




“Assessing user preferences and competitive strategies of Gojek and Grab in ASEAN’s ride-hailing market”

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ASSESSING USER PREFERENCES AND COMPETITIVE STRATEGIES OF GOJEK AND GRAB IN ASEAN'S RIDE-HAILING MARKET

Abstract

Along with the development of current economic patterns, digital platforms provide infrastructure to facilitate interaction between users. One example is a ride-hailing platform that allows interaction between users who may never have met. This study aims to determine the criteria, sub-criteria, and alternatives influencing users in choosing ride-hailing and map Gojek and Grab's grand strategy to compete in the ASEAN market, especially in Indonesia, Thailand, Vietnam, and Singapore. This research uses a questionnaire to collect data, with 377 Gojek and Grab users as participants. The main criteria in each country were obtained using the Analytical Hierarchy Process (AHP) method with the Expert Choice tool. Safety, price, and usability were the main criteria for choosing a ride-hailing platform in Indonesia, Thailand, and Vietnam. In contrast, in Singapore, privacy emerged as the main criterion when choosing these platforms, in addition to safety. To increase competition in ASEAN, Gojek and Grab should improve customer relationship criteria, as these criteria can add value to the company. This research also shows that Grab dominates the ride-hailing market in Thailand, Vietnam, and Singapore because it implemented a horizontal strategy by acquiring Uber. Gojek only excels in its home country, Indonesia, by acquiring and innovating in integrating with the commuter line and launching an Initial Public Offering (IPO). This research found that there is still a need to improve vertical and horizontal strategies and outsourcing to compete effectively in the global market.

Keywords

strategic management, digital platform, sharing economy, AHP, ride-hailing services

JEL Classification

M31, L92

INTRODUCTION

The Association of Southeast Asian Nations (ASEAN) is an organization that embodies the cooperation of ten countries in the Southeast Asian Region. It was formed to create stability, prosperity, peace, and security among member countries in this region. In recent years, ASEAN has experienced a significant transformation, especially in the context of digitalization, which has triggered economic and social integration. This digital transformation opens up new opportunities for various sectors, including transportation, which is now increasingly diverse due to the presence of ride-hailing services. Services such as Gojek and Grab have changed how people fulfill their daily mobility needs with easy access through smartphone-based applications (Kibaroglu, 2019).

Gojek and Grab continue innovating strategies to attract customers to use their services. However, customers also have several criteria to consider when choosing a ride-hailing service (Raco et al., 2018). Therefore, this research was conducted to understand customer preferences in choosing ride-hailing services based on criteria, sub-criteria, and alternatives and also design Gojek and Grab grand strategies to win competition in the ASEAN market.

1. LITERATURE REVIEW

The ASEAN has an agreement to form the ASEAN Economic Community (AEC), which positively influences ASEAN member countries. The agreement affects the free flow of goods, services, skilled labor, free capital, and free investment (ASEAN, 2015). With the auspices of an organization that facilitates cooperation in the Southeast Asian region, the AEC agreement opens up great opportunities to advance the industry in each member country, especially in changing economic patterns towards the digital economy. Therefore, regulations must provide a strong foundation for efficient, innovative, and inclusive digital transformation (The World Bank, 2016). In an increasingly complex competition, digital technology positively and negatively affects economic patterns, traditional business arrangements, and consumers (Ramaiah, 2020).

In this era, digital platforms are essential in various aspects of life. Digital platforms facilitate all interactions, including communication and transactions, thus becoming an important infrastructure in the digital ecosystem (Ha & Kim, 2024). Digital platforms are described as operating systems in our lives, emphasizing their attachment to society (Vaidhyathan et al., 2024). Digital platforms evolve through network capabilities that combine technological infrastructure and resources to provide goods or services (Ochinawata et al., 2024).

As digitization develops, the role of digital platforms is becoming increasingly important. Digital platforms provide innovative spaces and have changed the pattern of information systems by providing online communication facilities between user interactions and platform provider organizations (Lee & Lee, 2019). Digital platforms like Apple, iOS, and Android provide great opportunities to support transactions (Eferin et al., 2019). Today, digital platforms are transforming almost all industries due to their interconnected nature with institutions, markets, and technologies (de Reuver et al., 2018). Therefore, new opportunities and challenges require regulation to appropriately address the opportunities and risks associated with digital platforms (Rossotto et al., 2018). However, to protect user confidentiality and privacy, network service providers design terms that appear to be mechanisms to protect them-

selves from potential lawsuits and control user access (Park et al., 2019).

