

Norwegian School of Economics

Bergen, Spring 2022



Sustainability and Online Food Delivery Services in Norway

Does sustainability play a role in influencing the behavioural intention for the Platform-to-Consumer Online Food Delivery Services in Norway for young generations?

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Master Thesis in Marketing and Brand Management

NORWEGIAN SCHOOL OF ECONOMICS

This thesis was written as a part of the Master of Science in Economics and Business Administration at NHH. Please note that neither the institution nor the examiners are responsible – through the approval of this thesis – for the theories and methods used, or results and conclusions drawn in this work.

Executive Summary

In recent years, the over OFDs industry is overwhelming and at the same time, it has caused quite a lot of environmental and societal challenges. Based on studies, Millennials and Generation Z are the most motivated to sustainability and they are also one of the important customer segments in OFDs. In Norway, Foodora and Wolt are the two major players in the OFD market. We observed that, as late comer to this specific market, Wolt has tried to differentiate themselves from competition by having a “sustainable” positioning with different environmental and social sustainability policies. Given Norway is also a country which valued sustainability on the top in comparison with other countries, it will be interesting to see whether the sustainability initiatives of OFDs companies have an influence on the purchase intentions of Norway's younger generations.

This research model is based on the cognitive hierarchy model proposed by Homer and Kahle (1988), as well as Ajzen and Fishbein's (1975, 1980) theory of reasoned action (TRA) and its extension which called the theory of planned behavior (TPB) (Ajzen, 1991). The main objective of this research is to examine if the sustainability factor influences the purchasing intention of younger generations in Norway who use online food delivery services to purchase food. Five hypotheses were created after performing a theoretical review on the influence of utilitarian, hedonic, and symbolic values, as well as TPB variables such as attitude, subjective norm and the perceived behavioural control, on the intention to purchase food through OFDs.

To test the hypotheses, this study employed a quantitative survey of Millennials and Gen Z in Norway, with 124 valid responses being analysed using confirmatory factor analysis by SPSS and structural equation modelling by SmartPLS. According to the findings, symbolic value had an important role in influencing the purchase intention through directional support. Besides, utilitarian, and hedonic value were also important factors in affecting the purchase intentions of young customers. However, all of these values can only influence the purchase intention with the presence of “attitude”.

Our study also discovered that Norwegian customers value sustainability more than non-Norwegian customers. Furthermore, when comparing Wolt and Foodora's customers, Wolt's customers favoured symbolic value higher. The findings show that the sustainability component of the OFDs in Norway does really matter to younger generations.

Acknowledgements

This thesis was written as a part of the Master of Science in Economics and Business Administration program from the Norwegian School of Economics (NHH), where we are pursuing a major in Marketing and Brand Management.

We would like to express our gratitude to everyone in the program for guiding us with our questions and providing us with insightful feedback throughout the study process. We would also want to extend our appreciation to our supervisor Professor Aksel Ivar Rokkan, who has provided valuable support throughout the research process. His insightful thoughts, feedback, and advice were an enormous source of inspiration for us and greatly enhanced our study. We are especially grateful for his flexibility and willingness to provide input during the supervision of this thesis.

We would also like to thank our friends and family for their support during the period when we were writing this master's thesis, especially Lee, Murat, Sagar and Winson. Finally, we would like to thank everyone who took the time to fill out our survey. We also want to thank our university's administration department for doing all necessary to keep the studying process running smoothly.

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List of Abbreviations

AVE - Average Variance Extracted
CB-SEM - Covariance Based-Structural Equation Modelling
CFA - Confirmatory Factor Analysis
CFI - Comparative Fit Index
CR - Composite Reliability
CSR - Corporate Social Responsibility
Gen Z - Generation Z
NFI - Normed Fit Index
NHH - Norwegian School of Economics
NOK - Norwegian Kroner
OECD - Organization for Economic Co-operation and Development
OFDs - Online Food Delivery services
PLS-SEM - Partial Least Squares - Structural Equation Modelling
PtC - Platform-to-Consumer
RMSEA - Root Mean Squared Error of Approximation
RQ1 - Research question 1
RQ2 - Research question 2
RtC - Restaurant-to-Consumer
SEM - Structural Equation Modelling
SRMR - Standardized Root Mean Residual
TBL - Triple Bottom Line
TPB - Theory of Planned Behavior
TRA – Theory of Reasoned Action
USD - United States Dollar

1. Introduction

1.1 Background and Motivation

Food is one of the necessities in the daily life of every human being from the past until the present. Talking about the food market commercially, according to Kandasivam (2017), it is an industry with yearly revenue of trillion dollars, thus the online food delivery services (OFDs), which has emerged a decade ago and currently still account for a small portion of the food industry, is having a great potential to grow further.

