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"Online Grocery in Post COVID-19 Pandemic: Impact of Price Consciousness, Perceived Product Variety, and Brand Salience on Purchase Intention"

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Abstract

COVID-19 pandemic had a huge impact on people's way of living, mostly for the worse. During this time full of uncertainty, a lot of businesses also struggled since consumers tried to reduce their spending. This pandemic without a doubt has changed consumer behaviours. However, unlike other businesses that experienced a hard time during the pandemic, online grocery application was thriving throughout the pandemic. Lockdowns and fear of getting contracted by the virus made this business a great alternative for consumers in doing their groceries. This research aims to find out which consumer behaviours would stay after the pandemic, and how they influence purchase intention through brand loyalty. This paper also wants to find out whether consumers are still going to use online grocery application after the pandemic. Finally, from the result we can see whether the independent variables strengthen or attenuate purchase intention. This paper uses online questionnaire as a data collection method and received answers from 212 respondents. The result shows that all three independent variables: price consciousness, perceived product variety, and brand salience have direct and indirect impact (through brand loyalty) on purchase intention. After the pandemic, consumers are still price conscious, perceive product variety as more important (although the difference is not significant), and also still perceive brand salience as important. Moreover, consumers are still going to be less loyal to a brand even after the pandemic. Consumers also have lower purchase intention after the pandemic with significant difference. This means that consumers prefer to do their groceries at the supermarket. Finally, price consciousness is proven to weaken purchase intention after the pandemic, while perceived product variety and brand salience strengthen purchase intention. This paper contributes to previous literatures by addressing some research gaps, and also by contributing to marketing post-pandemic literatures. This paper also helps marketers, especially online grocery companies to understand how consumers will behave after the pandemic, and which aspects perceived as more important by the consumers. Thus, it can help them in developing their strategy.

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1.   Introduction

The COVID-19 pandemic and lockdowns had tremendous impacts on how people live. It forced consumers around the world to change their behaviours in all areas of life: the way they work, shop, and how they entertain themselves. During this period of self-isolation, there were also changes in consumer activities, priorities and preferences (PwC, 2020). This outbreak, just like previous economic recessions, changed consumers' behaviours, even beyond the period of pandemic itself (Vafainia, 2020). As consumers change their buying behaviour, companies must change the way they conduct business and also alter their strategies to make sure that the customers' new preferences are met (Notta and Vlachvei, 2015).

Numerous research companies have done extensive investigations about these changes in consumer behaviour during the COVID-19 pandemic. According to *Swissre.com*, consumers moved to value-based purchasing, which prioritises gaining maximum value for the amount of money spent. Moreover, as expected, consumers also use online channels (e.g e-commerce) more heavily. The study also revealed that there has been a shock in brand loyalty. Similarly, another survey done by PwC (2020) shows that 50% of their respondents has tried new brand or products. If these new products give them better value, there is a high chance that they will keep using with the new brand. The argument that brand loyalty has been declining since the pandemic is strengthened by a study by McKinsey that shows consumers are switching brands at unprecedented rates.

During the pandemic, many businesses had lower revenues compared to the pre-pandemic era. However, there is one interesting business that continued to shine throughout the pandemic: online grocery services. Before the pandemic, people would rather go to the supermarket to buy their necessities. During the pandemic, people turned to online grocery to avoid crowds in the supermarket.

However, we can now see the light at the end of the tunnel; the situation around the world is getting better with the increasing rate of vaccination and we are slowly going back to our lives before the pandemic. As the industry starts to emerge from the pandemic, the big questions now are:

Will consumer behaviour go back to "normal" after the COVID-19 pandemic? Which behavioral changes will stick? Will consumers continue to use online grocery delivery services?

Furthermore, below I identify sub-questions that follows the main research question:

1. Does price consciousness attenuate brand loyalty after the COVID-19 pandemic?
2. Does price consciousness attenuate purchase intention after the COVID-19 pandemic?
3. Does perceived product variety strengthen brand loyalty after the COVID-19 pandemic?
4. Does perceived product variety strengthen purchase intention after the COVID-19 pandemic?
5. Does perceived brand salience strengthen brand loyalty after the COVID-19 pandemic?
6. Does perceived brand salience strengthen purchase intention after the COVID-19 pandemic?
7. Does brand loyalty mediate the effect of the independent variables on purchase intention?
8. Which type of consumer have the strongest effect on the relationship between price consciousness and purchase intention?

1.1 Managerial Relevance

This research is highly relevant for managers and companies because they need to formulate strategy for post pandemic period. We are now going toward the so-called "new normal", a state to which an economy, society, settles following a crisis, when this differs from the situation that prevailed prior to the start of the crisis (Wikipedia, 2020). Businesses are now open again to the public and COVID-19 related measures are lifted. Therefore, it is extremely important for companies to know which "pandemic behaviour" will stay, and make adjustments to their strategy if necessary.

Moreover, the variables being investigated in this research is relevant for managers, especially brand loyalty. As we all know, brand loyalty is important because customers who are loyal to a brand will continue purchasing and will often try new products. These customers will likely spread positive word of mouth, persuading others to try the brand's products. However, during the pandemic, brand loyalty had decreased. This decline in brand loyalty during the pandemic has been mentioned several times in numerous websites of consumer research companies, which makes me believe that it is an important topic to examine.

Price, product, and promotions are amongst the most important aspects of marketing, and these might affect brand loyalty. Pricing is the only part of the marketing mix that brings in revenue for the company, and pricing frequently has important implications for the positioning of a

brand. It is the most inducing factor for buying because consumers are rational; they have limited income as well as limited budget. Moreover, company will only survive in the market if and only if they succeed to make enough profit which depends on price. In determine price of a product or service, it also crucial to take into account the consumer's classification based on their consciousness (i.e. price conscious and quality conscious consumer). If this is not carefully considered, especially in highly competitive market, consumers might show negative response towards the product by not buying the product or buying the product in small quantity. Therefore, it should be highly considered by the marketing managers as well as company's top executives.

Paying close attention to these factors is a must, especially when the economy is just in the beginning phase of recovery: companies cannot afford to make mistake, it is the time to win consumers back.

With this research, companies can know few things that they need to do in order to increase the brand loyalty. And finally, this research will answer another important question: is it important to invest in advertising or is it wise for them to cut the advertising expense and allocate it to somewhere more important and more impactful?

To be more specific, this research will be most relevant to companies that offer online grocery service, especially in the Netherlands. Because the condition is much "safer" now, consumers would probably choose to go to the supermarket to do their groceries. It is essential for online grocery companies to know whether consumers would still use their service, and with the result they can formulate their strategies better. Especially if the result show that consumers are not interested anymore in using their service.

1.2 Academic Relevance

This research will also contribute to the existing literature. First of all, the number of academic journals or articles that studied about consumer behaviour post COVID-19 period are still very much limited. The number is even lower for online grocery service; to the best of my knowledge, there is only 1 literature that discussed about online grocery service company post COVID-19. Therefore, this research will shed some light into the existing literature.

Moreover, there were some research gaps that needed to be addressed:

Regarding advertising (promotion), Lamey et al. (2007) stated that shrinking the budget for advertising affects short-term earnings by boosting immediate profits and preserving

shareholder confidence. O'Malley et al. (2011) clearly stated that during a crisis, the demand for products and services decreases as customers want to spend less; thus, firms reduce their advertising budget because they assume that advertising does not help them to increase their sales much. On the other hand, other researchers demonstrated that maintaining or increasing the budget for advertising and promotion during a recession increases both sales and market share (Graham and Frankenberger, 2011). Other past studies similarly stated that maintaining advertising budgets during a recession increases firm's performance as they keep their presence in the market (Srinivasan et al., 2005; Williams, 2007).

Regarding product, Naidoo (2010) highlighted the importance of marketing innovation in developing and sustaining competitive advantage and survival during a crisis. Furthermore, it has been advised in the past literature that firms need to put more effort into R&D in order to make new products (Laitinen, 2000; Morbey and Dugal, 1992; Srinivasan et al., 2011; Williamson, 2001). However, there is another view when it comes to product. According to McKinsey (2009), when faced with declining demand, marketers should continue to reduce excessive complexity in product lines that feature too many marginally performing sizes and flavors or trivial differences among product models. Overly broad product lines soak up marketing costs and tie up resources and working capital in slow-moving inventory. This research will try to clarify this problem.

2.   Literature Review

In order to gain a more comprehensive understanding of the topic of this thesis, this chapter provides more information about the variables that are predicted to influence the purchase intention of online grocery delivery service post-COVID-19. This chapter begins with the introduction part, which consists of brief background information about the online grocery delivery service pre-COVID-19 and its growth during the pandemic and some important definitions of variables proposed in this thesis. In the second part, the most critical findings that concern the research question are presented here. Finally, the hypothesis development and conceptual framework is provided at the end of this chapter.

2.1   Introduction

2.1.1 Online Grocery Shopping Pre-COVID-19 Pandemic

Prior to the COVID-19 pandemic, online grocery shopping was not popular among consumers, as they preferred to go to the nearest supermarket to do their groceries. A "supermarket trip" was considered a way to spend time with family; the interaction with family members when

deciding which product to buy and simply the fun of strolling around the supermarket made it favoured by consumers. A wide network of supermarket chain also made it convenient for the consumers, since they could find a supermarket near their homes without a hassle. According to McKinsey (2021), in 2019, only 36% of Dutch households bought food or groceries online. A similar trend was also evident in the US grocery sector. Before the COVID-19 pandemic, the US grocery was behind other retail sectors in e-commerce adoption. The grocery sector's penetration was 3% to 4%, considerably lower than other sectors such as beauty, apparel, and electronics, all of which had penetration rates of 10% to 20% or more.