One of the significant technological changes today is the digital ride-hailing platform. This service is known as a ride-hailing company (Alemi et al., 2019). Ride-hailing services involve three parties: providers, passengers, and drivers. When ride-hailing service providers can fulfill and control requests from passengers and driver availability (Arumugam et al., 2020). Passengers will send their location via Global Positioning System (GPS) to the driver to determine the pick-up and drop-off locations via smartphones (Shah & Kubota, 2022). Personal privacy and safety are concerns for users using ride-hailing services, so service providers' primary focus is maintaining user privacy (Aksen & Sovacool, 2019).

Along with increasing population mobilization, ride-hailing services have emerged as an essential solution to improve transportation accessibility and efficiency. Ride-hailing provides an alternative for those who depend on public transportation and is also expected to reduce congestion problems in big cities (Qiao & Yeh, 2023). Besides, the importance of ride-hailing service quality, especially customer satisfaction, will lead to customer retention and better business performance (Shah & Kubota, 2022). The largest ride-hailing companies in the Southeast Asia region are Gojek and Grab. Gojek has a presence in Indonesia, Thailand, Vietnam, and Singapore, while Grab first expanded to Indonesia, Thailand, Vietnam, Singapore, Malaysia, Philippines, Cambodia, and Myanmar.

As with digital platforms, the sharing economy also plays an essential role. The sharing economy can be considered an economic system (Parente et al., 2018) where it provides peer-to-peer exchange of underutilized tangible and intangible assets through the facilitation of digital platforms. The sharing economy focuses on peer-to-peer or customer-to-customer based economic activities (Ma et al., 2020). In recent years, the sharing economy concept has transformed traditional business models or corporate practices by using the latest technology (Wang et al., 2019).

The emergence of the sharing economy has significantly changed traditional business models in

various sectors. Besides, the sharing economy has opened up new business opportunities that can be applied to various industrial activities through digital technology (Sutherland & Jarrahi, 2018). The sharing economy relies heavily on information and communication technologies such as the Internet and social technologies (Govindan et al., 2020). The sharing economy is a profitable and sustainable alternative between companies and consumers (Gong et al., 2020). Currently, sharing economy platforms continue to experience a significant increase (Choi et al., 2019), with successful sharing economy examples including Uber, Didi, and Ola in the ride-sharing business (Tong et al., 2020) and Airbnb in the lodging business (Trenz et al., 2018).

The sharing economy offers a unique approach to utilizing resources and creating value. The sharing economy has the benefits of reducing costs, improving social welfare, and reducing costs by sharing available resources (Acquier et al., 2017). The ride-hailing platform industry, such as Gojek and Grab, helps companies and vehicle owners to share profits and create synergistic ride-hailing services in the Southeast Asian region. Well-known examples of the sharing economy are Airbnb and Uber, which connect individuals seeking accommodation and glue transportation with home and vehicle owners through websites or apps. To this end, the sharing economy can be distinguished from other digital platforms, such as social media (e.g., Facebook) and e-commerce (e.g., Amazon) (Thornton, 2024).

Grand strategy is part of the business master strategy that guides the firm's strategic actions. Characterize a firm's overall grand strategy as a choice among four alternatives: stability, internal growth, external acquisition, and breakup (Glueck & Jauch, 1984). One of the critical tasks of management is to adapt the strategic process to the organizational context. This includes encouraging strategic thinking and promoting inter-firm cooperation (Amoo et al., 2019).

Companies often use different corporate-level strategies to maintain competitiveness and face market challenges. Corporate-level strategies are divided into horizontal integration, vertical integration, and strategic outsourcing (Hill et al.,

2015). Horizontal integration strategies acquire or merge with industry competitors to achieve competitive advantages arising from large size and scope of operations. Vertical integration strategies occur when a company expands its operations backward and forward into an industry. An outsourcing strategy allows an independent specialist firm to perform one or more of the firm's value chain activities. Thus, companies face several strategic decisions to support management strategies that can be implemented in terms of leading market competition.

Corporate strategy should focus on value creation independent of business unit value. This means developing horizontal strategies that aim to develop programs and coordinate activities that encourage sharing resources and skills (Li, 2024). Corporate strategy is a broad concept that includes organizational decisions that have strategic significance related to the company, the potential to address current circumstances, and strategic goals (Mazzei & Noble, 2017; Prescott, 2014).

