help alleviate these challenges. Additionally, greater flexibility in licensing requirements for experienced drivers could further address the shortage of qualified drivers in remote areas, improving service availability and quality across the country.

4.2.3 Resistance from Traditional Taxi Operators

The rapid growth of e-hailing services has led to resistance from traditional taxi operators, who view these platforms as unfair competition. This ongoing tension between the taxi industry and e-hailing platforms has resulted in legal battles and protests (Jais & Marzuki, 2020). The taxi industry argues that e-hailing drivers are not subject to the same regulatory oversight, leading to calls for stricter regulations. The regulatory uncertainty caused by these disputes creates instability in the market, making it difficult for e-hailing platforms to expand their services and invest in long-term growth.

A solution to this issue would involve developing regulations that level the playing field for both e-hailing and traditional taxi services. According to Goh and Tan (2021), a hybrid regulatory approach that includes both e-hailing platforms and traditional taxis could help address these concerns, ensuring fair competition while maintaining high service standards.

4.3 Pricing Transparency Issues

Pricing transparency remains a contentious issue in the e-hailing industry, especially with the use of dynamic pricing models such as surge pricing.

4.3.1 Surge Pricing and Customer Perception

Surge pricing, which increases fares during high-demand periods, often generates dissatisfaction among customers, particularly when the price hikes are perceived as excessive or unreasonable. Customers frequently express frustration when they encounter surge pricing unexpectedly and without prior warning. A study by Jiang et al. (2020) found that customers who were informed of surge pricing in advance were more likely to accept the fare increase. However, platforms that do not provide adequate communication about surge pricing risk losing customer trust and damaging their reputation. Chen et al. (2021) suggest that platforms should not only notify users about surge pricing but also offer explanations as to why it is being applied, such as increased demand during peak hours.

4.3.2 Lack of Upfront Fare Estimates

Another major issue with pricing transparency is the inconsistency between fare estimates provided before the ride and the final fare charged. E-hailing platforms often provide customers

with an estimated fare based on distance and traffic conditions, but this estimate can change once the ride is completed. Liu et al. (2021) found that customers who experience discrepancies between the estimated and final fare are more likely to feel frustrated and dissatisfied with the service. To resolve this issue, platforms should ensure that customers are fully informed of any potential price changes before confirming their ride, which would help build trust and reduce complaints.

4.3.3 Inconsistent Pricing Across Platforms

The lack of standardized pricing models across e-hailing platforms is another issue affecting pricing transparency. While platforms like Grab and MyCar use similar surge pricing models, they may apply different pricing rules or structures, making it difficult for customers to compare prices and select the best option. As highlighted by Goh and Tan (2021), the absence of a consistent pricing structure makes the decision-making process more complicated for customers, leading to confusion and dissatisfaction.

4.4 Safety and Security Concerns

Safety remains one of the most pressing concerns for passengers using e-hailing services. While platforms have made significant strides in improving safety features, challenges still persist.

4.4.1 Passenger Safety

Incidents involving e-hailing drivers, such as assaults, thefts, or accidents, have raised significant concerns about passenger safety. Yousafzai et al. (2018) argue that despite the introduction of safety features like in-app emergency buttons and real-time ride tracking, these measures are not always sufficient to guarantee passenger safety. Passengers continue to express concerns about the safety of their rides, particularly during late hours or in unfamiliar areas. E-hailing platforms must continue to enhance their safety measures and communicate them effectively to passengers to reassure them about their well-being during rides.

4.4.2 Driver Background Checks

While most e-hailing platforms perform background checks on drivers, the quality and thoroughness of these checks can vary. Some platforms have been criticized for not adequately screening drivers, leading to concerns about the safety of passengers (Cheng & Wang, 2019). Research by Lai et al. (2021) indicates that customers are more likely to trust platforms that provide detailed information about their driver vetting processes. Enhanced background checks, including criminal records and driving history verification, are essential for ensuring passenger safety.

4.4.3 Data Security and Privacy

E-hailing platforms also face significant challenges related to data security. The collection and storage of sensitive customer data, such as payment details and personal addresses, pose a significant risk in the event of a data breach. Yousafzai et al. (2018) found that customers are increasingly concerned about how their personal information is handled by e-hailing platforms. Platforms that fail to protect user data risk losing customer trust and facing legal consequences. To address these concerns, e-hailing platforms must invest in robust cybersecurity measures, including data encryption and secure payment gateways, to ensure the safety of their users' personal and financial information.

4.5 Customer Loyalty and Retention

Building and maintaining customer loyalty is a significant challenge for e-hailing platforms, particularly given the highly competitive nature of the industry.