This interesting trend makes us think the reason behind most of consumers' preferences to shop in the supermarket, while online grocery shopping seems like a more convenient option since they did not have to leave the house. According to *Statista,* several significant reasons for that are the supermarket is close to home (57%), the need to touch and check the quality before buying (42%), and not willing to give up the experience of grocery shopping in a supermarket (40%). Other reasons that are more attributed to the online grocery service itself are that consumers did not want to pay extra for the service (36%), the minimum order amount is too high (24%), and the delivery times are not convenient (17%). Although the process of online grocery shopping seems easy and convenient, where a consumer can easily click and choose the products that they need, pay for them, and wait for them to be delivered, these factors held them back from buying their groceries online.

Due to the relatively low demand for the service, only few players offered online grocery delivery services before the pandemic. The majority of them were the existing supermarkets (e.g. Jumbo) that offered additional services for consumers who preferred online delivery. However, with the increasing demand for quick delivery, some entrepreneurs saw the opportunity to build companies that promise consumers to deliver groceries within minutes. These companies do not have physical stores, but they have large warehouses to store the products. They developed applications that are available on App Store for Apple and Google Store for Android, through which consumers can place their orders. As examples, the most famous companies in the Netherlands are Gorillas, Flink, Picnic, and Getir.

2.1.2 Online Grocery Shopping during COVID-19 pandemic

During the early stage of the pandemic, grocery store aisles were empty as consumers were afraid of getting contracted by the virus. To stay safe and to avoid the crowd, buyers started looking for replacements for in-store shopping. Grocers saw this opportunity and responded by

increasing their availability of online shopping, adding delivery models, and offering curb side pick-up.

A survey by *Thinkglobalhealth.com* suggested that 34% of households reported grocery shopping online more since the pandemic, and 60% of these households planned to continue shopping online after the pandemic is over. Of consumers making online grocery purchases, 46% showed they use online delivery more than before the outbreak, and 40% use online pick-up more often.

In the Netherlands, online sales for groceries alone rose from 4.2% of the sales share at the end of 2019, to 6% at the end of 2020. According to IRI's latest forecast, that online share was expected to be 7.8% at the end of 2021. Another study by BBC shows that in April 2020, Google searches for "food delivery" hit a record. We can clearly see that the pandemic forced consumers to find alternative way in buying groceries. Although the condition was not ideal and safe, consumers still had needs that must be fulfilled, and online grocery was there to solve this problem. As the online demand climbed, retailers have had to quickly change their strategy to become the leader.

To tailor their strategy, companies could take into account this survey conducted by Acosta (2021) that showed an interesting result: after the pandemic, consumers increased their focus on product availability, low prices and promotions, whether they are shopping in-store or online. Sixty-four percent of respondents in the July 2021 surveys said product availability will be most important in the post-pandemic period, compared with 60% in January 2021. Likewise, 63% said low prices were the most important (52% in January) and 40% named availability of promotions and deals (33% in January).

According to McKinsey (2013), there is a huge difference between a "good enough" player and an outstanding one in the online world, and only the latter will appeal to and retain customers. First-time customers will not come back to a site that they find hard to navigate. Furthermore, because convenience is a central element of online grocery's value proposition, causing any inconvenience to the customer basically translates to losing that customer. The consequences of a grocer's underperformance in online grocery must be highly frustrating for customers. For example, a site crash in the middle of an order means that the customer has to start the shopping process all over again, unclear labelling on the site can cause a customer to order the wrong products, and a late delivery can ruin their plans. Convenience is important, but quality,

assortment, and price also matter tremendously. The value proposition and, of course, the marketing message of online grocers should reinforce these elements.

2.1.3 Price Consciousness

Price conscious consumers are not willing to pay a higher price for a product and avoid buying expensive items. Price consciousness is defined as the degree to which a consumer focuses entirely on paying a low price (Lichtenstein, Ridgway and Netemeyer 1993). A price conscious consumer is more concerned with price, put extra effort to find lower price, and sees the effort of searching as worthwhile (Monroe 1990).

Furthermore, studies point out that consumers become more and more price conscious during an economic crisis (Hampson & McGoldrick, 2013, 2017; Steenkamp & Maydeu-Olivares, 2015). Hampson and McGoldrick (2017) indicate that a shake in financial security is the sole driver in increased price-consciousness; consumers also react to shifts in social norms. Therefore, low-income consumers in particular would tend to be more price conscious.

Several studies (Rothschild, 1987; Raju, Srinivasan and Lal, 1990) have supported the hypotheses price promotion to be negatively related to brand loyalty. It has been found that high price conscious consumers search for better price and have lower buying intentions (Krishnamurihi and Raj 1991; Alford and Biswas 2002). Therefore, it is expected that consumers who always look for price before purchasing a brand will not buy the same brand repeatedly until the brand is offered at the cheapest price, compared to other competitive brands in the market. Many of the brands in the market offer discounts or sales promotion frequently in most fast-moving consumer categories and price conscious consumers will keep on swapping brands continuously as and when the brand is offered on sale (Reichheld 1996).

According to McKinsey (2020), based on previous downturns, we can predict that price consciousness will continue to affect selling. However, the current downturn has a special element of increased amount of time spent at home due to the lockdowns, which has led to an increase in grocery sales. We should expect that price will be consumers' priority when choosing a store, especially in households facing economic pressure. We may then see a shake-up among grocers as they compete hard for consumer loyalty.

Many Europeans are attracted to the concept of saving time by not having to travel to the supermarket, push a grocery cart down aisle after aisle, and then wait in line at the cash register. The convenience of grocery shopping online is alluring. Convenience, however, is not

everything. Consumers will only purchase for groceries online if the offer is compelling: they are unwilling to forego the price, quality, and variety of products that they have come to expect from their local supermarket, and they will not tolerate late delivery or pick-up arrangements. Reduced assortments, increased prices, and additional fees, according to ex-online customers, drove them back to supermarkets (McKinsey, 2013). Only 36% of customers said they would be willing to pay a price premium when getting groceries online, and two-thirds said they would only do so if the price difference was less than 5%. Grocers' capacity to pass increasing e-commerce operational costs on to customers through pricing is constrained by this sentiment. Companies will need to discover alternative methods to profit from the value proposition, such as higher basket size and operational savings. (McKinsey, 2021).

2.1.4 Perceived Product Variety

Product variety is defined as the depth or breadth of product assortment (Simonson 1999), with depth defined as "the number of variants in a product line" and breadth as "the number of product categories offered by a retailer".

Pior research has documented the influence of product variety on consumer behavior (Hoch, Bradlow, and Wansink 1999). One of the main success factors of a store depends on perceived product variety, which stands only behind location and price in terms importance (Arnold, Oum, and Tigert,1983). Consumers shop online for the benefits of the available product variety, according to online marketing research, and a large product selection adds considerably to higher website satisfaction, better attitudes toward online purchasing, and higher store loyalty (Bansal et al., 2004; Lim and Dubinsky, 2004). Product variety, according to Hoch, Bradlow, and Wansink (1999), can boost shopper satisfaction. Product diversity is one of five factors identified by Shah and Yasin (2010) as having a significant association with online shopping satisfaction. Furthermore, according to Rohm and Swaminathan, variety seekers are motivated by the wide range of brand or product options available through the online channel (2004). According to Mallapragada et al. (2016), online shops that offer a diverse choice of products generate more revenue from consumers. Another intriguing study found that when products were grouped into more subcategories in the selection menu, buyers thought the website offered a wider range of products, resulting in a better shopping experience and improved sentiments toward the online business (Chang, 2011).

Product diversity has an impact on product preferences and choices; however, the direction of that impact is debatable. A broader selection may be linked to higher satisfaction since it raises

the chances of a perfect match between the customer's preferences and the available options (Lancaster 1990). Consumers benefit from decision freedom (Reibstein, Youngblood, and Fromkin 1975), choice flexibility (Kahn 1998), and choice optimization (Kahn 1998). Thus, a wider selection can lead to more online sales (Borle, Boatwright, Kadane, Nunes, and Shmueli, 2005). Consumers benefit from online grocery shopping in terms of product variety because they can spend less time searching for alternatives (Rasmus & Asger Nielsen, 2005).

A broader range of products can also be viewed as a huge advantage, particularly for persons with specific preferences that are not met at local shops (Raijas, 2002). This advantage, however, may not be perceived as valuable in every category. For example, consumers may be unwilling to have a diverse range of non-food products because it may be unnecessary to consider numerous toilet paper alternatives. However, having a wide product variety in their neighbourhood supermarkets can be perceived as very valuable by consumers with special preferences (Raijas, 2002).

A larger assortment, on the other hand, may have negative impacts because consumers can only assess a limited amount of product information at any given time. Making choices means consumers need to make a ranking out of available options, and selecting from more options requires more cognitive effort, which can result in a cognitive deficit (Malhotra 1982). These options are also more difficult and time consuming (Fasolo et al. 2009), which may reduce perceived search efficiency (Sloot, Fok, and Verhoef 2006), delay purchase decisions, and/or result in lower product satisfaction (Iyengar and Lepper 2000). These negative impacts could explain why sales increase after unpopular items are removed from retail or online stores (Boatwright and Nunes 2001). In reality, research shows that when customers are asked to choose a product from a large selection, the differences between them frequently frustrate them. In practice, offering more product variations means incurring higher costs across the board, from product design to production, inventory, sales, and service. Chang (2011). As a result, determining the ideal range of variants with the product feature combination that accurately meets the needs and resonates with the wants of customers becomes a crucial challenge in variety management.

2.1.5 Brand Salience

Brand salience has a greater importance in both brand and advertising literature. Opposing to what may seem to be apparent, purchase intention is hardly the direct object of advertising communication strategy. Although it is undoubtedly true that purchase intention and behavior

is the ultimate goal of advertising, more often one must be preconditioned by first raising the salience of a brand, and then forming at least some tentative attitudes toward it before purchase is considered. Therefore, we could say that advertising affects brand salience (Percy and Lossiter, 1992)

There are two contradictory views on how the firm should spend their budget on advertising.

Lamey et al. (2007) stated that reducing the budget for advertising affects short-term earnings by increasing immediate profits and preserving shareholder confidence. O'Malley et al. (2011) stated that during a crisis, the demand for products and services decreases as customers spend less; thus, firms cut back their advertising budget because they assume that advertising will not help them to boost their sales much.