When faced with multiple criteria and alternatives, the Analytical Hierarchy Process (AHP) is a valuable decision-making method. This method helps in organizing and prioritizing complex decisions by breaking them down into a structured hierarchy. In this condition, AHP describes or simplifies a problem through a clear hierarchy to measure priorities and choices among alternatives (Saaty, 1982; Ossadnik et al., 2016). AHP is very suitable for decision-making because it solves problems with a hierarchical structure (Dos Santos et al., 2019).

The AHP principles underlying this process need to be considered in its application. Where according to (Saaty, 2004), some of these principles include decomposition, decomposing the problem to be divided into several interconnected elements into a hierarchical form of the decision-making process prioritization, making pairwise comparisons of each hierarchical structure (Ghram & Frikha, 2021) and the pairwise comparison assessment used ranges from a scale of 1 to 9 (Saaty, 2004), 1 = equal, 2 = weak, 3 = moderate, 4 = moderate plus, 5 = strong, 6 = vigorous plus, 7 = very strong, 8 = very-very robust, and 9 = extreme. Consistency (CR equal to 0.1 or less than 0.1) is required to see

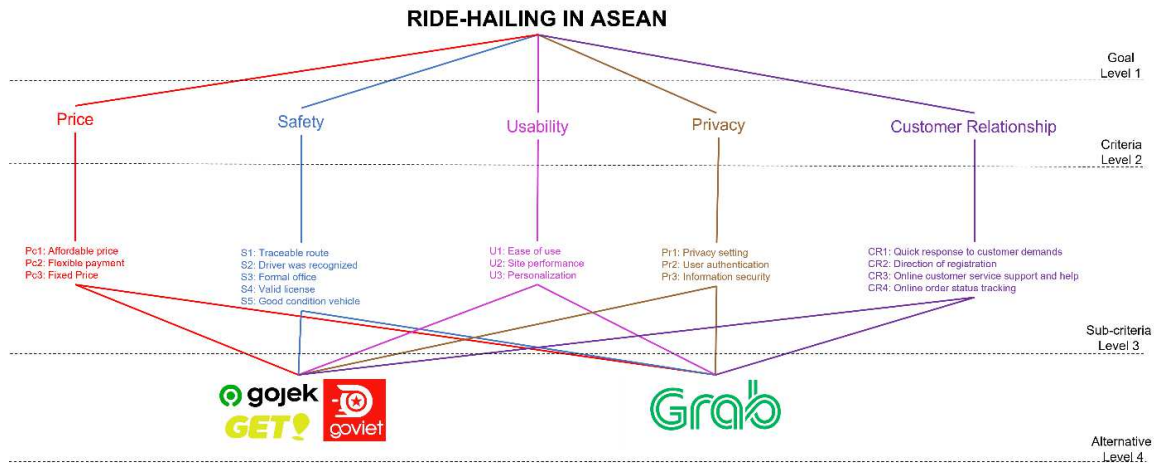


Figure 1. Research framework

that the priority ranking results are correct; priority synthesis, determining the hierarchy ranking; and logical consistency, grouping objects to have uniformity and relevance related to logical consistency. For example, a person performs activity X twice as much as activity Y and chooses activity Y twice as much as activity Z. Systematically, the person will choose activity X over activity Z. Systematically, the person will choose activity X four times more than activity Z (Hartono, 2018).

The AHP uses specific criteria and sub-criteria to determine the factors influencing individuals in choosing ride-hailing. Based on the research conducted by Raco et al. (2018), it is known that the variety of influential criteria and sub-criteria include convenience (on-site pick-up, easy to reach, privatization, predictability), price (affordable price, flexible payment, fixed price), safety (route can be tracked, driver recognized, official office, valid driver's license, vehicle in good condition), and speed (real-time, all access, direction of travel, maneuverability) with Go-bike, Grab-bike, and Uber-bike alternatives. The results of this study indicate that the most essential criteria in choosing a ride-hailing service are price and convenience, while the main alternative is Grab-bike.