The current growing speed of OFDs business is even a lot faster after the Covid-19 pandemic when everyone has formed a habit to practice social distancing as well as avoid leaving home if it is not necessary, as stressed by their governments during the peak of the pandemic. In practice, there are two categories of OFDs: 1) the Restaurant-to-Consumer (RtC) delivery model in which consumers make use of a platform to order food online from a particular restaurant, and then the food delivery is being done by the restaurant itself, and 2) the Platform-to-Consumer (PtC) delivery model in which the food delivery will be responsible by the platform where the consumers ordered the food from (Statista, n.d.). This study will focus on the PtC delivery model of OFDs because they act as a middleman or agent in providing food delivery services between restaurants and end consumers, thus helping restaurants to change their business model a bit in order to adapt to the pandemic and keep their business alive. They are especially important for those small restaurants which cannot afford to have their own delivery team. From our observations, both Foodora and Wolt, which are the two major players in the PtC OFDs in Norway, is gaining more and more popularity in the past few years and their “riders” (those employees or freelancers who help the two companies to deliver food from the restaurants to the end consumers) are widely seen everywhere in the city.

In addition, the overwhelming OFDs have created quite a lot of environmental and social issues, especially in those countries which are more mature in this particular business, such as China and India (Li et al., 2020). For instance, the over-use of plastic packaging (Janairo, 2021), the increase of carbon dioxide emissions due to bigger consumption of energy through increasing numbers of food deliveries by cars (Xie et al., 2020), and unfair treatment of the

“riders” because of the non-standard nature of the work involved (Pilaar, 2019), etc. As the social and environmental issues arising from the OFDs industry have become more and more noticeable to consumers, it is observable that major players in the industry have already been developing and executing Corporate Social Responsibility (CSR) or sustainability policies for the past few years, in order to mitigate the situation which may arguably be causing consumers who are conscious about the issues associated with OFDs, to not considering using the services. According to an article released by the International Institute for Sustainable Development in 2021, although global consumption of sustainably produced products is increasing, consumers from Europe and the United States are the major contributors to this growth, while in other countries, the demand for sustainable products and services may still be relatively lower (Millett, 2021). As a result, even though previous studies about the OFDs industries concluded that the purchase intention of the consumers is mainly driven by functional and hedonic benefits and values, it may still be worthwhile to research whether sustainability would play a role in influencing the consumers’ purchase intention in the same industry in Norway, especially to our knowledge, no previous study has been made in this country which appears to value sustainability more than many other countries in the world.

In addition, when it comes to sustainability and ethical standards, a previous study has concluded that Millennials (born between 1996 and 1981) and Generation Z (Gen Z, born between 1997 and 2012) are the most committed (Deloitte Touché Tohmatsu Limited, 2019). Within these two young generations, 62% of them believed increasing sustainable activities or policies should be carried out by merchants and retailers (Hill & Lee, 2012). Thus, it should be quite interesting to figure out, whether the “sustainability” factor of the OFDs will impact the purchase intention of the young generations in the industry. Since most of the Millennials are already working while the oldest of the Gen Z have also started their careers, and given these two generations are more tech-savvy than other older generations, they will become an important customer segment of the PtC OFDs industry, where orders and transactions are always needed to be made over an app or a website, for the coming decade. Thus, it would be critical for us to understand what kind of factors are actually driving the purchase intention of this group of young customers in this specific industry so that companies can have a wiser allocation of resources to run the business in the coming future.

1.2 Research Questions

As stated in the previous section, PtC OFDs have helped small restaurants to survive during the pandemic, it has also brought a lot of convenience to consumers and they have even changed their way of food consumption (Saarijärvi et al., 2014). At the same time, quite a lot of issues have raised due to the booming of this industry, and this may eventually negatively influence the purchase intention of consumers (Li et al., 2020), especially those Millennials and Gen Z who are more conscious of sustainability issues. These generations, according to INSIDER (2020), are also high-income earners of six-figure thus in the coming future, they are expected to become an important customer segment, who have growing purchasing power, of PtC OFDs business in Norway. This is especially relevant as Norway is a country where the delivery charges and food prices of OFDs are observed to be much higher than in other European and Asian countries.