On the other hand, other researchers confirmed that maintaining or increasing the budget for advertising and promotion during a crisis increases both sales and market share (Graham and Frankenberger, 2011). Other past studies similarly stated that maintaining advertising budgets during a recession increases firm's performance as they keep their presence in the market (Srinivasan et al., 2005; Williams, 2007).

Brand salience is conceptualized as the propensity of the brand to be thought of in buying situations. This is could be shown in terms of quantity (how many) and the quality (how fresh and relevant) of the network of brand information in memory, or the brand's 'share of mind'. The most popular conceptualization of brand salience is as the accessibility or 'prominence' of the brand in buyer memory (Alba and Chattopadhyay, 1986; Fazio, 1990).

2.1.6 Brand Loyalty

Brand loyalty is frequently defined as "the biased (non-random) behavioral response (purchase) expressed over time by some decision-making unit with respect to one or more alternative brands selected from a set of brands and is a function of psychological processes" (Jacoby 1971, p. 25).

According to Forbes (2020), in today's environment, consumers buy with an intent and know exactly what kind of merchandise they want and need. In the past, they would have considered carefully their options before deciding to purchase, but now they shop out of necessity and lack brand loyalty more than ever. With many consumers experiencing financial pressure at this period, a retailer who can offer additional payment options will stand out from competitors. Enabling customers to pay through financing options and post-purchase payments will be

extremely beneficial in reducing shopping cart abandonment. As retailers consider their payment options, they must also consider their shipping options. Fast and discounted or free shipping will be a significant incentive for consumers looking for essential products on a tight budget. The number one driver of brand swaps, according to 52% of respondents, is price.

In this turbulent time, today's consumer is exhibiting new behaviors and taking a path to purchase that e-commerce has never seen before. Many of these new behaviors may persist long after the pandemic is over. By adapting current strategies to today's social distancing consumer's lifestyle, retailers can create a long-term relationship that ensures these customers will return in the future.

Another PwC survey discovered that half of their respondents had tried new brands or products. Brand loyalty was eroded, with 36% of consumers trying a new product brand and 25% combining a new private-label brand. 73% of consumers who have tried new brands plan to keep incorporating the new brands into their daily lives. Switching brands is most common among Generation Z and high-income individuals.

2.1.7 Purchase Intention

Usually, the term "intention" is defined as the antecedents that trigger and drive consumers' purchases of products and services (Hawkins & Mothersbaugh, 2010). One of the most common methods carried out by marketers in getting a comprehensive understanding of consumers' real behavior is through learning their intentions (Blackwell, Miniard, & Engel, 2006). Kim and Pysarchik (2000) have proved the existence of a strong correlation between these two respective constructs. Hence, they state that purchase intention serves as an alternative for measuring consumers' purchase behavior. This claim is also supported by Azjen (1991) who specified that intention is the factor that drives consumers and in turn, affects their behavior. According to them, the likelihood that a particular behavior will actually be performed by individuals largely relies on the strength of their intentions.

A study by Hansen (2013) points out that price consciousness indeed has a negative effect on purchase intentions, but only for consumers with a high level of product category knowledge. Moreover, according to Seleki et al. (2019), it can be concluded that price consciousness moderates the relationship between price intention and purchase behavior for organic food. It has also been found that high price conscious consumers search for better price and have lower buying intentions (Krishnamurihi and Raj 1991; Alford and Biswas 2002). Variety was also argued to influence purchase intention (Rashaduzzaman, 2020). Previous research has

indicated that brand salience has an influence on purchase likelihood (Domke et al., 1998; Iyengar & Kinder, 1987). Similarly, according to Vieceli and Shaw (2010), the relationship between brand salience and brand purchase likelihood was found to be positive

2.1.8 Types of Consumers during the COVID-19 pandemic

According to Quelch and Jocz (2009), there are five types of consumers during the recession that I will use as my moderator:

1. **The slam-on-the-brakes** are the most impacted ones financially, as a result they feel most vulnerable. This group cuts down all sorts of expenses by removing, postponing, reducing, or substituting consumptions. Although lower-income consumers usually fall into this segment, anxious higher-income consumers can as well, especially if health or income situations change for the worse.

2. **Pained-but-patient consumers** tend to be resilient and positive about the long term but not too confident about the prospects for recovery in the near future or their ability to sustain their standard of living. Like slam-on-the-brakes consumers, they cut back in all areas, though less aggressively. They make the largest segment and include the vast majority of households unharmed by unemployment, representing a wide range of income levels.

3. **Comfortably well-off** consumers are confident that they are able to go through current and future bumps in the economy. They consume at almost normal levels, though now they tend to be a little more careful about their purchases. The segment comprises primarily of consumers in the top 5% income bracket. It also includes those who are less well-off but feel assured about the stability of their finances—the comfortably retired, for example.

4. **The live-for-today** is the least affected segment and for the most part remains unconcerned about savings. The consumers in this group reacts to the recession mostly by extending their plan for making major purchases. Typically, urban and younger, they are more often to rent than to own, and they spend on experiences rather than stuff (with the exception of consumer electronics). They are unlikely to change their consumption behavior unless they lose their jobs.

2.2   Hypothesis Development

During recessions, customers become more price-sensitive, price conscious, and focus on prices that are lower and affordable (Chou and Chen, 2004; Hampson and McGoldrick, 2013).

Furthermore, Lei et al. (2021) and Lasi et al. (2020) found that consumers are more careful in spending and before making purchases. Previous studies also found that high price conscious consumers search for better price and have lower buying intentions (Krishnamurihi and Raj 1991; Alford and Biswas 2002).

According to *Trading Economics*, unemployment rate for the vast majority of countries worldwide has decreased substantially since 2020. Therefore, it is expected that consumers will be less price conscious after the pandemic and price consciousness will have weaker impact on purchase intention. Thus, I propose the first hypothesis:

H1: After COVID-19 pandemic, price consciousness has weaker impact on purchase intention

Moving to product aspect, a study revealed that product variety has a substantial impact on the perceptions and happiness of online shoppers. It also found that the diversity of products had a favorable impact on customer purchase behavior. Furthermore, it has been recommended in the past literature that firms need to put more effort into R&D in order to make new products (Ang, 2001; Laitinen, 2000; Morbey and Dugal, 1992; Srinivasan et al., 2011; Williamson, 2001). As mentioned above, there is a different view about the importance of product variety. According to Hoda et al. (2013), large variety is not always a positive thing, and more product variants may not benefit the consumers as we may thought. Consumers are often confused about the difference between those products. When it comes to grocery shopping, we tend to choose supermarkets or application that offer a lot of options. Therefore, I try to solve this disparity with the second hypothesis:

H2: After COVID-19 pandemic, perceived product variety has positive effect on purchase intention

Like the first hypothesis, improvement in financial stability among consumers might make consumers less focused on price, and they will perceive other factors as important as well, including perceived product variety. During the pandemic, they might shop in the cheapest application, but after the pandemic they might choose application that offers a wide product selection. Therefore, I propose the H2b hypothesis:

H2a: After COVID-19 pandemic, perceived product variety has a stronger impact on purchase intention

As explained in the previous section, there has been a debate on whether or not firms should invest in advertising during recession. More studies show results toward the conclusion that firms should invest, and since advertising activity drives brand salience, I propose the third hypothesis:

H3: After COVID-19 pandemic, brand salience has positive effect on purchase intention

Like the first and second hypothesis, the increase in financial stability is expected to shift consumers' focus on other aspects, like advertising that will result in brand salience. Thus, I propose hypothesis 3b:

H3a: After COVID-19 pandemic, brand salience has a stronger impact on purchase intention

I also introduce the mediator brand loyalty that is expected to mediate the relationship between the dependent variable and independent variable. Price consciousness, perceived product variety, and brand salience are expected to influence purchase intention. Thus, a positive brand loyalty will have a positive effect on purchase intention.

H4: The impact of price consciousness on purchase intention is mediated by brand loyalty

H4a: The impact of perceived product variety on purchase intention is mediated by brand loyalty

H4b: The impact of brand salience on purchase intention is mediated by brand loyalty

Finally, I also include the moderating variable: types of consumers during the pandemic that is expected to affect the relationship between price consciousness and brand loyalty. Slam-on-the-brakes consumers are the ones who were most impacted by the pandemic. Therefore, I expect:

H5: The effect of price consciousness on purchase intention is stronger for the slam-on-the-brakes consumers

2.3   Conceptual Framework

Below I provide the conceptual framework of this thesis:
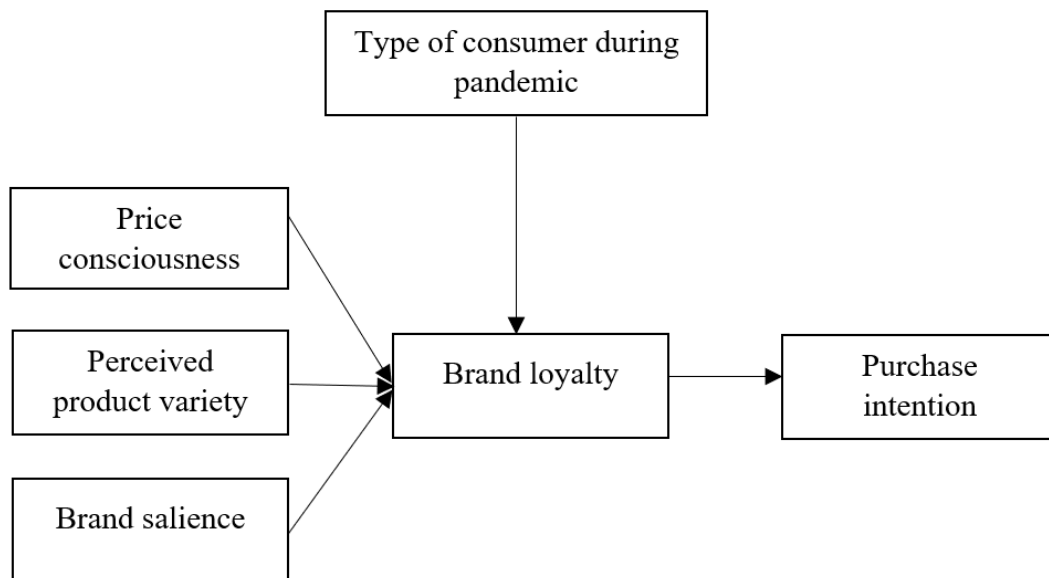
Figure 1. Conceptual model

The main effect of this conceptual model is price consciousness, perceived product variety, and brand salience on the purchase intention of consumers. The researcher takes a mediator into account that might explain this possible main effect. The mediator is brand loyalty. Besides, the moderating variable type of consumer during the pandemic is investigated to determine if this variable has an effect on the relationship between price consciousness and purchase intention.