AHP is also used to determine how students choose social networking sites. The research by Tang (2015) was conducted using criteria and sub-criteria of content (advertising, games, applications), functionality (content management, community building, revenue generation), usability (ease of use, site performance, personalization),

and privacy (privacy settings, user authentication, information security) with alternatives Facebook and Twitter. This research shows that the most critical criteria in selecting social networking sites by university students are privacy with a weighting value of 0.361, functionality with a weighting value of 0.261, usability with a weighting value of 0.258, and content with a weighting value of 0.120. Meanwhile, the most important alternatives are Facebook, with a weighting value of 0.683, and Twitter, with a weighting value of 0.317.

Similar research also uses AHP to assess the quality of e-commerce websites. Aydin and Kahraman (2011) observed the influence of the criteria and sub-criteria of ease of use (quickly completing transactions, ease of finding needs, ease of navigation, ease of going to different pages on the website, ease of transacting online), safety (protection of personnel information, privacy statements, safety of online purchases), product (product price details, products, product price details, competitive product prices, comments on products by customers, product quality), customer relationship (registration instructions, quick response to customer requests, online order status tracking, online customer service support, and assistance), and fulfillment (accurate billing, timely delivery, accurate product delivery) with alternatives Website A, Website B, and Website C.

The purpose of this study is to identify the criteria, sub-criteria, and alternatives that influence users in choosing a ride-hailing service and to design a grand strategy for Gojek and Grab in their com-

petition in the ASEAN market, in this case, represented by Indonesia, Thailand, Vietnam, and Singapore. The framework used in this study is shown in Figure 1. Based on AHP, this framework is a structured guide for analyzing and prioritizing safety, price, usability, privacy, and consumer relationships. This visual representation clearly shows the research methodology used to determine regional market dynamics and strategic adaptations in the ride-hailing industry.

2. METHODOLOGY

Qualitative research is the primary consideration in supporting AHP, where AHP is inappropriate for generalizing a situation as it quantifies ideas, feelings, and emotions based on subjective judgments to be presented on a numerical scale. AHP research is unrelated to reliability issues in quantifying a variable, and hierarchical analysis' use of rigorous problem-solving in decision-making is consistent with a qualitative approach.

The application of the AHP method requires consideration of the size and qualifications of the participants involved. This method could be applied only to a few participants, with the right participants having relevant experience (Baumann et al., 2019). The sample size used in this research is, according to Roscoe's suggestion that the sample size is greater than 30 and less than 500 (Bougie & Sekaran, 2019), whereby the more respondents, the better the results. In a study of dynamic cross-border payment preferences, the respondents were only 14 in Malaysia and 36 in Thailand, selecting respondents who understood the pairwise comparisons that had been made of alternatives (Kurniawan & Achjari, 2024).

This research was conducted for seven months, from July 2019 to February 2020, using qualitative research, which emphasizes the depth of thought needed to answer problems and generally the main phenomena explored at the research site and participants (Creswell, 2019). The technique of data collection used in this research is a questionnaire distributed from November 2019 to February 2020. This method, using a paired comparison scale, ensured reliable responses from each element based on user requests (Rufandi & Achjari, 2019).

This research is expected to represent the ASEAN region in Indonesia, Thailand, Vietnam, and Singapore. This is because, during the implementation of research in 2019-2020, both Gojek and Grab platforms operated in these four countries, allowing studies to compare the services. The number of participants in Singapore is smaller due to an adequate public transportation system that covers the entire country. Besides, Gojek operations in Singapore, Thailand, and Vietnam began in early 2019, less than a year after this research was conducted. In this case, Gojek and Grab were only comparable in a period of approximately one year in these three countries, as opposed to Indonesia, which can be compared since 2014.

Questionnaires using collective primary data distributed through international student organizations, office areas in the city center (Jakarta, Bogor, Depok, Tangerang, Bekasi, Bandung, Yogyakarta, Semarang, Surabaya, Malang, Denpasar, Balikpapan, Makassar, Medan, Pekanbaru, Singapore, Bangkok, Hanoi, and Ho Chi Minh). In Indonesia, more samples were taken in several cities to ensure that the results obtained can describe all provinces in Indonesia, which is an archipelago. This is very important in ensuring that the results obtained are representative of the entire population in Indonesia. The characteristics data of respondents in the research are shown in Table 1.

The questionnaire was used as a data collection technique for this research, and the AHP pairwise comparison scale on each element was used to obtain responses following user requests. The pairwise comparison rating scale used ranged from 1 to 9, consisting of 1 = equal, 2 = weak, 3 = moderate, 4 = moderate plus, 5 = strong, 6 = strong plus, 7 = very strong, 8 = very strong, and 9 = extreme. All participants revealed preferences for their cross-border payments by answering a questionnaire. The data were then analyzed using Expert Choice.