Besides, Norway is ranked 7th in the overall performance of sustainable development amongst the 193 UN Member States according to the Cambridge: Cambridge University Press (2021). In this sustainable development report, an overall score, which measures a country's total progress towards achieving all 17 Sustainable Development Goals of “The 2030 Agenda for Sustainable Development” adopted in 2015, has been given to each UN Member State, and Norway has got 81.98 out of 100. In addition, Sustainability Hub Norway assesses the state of sustainability in the country every year, and for 2020, their study figured out that due to pressure from stakeholders increases substantially on sustainability concerns, Norwegian companies have raised their level of sustainability ambition considerably over 2019 (Sustainability Hub Norway, 2021). Out of the 176 Norwegian companies that responded to the study, almost 50% of them indicated with sustainability, they can acquire more customers and reduce costs, while 60% even said that they have got even more engaged customers and employees (Sustainability Hub Norway, 2021). Thus, one can argue at least, for the business landscape in Norway, companies who are willing to focus more on sustainability will be benefited from increasing profit. From our observations, there is also a key player in the PtC OFDs industry of Norway, who is trying to differentiate themselves from their competitors, by focusing more on sustainability policies and measurements currently.

There are some previous studies about how the purchase intention of consumers will be influenced by value perceptions or product benefits of the OFDs (Chen et al., 2020; Dospinescu et al., 2020; Hwang & Kim, 2020; Song et al., 2021). However, most of them have only focused on the functional and hedonic benefits or values while very limited of them have embedded sustainability as one of the driving factors of purchase intention of the OFDs. Besides, at least per our knowledge, there is no previous study about what factors are driving the purchase intention of young generations such as Millennials and Gen Z in the context of PtC OFDs in Norway, where the importance of practicing sustainability by both consumers and businesses seems to be higher than in other countries.

As a result, it would be intriguing to investigate how symbolic value perception on PtC OFDs is affecting the purchase intention of young generations in Norway. Moreover, according to other previous research, there might also be other relevant factors, such as social pressure, resources/ability of a particular consumer, which can impact the purchase intention of a product or a service. To better use company's resources and develop suitable marketing strategies for the PtC OFDs business in Norway in the future, it will be useful for marketers to understand how young generations will perceive the values of PtC OFDs and how will these values, consumer attitudes, other relevant factors, and purchase intentions are relating to each other. Based on all the discussions, this master's thesis is aimed at answering the below research questions:

Research Question 1 (RQ1): Is the sustainability factor of PtC OFDs in Norway influencing the purchase intention of young generations when they purchase food online?

Research Question 2 (RQ2): What are the other key factors influencing the purchase decision of young generations when they purchase food online from PtC OFDs in Norway?

1.3 Outline of this thesis

This master's thesis is divided into 10 sections. Section 2 provides an overview of the online food delivery services market, OFDs in Norway, and our target audience as Millennials and Generation Z as major customers in OFDs in Norway. The descriptions and findings based on previous literature of corporate sustainability responsibility, sustainability, and triple bottom line are presented in Section 3. The current state of sustainability issues is also discussed. The theories for model development to create our framework are offered in section 4, which includes a discussion of the 3 main values and TPB factors that might impact customers' purchase intention of OFDs. Our research model, research methodology, and questionnaire development are presented in sections 5 and 6. The detailed data analysis procedure is described in section 7. It also shows the final model that was developed based on the data analysis results. The research's key findings are reported in sections 8, discussion, and conclusion. Theoretical and managerial implications are presented in section 9. Finally, there is a discussion on limitations and suggestions for future research in the last section.

2. Online Food Delivery Services Industry

2.1 Overview of the Online Food Delivery Services Industry

Online food delivery services industry is a growing industry, especially since the pandemic broke out in 2020. According to Dalin-Kaptzan (2022), OFDs models and different delivery fleet modes such as single or multi-fleet, crowdsourced fleets, in-house fleets, etc., have all taken advantage of quarantines and lockdowns to increase their market share, thus they experienced hypergrowth.

As per Statista (n.d.), OFDs include services that deliver prepared meals and food which consumers ordered from the internet for consumption directly. There are two delivery service models in the OFDs: 1) the "Restaurant-to-Consumer" delivery model in which the restaurants will be responsible for the delivery, no matter whether the orders are from the restaurants' own websites or from online third-party platforms; and 2) the "Platform-to-Consumer" Delivery model in which a third-party platform that has their own delivery fleet handles the order

delivery for their partner restaurants (Statista, n.d.), for instance, Foodora and Wolt are the major players in Norway.