3.   Research Data and Methodology

In this chapter, I provide in-depth explanation about the research design and the method of data collection. I start the chapter by discussing the survey, followed by the discussion of sampling, and at the end of this section, I will talk about the items that were used to measure each variable. This research aims to test the hypotheses stated that was in the conceptual model and to contribute to the existing literature regarding consumer behaviour post-COVID-19 pandemic.

3.1   Survey

This study is noteworthy because most previous academic publications on the topic of online grocery shopping during and after the pandemic relied solely on a literature review as the methodological approach (Eriksson and Stenius, 2020; Zwanka and Buff, 2020; Baarsma and Groenewegen, 2021; Hoekstra and Leeflang, 2020). As a result, there are only a few studies

that use surveys as the methodology. Only two studies, to the best of my knowledge, used surveys (Hampson and McGoldrick, 2013; Shen, Namdarpour, and Lin, 2022). Hampson and McGoldrick (2013) used a survey method to study shopping behavior during the recession, and Shen, Namdarpour, and Lin (2022) used a survey method to investigate online grocery shopping and delivery preferences prior to, during, and after COVID-19.

Eriksson and Stenius (2020) also recommended that shifts in attitudes and behaviours could be perfected and developed further in future studies, including through survey research. This study is based on this suggestion, and I believe the findings will add considerably to the existing literature by providing a more comprehensive view and empirical evidence about post-pandemic consumer behavior, particularly with regard to the proposed variables.

Hence, in this research, a quantitative research design through an online survey is used in order to measure the effect of price consciousness, perceived product variety, and brand salience on purchase intention of online grocery delivery service with brand loyalty as the mediator. Online questionnaire comes with one obvious advantage, that is a large group of people can be reached quickly.

Qualtrics was used to administer the survey online. This survey contains 30 questions that are divided into four sections. First, I asked respondents to identify themselves as which type of consumer they were during the pandemic. Second, in order to learn about the respondents' behavior during the pandemic, I asked questions about the variables used in this study. There are 2 questions for each variable. Then I asked similar questions about post-pandemic situation. Finally, I polled respondents on their overall feelings toward online grocery delivery services across five variables. Socio-demographic questions were also asked at the end of the survey.

In this research, the cross-sectional survey method is used, where the data collections are done at one specific point in time. The survey was carried out from 17 May 2022 until 20 June 2022.

3.2 Sampling

The participants of this experiment were recruited through several social media channels. In search of respondents, members of Facebook, WhatsApp, Instagram and LinkedIn were approached to participate.

In this research, I used simple random sampling which means each individual is chosen entirely by chance and each member of the population has an equal chance, or probability, of being selected.

Several social media platforms were used to recruit participants for this experiment. Members of Facebook, WhatsApp, Instagram, and LinkedIn were reached to take part in the search for respondents. In this research project, I used simple random sampling, which means that each individual was chosen at random and that each member of the population had an equal opportunity, or probability, of being chosen. The researcher aims for a sample size of 200 to 300.

3.3 Measurements

The variables in the conceptual model were measured using various scales. The scales will be thoroughly discussed in this section. I ended up choosing only two items for each variable because I had to ask the respondents each question twice: once during the pandemic and once afterward. Asking too many questions for each variable would cause participants to lose their focus, resulting in inaccurate results.

3.3.1 Type of Consumer during the Pandemic

In this question, I asked the respondents to choose which type of consumers they identified with during the pandemic. In this research, I will test whether the type of consumer influences the relationship between price consciousness and purchase intention. I adapted the questions from Quelch and Jocz (2009):

There are 4 types of consumers during the pandemic. Which one are you?

1. You struggle a lot financially, you worry about your financial situation, and you cut down your spending dramatically
2. You are not sure that you can maintain your standard of living, and you cut down your spending but not significantly
3. You are confident that you will ride out current and future bumps in economy, your spending is near pre-pandemic (does not change much)
4. You carry on as usual and for the most part unconcerned about savings and you are pretty much not impacted by the pandemic

3.3.2 Price Consciousness

It was argued that because of the financial uncertainty during the pandemic, consumers became increasingly price conscious. In this study, questions regarding price consciousness were asked in order to test the relationship between price consciousness, brand loyalty and purchase

intention, as well as to determine whether consumers will remain price conscious after the pandemic.

In their study on shopping behavior during the recession, Hampson and McGoldrick (2013) used a 6-point likert scale to measure this variable with a total of one question. Likewise, Noh et al. (2013) used a 6-point likert scale with four questions derived from Alford and Biswas (2002), Dickinger & Kleijnen (2008), and Lichtenstein et al. (2013) in their study on the effects of collectivism on actual e-commerce use and the moderating effect of price consciousness (1993).

In this study, I picked two items that I believe are most appropriate for this topic. Each question was asked twice: once during the pandemic and once afterward. First, I will list the measurements for the "during the pandemic" condition: *"During the pandemic, I was willing to give extra effort to find the lowest price in buying groceries", "During the pandemic, low price was the most important factor influencing my purchasing decisions"*. For the post-pandemic condition, similar questions were asked: *"After the pandemic, I will continue to give extra effort to find the lowest price in buying groceries", "After the pandemic, low price is still the most important factor influencing my purchasing decisions"*.

3.3.3 Perceived Product Variety

Product variety and product assortment have not been explored extensively in marketing literature. Therefore, there were only a few journals on perceived product variety that I could find. It was even more hard to discover articles related to online grocery shopping, or online shopping in general. Finding measurements for this variable was undoubtedly a big challenge for me. At last, I found a journal with measurement scales, but it is not related to online grocery shopping. Therefore, I had to slightly adapt the constructs so that it would fit to the topic better.

I followed the measurement scales developed by (Wani & Malik, 2013). They used a 6-point likert scale, ranging from 1 (strongly disagree) to 6 (strongly agree). For the during pandemic condition, two questions were asked: *"During pandemic, a wide variety of products was an important factor in deciding at which online grocery application I would order my groceries"* and *"During the pandemic, a wide variety of products was an important reason to use online grocery application more often"*. For the post-pandemic condition, the questions are stated as the following: *"After the pandemic, wide variety of products is still an important factor in deciding at which online grocery application I will order my groceries"* and *"After the*

pandemic, a wide variety of products was an important reason to use online grocery application more often".

3.3.4 Brand Salience

Similar to perceived product variety, to the best of my knowledge, no prior literature has discussed about brand salience in the subject of online grocery delivery nor online shopping in general. Therefore, in this research I followed the measurement scales used by Pike et al. (2010) in their research about consumer-based brand equity for Australia as a long-haul tourism destination in an emerging market. They also used a 6-point likert scale ranging from 1 (strongly disagree) to 6 (strongly agree). Again, I had to slightly adapt the constructs so that it would fit to the topic better.

According to Percy and Lossiter, 1992, although it is undoubtedly true that purchase intention and behavior is the ultimate goal of advertising, more often one must be preconditioned by first raising the salience of a brand, and then forming at least some tentative attitudes toward it before purchase is considered. Therefore, we could say that advertising affects brand salience (Percy and Lossiter, 1992). In this research, I want to test whether investing in promotion or advertisement during the pandemic can benefit the company. Therefore, in this construct I used the following items: *"During the pandemic, I think advertisement was an important factor in deciding at which online grocery application I would order my groceries. *The more often I see an advertisement of a company, the more likely I will choose that company"* and *"During the pandemic, I would choose online grocery application that came first to my mind".* For the post-pandemic conditions, the same questions were asked: *"After the pandemic, I think advertisement is still an important factor in deciding in deciding at which online grocery application I will order my groceries. *The more often I see an advertisement of a company, the more likely I will choose that company"* and *"After the pandemic, I will continue to choose online grocery application that comes first to my mind".*

3.3.5 Brand Loyalty

As described in the introduction, it was argued by some research companies that brand loyalty was shattered during the pandemic. Therefore, in this research I wanted to test whether customers were indeed becoming less loyal during the pandemic, and whether this behaviour will stay beyond the pandemic era.

Early work on brand loyalty (Jacoby, 1973) observed that loyalty and repeat purchase behavior are not synonymous and loyalty has both behavioral and psychological (decision making,

evaluative) dimensions. These studies indicate that, unlike loyal purchase behavior, repeat purchase behavior is not intentional, nor does it necessarily reflect commitment or constitute loyalty. This key finding is noteworthy because it indicates that simple repeat purchase behavior is not stable over the long term and may be influenced by a variety of factors such as proximity to store and promotions. Based on this statement, I tried to find journals that emphasize both behavioral and psychological dimensions. To measure customers' brand loyalty, I followed constructs that were used in the research of Bilgihan (2016) about Gen Z customer loyalty in online shopping.

For the pandemic situation, these items were asked: *"During the pandemic, I always ordered my groceries at the same online grocery application"* and *"During the pandemic, I believe my favorite online grocery application was the best"*. While for the post pandemic condition, the following questions were used: *"After the pandemic, I will always order my groceries at the same online grocery application"* and *"After the pandemic, I still believe that my favorite online grocery application is the best"*. The first one was to measure the behavioral aspect, while the second one was to measure the psychological aspect. A 6-point likert scale was used to measure the answers, ranging from 1 (strongly disagree) to 6 (strongly agree).