The AHP analysis tool utilizes the Expert Choice tool, assisted by a research instrument that tests the consistency ratio. The participants' answers are acceptable if the CR value is ≤ 0.10 , but otherwise, improvements or repetitions are needed in pairwise comparisons if the consistency test

Table 1. Participant profile of ride-hailing users in Indonesia, Thailand, Vietnam, and Singapore

Information	Number of participants			
	Indonesia	Thailand	Vietnam	Singapore
Gender				
Man	52	61	63	29
Woman	71	42	24	35
Nationality				
ASEAN	92	52	78	51
Asia (non-ASEAN)	12	34	9	7
Africa	0	7	0	5
Europe	11	6	0	1
Australia	8	1	0	0
North America	0	2	0	0
South America	0	1	0	0
Antarctica	0	0	0	0
Age group				
<18 years old	0	0	0	1
18-24 years old	29	8	39	16
25-34 years old	73	84	33	37
35-44 years old	14	8	15	6
>44 years old	7	3	0	4
Recent education				
Bachelor (S1)	60	27	48	34
Master (S2)	56	71	21	25
Doctor (S3)	7	5	1	2
Others	0	0	17	3
Are You a Gojek and Grab user?				
Yes	123	103	87	64
Gojek only	0	0	0	0
Grab only	0	0	0	0
How long do you use Gojek and Grab?				
< 6 months	0	0	0	0
> 6 months	123	103	87	64
Frequency of Gojek and Grab use in two weeks				
1-2 times	37	59	45	57
3-4 times	65	37	38	5
5-6 times	16	5	4	2
>7 times	5	2	0	0

shows inconsistent results (Hartono, 2018). The reliability aspects are as described by Ritchie and Lewis (2003) as follows: (1) research sample selection is unbiased; (2) consistent data collection techniques enable participants to describe their experiences; (3) systematic analysis process; (4) research result interpretations are supported by evidence; and (5) opportunity has been identified for all perspectives.

3. RESULTS

Each country has primary considerations in determining the criteria prioritized when choosing a ride-hailing service. This research obtained the

results of the main priorities of ride-hailing service users in Indonesia, Thailand, Vietnam, and Singapore when choosing ride-hailing services. The results obtained in this study related to consumer preferences in these countries are shown in Table 2 (bold numbers in the table indicate the main criteria in each country).

In Indonesia, the main criterion is safety, with a weight of 0.224, followed by price criteria, with a weight of 0.222, and usability criteria of 0.219. The total weight value of Gojek alternatives is higher than that of Grab alternatives, with a difference in weight value of 0.097. This is because Gojek alternatives are more concerned with safety, usability,

Table 2. Main hierarchical structure of criteria

Criteria	Value			
	Indonesia	Thailand	Vietnam	Singapore
Safety	0.224	0.223	0.221	0.243
Price	0.222	0.219	0.291	0.192
Usability	0.219	0.226	0.172	0.197
Privacy	0.197	0.190	0.171	0.216
Customer relationship	0.138	0.142	0.146	0.152

privacy, and customer relationship criteria, while Grab alternatives are more concerned with price criteria. The overall inconsistency of 0.01 is acceptable because the limit of inconsistency is 0.1.

Meanwhile, Thailand’s three main criteria for choosing a ride-hailing service are usability, safety, and price. The weight values for usability, safety, and price criteria are 0.226, 0.223, and 0.219, respectively. The total weight value of the Grab alternative is superior to the weight value of the Gojek (GET!) alternative with a difference in weight value of 0.136 because the Grab alternative is more concerned with each criterion. The overall inconsistency of 0.02 is still acceptable because the limit of inconsistency is 0.1.

The primary considerations in choosing ride-hailing services in Vietnam are price and safety criteria because both are considered very important in ride-hailing services. The weight values for the price and safety criteria are 0.291 and 0.221, respectively. With the total weight value, the Grab alternative is more critical than Gojek (Go-Viet), with a difference in weight value of 0.091 because the Grab alternative is more important in each criterion. The overall inconsistency of 0.01 is acceptable because the limit of inconsistency is 0.1.

