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Chapter 1: Introductory Chapter

1.1 Background

Advancements in technology are rapidly revolutionising the food delivery service, consequently impacting the food and beverage industry. This prompted an explosive growth in online food delivery services, causing usership of such services to skyrocket. The rising trend of online food delivery services have permeated Singapore as well, recording 1.6 million users in 2018 alone (Statista, 2018). While the concept of online food delivery is still in its infancy, compared to countries like China where the system is vastly developed and stable, Singapore is still regarded as one of the leading users of online food delivery services.

As e-commerce is rapidly growing worldwide, the food industry is also tapping onto it to boost its growth. This manifests itself in online food delivery services, which is an online-to-offline service. It is the process of food delivery from local restaurants coordinated through a web page or app. Customers search on mobile applications for their choice restaurant and select their preferred food items. In Singapore, online food delivery services are expanding to include not just restaurants and fast-food chains, but even hawker centers and coffee shops as well. While leading food delivery services in Singapore include Foodpanda, GrabFood, Honestbee, UberEats and Deliveroo, many new startups are appearing, each with their own unique business idea like Porterfetch, offering delivery services only from 9pm to 3am. Competition in the food delivery service is intense as many competitors are constantly adapting to suit the consumers' needs.

1.2 Rationale

With the increasing appearance of new online food delivery startups and a rise in the market growth of such services, statistics have shown that there is a consequent trend of increased usership of such services. Convenience is a prime factor to

consumers, as obtaining food is as simple as a few clicks on a mobile device. Easy accessibility to more food options, greater convenience and availability of more discounts seem to be the main reasons for consumers to choose the services offered by online food delivery service providers. Thus, it is crucial for startups and existing companies to be aware of which factors are prioritised by users in order to make more relevant and effective improvements.. As more startups venture into the online food delivery service, many are introducing new ways to improve the quality of the service. However, it is unclear which app is the most popular one amongst users. Therefore, this paper aims to find out the most preferred food delivery app as well as identify and evaluate factors affecting app choices.

1.3 Research Questions

1. Which app do locals prefer the most and why?

2. How does the usage of online food delivery services vary among different groups of people?

3. What are the factors influencing users' choice of food delivery app and how important are they compared to one another?

1.4 Thesis Statement

Food delivery app users prioritise ease and convenience over other factors like price and food quality. Thus, current users prefer Foodpanda since it has been around for the longest time, suggesting that it is more established and possess a wider base of drivers and food merchants.

1.5 Scope of Research / Delimitation(s)

This research looked at the users' perceptions of online food delivery services, of Singapore residents across the island. The focus will be solely on delivery apps that

offer services for multiple restaurants at once, not individual delivery services for food companies (e.g. McDelivery etc). Food delivery service only refers to cooked, ready-to-eat food, not groceries (e.g. RedMart).

1.6 Significance of Research / Usefulness

This research provides new insights to Singapore's local online food delivery service, allowing companies to better understand the considerations of locals when ordering food online. Through this, food delivery services have a reference to better adapt their service to suit consumers' needs in the Singapore context. Consumers can also make more informed choices when it comes to food delivery apps as they will know the specific characteristics of each app and can better suit their own needs.

1.7 Limitation(s)

As this research uses non-probability sampling, its results may not be as comprehensively inclusive of the various cultural differences and demographics in various parts of Singapore.