3.3.6 Purchase Intention

Purchase intention is one of the most popular topics in marketing research, and one of many reasons for this popularity is that purchase intention can be used as an alternative for measuring consumers' purchase behavior. Because of the popularity, many researchers have developed their own constructs to measure purchase intention. To make sure that the questions being used are suitable for this research, I chose journals that discussed either online shopping or grocery shopping.

Another journal that I used was by Ling, Chai, and Piew (2010) who did research on *effects of shopping orientations, online trust and prior online purchase experience toward customers' online purchase intention*. According to this literature, customer online purchase intention was one of the intensive research areas in the extant literature and purchase intention can be classified as one of the components of consumer cognitive behaviour on how an individual intends to buy a specific brand. Ling, Chai, and Piew (2010) adapted the measurements for purchase intention from Chen and Barnes (2007), they used three items in their research, from which I selected two and slightly alter the sentences to *"I was planning to continue buying my groceries with online grocery application"*, *"During the pandemic, I intended to buy groceries*

online", "After the pandemic, it is likely that I will continue to buy my groceries with online grocery application" and *"After the pandemic, I intend to buy groceries online"*. All questions were measured with a 6-point likert scale ranging from 1 (strongly disagree) to 6 (strongly agree).

4. Results

In this chapter, the result of this study will be discussed. The first section consists of reliability test with Cronbach's alpha, the second section consists of the assumptions that must be met before conducting the linear regression, and finally the last section consists of the linear regression analysis to test the hypotheses proposed in this research, as well as mediation, and moderation test.

4.1 Data Collection Methodology

The data collection was completed through an online survey. The questionnaire was distributed to 240 respondents who reside in the Netherlands. This number is sufficient because it exceeds 200, the minimum number of respondents. In the survey, I used two "attention check" to make sure the respondents give accurate answers instead of random answers. However, from 230 respondents I could only use 212 because 19 respondents did not pass the attention checks and 9 respondents did not finish answering the survey.

4.1.1 Research Sample

In this section, I will discuss the demographic data of the research. The data is summarized in Table 1 (see below). The demographic data consists of gender, age, education, marital status, and nationality.

Table 1. Demographic Data

Specification	N of Respondents
Gender	
Male	75
Female	129
Non-binary	1
Rather not say	7
Age	
18-28	122
29-39	51
40-50	35
>50	4
Education	
High school	26
Bachelor	144

Master	40
PhD	2
Nationality	
Dutch	85
Non-Dutch	127

The descriptive statistics of the dependent, independent, and mediating variables can be seen in Table 2 and Table 3 below. Table 2 shows the statistics for during pandemic condition, while table 3 shows the data for post-pandemic condition.

From the tables below, we can see that during the pandemic consumers are more price conscious, compared to after the pandemic (4.7 and 4.1 respectively). This may be a result of financial uncertainties that a lot of people experienced during the pandemic, the majority of them were cutting their spending, and spend less on non-essential products. However, the difference is relatively small, therefore, we can say that consumers are still price conscious after the pandemic.

Moreover, during the pandemic, product variety was a less important factor in choosing online grocery application, compared to after the pandemic condition (3.9 and 4.2, respectively). This result may be related to the previous variable, price consciousness. During the pandemic, consumers were more focused on finding the lowest price possible rather than a large product variety. While after the pandemic, financial situation may start to stabilize and consumers care more about product assortment.

While for brand salience, respondents thought it was as important during pandemic, as after the pandemic, in choosing online grocery application.

The results also show that during the pandemic, consumers were less-loyal, and this behaviour will continue to happen until after the pandemic (3.1 and 3.4 respectively).

Finally, during the pandemic, consumers had a higher intention to use online grocery application compared to after the pandemic (4.3 and 3.7 respectively). The main reason why they continued to use online grocery application during the pandemic was the convenience factor of online grocery shopping, followed by crowd avoidance in the supermarket. The mean value for item *"During the pandemic, I used online grocery application more often because it was more convenient"* is 4.48 for during-pandemic, and 4.23 for after-pandemic. While for the item "*During the pandemic, I used online grocery application more often to avoid crowds in the supermarket*" the mean value is 4.19 for during the pandemic and drops to 2.57 for after

the pandemic. This means that after the pandemic consumers are not afraid anymore to get contracted by the virus.

Table 2. Descriptive statistics (during pandemic)

Descriptive	Minimum	Maximum	Mean
Independent variables			
Price consciousness	1	6	4.7
Perceived product variety	1	6	3.9
Brand salience	1	6	4.1
Mediator			
Brand loyalty	1	6	3.1
Dependent variable			
Purchase intention	1	6	4.3

Table 3. Descriptive statistics (post-pandemic)

Descriptive	Minimum	Maximum	Mean
Independent variables			
Price consciousness	1	6	4.1
Perceived product variety	1	6	4.2
Brand salience	1	6	4.1
Mediator			
Brand loyalty	1	6	3.4
Dependent variable			
Purchase intention	1	6	3.7

In this section, I will describe the independent t-test analysis result.

Table 4. Independent t-test

Variables	SE	Sig.
Independent variables		
Price consciousness	0.13	0.234
Perceived product variety	0.11	0.761
Brand salience	0.08	0.667
Mediator		
Brand loyalty	0.10	0.258
Dependent variable		
Purchase intention	0.12	0.012

From Table 4 above, independent t-test analysis shows that only purchase intention is significantly different between the during and post-pandemic group, which means that after the pandemic consumers' intention to use online grocery application is significantly lower. Other variables only changed slightly.

4.2   Descriptive Statistics

4.2.1 Cronbach's alpha

Cronbach's alpha is an index that measures the internal consistency of the scale being used in the research. This implies that if a factor is consistent, respondents give the same responses to each question in the factor. Cronbach's alpha > 0.70 is considered acceptable, and > 0.80 is considered good (Cronbach, 1951; Bland & Altman, 1997). The results of these reliability analyses can be found in Table 5 and 6 below. In this research I intend to measure consumer's behaviour during and after the pandemic, therefore, this reliability test was done twice. Table 5 shows the result for during the pandemic situation, while Table 6 shows the result for post-pandemic situation.

As we can see from Table 5, all variables used in this research: price consciousness (0.931), perceived product variety (0.770), brand salience (0.726), brand loyalty (0.804), and purchase intention (0.865) have cronbach's alpha higher than 0.7, which means all variables during the pandemic are reliable and can be used further in this research.

Table 5. Cronbach's alpha for all variables (during the pandemic)

Variable	Cronbach's Alpha	Cronbach's Alpha Based on Standardized items	N of items
Price consciousness	0.931	0.931	2
Perceived product variety	0.770	0.773	2
Brand salience	0.726	0.721	2
Brand loyalty	0.804	0.808	2
Purchase intention	0.865	0.869	2

Similarly, as we can see from Table 6, all variables used in this research: price consciousness (0.912), perceived product variety (0.782), brand salience (0.823), brand loyalty (0.867), and purchase intention (0.930) have cronbach's alpha higher than 0.7, which means all variables after the pandemic are reliable and can be used further in this research.

Table 6. Cronbach's alpha for all variables (after the pandemic)

Variable	Cronbach's Alpha	Cronbach's Alpha Based on Standardized items	N of items
Price consciousness	0.912	0.912	2
Perceived product variety	0.782	0.773	2
Brand salience	0.823	0.823	2
Brand loyalty	0.867	0.867	2
Purchase intention	0.930	0.929	2

4.3 Assumptions

In this part, I will discuss several assumptions that need to be met to make before conducting a linear regression and mediation analysis.

Linear regression

A set of assumptions must be met in order to perform a linear a linear regression analysis on the data. This section will discuss and elaborate more about these assumptions, which include: all variables are quantitative, the residues are normally distributed) and the independent variables are not highly correlated with each other (multicollinearity) (Siero, Huisman, & Kiers, 2009).

First, all variables (independent and dependent) should be quantifiable to conduct a linear regression analysis. All variables that were tested through an online survey, were asked in the with a 6-point likert-scale, which means that all variables were measured with an interval scale, which considered quantitative.

The following assumption will be whether the dependent variables are normally distributed. The Shapiro-Wilk and Kolmogorov-Smirnov tests can be used to validate this assumption (Shapiro & Wilk, 1965; Kolmogorov, 1933). Both tests yield significance value of 0.000 indicating that the variables are not normally distributed. However, there is a theory known as the "central limit theorem" that states that data with a large sample size (> 30) can be considered normally distributed (Field, 2009). The sample size in this study is considered large (N=212).

Another assumption for linear regression is that the data should not show multicollinearity. Multicollinearity is a condition where inter-correlation among data is adequately high. I need to make sure that multicollinearity does not exist because it becomes difficult to point out which independent variables have real effect to the dependent variable. To detect multicollinearity, I used Variance Inflation Factor (VIF) value. If the VIF value of independent variables is larger

than 10, then the data may contain multicollinearity (Gujarati, 2003). In the present study, all the independent variables are checked and met the VIF value criteria of non-multicollinearity, therefore there is no multicollinearity indicated in the data sets.

4.4 Linear Regression

The linear regression analysis will be divided into three parts, namely the direct effect, mediation effect, and moderation effect. First, the direct effects should be proven to analyse the mediation effect, because the main effect should happen first before the mediation effect can be clarified.

4.4.1 Direct effects

I conducted three kinds of test to see the direct effects of: independent variables on the mediator, mediator on dependent variable, and independent variables on dependent variable. Each test was performed twice to generate results for both during pandemic and after pandemic situation. In each section, I will show the statistics for during pandemic situation first, followed by after the pandemic condition.