4.5.1 Inconsistent Service Quality

Inconsistent service quality, including factors like varying driver professionalism, vehicle cleanliness, and wait times, can severely undermine customer loyalty. According to Santos and Pinto (2020), customers are more likely to return to a platform if they have a consistent and reliable experience. Service quality should be maintained across all touchpoints, from booking the ride to the journey itself. Platforms that fail to provide consistent service risk losing customers to competing services that offer more reliable experiences.

4.5.2 Loyalty Programs and Retention Strategies

Many e-hailing platforms have introduced loyalty programs to encourage repeat business. These programs often offer rewards, such as free rides, discounts, or priority booking. However, research by Tan et al. (2020) suggests that these loyalty programs are only effective when paired with high service quality. Platforms that focus solely on loyalty rewards without improving the overall service experience will struggle to retain customers in the long run. According to Goh and Tan (2021), successful loyalty programs must align with customer expectations and offer tangible benefits that enhance the overall service experience.

4.5.3 Word-of-Mouth Referrals

Word-of-mouth remains one of the most effective drivers of customer acquisition and retention. Research by Lee et al. (2020) found that customers who are satisfied with their experience are more likely to recommend the service to others, thereby helping to grow the platform's customer base. E-hailing platforms that deliver exceptional service are more likely to benefit from positive referrals, which can lead to organic growth.

5. Suggestions for Improving E-Hailing Services in Malaysia

As e-hailing services become an essential part of Malaysia's urban mobility ecosystem, their growth continues to be shaped by various challenges, as discussed in the previous sections. The need for operational efficiency, better regulatory frameworks, transparent pricing models, enhanced safety measures, and strategies for customer retention are central to improving service delivery in this competitive market. The following suggestions are aimed at addressing the critical issues that e-hailing platforms face and are designed to provide actionable strategies for enhancing customer satisfaction, platform efficiency, and long-term success in Malaysia's evolving e-hailing sector.

5.1 Enhancing Operational Efficiency

Operational inefficiency is a key concern for e-hailing services, particularly in terms of matching algorithms, driver supply, and app functionality. Efficient operations directly affect customer satisfaction and can improve long-term platform retention.

5.1.1 Optimizing Driver Supply and Demand Matching

A primary operational issue in the e-hailing industry is the imbalance between driver supply and customer demand. During peak periods or in certain geographical areas, the lack of available drivers leads to longer wait times and decreased customer satisfaction (Lee et al., 2020). To address this issue, e-hailing platforms should use predictive analytics to forecast demand in real-time and incentivize drivers to work during high-demand times. For instance,

Grab could introduce a dynamic driver allocation system that factors in real-time data on traffic conditions, local events, and weather forecasts (Cheong et al., 2021). Additionally, surge pricing could be integrated with a real-time dashboard, providing both drivers and customers with visibility into price changes based on demand spikes (Tan et al., 2020). Platforms that employ smart driver allocation systems will be better positioned to meet demand, reduce wait times, and enhance the user experience.

5.1.2 Improving Algorithmic Efficiency

The algorithms used to match passengers with drivers are a crucial factor in operational efficiency. E-hailing platforms should refine these algorithms to ensure they are fast and accurate, especially during high-demand periods. Studies by Lai et al. (2021) suggest that integrating machine learning and artificial intelligence (AI) can optimize matching algorithms by considering variables such as real-time traffic conditions, driver availability, and historical demand data. Moreover, enhancing algorithms to minimize waiting times while ensuring the closest drivers are selected for passengers can improve the customer experience by reducing delays and increasing satisfaction (Cheng & Wang, 2019). E-hailing platforms can also leverage AI to predict peak demand times and proactively encourage more drivers to be available during these periods.

5.1.3 Upgrading App Performance

The functionality and stability of the e-hailing app are central to the service quality provided to customers. App malfunctions, slow loading times, and technical glitches can severely impact the customer experience. According to Goh & Tan (2021), investing in better server infrastructure and continuously updating the app to fix bugs and improve performance can help prevent issues that cause delays or crashes. The app should also be designed with an intuitive user interface (UI) that allows customers to book, track, and pay for rides quickly and easily. Regular app testing and performance optimization can ensure that it remains stable during periods of high traffic and usage, which is crucial for customer retention.

5.2 Addressing Regulatory and Legal Challenges

The regulatory environment governing e-hailing services in Malaysia is still developing, with regulatory inconsistencies and legal issues that hinder the growth of the sector. Addressing these regulatory challenges requires collaboration between e-hailing platforms, regulatory bodies, and the traditional taxi industry.