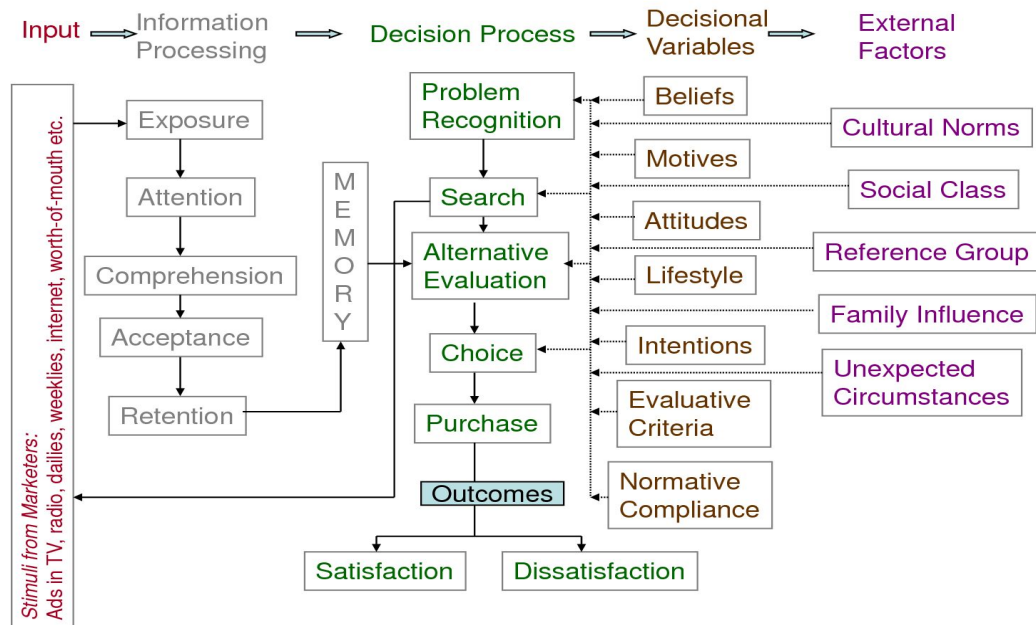# Chapter 2: Literature Review

2.1 Engel Kollat Black Model

Fig 1.0. The Engel Kollat Black Model of Consumer Behaviour (Engel et al.)

The Engel Kollat Blackwell (EKB) Model of Consumer Behaviour describes the increasing, rapidly expanding body of knowledge concerning consumer behaviour. The EKB Model describes the process of decision making on purchases and is split into 5 main segments, including the main decision making process (the central focus), two stages affecting the main decision process and a list of other factors as well.

Central Focus: Decision Process

The main focus of the model is on this five-step decision making process, namely: problem recognition, internal followed by external search for information and alternatives, evaluation of alternatives, the purchase itself, then the outcome of the purchase. Not every purchase goes through all 5 stages of this decision making process as it depends on whether the problem solving behaviour is routine or extended, i.e. whether it is a first-time/rarely

made purchase or if it is made very often, such as the purchase of food and daily necessities.

First Stage: Information Input

This stage is ongoing all the time when consumers are exposed to content about various companies or products. The information input can be categorised into either marketing (advertisements on TV, radio, social media etc) or non-marketing sources (conversations with family, recommendations by friends etc). The information input stage influences the first step of the decision making process, the problem recognition. This is because advertisements try to instil in viewers a sense of need for their product or associate the product with a desirable outcome in order to make consumers need or want to purchase the product. It also contributes to the next step, the search for internal information, where the consumers access their short term or long term memory for stored information input. If the consumer does not arrive at a decision after the problem recognition stage and internal search for information, the search for external information is activated in order to arrive at a choice.

In the current digital age, information transmission has been made more efficient and convenient, with a new platform, the internet, for the spreading and receiving of information. Therefore, for online food delivery services, the marketing aspect of this stage mainly occurs through online social media platforms, advertisements on websites as well as on other applications. Articles and reviews written about food delivery services also help in providing positive marketing input. Additionally, the opinion of friends, family and peers are also more easily heard when people comment about these companies and their services online. Hence, one of the important factors affecting consumers' choice of food delivery service would be the information input received on the service. Hence, the questionnaire would have to find out both the importance of marketing and non-marketing factors affecting consumer choice.

Second Stage: Information Processing

This stage involves the processing of the inputted information. It consists of the costumer's exposure, attention, comprehension, acceptance and retention of the information obtained from the previous stage. The consumer must first be exposed to the message, allocate space for this information, interpret the stimuli, and retain the message by transferring the input to long-term memory. The storage of information in the short or long term memory acts as a database for the next step of the decision making process, the internal search.

Decisional Variables: Internal Factors

This stage consists of internal and external influences that affect all five steps of the decision process. Internal factors are essentially individual characteristics that affect the decision process. These include motives, values, lifestyle, personality, attitudes, intentions, evaluative criteria and normative compliance.

Thus, the questionnaire would need to include tests for these variables. While the EKB Model was designed with regards to offline in-store purchases, internal factors have not really changed as much as they are concerned with the personality of the person rather than the nature of the product, with the exception of evaluative criteria that buyers have. However, personality, values and attitudes are difficult to qualify and differ largely from person to person, hence it will not be considered in this paper. Factors like intention, lifestyle and evaluative criteria are more qualifiable and will be tested for in the questionnaire. Evaluative criteria refers to the dimensions a consumer will use to evaluate the features of the available choices. The criteria tested will be price, quality of the food as well as the quality of the service.

Decision Variables: External Factors

External influences are environmental factors that can affect all five steps of the decision process. These are categorised in either social or situational influences. The social influences are culture, reference groups, social class and family. Situational influences are temporary conditions that affect how the buyer behaves at the moment, such as a consumer's financial condition, physical circumstances and the buyer's mood etc also influence the decision process.

While external factors can be tested for, e.g. finding the age group or level or education etc, it is something that cannot be changed by food delivery service providers, unlike internal factors in which these companies can adapt their service to better appeal to buyers. Nonetheless, it is still worth looking into as situational factors like social and age groups or even gender can reveal interesting trends about consumer behaviour with regards to online food delivery services and their preferences. While social influences can be investigated, situational influences cannot as they happen and change spontaneously, making it difficult to observe any trends or patterns.