Independent variables on mediator

In this test, the mediator (brand loyalty during pandemic) becomes the dependent variable. The regression model is constructed as follows:

$$BrandLoyalty(During\ pandemic)$$
$$= \beta 0 + \beta 1\ DurPriceConsciousness + \beta 2\ DurProductVariety$$
$$+ \beta 3\ DurBrandSalience + \varepsilon$$

Table 7. Linear regression: independent variables on mediator (During pandemic)

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	7.032	1.040		6.761	.000
DurPriceConsciousness	-.241	.065	-.226	-3.698	.000
DurProdVariety	.191	.099	.140	1.923	.006
DurBrandSalience	.160	.110	.306	4.163	.000
a. Dependent Variable: DurBrandLoyalty					

Based on the result above, we can write the complete regression model as follows:

$$BrandLoyalty(During\ pandemic)$$
$$= 7.032 - 0.241\ DurPriceConsciousness + 0.191\ DurProdVariety$$
$$+ 0.160\ DurBrandSalience + \varepsilon$$

The complete regression results for brand loyalty as the dependent variable can be found on Table 7. From this table, we can see that all three variables have significant effect on brand loyalty.

Price consciousness (p=0.00<0.05) with a coefficient of -0.241 implies that during the pandemic, price consciousness has a negative and significant effect on brand loyalty, which means that consumers who think that price is the most important factor are less loyal to a brand. This result supports the conclusion of prior literatures that suggested consumers became more price conscious during the pandemic and that price consciousness has a negative effect on brand loyalty.

Perceived product variety (p=0.006<0.05) with a coefficient of 0.191 shows that perceived product variety has a positive significant effect on brand loyalty, which means that a wide variety of products plays a role in strengthening brand loyalty.

Brand salience (p=0.00<0.05) with a coefficient of 0.160 also shows that it has a positive significant effect on brand loyalty. The higher the brand salience is, the more loyal consumers are to an online grocery application.

Next, I will discuss the same analysis, but for post-pandemic condition which can be seen from the Table 8 below:

Table 8. Linear regression: independent variables on mediator (post-pandemic)

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	4.341	.832		5.220	.000
PostPriceConsciousness	-.218	.045	-.280	-4.601	.000
PostProductVariety	.215	.059	.246	3.649	.000
PostBrandSalience	.175	.058	.207	3.014	.003
a. Dependent Variable: PostBrandLoyalty					

The regression model is constructed as follows:

$$BrandLoyalty(Post\ pandemic)$$
$$= 4.341 - 0.218\ PostPriceConsciousness$$
$$+ 0.215\ PostProductVariety + 0.175\ PostBrandSalience$$

Price consciousness (p=0.00<0.05) with a coefficient of -0.218 suggests that price consciousness has a negative significant effect on brand loyalty, which means that consumers who are more price conscious tend to be less loyal to a brand.

Perceived product variety (p=0.00<0.05) with a coefficient of 0.215 shows that perceived product variety has a positive significant effect on brand loyalty, which implies that if consumers perceive that an online grocery application has a wide variety of products (has a lot of product options), the more loyal they are to that particular application.

Brand salience (p=0.003<0.05) with a coefficient of 0.175 also shows that it has a positive significant effect on brand loyalty. The higher the brand salience is, the more loyal consumers are to an online grocery application. Advertisement is one of the drivers of high brand salience, because it affects brand salience (Percy and Lossiter, 1992). Therefore, it can be suggested that if consumers see a company's more often, they tend to use a product/service from that company. In this topic, we can say that if an online grocery application is active in its advertising activity, the likelihood of consumers using its application becomes higher.

Since the coefficient of price consciousness is the highest, we can conclude that during the pandemic, consumers are more focused on finding the lowest price possible. In other words, during the pandemic, price is the biggest factor influencing brand loyalty, followed by perceived product variety and brand salience.

From Table 7 and 8, we can conclude several points. First, after the COVID-19 pandemic, the effect of price consciousness on brand loyalty is weaker, this can be seen from the beta value (-0.241 during the pandemic and -0.218 after the pandemic), while for perceived product variety and brand salience, their effects are stronger on brand loyalty after the pandemic.

Mediator on dependent variable

In this test, purchase intention becomes the dependent variable, and the mediator (brand loyalty) acts as the independent variable. The regression model is constructed as follows:

$$PurchaseIntention = \beta 0 + \beta 1\, DurBrandLoyalty + \varepsilon$$

Table 9. Linear regression: mediator on dependent variable (During pandemic)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.708	.482		9.765	.000
	DurBrandLoyalty	.450	.069	.408	6.472	.000
a. Dependent Variable: DurPurchaseIntention						

Based on the Table 9 above, we can write the complete regression model as follows:

$$DurPurchaseIntention = 4.708 + 0.450\, DurBrandLoyalty + \varepsilon$$

We can also see that during the pandemic, brand loyalty has a positive and significant effect on purchase intention (p=0.00<0.05), with a positive coefficient (β = 0.450). Consumers that are loyal to a brand, tends to have a higher purchase intention.

Table 10. Linear regression: mediator on dependent variable (post-pandemic)

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.584	.564		6.357	.000
	PostBrandLoyalty	.371	.053	.435	7.000	.000
a. Dependent Variable: PostPurchaseIntention						

We can write the economic model as follows:

$$PostPurchaseIntention = 3.584 + 0.371\ PostBrandLoyalty + \varepsilon$$

The statistics presented in Table 10 above confirms that after the pandemic, brand loyalty still positively and significantly influences purchase intention.

Independent variables on dependent variables

In order to do the mediation analysis, we first need to confirm that the independent variables have a direct significant effect on the dependent variable. In this section, I will discuss the result of this direct effect analysis.

Table 11. Linear regression: independent variables on dependent variable (during-pandemic)

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.509	.457		3.299	.001
	DurPriceConsciousness	-.410	.050	-.429	-2.205	.000
	DurProductVariety	.377	.065	.379	5.831	.000
	DurBrandSalience	.336	.096	.232	3.512	.001
a. Dependent Variable: DurPurchaseIntention						

From Table 11 above, we can see that all variables are statistically significant. Price consciousness with beta value of -0.410 seems to have the biggest influence on purchase intention during the pandemic. Price consciousness leads to lower purchase intention. Perceived product variety with beta value of 0.377 has the second biggest influence on purchase intention, consumers who perceive an online grocery application to have a wide product

selection will have higher purchase intention. Finally, brand salience with beta value of 0.336 also positively influences purchase intention.

Table 12. Linear regression: independent variables on dependent variable (post-pandemic)

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	2.353	.865		2.721	.007
PostPriceConsciousness	-.091	.047	-.111	-1.936	.040
PostPerProdVariety	.379	.061	.387	6.086	.000
PostBrandSalience	.344	.060	.262	4.042	.000
a. Dependent Variable: PostPurchaseIntention					

From Table 12, specifically from the beta and significance value columns, we can conclude that all independent variables have a significant effect on the dependent variable, purchase intention.

Price consciousness has a significance level of 0.040 which is lower than the threshold, 0.05, with a coefficient of -0.091. Consumers who are more price conscious-those who are willing to put extra effort in finding the lowest price possible, are less likely to purchase or use online grocery application after the pandemic. One possible explanation is that most of the respondents perceived price offered in the online grocery application is higher than in the supermarket. Towards the end of the survey, I added the statement *"I believe online grocery application offers lower prices"* and from the descriptive analysis, the mean value for this statement is 2,2 which means that respondents somewhat disagree that online grocery applications offer lower prices. Comparing Table 11 and 12, we can see that the effect of price consciousness on purchase intention is weaker after the pandemic (-0.410 during the pandemic and -0.091 after the pandemic). We can conclude that the **H1 is supported**.

Perceived product variety also has a significant effect on purchase intention; however, the direction of the effect is positive (p=0.00<0.05, β=0.379). Consumers who perceived an online grocery application to have a wide variety of product, have a higher purchase intention after the pandemic. They intend to continue using the application after the pandemic is over. From this result, we can conclude that **H2 is supported**. Moreover, comparing Table 11 and 12, we

can also say that perceived product variety strengthens purchase intention after the pandemic, therefore **H2a is supported.**

Finally, and similarly, brand salience has a significant and positive effect on purchase intention (p=0.00<0.05, β=0.344). Consumers who have seen many advertisements of an online grocery application tend to have a higher purchase intention after the pandemic. Based on this analysis, we can conclude that **H3 is supported**. Similarly, comparing Table 11 and 12, brand salience also strengthens purchase intention after the pandemic. Thus, **H3a is also supported.**

Although all variables are still statistically significant, based on the coefficient, product variety now has the highest coefficient, which means that after the pandemic, consumers are less-price conscious, and now perceive product variety is more important than a low price. Brand salience, surprisingly, also has a higher coefficient than price consciousness. This means that a high brand salience, a product of frequent advertisement, works better than a low price in stimulating purchase intention.

4.4.2 Mediation Test

In this part, I will discuss the result of mediation test, that is whether the mediator, brand loyalty, mediates the effect of independent variables: price consciousness, perceived product variety, and brand salience on purchase intention. Since there are three independent variables, the mediation analyses are divided into three parts, each for one independent variable.

Price consciousness → brand loyalty → purchase intention

Table 13. Mediation analysis: price consciousness as the independent variable

Total effect of Price Consciousness on Purchase Intention					
Effect	**se**	**t**	**p**	**LLCI**	**ULCI**
-0,1485	0,0508	-2,9241	0,0038	-0,2487	-0,0484
Direct effect of Price Consciousness on Purchase Intention					
Effect	**se**	**t**	**p**	**LLCI**	**ULCI**
-0,1068	0,0513	-2,0841	0,0384	-0,2079	-0,0058
Indirect effect of Price Consciousness on Purchase Intention					
Effect		**BootSE**		**BootLLCI**	**BootULCI**
-,0417		0,0192		-0,0854	-0,0103

A mediation can be considered significant when the confidence interval does not include 0. From Table 13 above, we can see that based on the BootLLCI and BootLLCI value, brand

loyalty mediates the effect between price consciousness and purchase intention, since 95% of the CI does not include 0 (BootLLCI = -0.0854 and BootULCI = -0.0103). Similar to the direct effect analysis that is provided in the previous section, price consciousness also proven to have a significant effect on purchase intention. Taken together, the aggregate impact (total effect) is also significant. Therefore, **H4 is supported.**

Perceived product variety → brand loyalty → purchase intention

Second, the mediating variable is tested again, however, now with the independent variable perceived product variety. The results of these mediation analysis can be found in Table 13 below:

Table 14. Mediation analysis: perceived product variety as the independent variable

Total effect of Perceived Product Variety on Purchase Intention					
Effect	**se**	**t**	**p**	**LLCI**	**ULCI**
0,4225	,0612	6,0863	0,0000	0,2518	0,4931
Direct effect of Perceived Product Variety on Purchase Intention					
Effect	**se**	**t**	**p**	**LLCI**	**ULCI**
0,3791	0,0621	5,3015	0,0000	0,2067	0,4515
Indirect effect of Perceived Product Variety on Purchase Intention					
Effect		**BootSE**		**BootLLCI**	**BootULCI**
0,0434		0,0220		0,0096	0,0954

From the table above, we can conclude that the variable brand loyalty mediates the effect between perceived product variety and purchase intention, because as shown in Table 14 above, the BootLLCI is 0.0096 and the BootULCI is 0.0954. This means that the indirect (mediating) effect is significant. Perceived product variety also has significant direct effect on purchase intention. Therefore, perceived product variety also has an aggregate effect on purchase intention. Thus, **H4a is supported**.