Unlike others, safety criteria and privacy value are the leading and most important considerations when using ride-hailing in Singapore. Each criterion has a weight value of 0.243 for safety criteria and 0.216 for privacy criteria. The total weight value of the Grab alternative is superior to the Gojek alternative value, with a difference in weight value of 0.041. Grab alternatives are more concerned with safety, privacy, usability, and price criteria. Besides, the criteria for customer relations have the same weight value. The overall inconsistency of 0.03 is still acceptable because the limit of inconsistency is 0.1.

Each criterion is then further elaborated into several sub-criteria to explain why users in each country choose Gojek or Grab ride-hailing. Appendix A shows the main hierarchical structure of criteria, sub-criteria, and alternatives in choosing ride-hailing in Indonesia, Thailand, Vietnam, and Singapore. Both Gojek and Grab have prioritized alternatives for their users, so these sub-criteria are directly related to the reasons for using their respective applications.

4. DISCUSSION

This research was conducted in the ASEAN region, including Indonesia, Vietnam, Thailand, and Singapore. It aims to find out the preferences of consumers in each country regarding ride-hailing services. With a wide selection of criteria such as safety, price, usability, privacy, and customer relationship, each country has different and interesting findings that need to be studied further.

In Indonesia, the main criterion for choosing ride-hailing is safety, price and usability. This is in line with previous research conducted by Raco et al. (2018), where price criteria are the main criteria in the research, but not safety and usability criteria. The safety criteria used as the primary consideration for choosing a ride-hailing service are the suitability of the driver listed on the application and the condition of the suitable vehicle. Gojek and Grab companies have rules for drivers with a driving license and vehicles that meet company standards to support user safety and comfort. The research results show that the total value of alternative weights on safety criteria has a better assessment of the Gojek company because Gojek alternatives are more concerned with each sub-criteria than Grab.

Price criteria consider that the price offered is more affordable than conventional motorcycle taxis and taxis. Besides, the payment methods of-

ferred also vary, where users can use cash or electronic Gopay and Ovo. From the research results, the total value of alternative weights on the price criteria better assesses the Grab company because the Grab alternative is more concerned with the affordable price and fixed price sub-criteria. Conversely, the Gojek alternative prioritizes flexible payment sub-criteria.

Regarding the usability criteria, the primary considerations are ride-hailing applications that are easy to use and understand. In this case, Gojek and Grab companies have collaborated with Google Maps for map and location accuracy. The total weight value of alternatives on usability criteria has a better assessment of the Gojek company because Gojek alternatives excel in each sub-criterion.

Gojek users in Indonesia are more dominant than Grab users, as shown in Appendix A. Gojek's superiority in its home country is due to the company's understanding of the domestic market share in Indonesia. Gojek has implemented horizontal strategy and vertical strategy in Indonesia. Horizontal strategy by acquiring various supporting facilities and merging with the Tokopedia company to add value to the company, while the vertical strategy implemented by Gojek has been present in almost all major cities in Indonesia with integrated commuter line public transportation modes and has affordable accumulated trip rates if customers order GoTransit packages, combining ride-hailing prices with commuter lines. Besides, Gojek's big step in carrying out a vertical strategy is the management's move to conduct an Initial Public Offering (IPO) on the Indonesian Stock Exchange, which will increase public confidence, especially in Indonesia, regarding the performance and transparency of Gojek companies. This is proven to maintain Gojek's dominance as the ride-hailing of choice in Indonesia.

The main criteria for choosing online transportation in Thailand is usability, safety and price, which are aligned with previous research by Raco et al. (2018) where the Price criterion is the main criterion, but the usability criterion is not the main one in Tang (2015) study. The primary consideration in usability criteria is using vehicle booking applications that are easy to use and understand;

Gojek and Grab companies continue to improve their applications to be easy to use to meet user needs. In Thailand, ride-hailing services are used by residents and frequently by students and foreign nationals living in Bangkok. Some participants also use ride-hailing services to reach public transportation stations such as The Bangkok Mass Transit System (BTS) and The Mass Rapid Transit (MRT). In the usability criteria, the total weight assessment of alternatives is superior to the Grab company because Grab alternative is more significant in each sub-criterion.

In the safety criteria, the primary considerations are the suitability of the drivers registered in the application, the trip route that can be seen in the application, and the condition of the vehicle that is suitable for use. Gojek and Grab companies have standards for drivers who must have a driver's license, GPS in the application is always active, and vehicles that comply with company standards to support user safety and comfort. The assessment of the total weight of alternatives on safety criteria is more dominant in the Grab company because Grab alternatives are more concerned with the sub-criteria of drivers registered in the application, the trip route is equipped with GPS to be tracked, and the driver has a valid driver's license. Meanwhile, the sub-criteria of good vehicle condition and authorized company offices are equally crucial between Gojek and Grab alternatives, which have the same weight value.