While this model incorporates many decisional variables that influence consumer decision-making process such as values, lifestyle, personality and culture, the model does not show what factors shape these items nor explain how these factors work. Other limitations include the fact that some of the variables, like personality of buyer, are not well defined by the theory and are difficult to measure. It is also difficult to determine the factors directly affecting each step of the decision making process as certain factors contribute to multiple steps.

Nonetheless, the EKB Model serves as a very useful tool to guide the crafting of an online questionnaire. This is because the factors affecting different steps of the decision-making process provide specific criteria for buyers to rank in the questionnaire to find out which is the most important factor(s) affecting consumers'

choice when it comes to making online food purchases. Factors range from marketing to non-marketing exposure to their evaluative criteria like price and quality of service.

2.2 Theory of Impulse Buying

2.2.1 Brief Overview

Theory of Impulse Buying was proposed by Hawkins Stern in 1962. Impulse buying was first identified as an unplanned purchase behaviour. Stern states that the term "impulse buying" is generally seen to be synonymous with "unplanned buying" that describes purchases a shopper makes without planning in advance. His research offers four distinct types of impulse purchases which can be defined as:

a) Pure Impulse Buying: This breaks normal purchasing habits of the consumer and is what is considered an "escape purchase". It is predominantly based off emotion.

b) Reminder Impulse Buying: This kind of impulse buying refers to when a person sees a product and is reminded of his/her need for it. It is still an impulse purchase, buying something that was previously unplanned, but it is done after logical reasoning.

c) Suggestion Impulse Buying: This impulse purchase occurs when consumers see a product and visualises or imagines a possible need for the product.

d) Planned Impulse Buying: This kind of impulse buying refers to consumers planning to make a purchase but are unsure of the specifics of what and how they want to buy. Often occurs due to coupons or promotions.

However, while some researchers agree that impulse buying is a spur of the moment purchase, they define it to be a purchase made with little thought and hence do not subscribe to Stern's four categories of impulse purchase. They feel that impulse purchase only refers to the first type described by Stern. One such research conducted by Mohan et al, differentiates the impulse purchases from other unplanned purchases, suggesting that other purchases should be categorised as unplanned reminder buying, similar to Reminder Impulse Buying, when consumers are reminded of the need of a product or forgot to buy the product beforehand.

Research on Impulse Buying has produced several factors that cause buyers to make purchases on impulse more. These factors are classified into external and internal factors. External factors are made up of store environment, product characteristics and promotional activities. Internal factors are shopper-related, intrinsic factors, namely consumer characteristics and culture.

2.2.2 External Factors

Most researchers agree on impulse buying behaviour being related to stimuli caused by various external influences. One such influence is the store environment. The design, layout and colour schemes of a shop can enhance positive feelings in consumers which, is assumed, will lead to a higher willingness to purchase or stay in a store longer. However, since the scope of the research is on online purchases, specifically online food purchases, the physical environment of the store is no longer relevant. Instead, this factor has changed to become the features of the online store. According to Octavia (2015), these factors are the security of the app/website, ease of navigation as well as the design and user interface. The research paper also distinguished 5 stimulus affecting online impulse buying, environment, promotion, payment, product and availability. Hence, this research questionnaire will test for these three factors affecting online store environment, namely, security, ease of navigation and design of the app/website, to find out how and whether these factors are important in affecting consumers' choice of food delivery app.

Another external factor is product characteristics. Some products are more likely to be bought on impulse than others depending on the product availability, price, category, distribution, as well as brand and packaging. However, most of these factors are not relevant to this research paper as they compare across stores that sell different products, whereas most food delivery services sell similar products. Despite this, availability of specific products remain relevant. Many people have specific preferences of food brands. Stern (1962) suggests that this could be because the brand's message or beliefs are in line with the buyer's. It could also be because of a good past experience. Since most brands only partner with one food delivery service, users may choose to stick with the app that delivers certain brands. Product availability also entails the availability of a wide variety to choose from. Hence, users may prefer certain apps over others due to a wider range of food options offered.

Promotional activities also have a direct impact on consumers' impulse buying behaviour. In store promotional activities and discounts trigger impulse buying as it gives buyers a perceived increase in value for their money, increasing the enticement of the product (Hulten & Vanyushyn, 2011). Online food delivery companies often have various discounts app-wide that allow buyers to purchase the variety of food brands as lower costs as long as they use the food delivery app. Thus, the availability of promotional activities is a factor that will be investigated in this research.