Brand salience → brand loyalty → purchase intention

Table 15. Mediation analysis: brand salience as the independent variable

Total effect of Perceived Brand Salience on Purchase Intention					
Effect	**se**	**t**	**p**	**LLCI**	**ULCI**
0,4230	0,0859	4,1063	0,0001	0,1835	0,5224
Direct effect of Brand Salience on Purchase Intention					
Effect	**se**	**t**	**p**	**LLCI**	**ULCI**
0,3435	0,0874	3,1277	0,0020	0,1011	0,4458
Indirect effect of Brand Salience on Purchase Intention					
Effect		**BootSE**		**BootLLCI**	**BootULCI**
0,0795		0,0364		0,0199	0,1607

Finally, I conducted the mediation analysis with brand salience as the independent variable. Table 15 above shows that like other two previous mediation analyses, brand loyalty is also proven to mediates the effect of brand salience on purchase intention, with BootLLCI value of 0,0199 and BootULCI value of 0.1607. Brand salience also has an aggregate impact on purchase intention (p=0.0001<0.05), since it has both direct and indirect effect on purchase intention. Therefore, **H4b is supported.**

4.4.3 Moderation test

The last test I performed for this research is a moderation test, to see whether types of consumers during the pandemic influences the effect of price consciousness on purchase intention. There are 4 types of consumers identified in this research, as can be seen in Chapter 2.

The economic model can be written as follows:

$$PostPurchase\ Intention$$
$$= 4.517 - 0.178\ Price - 0.008\ \beta2\ Price * Type - 0.069\beta3\ Price$$
$$* Type3 + 0.004\ Price * Type4 + \varepsilon$$

Table 16. Moderation analysis

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	4.517	.292		15.454	.000		
	PostPrice	-.178	.086	-.195	-2.068	.040	.504	1.985
	PriceType1	-.008	.060	-.014	-.136	.892	.458	2.185
	PriceType2	-.069	.055	-.119	-1.243	.215	.490	2.040
	PriceType3	.004	.055	.007	.076	.939	.608	1.646
a. Dependent Variable: PostPurchaseIntention								

Table 16 above shows the result of the moderation analysis.

Type 4 is the base line level, thus it has the coefficient 0, while Type 1 and 2 has negative coefficients and Type 3 has the highest coefficient. This could be interpreted that price consciousness actually increase purchase intention for type 3 consumer, but decrease purchase intention for Type 1 and Type 2 consumer.

Type 2 consumer has the lowest coefficient, therefore type price consciousness decrease the purchase intention the most for Type 2 consumers.

5 General Discussion

This section provides a general summary of the findings, interpretations, and comparisons with the previous literature to see how the findings fit in. The second section discusses the research's implications from a managerial and academic standpoint. Finally, the third section presents the research limitations as well as future research directions.

I begin the discussion by answering both the research questions and sub questions. The main research question that was stated in the beginning of this thesis is: "*Will consumer behaviour go back to "normal" after the COVID-19 pandemic? Which behavioral changes will stick? Will consumers continue to use online grocery delivery services?*".

This research question was then broken down into ten sub questions. I attempted to answer these sub questions through a review of the literature as well as data analysis from a survey. I developed five hypotheses based on my review of the literature. I anticipated that the independent variables: price consciousness, perceived product variety, and brand salience would have a main effect on a consumer's purchase intention, and that these main effects would be mediated by brand loyalty. Data from empirical research in the form of a survey were analyzed using linear regression, mediation, and moderation analysis. This chapter will primarily address the research question.

The result of the analysis shows that during the pandemic, consumers were indeed price conscious (Hampson & McGoldrick, 2013&2017; Steenkamp & Maydeu-Olivares, and Akende, 2020). From the independent t-test, we can conclude that consumers are still price conscious after the pandemic, which confirms the prediction made by Petro (2021) in *Forbes.com* who suggested that consumer behaviour are likely to stay after the pandemic. According to a Pew Research Center survey conducted in January 2021, 44% of those who say their financial situation has worsened during the pandemic believe it will take three years (or more) to get back to where they were a year ago. Additionally, price consciousness is proven to have negative and significant effect on brand loyalty (Rothschil, 1987; Raju, Srinivasan, and Lal, 1990), and on price intention (Bansal et al., 2004; Koo, 2006; Lim and Dubinsky, 2004; Krishnamurihi and Raj, 1991; Alford and Biswas, 2002). It has been discovered that price-conscious consumers seek lower prices and have fewer purchasing intentions (Krishnamurihi and Raj, 1991; Alford and Biswas, 2002). As a result, consumers who always consider price

before purchasing a brand are unlikely to buy the same brand again until the brand is offered at the lowest price compared to other competitive brands in the market. Many brands in the market offer frequent discounts or sales promotions, and price-conscious consumers will continue to switch brands as and when the brand is on sale (Reichheld, 1996). Moreover, this research shows that after the pandemic, price consciousness attenuates both brand loyalty and purchase intention.

Perceived product variety is also proven to have a positive and significant effect on brand loyalty and purchase intention. Therefore, consumers tend to be more loyal towards online grocery application that has a wide variety of product. This result is aligned with several studies which argue that consumers shop online for the benefits of the available product variety, and a large product selection adds considerably to higher satisfaction, and higher store loyalty (Bansal et al., 2004; Lim and Dubinsky, 2004). After the pandemic, this trend also continues, where consumers are more loyal to online grocery application that offers a large product selection. Perceived product variety also had a positive and significant effect on purchase intention during and after the pandemic. This result is aligned with a number of studies (Bansal et al., 2004; Koo 2006; Lim and Dubinsky, 2004; Rashaduzzaman, 2020) that suggest a large product assortment adds considerably to better attitude toward purchasing. Finally, after the COVID-19 pandemic, perceived product variety strengthen both brand loyalty and purchase intention.

This study also shows that during the pandemic, brand salience had a positive and significant effect on brand loyalty. After the pandemic, it continues to affect brand loyalty. This result supports the study by Akbarina et al. (2021). As mentioned before, brand salience is a result of advertising activity, which can make a particular online grocery application the first channel that a consumer think of when he or she plans to buy groceries online. Similarly, brand salience also has a positive and significant effect on purchase intention for both during and after the pandemic. It is aligned with a study by Domke et al. (1998), Iyengar & Kinder (1987), Wyer & Srull (1989), who argued brand salience has an influence on purchase likelihood. Finally, after the COVID-19 pandemic, the effect of brand salience is stronger on both brand loyalty and purchase intention, compared to during the pandemic.

5.1   Academic implications

In this section, I will explain how the result of this paper can contribute to the existing literature.

First, this research gives empirical evidence through survey, whereas most of previous studies only used literature reviews as the research methods. Thus, this paper confirms the theories stated in those journals.

Second, this research solves some existing research gaps about product variety and brand salience. While some researchers believe that a large variety of products gives companies advantages, others believe the opposite; these offerings are often more complex and time consuming (Fasolo et al. 2009; Sloot, Verhoef, and Franses 2005), which could lessen perceived search efficiency, delay purchasing intention, and/or result in lower product satisfaction (Sloot, Fok, and Verhoef 2006). (Iyengar and Lepper 2000). These negative consequences may explain why sales rise after unpopular items are removed from retail or online stores (Boatwright and Nunes 2001; Drèze, Hoch, and Purk 1994). This paper suggests that consumers prefer online groceries application that has a large variety of products and responds more positively towards it, even after the pandemic, consumers still prefer a larger product assortment. One possible explanation is that a broader selection may be linked to higher satisfaction because it raises the chances of a perfect match between the customer's preferences and the available options (Lancaster 1990). For example, consumers may have preferences in certain laundry detergent brands, or variant (e.g different scents). Online grocery applications that have a lot of laundry detergent brands and variant to select from, definitely have a higher likelihood to be chosen by consumers since they can find everything that they need at one application, rather than having to shop at multiple applications or channels. The same thing applies to other product categories.

As for brand salience, there are also two contradicting views. According to Lamey et al. (2007), cutting the advertising costs seems to have an impact on short-term income by boosting immediate profits and retaining shareholder confidence. According to O'Malley et al. (2011), during a crisis, prices of goods and services diminishes because customers spend less; thus, firms reduce their advertising budget since they believe that advertising will not help them increase their sales significantly. Meanwhile, another view argues that keeping or increasing the advertising and promotion budget during a crisis boosts both sales and market share (Graham and Frankenberger, 2011; Grossberg, 2009; Werner, 1991). The result of this thesis leans towards the second view, since brand salience has a positive and significant effect on purchase intention, which means that consumers who have a high brand salience of a particular online grocery application tend to have a higher purchase intention. One possible explanation is that advertising is critical in customers in making informed product and brand decisions. The

impact of advertisement can reach a wider audience, and the main goal of advertising is to inform, persuade, convince, and remind customers about the product/services. Advertisements play a significant role in influencing customers' purchasing intentions. Customers will remember the advertised product if it is advertised with endorsements. The customer frequently associates the brand with the advertisement and can easily remember the brand (Amandeep, Varshney, and Aulia, 2017).