The most crucial consideration for the price criteria is affordable prices due to competition between Gojek and Grab to dominate in Bangkok. The total weight value of alternatives on the price criterion gives a much better assessment of the Grab company. This is because the Grab alternative is more concerned with the sub-criteria of affordable prices, and the prices offered are affordable. In contrast, the fixed price sub-criteria are prioritized in the Gojek alternative.

In Vietnam, price and safety are the primary considerations for consumers when choosing online transport services. This is in line with research by Raco et al. (2018), which explains that price criteria are the main ones, but not safety criteria in this study. The primary consideration in the price criterion is the fixed price, as stated in the applica-

tion. Participants in Vietnam chose fixed prices as the main factor to avoid additional unofficial fares drivers give. The assessment of the total weight of alternatives on the price criterion is more favorable to the Grab company because the Grab alternative is significantly more critical on the flexible payment sub-criteria, while the Gojek alternative (Go-Viet) sub-criteria fixed price and affordable price are the main ones.

The primary consideration of safety criteria is the trip route seen in the application and the suitability of the driver listed on the application. Therefore, Gojek (Go-Viet) and Grab companies have standards in the form of GPS in applications that are always active and cooperate with Google Maps and have internal controls to monitor drivers who use company accounts as stated in the application to support user safety and comfort. Better assessment results are obtained in the total weight value of alternatives on safety criteria at the Grab company because Grab alternatives are more important in each sub-criterion.

The main criteria for choosing a ride-hailing service in Singapore are safety and privacy. Previous research by Tang (2015) supported this research, where the study obtained that privacy is the main criterion. Besides, Raco et al. (2018) stated that security criteria were not the main criteria in their research. The primary considerations in the safety criteria are that the driver has a valid driver's license, the suitability of the driver listed on the application, and the trip route seen in the application. Gojek and Grab's companies have standards in the form of drivers having a license, the company has internal controls to monitor drivers who use the company account as stated in the application, and the GPS in the application is always active and cooperates with Google Maps, which aims to support user safety and comfort. The total value of alternative weights on safety criteria gives a better as-

essment of the Grab company because the Grab alternative is more important in each sub-criterion.

Regarding privacy criteria, the primary considerations in choosing a ride-hailing service are safety arrangements and information safety. Users of ride-hailing services in Singapore are very cautious when providing personal information. Therefore, information safety and safety arrangements are a top priority to be considered. The total weight value of alternatives on the privacy criterion is a better assessment of the Grab company because the Grab alternative is superior in each sub-criterion.

The selection of ride-hailing services in Indonesia, Thailand, Vietnam, and Singapore has similarities; namely, the relationship with the customer is the criterion that users choose when using ride-hailing services. This is very interesting because users do not consider the relationship between ride-hailing service providers and users. Therefore, customer relationship criteria are expected to be the main criteria in the future because the relationship between ride-hailing service providers and users can provide an added value to the company if they have a strong relationship. Based on the weighted value of customer relationship criteria, Gojek is superior in Indonesia; Grab dominates in Thailand and Vietnam, while in Singapore, it shows the same value between Gojek and Grab. Nevertheless, both still have to increase the value of customer relationships to win the competition for ride-hailing services.

In these countries, Thailand, Vietnam, and Singapore, Grab dominates the ride-hailing market. Grab has implemented a horizontal strategy well, which is to acquire Uber as a whole. With the implementation of this strategy, Grab dominates the ASEAN market. However, Grab and Gojek are still developing strategies to maintain and increase consumer interest in their services in markets that are not yet entirely dominated.

CONCLUSIONS

This research explores the differences in customer preferences when deciding which ride-hailing service to use and which criteria they consider most important. It also formulates the grand strategies for Gojek and Grab to win the ride-hailing competition in ASEAN. The results show that safety, price, and usability criteria highly influence Indonesian, Thai, and Vietnamese markets. However, Singapore is different, where security and privacy are favored. The research also highlights the dominance of the ASEAN ride-

hailing giants, with Gojek leading in Indonesia, while Grab dominates in the other three countries. This is due to the implementation of the right vertical and horizontal strategies. However, both still need to improve their strategies to survive or win the ride-hailing competition in ASEAN.