According to Statista (n.d.), total worldwide revenue in the OFDs segment is reaching USD343 billion in 2022, with an annual growth rate (CAGR 2022-2026) of almost 9%. Market volume is forecasted at USD474 billion by 2026 with the number of users increasing to 2,691 million in the same year. The user penetration rate will already be around 26% in 2022. Amongst different delivery models, the PtC delivery model will be the largest market segment with a projected market volume of USD218 billion this year.

While most of the revenue of the OFDs industry would be generated in China (Statista, n.d.), in research from Morgan Stanley (2017), OFDs could grow by a 16% annual compound rate from 2017 to 2022 in the States, which is a more mature market for OFDs in the western countries. The estimated revenue of the OFDs will reach USD32 billion in the United States, while around USD22 billion will be from the PtC delivery model, which includes different channels for orders or payments such as mobile applications and websites.

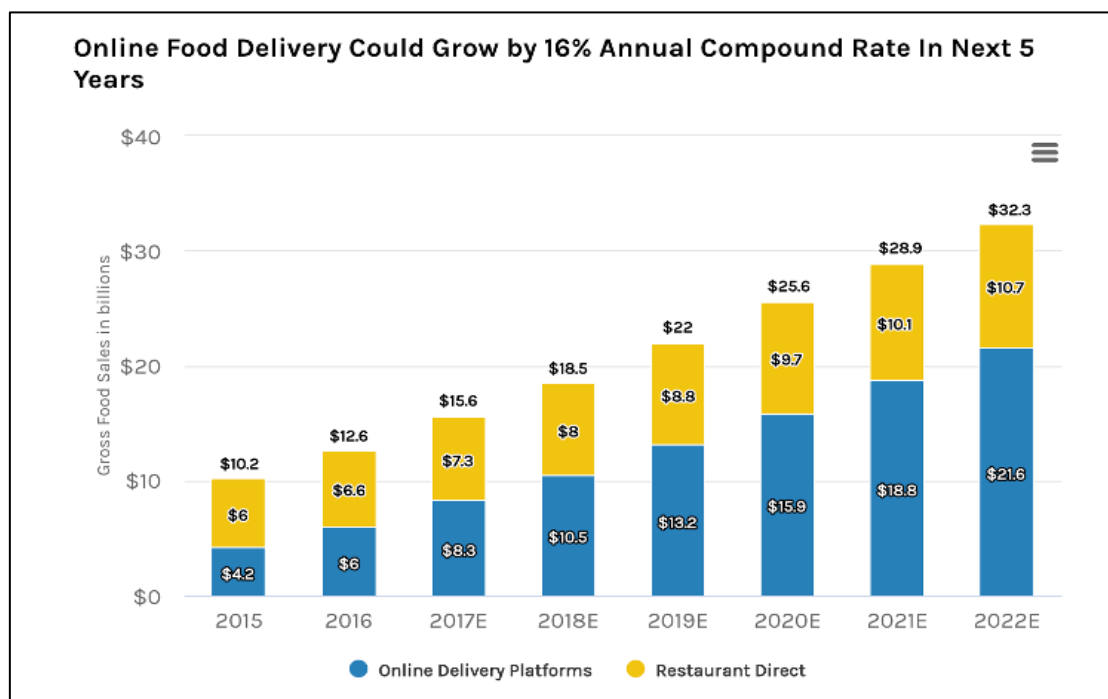


Figure 1: OFDs Growth Rate in the United States (Source: Company Data, Morgan Stanley Research)

As per Ahuja et al. (2022) who released an article through McKinsey & Company, they found OFDs have got such a boost in revenue due to different appealing, user-friendly apps and tech-enabled driver networks, as well as the changing consumer behavior and expectation in the dining experience. According to the same article by Ahuja et al. (2022), several key players have continuously invested and had different activities in the industry. This includes Wolt (a Finnish-based company that offers a delivery platform for food) which raised USD530 million in January 2021 and Rebel Foods (an Indian online restaurant company that operates the world's largest cloud kitchen restaurant) which attained \$26.5 million in July 2020. In addition, Uber's acquisition of Postmates, which is a food delivery service that offers local delivery of restaurant-prepared meals in the US, for \$2.65 billion in 2020; and Just Eat (a UK-based online food order and delivery service) acquired Grubhub (an American online and mobile prepared food ordering and delivery platform) for \$7.3 billion in 2021, also added excitement in the OFDs industry. According to the McKinsey article, the business is still accessible to new investors and rivals. This opens the door to new challenges, possibilities, and decision points, which might attract a new set of companies, including food platforms, restaurants, drivers, customers, and other digital enablers.