The form of payment also influences buyers' behaviour to make impulse purchases. Consumers who shop online may feel unsafe about sharing personal information, hence preferring to pay upon delivery rather than online. Others may find it more convenient to make the transaction online through credit cards or third party payment apps. Hence, the availability of different modes of payment is a factor to be investigated.

2.2.3 Internal Factors

Several researchers have also postulated that the intrinsic characteristics of a person as well as the situational factors during the time of purchase. While many of these factors are difficult to qualify and cannot be controlled by companies or businesses, they are still worthy of analysis as interesting patterns and trends can be observed from them and this paper will be able to see if Singapore exhibits similar trends as research from other countries. These factors are namely consumer characteristics and culture.

Consumer characteristics include a wide variety of factors like age, gender, mood, materialism and shopping enjoyment. People in different age groups are more likely to buy on impulse than people from other age groups. Younger people feel less risk when making impulse purchases (Wood, 1998), hence people from 18 to 39 exhibit a higher tendency to purchase on impulse. Research in psychology also suggests that younger people have lower self-control (Kacen & Lee, 2002). Millenials have also been found to be more likely to spend their cash quickly and have a general likeness for purchasing. Hence, it is proposed that this generational cohort is more likely to spend impulsively (Pentecost & Andrews, 2010. Xu, 2007). Gender wise, women tend to purchase more impulsively than men. Research done in various parts of the world like India, United States and Columbia, exhibit this trend hence it would be interesting to see if similar pattern is observed in Singapore. It is suggested that this is because of the nature of products bought by both genders. Another consumer characteristic is the current mood of the buyer though since this varies even within a person, it is not as relevant to this paper and will not be investigated. Similarly, while buyers who are more materialistic than others have shown increased tendency to buy on impulse, it is not relevant to this paper. Shopper enjoyment, however, is a factor worth investigating. It is shown that buyers who gain more positive emotion from shopping are more likely to spend on impulse. While enjoyment derived from shopping differs from person to person, if a website or application is able to induce this sense of enjoyment in buyers, it may be the preferred choice.

Another internal factor impacting consumers' impulse buying behaviour is the culture of the buyers. Culture includes basic values, myths, norms, perceptions, needs,

wants and behaviour. Examples include collectivism versus individualism, masculinity versus femininity, uncertainty avoidance versus risk taking, indulgence versus restraint etc (Hofstede et al, 2010). For example, in Asian societies that are more collective, there is a habit of doing less impulse purchases than individualist consumers from European societies. While Singapore is collectively an Asian society, it would be interesting to note for any trends across the different races, religion or ethnic groups with regards to their impulse purchase habits. Hence, culture, in the form of race, would be a noteworthy factor.

Chapter 3: Methodology

3.1 Survey Questionnaire

This study is based primarily on the collection of primary data. Quantitative research methods will be used, predominantly through the use of surveys. Stratified sampling will be used to ensure that there is an attempt at equal representation of age and gender groups. The survey will be done via Google Forms, investigating the users' perceptions of the importance of the list of factors (Appendix I) identified in the Literature Review. A sample size of 300 respondents was surveyed.

3.2 Interview

Survey questions were accompanied with interview questions to probe further about users' views towards food delivery services. Impromptu questions were asked to clarify certain opinions and to prompt further. The main aim of the interviews were to find out the users' reasons for choosing certain food delivery apps over others. A sample size of 100 interviewees were selected, with equal representation from both genders and different age groups.

Chapter 4: Discussion & Analysis

After carrying out the methodology, both targets for sample size were met. The survey results obtained 300 responses while the interviews had 100 interviewees. For the list of factors, see Appendix I below.
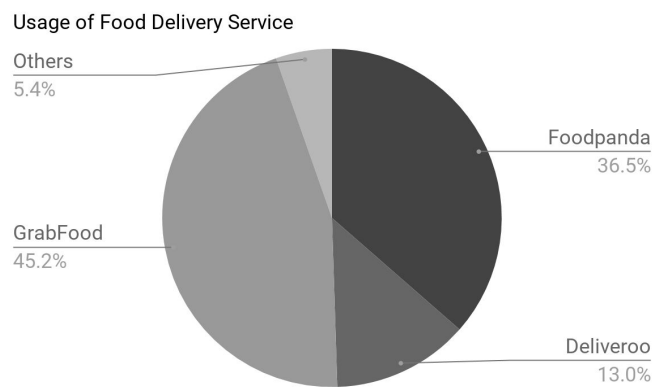
4.1. Most Preferred Food Delivery App

Usage of Food Delivery Service

Others
5.4%

Foodpanda
36.5%

GrabFood
45.2%

Deliveroo
13.0%

Fig. 1. Percentage of App Usage

Looking at the results as a whole, we see that the food delivery app scene in Singapore is largely dominated by two apps, namely Grabfood and Foodpanda, with the two companies taking up over 80% of the entire chart. Companies like Deliveroo take up 13.0% of the total responses while smaller companies like Honestbee, Shogun2U and WhyQ are only used by a very small proportion of respondents.