The data collection time cannot be extended due to the limitations of high cross-country research costs and the COVID-19 pandemic at respondent collection locations. In addition, the use of AHP has weaknesses, namely dependence on the subjectivity of the assessor and limitations in handling complex data, so it is recommended for further research to combine this method with other Multi-Criteria Decision-Making (MCDM) methods. This research contributes to providing literature on the AHP method and improving understanding of the dynamics of ride-hailing services in ASEAN. This research is also expected to be a valuable reference in the strategic planning of Gojek, Grab, and new ride-hailing services such as Maxim. A suggestion for future research is to explore additional criteria and sub-criteria to improve strategic decision-making in this industry movement.

AUTHOR CONTRIBUTIONS

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APPENDIX A

Table A1. The main hierarchical structure of criteria, sub-criteria, and alternatives in choosing ride-hailing in Indonesia, Thailand, Vietnam, and Singapore

Criteria	Sub-criteria	Indonesia		Thailand		Vietnam		Singapore					
		Gojek	Grab	Gojek	Grab	Gojek	Grab	Gojek	Grab				
Safety	Driver was recognized	0.268	0.035	0.032	0.282	0.025	0.036	0.324	0.037	0.040	0.244	0.029	0.031
	Valid license	0.216	0.028	0.025	0.240	0.020	0.030	0.206	0.019	0.025	0.232	0.022	0.030
	Good condition vehicle	0.210	0.027	0.023	0.229	0.029	0.029	0.193	0.021	0.024	0.229	0.027	0.029
	Traceable route	0.198	0.026	0.019	0.146	0.017	0.019	0.175	0.018	0.022	0.193	0.024	0.025
	Formal office	0.108	0.014	0.007	0.103	0.013	0.013	0.102	0.009	0.013	0.102	0.011	0.013
Total criteria safety		0.130	0.106		0.104	0.127		0.104	0.124		0.113	0.128	
Price	Affordable price	0.529	0.041	0.068	0.498	0.027	0.062	0.422	0.068	0.064	0.374	0.030	0.038
	Flexible payment	0.265	0.034	0.029	0.275	0.034	0.033	0.351	0.057	0.051	0.313	0.032	0.028
	Fixed price	0.206	0.021	0.027	0.227	0.018	0.028	0.227	0.013	0.037	0.313	0.032	0.032
Total criteria price		0.096	0.124					0.138	0.152		0.094	0.098	
Usability	Ease of use	0.594	0.076	0.054	0.568	0.056	0.073	0.420	0.040	0.04	0.613	0.061	0.063
	Personalization	0.214	0.027	0.018	0.225	0.019	0.029	0.327	0.015	0.024	0.236	0.021	0.024
	Site performance	0.192	0.025	0.020	0.207	0.017	0.027	0.253	0.017	0.031	0.151	0.014	0.016
Total criteria usability		0.128	0.092		0.092	0.129		0.072	0.095		0.096	0.103	
Privacy	Information security	0.387	0.044	0.036	0.434	0.034	0.047	0.494	0.036	0.047	0.442	0.045	0.050
	Privacy setting	0.346	0.040	0.025	0.313	0.033	0.034	0.277	0.022	0.026	0.303	0.03	0.034
	User authentication	0.267	0.031	0.022	0.253	0.021	0.027	0.229	0.015	0.022	0.255	0.023	0.029
Total criteria privacy		0.115	0.083		0.088	0.108		0.073	0.095		0.098	0.113	
Customer Relationship	Quick response to Customer demands	0.395	0.032	0.018	0.413	0.028	0.033	0.390	0.028	0.032	0.452	0.036	0.036
	Online order status Tracking	0.291	0.023	0.014	0.239	0.018	0.019	0.300	0.019	0.024	0.244	0.019	0.020
	Online customer service Support and help	0.192	0.015	0.009	0.189	0.011	0.015	0.191	0.011	0.016	0.185	0.015	0.014
	Direction of registration	0.122	0.010	0.006	0.159	0.011	0.013	0.119	0.010	0.008	0.118	0.009	0.009
Total criteria customer relationship		0.080	0.047		0.068	0.080		0.068	0.08		0.079	0.079	
Alternative		0.549	0.452		0.431	0.567		0.455	0.546		0.480	0.521	
Inconsistency			0.010			0.020			0.010			0.030	