Third, this research uses a mediating variable that tries to explain the relationship between the independent variables and purchase intention.

Fourth, this research shows whether the independent variables have stronger or weaker effect on the dependent variables after the pandemic.

Finally, this research enriches the existing literature by trying to predict consumer behaviour after the pandemic. There are journals and surveys that study consumer behaviour before the pandemic and during the pandemic. However, this topic has not been much explored for after the pandemic condition. Therefore, this study contributes considerably to the literature.

5.4   Managerial implications

Beside academic implications, this research also contributes to businesses, especially for online groceries applications companies. Companies and managers can use the result of this paper as a consideration to make decisions.

First, we can compare Table 3 and Table 4 to find out about how consumer behaviour will be like after the pandemic. From the mean value, we can agree that during the pandemic, consumers were indeed becoming less loyal to a brand, partly because of the high price consciousness. Consumers who always compare prices before purchasing a brand will not buy the same brand again unless it is offered at the lowest price in comparison to other competitive brands in the market. Consumers are predicted to continue to have high price consciousness after the pandemic. They will seek for the lowest price possible. However, price consciousness has a negative effect on both brand loyalty and purchase intention. This means that the more consumers are price conscious, the less loyal they become and the lower purchase intention they have. Competing with low price is not sustainable for business, therefore, I would not suggest companies to constantly offering low price. Price promotion could be done every once in a while. Companies could see the best-selling products or products with high popularity and they can give discounts every now and then. Also, the majority of consumers perceived that

price offered by online groceries application is more expensive than in the supermarket, which is understandable because there is a "convenience" value offered by these applications. However, these companies should try not to make the differences too big. Again, price promotions can be beneficial.

This research, however, gives other alternatives as to how enhance brand loyalty and purchase intention other than through lowering price. Two other independent variables in this research, namely perceived product variety and brand salience are proven to have a positive and significant effect on both brand loyalty and purchase intention both during and after the pandemic. Therefore, online groceries application can try to win consumers over by offering a larger product assortment so that consumers have more option and the "convenience" value will be more existent since consumers do not have to shop in multiple application or stores to get everything they need.

Moreover, it is also suggested that companies increase advertising activity after the pandemic, since brand salience still affects both brand loyalty and purchase intention. The advertising medium, however, should be carefully considered. Depending on the target market, companies should choose the most suitable media. The more often consumers see advertisement, the more the brand or in this case, the online grocery application is placed on top of consumers' minds. When this happens, it is very likely that consumers will choose the first application that comes to their minds.

5.5   Limitations and Further Research

This section discusses the paper's limitations and what additional research is needed for better implications. The researcher first describes some limitations, which are followed by recommendations for further research.

5.5.1   Limitations

This study takes several limitations into account. These limitations are expected to be improved in future research. To begin, the study's sample is limited due to time constraints and the writer's restricted access to collect sample data. The overall data sample is considered adequate; however, the representativeness of the data should be increased in future research.

Second, the structure of the questionnaire could be improved. In this research, I asked the respondents all questions for "during pandemic" conditions, followed by asking all questions for "post-pandemic" conditions, so the survey was divided into two big parts. Although the

vast majority of respondents passed the attention check, I could imagine it could be confusing for them because they might forget what their answer was for "during pandemic" condition when answering the "after pandemic" part, so some of them had to go back to the previous section and this issue made filling out the survey takes more time than expected. I think it could have been better if I asked one question for "during pandemic", and follow that question with "after pandemic" condition to get a more accurate answer. For example, "*During the pandemic, I was willing to give extra effort to find the lowest price in buying groceries*" and after this question, I could ask *"How would this change after the pandemic? To what extent do you agree with this statement: After the pandemic, I will continue to give extra effort to find the lowest price in buying groceries"*. This way, it would be easier for respondents to give answers to the questions.

Finally, because I did not have enough time, I could not explore more about why price consciousness decreases purchase intention the most for Type 2 consumers. Intuitively, purchase intention should decrease the most for Type 1 consumers because they are most impacted by the pandemic.

5.5.2 Further research

In this section, the writer will give several suggestions for future research.

First, this study is quantitative because it is conducted through a survey. This means that respondents can only answer a series of multiple-choice questions and cannot explain why or how they answered them. The researcher suggests conducting qualitative research to find out why consumers are still price conscious after the pandemic, what can a company do to make this type of consumer to be more loyal. For product variety, future research can ask which product categories need a wider assortment, and which categories do not really need too many options, so then companies can optimize their strategies regarding this assortment. Finally, future research can also try to unveil the best channel that appeals to consumers and what kind of message will relate the most to them.

Second, this research only identifies three independent variables that are already proven to have a significant effect on both brand loyalty and purchase intention. Future research can identify some variables that are closely related to online grocery application that may affect the intention, like perceived convenience, perceived risk (e.g fruits and vegetables that are not fresh), minimum order, delivery fee, and many more.

Finally, future research can explore more about the reason behind purchase intention decreases the most for Type 2 consumer (Pained-but-patient consumers), rather than Type 1 consumer (The slam-on-the-brakes).

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Appendix

Survey

Part 1: Type of consumer during pandemic

There are 4 types of consumers during the pandemic. Which one are you?

- o You struggle a lot financially, you worry about your financial situation, and you cut down your spending dramatically
- o You are not sure that you can maintain your standard of living, and you cut down your spending but not significantly
- o You are confident that you will ride out current and future bumps in economy, your spending is near pre-pandemic (does not change much)
- o You carry on as usual and for the most part unconcerned about savings and you are pretty much not impacted by the pandemic

Part 2: During pandemic

To what extent do you agree with these statements below? (1=strongly disagree, 6= strongly agree)

Price consciousness

1. During the pandemic, I was willing to give extra effort to find the lowest price in buying groceries
2. During the pandemic, low price was the most important factor influencing my purchasing decisions

Perceived product variety

1. During pandemic, a wide variety of products was an important factor in deciding at which online grocery application I would order my groceries
2. During the pandemic, a wide variety of products was an important reason to use online grocery application more often

Brand salience

1. During the pandemic, I think advertisement was an important factor in deciding at which online grocery application I would order my groceries.
   *The more often I see an advertisement of a company, the more likely I will choose that company
2. During the pandemic, I would choose online grocery application that came first to my mind

Brand loyalty

1. During the pandemic, I always ordered my groceries at the same online grocery application
2. During the pandemic, I believe my favorite online grocery application was the best

Purchase intention

1. I was planning to continue buying my groceries with online grocery application
2. During the pandemic, I intended to buy groceries online

Part 3: After Pandemic

To what extent do you agree with these statements below? (1=strongly disagree, 6= strongly agree)

Price consciousness

1. After the pandemic, I will continue to give extra effort to find the lowest price in buying groceries
2. After the pandemic, low price is still the most important factor influencing my purchasing decisions

Perceived product variety

1. After the pandemic, wide variety of products is still an important factor in deciding at which online grocery application I will order my groceries
2. After the pandemic, a wide variety of products was an important reason to use online grocery application more often

Brand salience

1. After the pandemic, I think advertisement is still an important factor in deciding in deciding at which online grocery application I will order my groceries.

   *The more often I see an advertisement of a company, the more likely I will choose that company

2. After the pandemic, I will continue to choose online grocery application that comes first to my mind

Brand loyalty

1. After the pandemic, I will always order my groceries at the same online grocery application

2. After the pandemic, I still believe that my favorite online grocery application is the best

Purchase intention

1. After the pandemic, it is likely that I will continue to buy my groceries with online grocery application

2. After the pandemic, I intend to buy groceries online

Part 4

To what extent do you agree with these statements below? (1=strongly disagree, 6= strongly agree)

1. I believe online grocery application offer lower prices
2. I believe online grocery application offer a wide variety of products
3. I have seen a lot of advertisement of online grocery application

Part 5

What is your gender identity?

o Male
o Female
o Non-binary
o Rather not say

In which category below is your age included?

- o ≤17
- o 18-28
- o 29-39
- o 40-50
- o 51-61
- o >61

What is the highest education level you have completed?

- o High school
- o Bachelor
- o Masters
- o PhD

What is your current marital status?

- o Single
- o Married
- o Divorced
- o Widowed
- o Rather not say

What is your nationality?

Chapter 4

Table 17: Normality test (during pandemic)

	Tests of Normality					
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
DurBL	.177	212	.000	.951	212	.000
DurPI	.220	212	.000	.889	212	.000
a. Lilliefors Significance Correction						

Table 18: Normality test (after pandemic)

	Tests of Normality					
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
PostBL	.168	212	.000	.961	212	.000
PostPI	.213	212	.000	.931	212	.000
a. Lilliefors Significance Correction						

Table 19: Multicollinearity test (during pandemic)

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	.636	.437		1.454	.147		
	PostPC	-.107	.051	-.117	-2.084	.008	.918	1.089
	PostPV	.386	.076	.331	5.052	.000	.676	1.480
	PostBS	.273	.087	.213	3.128	.002	.627	1.595
	PostBL	.209	.079	.203	3.277	.001	.762	1.313
a. Dependent Variable: PostPI								

Table 20: Multicollinearity test (after pandemic)

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	1.056	.479		2.206	.028		
	DurPC	-.066	.051	-.078	-1.289	.009	.874	1.144
	DurPV	.333	.066	.334	5.061	.000	.737	1.357
	DurBS	.281	.096	.194	2.924	.004	.727	1.376
	DurBL	.259	.075	.183	2.781	.006	.743	1.346
a. Dependent Variable: DurPI								

Table 21: Model Summary (during pandemic)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.580[a]	.336	.323	.984	.336	26.192	4	207	.000	1.915

a. Predictors: (Constant), DurBL, DurPC, DurPV, DurBS

b. Dependent Variable: DurPI

Table 22: Model Summary (after pandemic)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.631[a]	.398	.386	.93908	.398	34.182	4	207	.000	1.664

a. Predictors: (Constant), PostBL, PostPC, PostPV, PostBS

b. Dependent Variable: PostPI