From the survey results, it can also be seen that the most preferred food delivery app is GrabFood, with nearly half of respondents indicating GrabFood as their most frequently used food delivery application. Foodpanda is not far behind, with slightly over a third of the total users. Although comparatively fewer than the two companies, there are some users who indicated Deliveroo as their most used food delivery app. One point to consider is that the results do not reflect users who use more than one app, it only shows which one is used most. (e.g. some people may use different apps for different foods)

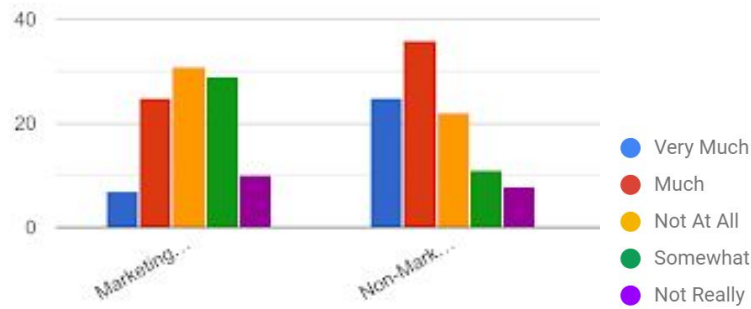**4.2 Factors Affecting Choice of Food Delivery Services**

Fig. 2.1. How much do these factors affect your app choice? / %

In the diagram above, the two factors investigated are Marketing and Non-Marketing Influences (left to right). Respondents assessed how much these factors affect their app choice on a Likert Scale. These two factors refer to external influences from advertising and family/friend recommendations. As we can see, these two factors are not very important to users, with less than 10% of users ranking "Marketing Influences" as "Very Much" and a little over 20% for Non-Marketing Influences. This result shows that for most users, decision making on which app to use is largely based on personal preferences hence suggesting that advertisements from these food delivery companies have minimal impact on users. In fact, even recommendations from friends and family have a larger impact; 16% more users indicated "Very Much" for Non-Marketing Influences.
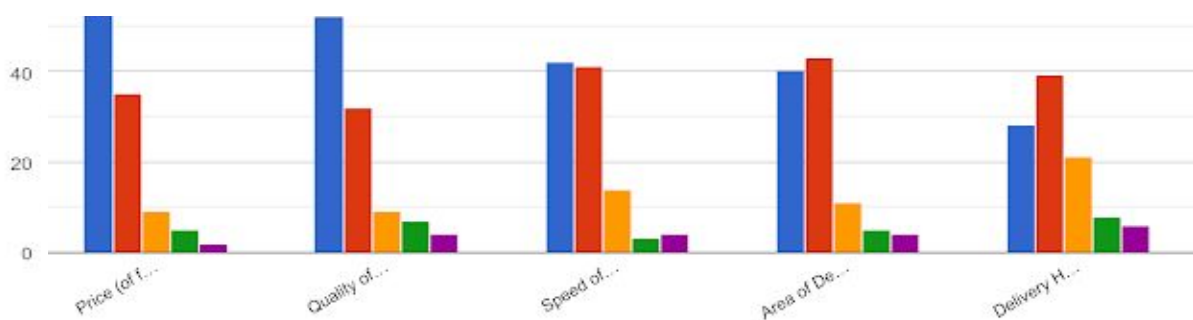

Fig. 2.2. How much do these factors affect your app choice? / %

These factors shown are the characteristics of service provided by the companies, namely Price, Quality of Food, Speed of Delivery, Area of Delivery and Delivery Hours.

Price and Quality of Food, both rank above 50% for "Very Much", thus being the most significant factors affecting users' choice. In fact, both factors are the most important factors amongst the list of factors. However, this is not surprising as, with most goods and services, price is often an important factor. However, when compared with existing studies done in other countries, "Cost Effectiveness" is not among the most important factors, whereas in Singapore it is most important. (Das, 2018).

Furthermore, it is also slightly unexpected that Quality of Food is much more important than factors like Speed and Area of Delivery as literature review suggests that "Ease and Convenience" is the top factor. In fact, most respondents who did not use food delivery services reflected that one of their main concerns was with the quality of food upon delivery.