Apart from the changes in the competitive landscape of the industry, the OFDs industry may continue to rise because of the benefits that it gives to both the business owners and the customers. There is an online article posted on the official website of DoorDash, which is the largest third-party food delivery company based in the US, saying that OFDs are beneficial to restaurant owners for several reasons (Cottong, 2022). First, it allows restaurant owners to reach more customers, for example, DoorDash food delivery services can reach 85% of the US population, 80% of the Australian population, and 75% of the Canadian population, with 43% of their customers ordering food at least once a month. Secondly, OFDs also allow online visibility. By partnering with different third-party applications or websites, a restaurant can gain more visibility, allowing more people to discover their business online. This and many other reasons such as cost-efficiency and flexibility are the reasons why restaurants' owners opt for joining third-party OFDs.

Aside from restaurant owners, OFDs is also beneficial for consumers for different reasons. According to Cottong (2022), many people like to rest after a long working day, instead of cooking their meals, they make use of the OFDs to save them time and effort. Another reason is an empty cupboard as consumers have no time to shop for groceries to cook. In that case, they prefer to order food online from different OFDs platforms. Besides, the main reason consumers prefer deliveries rather than dining-in is convenience, because aside from the safety and comfort they experience in their own home, they also avoid the hassle and the expenses of going out and dining-in (Cottong, 2022). Even though there seems to be quite a lot of advantages of using OFDs, there are also some potential negative aspects for consumers who used OFDs to buy food. For instance, according to our personal experiences (as well as the experiences of our supervisor of this thesis), the taste, temperature and presentation of the food can be so different between dining-in and having food delivery from a single restaurant. We assumed that the food quality has deteriorated when the food was being delivered from the restaurant to the home or office of the end consumers. This might in turn harm the brand of the OFDs company as their customers tend to blame the rider of the OFDs company of not being able to handle the food delivery well.

As mentioned previously, there are two main delivery models in the rising OFDs industry: the RtC model and the PtC model. RtC is a model that describes how a restaurant starts its own delivery service. An example of this can be Domino's, McDonald's, Burger King and many more. This is a more traditional mode of food delivery because consumers need to call the hotline or go to the website of a particular restaurant to order food and have it delivered.

However, as the food industry becomes more digitalized, third-party food delivery apps/platforms in the PtC model started to emerge. These apps or platforms are more flexible, and more encompassing compared to the RtC model because it allows many restaurants to create their accounts and manage orders and deliveries. This way, consumers can choose their food in one application and order as many foods as they like, even if they are from different restaurants. Some big names of these PtC apps/platforms include DoorDash, UberEATS, Delivery Hero, Wolt and Deliveroo in the US and European markets. With this PtC model, consumers can easily place their orders using their smartphones. Once the order is confirmed,

the restaurant will prepare the food and the assigned couriers or “riders” will deliver the order. Because of the convenience that gives to consumers, it is the most dominant model of food delivery, representing USD218 billion in worldwide revenue in 2022 and it is expected to reach USD302 billion by 2026 (Statista, n.d.)

2.2 Online Food Delivery Services Industry in Norway

In research by Statista (2021a), the number of Norwegian restaurants increased dramatically, along with the number of companies in the beverage service industry since 2007. In 2008, the total food industry's net worth rose to 27.3 billion and it continued to rise to 50 billion Norwegian kroner (NOK) in 2018 (Statista, 2021a), 75% of the profit comes from restaurants and cafes in Norway with a revenue of approximately 37.6 billion Norwegian kroner in 2017. This amount encompasses in-house dining, including food deliveries. Over thousands of restaurants in Norway offer OFDs and it adds significantly to the sales a restaurant achieves in a year. According to Statistics (2021a), the revenue of OFDs grew from 20.2 billion to 39.1 billion Norwegian kroner from 2008 to 2018. And this number is expected to keep rising in the coming future due to the continuous innovations in mobile food delivery.

In Norway, there are also the RtC and PtC delivery models in the OFDs industry, and the total sales revenue is estimated to reach 2.1 billion (EUR210 million) and 2.55 billion Norwegian kroner (EUR255 million) in 2022 and 2026 respectively, with an annual growth rate of around 5%. At the same time, the number of users is expected to reach 2.7 million by 2026, with the user penetration of the industry at around 39% in 2022 (Statistics, 2021b).