5.2.1 Implementing Uniform National Regulations

The absence of a standardized set of regulations for e-hailing services across Malaysia's states creates confusion and operational inefficiencies for e-hailing platforms. Platforms like Grab and MyCar face regulatory uncertainty, as they must comply with different regulations in each state (Jais & Marzuki, 2020). To mitigate this, the Malaysian government could establish a uniform regulatory framework that applies consistently across the entire country. A national framework would streamline compliance, reduce the burden on e-hailing platforms, and ensure consistent service standards. Additionally, these regulations should focus on safety, licensing, and fair competition while promoting transparency (Jais & Marzuki, 2020).

5.2.2 Creating Flexible Licensing and Vehicle Standards

Licensing requirements for e-hailing drivers and vehicle inspections are currently a major bottleneck for e-hailing platforms. According to Nguyen et al. (2021), the existing regulatory framework requires e-hailing vehicles to meet strict standards, which can be challenging for drivers in rural areas where inspection facilities are limited. Platforms should work with local

governments to introduce more accessible vehicle inspection points and flexible licensing standards that make it easier for drivers to meet the required criteria. A more flexible licensing framework could also help address the shortage of compliant drivers and improve the availability of rides in less urbanized areas (Goh & Tan, 2021).

5.2.3 Fostering Cooperation with Traditional Taxis

The ongoing resistance from the traditional taxi industry remains a significant regulatory issue. The taxi sector argues that e-hailing platforms should adhere to the same regulatory framework as traditional taxis, which has led to protests and legal challenges. To resolve these issues, regulators should foster a collaborative environment that benefits both the e-hailing and taxi industries. A hybrid regulatory approach could set consistent safety and operational standards for both industries while allowing them to co-exist in the same market. This could include developing fair competition policies, transparent pricing models, and ensuring that both sectors adhere to safety standards (Goh & Tan, 2021).

5.3 Improving Pricing Transparency

Pricing transparency is a critical issue for customer satisfaction, as hidden or unpredictable costs can significantly damage a platform's reputation. Transparent and consistent pricing models are essential for building trust and ensuring fairness.

5.3.1 Clear Communication of Surge Pricing

Surge pricing, which increases fares during periods of high demand, is a commonly used model in the e-hailing industry. However, customers often perceive surge pricing as unfair, especially when the price increase is not communicated effectively. According to Chen et al. (2021), platforms can improve transparency by providing customers with clear notifications about surge pricing before they book a ride. In addition to notifying customers in advance, e-hailing platforms should explain why prices are higher during surge periods, such as increased demand, weather conditions, or special events. This transparency will help customers make informed decisions and mitigate feelings of unfairness.

5.3.2 Providing Accurate Fare Estimates

One of the most significant complaints from e-hailing customers is the discrepancy between the estimated fare provided before booking and the final fare they are charged. As Liu et al. (2021) note, this lack of pricing consistency can lead to customer dissatisfaction. Platforms should offer more accurate and transparent fare estimates before customers confirm their rides. This can be achieved by improving the algorithms that calculate the fare estimate, taking into account not only the distance and time but also real-time traffic data and route changes. Clear communication of any potential adjustments to the fare can also prevent customers from feeling misled.

5.3.3 Standardizing Pricing Across Platforms

The variability in pricing models between e-hailing platforms complicates customers' decision-making process and undermines transparency. According to Goh & Tan (2021), the lack of standardization makes it difficult for consumers to compare pricing and select the most cost-effective option. To address this, regulators could work with e-hailing platforms to establish common pricing structures, ensuring that all platforms operate under the same rules. A standardized pricing model could include uniform surge pricing policies, base fares, and additional charges for special circumstances (e.g., cancellations or wait times). This would increase customer trust and simplify the comparison process.

5.4 Enhancing Safety and Security

Ensuring the safety and security of passengers is crucial for customer trust and long-term success in the e-hailing industry. Platforms must continue to innovate and strengthen their safety protocols to protect passengers and data.

5.4.1 Improving Safety Features for Passengers

Despite the implementation of safety features such as real-time ride tracking, in-app emergency buttons, and driver background checks, safety incidents continue to raise concerns among passengers. According to Yousafzai et al. (2018), platforms should enhance safety features by implementing additional technologies, such as in-vehicle surveillance cameras or live monitoring of rides. Platforms should also provide passengers with more information about the driver, such as ratings, reviews, and a detailed history of completed rides. This would increase transparency and reassure passengers that they are using a trusted service.