While it is surprising that Speed and Area of Delivery are ranked below Quality of Food, the stark difference between the rankings of Speed and Area compared to that of Delivery Hours is very surprising. Looking at the responses to "What do you use food delivery services for?", we see that most respondents use them for "Lunch" (28%) and "Dinner" (45%), while very few use it for "Supper" (12%). Hence, people are satisfied with current operating hours of these services as their current lifestyles do not require food delivered in the wee hours.
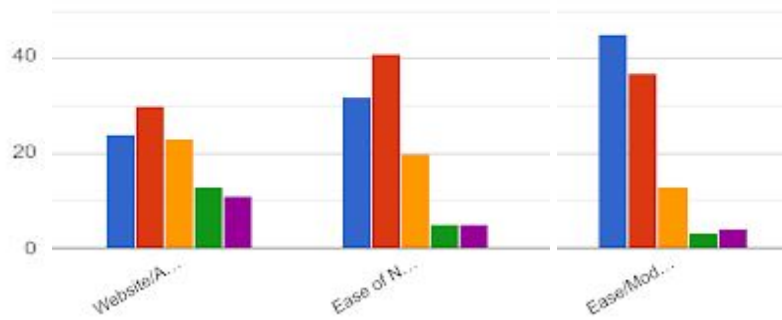
Fig. 2.3. How much do these factors affect your app choice? / %

These three factors concern the features of the app/website itself, namely Website Security, Ease of Navigation and Ease of Payment. It is not entirely surprising that Website Security is amongst the lowest ranked factors with only 23% of respondents indicating it as "Very Much" affecting their app choice. This is because as seen in chapter 4.1, most if not all apps used are reliable and trusted companies hence security is the least of consumers' concerns.

Similarly, Ease of Navigation is not very significant as users are decently skilled in terms of using technology and most fall under the age categories of first generation technology immigrant to native users, with less than 4% belong to the Baby Boomer generation. Nonetheless, it is still relatively important as interview reflects that some apps like Deliveroo are difficult to navigate and look for food options, compared to Foodpanda.

Ease of payment is a much more significant factor amongst the three. Most people only use a few credit card or online payment methods, hence looking for an app that has the function used by a user is important. Furthermore, many reflected that most food delivery services do not offer cash on delivery (with the exception of Foodpanda).
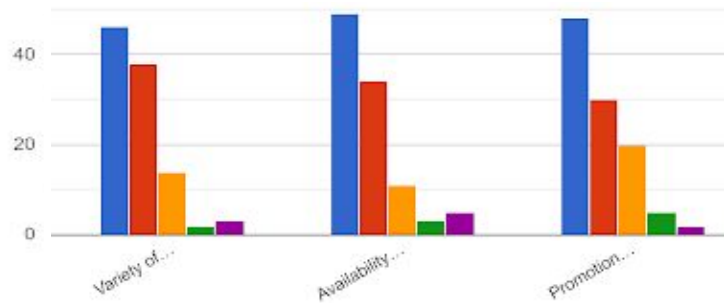
Fig. 2.3. How much do these factors affect your app choice? / %

These factors are miscellaneous factors, namely Variety of Food, Availability of Specific Food Options and Promotional Activities. Availability of Specific Food is the third highest ranked factors amongst all 13 factors tested, with 49.7% indicating "Very Much". Most food brands only partner with 1 food delivery company. Thus, this shows that many users to decide their app choice based on whichever offers their desired food option. Variety of Food Options is also ranked highly. This suggests that companies that partner with more food brands and food brands that are more popular will have a competitive edge over other apps. Users also value promotional activities, similar to how price plays a decisive role.

4.3 Reason for App Choice

This segment is about specific reasons why people prefer each app.