Although the RtC model is the market's biggest segment in the OFDs industry in Norway, the PtC model is catching up aggressively just like the rest of the world. Sales revenue from the PtC model in Norway is projected to reach 260 million (EUR26 million) in 2022 and is expected to reach 320 million Norwegian kroner (EUR 32 million) by 2026 (Statistics, 2021b). The increase in the usage of the PtC model is due to the growing visibility of online delivery platforms worldwide. With the use of platforms, consumers have a variety of choices, allowing them to choose based on the price or food preferences (Kaur et al., 2021).

Based on the survey by Similarweb (2022), the most-downloaded online food delivery app in Norway are Wolt and Foodora. Both companies were founded in 2014, Foodora is found in Germany and has entered the Norwegian market since 2015, while Wolt originated in Finland, but they only tapped into the marketplace in Norway in 2018, which was 3 years after their key competitor Foodora has launched the service in the country. Same to the competitive landscape of OFDs industry in other countries, Foodora has been acquired by Delivery Hero in 2015 and Wolt has got a similar acquisition from DoorDash in 2021. (Wikipedia contributors, 2022; Wikipedia contributors, 2021)

As mentioned in section 1, key players in the OFDs industry worldwide have tried to practice CSR and sustainability policies so as to mitigate the environmental and social issues caused by the booming of the industry for the past few years. As a result, it is not hard for consumers in Norway to see that Wolt and Foodora are doing the same thing as the rest of the key players in other countries.

According to INSIDER (2018), Foodora launched a national sustainability program in April 2018, supporting the company's commitment to zero-emission delivery by using bicycles and other environmentally friendly modes of transportation. Foodora will empower consumers to exercise sustainability through their meal delivery by providing food transparency, recyclable packaging, and a commitment to decrease waste. They are also partnering with restaurants that will share their environmental commitment. Foodora is working to improve food transparency on the application so that customers can make more informed ordering decisions. The company has launched a new menu feature that lists the ingredients and highlight menu items that use locally and ethically sourced ingredients to educate customers about the options available to them through the Foodora platform in hopes to support sustainable food sources. Lastly, the company also try to tackle packaging difficulties in collaboration with other industry professionals. As of 2018, Foodora has developed cardboard and cutlery items produced from Crystallized Polylactic Acid. This is a biodegradable corn starch-based polymer that will provide an ecologically friendly material that can help save the planet. Although Foodora seems to have done a lot on the environmental aspect of sustainability, they faced issues in the social aspect when there was a strike from their delivery partners – the bike riders. According

to the Nordic Labour Journal (2019), to seek support for the demand for a collective agreement that involved better salaries and compensation for expenses incurred using their private bicycle for work, a few hundred of Foodora's striking riders cycled around Oslo in 2019. This strike aroused the interest of other countries as that was the first major strike from so-called "platform workers".

For the sustainability policies of Wolt, as a latecomer in the Norwegian market, they try to improve their "green" policies in comparison to their competitor Foodora. For instance, all carbon emissions from Wolt delivery are compensated in full since 2015, a year after the company was founded in Finland. They calculate the carbon emissions generated during every Wolt delivery with the help of the South Pole, an industry leader in climate action. To do so, the company computes the overall emissions from all the delivery orders every month and offsets them by purchasing so-called carbon credits from the South Pole, which are being spent on two initiatives: 1) the restoration of the Vichada Forest in Colombia and 2) the conservation of the Envira Amazonian Tropical Forest in Brazil. Based on their findings, over 20 million people have been positively affected by the initiatives taken by Wolt with over 170 million tons of carbon dioxide saved or removed from the atmosphere. Besides, Wolt has been developing over 700 projects to promote renewables, forestry, and agriculture which helped to protect and restore 55,000 square meters of land (Wolt, n.d.-a) In addition, by regularly promoting responsible restaurants, Wolt also provides their customers with a better opportunity to choose restaurants that use environmentally friendly packaging or have a wide variety of vegan selections. In 2021, by cooperating with Oslo Kommune and different restaurant partners, they started to have a new green initiative of offering food being delivered in reusable packaging. Customers pay NOK 50 deposit first and get it refunded when they return the clean or uncleaned bowl to the restaurants (Wolt, n.d.-b).