5.4.2 Strengthening Driver Background Checks

One of the most significant safety concerns is the adequacy of driver background checks. While many e-hailing platforms perform background checks on drivers, these checks need to be more thorough and frequently updated. Cheng & Wang (2019) suggest that platforms could improve safety by introducing continuous monitoring of drivers' behavior, using customer feedback and ratings to identify any patterns of unsafe driving. Platforms should also implement regular medical check-ups for drivers to ensure they are fit to operate a vehicle safely.

5.4.3 Ensuring Data Security

Data security is a growing concern as e-hailing platforms handle large amounts of sensitive customer information, including personal details and payment information. A data breach or misuse of customer data could lead to significant reputational damage and legal consequences. According to Yousafzai et al. (2018), e-hailing platforms should invest in robust data protection measures, such as end-to-end encryption and secure payment gateways. They should also regularly audit their systems for vulnerabilities and provide customers with clear information on how their data is stored and protected.

5.5 Building Customer Loyalty and Retention

Customer loyalty is essential for e-hailing platforms in a competitive market. To foster loyalty, platforms must deliver consistent service quality and implement strategies that incentivize repeat usage.

5.5.1 Ensuring Consistent Service Quality

Consistent service quality is a cornerstone of customer loyalty. As highlighted by Tan et al. (2020), customers are more likely to stay loyal to a platform that provides reliable, high-quality service on every ride. E-hailing platforms should prioritize training for drivers and establish strict service standards to ensure that customers receive the same level of professionalism, vehicle cleanliness, and reliability with every ride. Platforms can also use customer feedback to identify areas for improvement and address any recurring service issues promptly.

5.5.2 Effective Loyalty Programs

Loyalty programs are a powerful tool for retaining customers, but they must provide real value to be effective. According to Goh & Tan (2021), platforms can increase customer retention by offering loyalty programs that are tailored to the needs and preferences of their users. For example, Grab could offer personalized rewards based on a customer's usage patterns, such as discounts for frequent users or rewards for referring new customers. Loyalty programs that

align with customer expectations will help platforms create deeper connections with their users, ensuring repeat business.

5.5.3 Encouraging Referrals and Word-of-Mouth Marketing

Positive word-of-mouth remains one of the most effective forms of marketing. Satisfied customers are more likely to recommend e-hailing services to friends and family, leading to organic growth. Platforms should incentivize customers to share their experiences by offering referral bonuses or other rewards for successful recommendations. Research by Lee et al. (2020) found that customers who are satisfied with their experience are more likely to refer others to the platform, contributing to customer acquisition and retention.

6. Conclusion

E-hailing services in Malaysia have transformed the way people approach urban transportation, offering greater convenience and flexibility. However, as the industry continues to grow, it faces significant challenges that can affect customer satisfaction and the long-term sustainability of platforms. From operational inefficiencies to regulatory hurdles, pricing transparency issues, and safety concerns, the e-hailing sector must navigate a complex landscape to ensure continued success.

Operational challenges, particularly driver shortages and inefficient matching algorithms, can lead to delays and unsatisfactory customer experiences. While improvements in technology, such as AI-driven algorithms, can help optimize driver allocation and reduce wait times, these systems require continuous refinement to handle high-demand situations efficiently. Additionally, maintaining app performance during peak periods is crucial for minimizing disruptions and enhancing user trust.

Regulatory challenges further complicate the industry's growth. The lack of consistent regulations across Malaysia's states creates operational confusion and compliance difficulties for e-hailing platforms. A national, standardized regulatory framework would help streamline operations, ensure fairness, and provide clearer guidelines for all stakeholders, including e-hailing platforms and traditional taxi services.

Pricing transparency remains a key issue, particularly regarding surge pricing. Customers often feel frustrated when they are charged unexpectedly high fares during peak periods. E-hailing platforms must prioritize clear communication regarding pricing models and ensure customers receive accurate fare estimates before booking a ride. Consistency in pricing across platforms would also help customers make more informed decisions.

Safety and security concerns are central to customer trust. While platforms like Grab have introduced safety features, such as driver background checks and emergency buttons, further investment in safety protocols is essential. Ensuring both passenger safety and the protection of personal data is vital for building long-term customer loyalty and trust.

By addressing these challenges and implementing the suggested improvements, e-hailing platforms in Malaysia can enhance service quality, build customer loyalty, and remain competitive in a rapidly evolving market. Collaborating with regulators and stakeholders will be key to achieving a sustainable and efficient e-hailing ecosystem.

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Conflict of Interest Statement

The authors declare that there is no conflict of interest regarding the publication of this study.

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