4.3.1 GrabFood
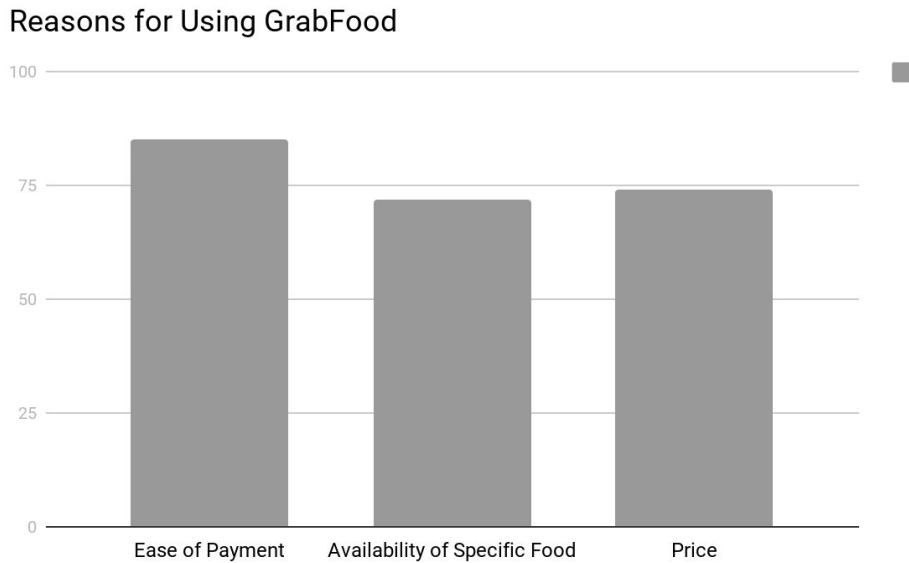
Reasons for Using GrabFood

Fig. 3.1. Reasons for Using GrabFood

As seen in the above section, Grabfood is the most preferred app. Looking at the demographic statistics of GrabFood users, one interesting observation is that a majority of them are teenagers (73% aged below 18). In the interview segment, there are a few reasons why it is ranked extremely high or low by GrabFood users. The most significant one is Ease of Payment, with 85% of GrabFood users mentioning it as a reason. Many teenage users reflect that this is the most important factor to them as they can utilise their parents' GrabPay account, which is transferable between Grab apps. Thus, most GrabFood users also happen to be teens.

Another important reason that many users identified is the Availability of Specific Food Options. When asked further, 31 respondents suggested that this is because GrabFood is the only company that partners with McDonald's, while 43 mentioned that GrabFood offers brands that are more popular like acai bowls from *Project Acai* (21 users). This is interesting because according to GrabFood, it partners with 4,000 merchants compared to Foodpanda which has 6,000, hence suggesting that perhaps the popularity of GrabFood's restaurants are higher than that of Foodpanda. It also shows that users have a specific food item in mind before they purchase since they ranked Availability of Specific Food Options highly.

Another reason mentioned by many respondents (74%) is Price. Many GrabFood users reflected that Price was a plus point for GrabFood. While the general trend of respondents show that most people deliver for lunch and dinner, GrabFood has a higher than average purchase for "Snacks", with some users mentioning "Coffee" as well. After doing some research on the pricing methods, it is unsurprising that this is the case as GrabFood offers a fixed delivery rate of $3, (recently raised to $4), that has *no minimum order*. This means that when buying smaller orders, especially snacks and coffee well as acai bowls mentioned above, GrabFood is the cheaper option despite having higher delivery rate than Foodpanda because it does not require a minimum order. In cases like Foodpanda, additional charges are added for purchasing below the minimum order. Hence, GrabFood is an attractive delivery option for users who purchase individually.

4.3.2 Foodpanda
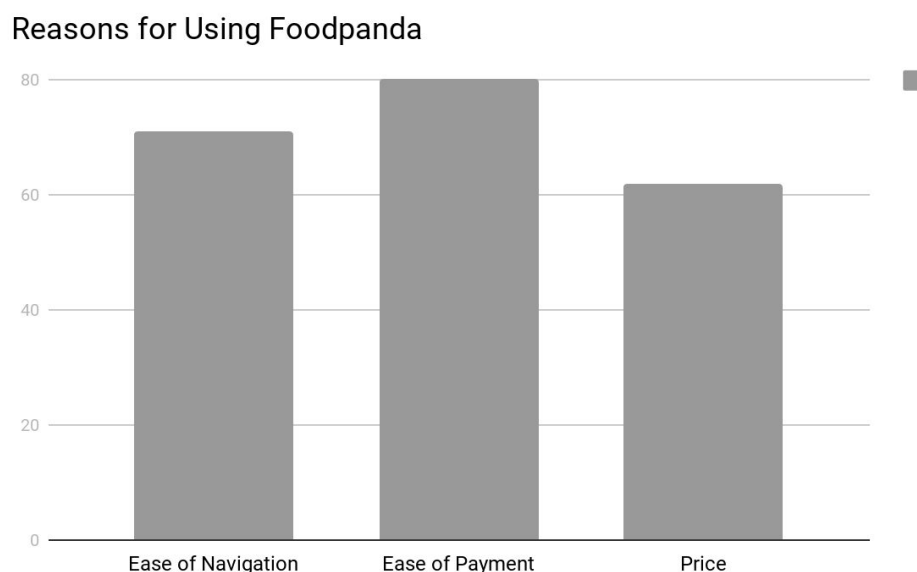
Reasons for Using Foodpanda

Fig. 3.2. Reasons for Using Foodpanda

Other than GrabFood, Foodpanda seems to be the only other delivery service that has a sizeable proportion of users (36.6%). Opposite from GrabFood, more users of Foodpanda are adults (65% aged 24-53). This may be because one of the reasons provided by most users is that Ease of Navigation of the app, with 71% of users

mentioning it, compared to slightly over 30% for Grabfood. The Ease of Navigation of the Foodpanda app could result in it being more user-friendly hence users who are older and who may be less proficient with technology prefer Foodpanda. Some users (17 users) justified this saying that unlike other apps like Deliveroo, pricing of each food item is calculated and displayed beside the item for easier reference instead of only shown when the "View Basket" part is opened making it more convenient and easy to navigate. Other users (7 users) suggested that it is because Foodpanda has been in the market for a longer time than other rival companies hence has had more time to tweak and update its delivery app. The Foodpanda app has been released since 2013 whereas other companies like Grabfood and Deliveroo only came onboard in 2019 and 2016 respectively.