Figure 2: New “green” initiative of Wolt – Food being delivered in reusable packaging

For the social aspect of sustainability, Wolt as a Nordic company, they have a goal to ensure that their self-employed riders can continue to work flexibly, but without having to accept weaker social protection. For example, they have offered free accident insurance as well as the protective gear of top-quality to their riders. During the Covid-19 pandemics, they also provided monetary support to those riders who got Covid-19 or were put in forced quarantine. With the help of these social sustainability policies, they have achieved the highest riders’ satisfaction in the OFDs industry in Norway (Wolt, n.d.-b).

Last but not the least, Wolt also used their user-friendly app as a charity platform, which allows individuals to help one another. For instance, since 2016, customers of Wolt can purchase Christmas meals for the homeless through their app. By partnering with different charity organizations, customers can also donate meals, with just a couple of clicks on the Wolt’s app, to socially excluded children or low-income families through partnerships with charity organizations (Wolt, n.d.-b).

Unlike Foodora which does not mention anything about their CSR or sustainability policies on their Norwegian website or app, Wolt has an individual section which calls “Responsibility at Wolt” on their digital platforms. Thus, with all the aforementioned policies of Wolt, together with the relevant highlight of their sustainability initiatives on the major touchpoints (e.g. apps

and website) over the consumer journey, we argue that this may have already made Wolt different from their competitors in the minds of relevant consumers. The sustainable factors of Wolt should in turn create some extra value for young generations who always put helping the world as one of their top missions in life.

2.3 Millennials and Generation Z as important customers in the OFDs in Norway

Every generation has its identifying mark that differentiates them from the others. According to Dimock (2019), Millennials, who were born between 1981 and 1996 (aged between 26-41), are born within the dot.com period where technological innovation began during the development of YouTube, and smartphones. Gen Z, who were born between 1997 and 2012 (in our study, we are only interested in consumers aged between 19-25, who tend to have more purchasing power), on the other hand, are born in an even more technological era, which makes other generations adjust to their proficiency in using all kinds of technology (Shatto & Erwin, 2016). In both these generations, people have learned to use technology in almost all facets of life including transportation, communication, healthcare, and even food and groceries. Thus, it seems making sense that, Millennials and Gen Z should be the most tech-savvy individuals in comparison with other generations (Shatto & Erwin, 2016).

According to research by Dimock (2019), Millennials and Gen Z have the same culture in terms of technology. Both have experienced the development of limitless, ever-present connectivity as well as the ability to gather, analyse, transfer, and receive data from a variety of sources such as smartphones, laptops, tablets, and hybrid devices at any time from any location as never seen before. Because of the early exposure to technology, Millennials and Generation Z have acquired high-end skills in manipulating and using technology (Shatto & Erwin, 2016).

As per Suhartanto et al. (2019) and Nicholas (2020), the smartphone is Millennials and Gen Z's preferred technology tool. They have constant access to digital platforms and can easily shop for items and services from local and global vendors because of their technological expertise and possession. Both of these generations rule online communities, sharing their views through social media and potentially affecting both producers and customers in every

online sector (Prakash Yadav & Rai, 2017; Suhartanto et al., 2019). As a result, marketers must increase their grasp of the behavior of these two generations to engage them constructively. One of the main applications that Millennials and Gen Z have accessed regularly is the PtC OFDs. It is arguable that these young generations have growing power that can determine restaurant profit as they have increasing disposable personal income, making them one of the powerful consumer groups among the generation cohorts. Furthermore, they are more likely to spend a bigger amount of their earnings on food, primarily in the restaurant industry (Mamula et al., 2022).

Given that Millennials and Gen Z should be the largest consumers when talking about purchasing foods from restaurants, their sustainability demands should not be ignored. Although both generations have differences in perspectives, they are sensitive to sustainability initiatives of all value chains (Reda & Kapoor, 2021). This is proven by a cross-generational comparison conducted by Kapferer and Michaut-Denizeau (2019) who found that Millennials and Gen Z have the same sensitivity to businesses' sustainability as generation X. As a result, this study believes that if a company wants to have a long-term future, it must consider the characteristics of these young generations and their sensitivity to sustainability initiatives. This is supported by a study conducted by Allen and Spialek (2017) where they found that Millennials are concerned about issues related to a food-relevant company's environmental footprint, ethical governance and community engagement, which influenced their product purchasing decisions. They are more likely to patronize and endorse businesses and restaurants with new ecological values. This is proven by research conducted by Srivastava & Alma Leora (September 2019) in Norway that focuses on the transitions that Millennials experience towards sustainability. In their analysis of interviews, they uncovered how Millennials engage in practices of use, acquisition, and disposal of products. A deeper understanding of their consumption patterns showed that Millennials are becoming more sensitive to the principles of ontological positioning that will affect future lifestyles, featuring their increased sense of wellbeing. They also demonstrated that they care about the benefits and fairness of other people in the society. This shows how Millennials in Norway are learning more about sustainability and its impact, and they are also applying these concepts in hopes of an "increased sense of well-being". For Gen Z, they also have an increased sense of social responsibility and

sustainability (Dimock, 2019). A study conducted among Norwegian Gen Z, Petro (2020) found that many individuals belonging to this generation are concerned with carbon footprint, and they have a positive attitude towards fairness in the communities.