Another popular factor is the Ease of Payment of the Foodpanda service, with 80% of users mentioning it. This factor is similar to GrabFood but for a different reason. Users who mentioned this reason all mentioned that it is because Foodpanda offers cash payment on delivery. In fact, amongst other apps, it is the only one that accepts cash on delivery. This makes it a very convenient option for users who do not wish to pay via ePayment. Additionally, some users (6 users) mentioned that users can checkout using guest accounts and do not have to create Foodpanda accounts at all.

The third highest ranked factor is Price. Although not as large a proportion of users mentioned this factor (62%), it is more than other factors suggested by respondents. As results show, many Foodpanda users are working adults. Hence, many reflected that they purchase lunch or dinner with Foodpanda rather than light snacks. In fact, the pricing method of Foodpanda has lower delivery charge than other companies though it has a minimum order. Hence, it may be that users purchase more than the $10 minimum purchase since they use Foodpanda for heavier meals.

4.3.3 Others

As shown in the earlier section, other food delivery apps like Deliveroo and Honestbee have a much smaller proportion of users compared to GrabFood and

Foodpanda. While this paper did not investigate why respondents do not use these apps, a few users have responded in interviews about recent changes that may have caused consumer base for these apps to decrease. For Honestbee, since it has recently stopped offering food delivery services from 20th May 2019, users have turned to other apps.

For Deliveroo, although online sources suggest that it is more popular than newer app like GrabFood, the results of this paper suggest otherwise. A few users (9 users) mentioned that they have shifted away from using Deliveroo since early 2019 because of increase in pricing. In fact articles and discussion threads on online forums have appeared since February 2019 because of this, like the Straits Times February 13, 2019, article titled *Deliveroo customers upset over 'surprise' fees*. While this is not a conclusive reason for the decline in Deliveroo customers, it is a point for consideration.

Chapter 5: Conclusion

After evaluating the factors affecting app choice amongst users in Chapter 4.2, it can be concluded that factors that affect price and product are generally ranked slightly higher than factors that affect convenience. Both are significantly more important to consumers than factors that pertain to the features of the app itself. Least important of all are Input factors that come from external influences.

Rank of Factors	Factor Category	Factors
1	Price	Price of Service, Promotional Activities
2	Product	Variety, Availability, Quality of Food Options
3	Convenience	Speed, Area, Hours of Delivery, Ease of Payment
4	App Features	App Security, Ease of Navigation of App
5	Input	Marketing, Non-Marketing Influences

Fig. 4.0. Final Ranking of Factors

Hence, the reasons why users prefer specific apps over others can be linked with the results of the most preferred food delivery app and explained using this ranked list of factors. GrabFood is the most preferred app because the reasons provided by users for using GrabFood rank highly among the most important factors. Price and Availability of Specific Food Options are ranked the highest and second highest. Hence, GrabFood is more popular because the attractive points of its service happens to be considering factors that are more valued by users. Similar, Foodpanda has a decently sized consumer base as well because of the same reason, its two winning aspects, Ease of Payment and Price, are valued among customers. However, Foodpanda falls short of first place because its most attractive point, Ease of Navigation of the App, is not a very important consideration to users.

To conclude, food delivery apps with attractive features that coincide with considering factors that are highly valued by users are more popular amongst them.

Hence, according to the results of this paper, food delivery apps can prioritise working on features of their service that improve the price and food options over improving ease and convenience of their service or the features of their app. This could mean that prioritising on attracting more food merchants to partner with them rather than attracting more drivers to speed up delivery time.

Appendix I: List of Factors

1. Price:
   - Price of delivery service charge and other charges like minimum fees
2. Marketing Influences:
   - Advertisements and other marketing media from the company itself
3. Non-Marketing Influences:
   - Recommendations from friends, family or reviews online etc
4. Quality of Food
   - The standard of food upon receiving; whether it is cold and soggy or piping hot etc
5. Speed of Delivery
   - The time taken for food to be delivered as well as the punctuality of the service
6. Area of Delivery
   - The size of the region which food can be delivered to users. E.g. how far is the furthest restaurant that is accessible via the delivery service
7. Delivery Hours
   - The operating hours of the service.
8. Website/App Security
   - Safety and confidentiality of user data
9. Ease of Navigation of Website/App

10. Variety of Food Options

11. Availability of Specific Food Options
    - Whether the food that the user desire is delivered by the service
12. Promotional Activities

13. Ease of Payment

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