Seeing the increased sensitivity towards sustainability, Millennials and Gen Z are more likely to choose companies that offer the best sustainability policies. These are businesses that help curb climate change as well as support human rights, fair labour, and fair wages. Seeing how Wolt is a good example of such initiatives, there should be a great tendency that the two young generations in Norway will choose this PtC OFDs platform to deliver their meals. However, there are also arguments saying that as more and more young consumers are concerning about sustainability, this made some companies to manipulate this phenomenon and engage in “window dressing” or “green washing” strategies, in which they try to cheat consumers with some unrealistic, fake “sustainability initiatives”. We will discuss about this further in the section of 3.4.2.

3. Sustainability and Corporate Social Responsibility

3.1 Corporate Social Responsibility (CSR)

According to the European Commission (2022), CSR involves integrating social, environmental, ethical, consumer and human rights considerations into company strategy and management. It will create a win-win situation for a company to earn profits and at the same time, address sustainable regulations and standards as pre-set by the National and International regulatory authorities (Bénabou & Tirole, 2010).

In the context of relating CSR to the domain of business strategies and corporate operations, it should be highlighted that the applications of CSR differ from organisation to organisation (Moratis & Cochiuș, 2017). These also vary in terms of the industry and the country within which an organisation is operating because the primary aspect of CSR based strategies starts with the focus on local communities and surrounding areas. Some common examples of CSR ensuring strategies include the recycling of any waste type, which also relates to the more commonly used resources that are recycled to provide environmental relief (Blenkhorn &

MacKenzie, 2017). Besides, CSR strategies can also include adherence to the newly established standards and protocols pertaining to pollution generated from various kinds of automobiles.

The majority of research in developed countries has found a positive correlation between consumer perceptions of CSR and intention to purchase, indicating that customers are interested in and are aware of a company's CSR actions and utilize them as a purchasing consideration (Arlı & Lasmono, 2010). However, there is also a study saying that CSR has a more complex and uncertain impact on consumer buying behavior (Sen & Bhattacharya, 2001). Despite such an argument, consumers are unwilling to make compromises on a product's most critical features, such as price and quality, just to purchase from a socially responsible company (Mohr & Webb, 2005; Gupta & Hodges, 2012).

3.2 Sustainability and Triple Bottom Line (TBL)

One of the most followed strategies within the corporate world of today is related to the domain of "sustainability". As per Arowoshegbe et al. (2016), it is also a set of policies, beliefs, and best practices aimed at safeguarding the planet's natural diversity and richness while also supporting economic opportunities and enhancing people's quality of life. Many companies nowadays talk about the term "sustainable development", and it can be defined as meeting the needs of the present without compromising the ability of the future generations to meet their own need (WCED, 1987). Sustainable development demands a comprehensive strategy that balances environmental and economic issues. Environmental imbalances such as population expansion, global climate change, and energy supply limitations will have a detrimental influence on the demands of future generations (Goel, 2010). The social component of sustainability tackles issues such as community engagement, employee relations, and fair salaries by focusing on the connection between the community and the enterprise (Goel, 2010). In addition, Carters and Rogers (2008) concluded that businesses may have a substantial influence on sustainability practices by engaging in environmental and social initiatives like decreasing packaging, improving working conditions, employing more fuel-efficient transportation, and compelling suppliers.

According to Arowoshegbe et al. (2016), considerable advancement has been made in developing concepts revolving around sustainability, with a strong focus on the "Triple Bottom Line" (TBL). This TBL concept states that an organization's success is no longer determined just by monetary or economic benefits, but also by the influence its actions, policies, and

initiatives have on society (Elkington, 1997). Whereas Slaper and Hall (2011) has later referred TBL as the alignment of the financial needs of a business (economic factor such as gaining and securing profits) with the areas of people (social factor) and planet (environmental factor). To be precise, firstly TBL's environmental dimension emphasizes environmental degradation and resource shortages, as well as energy utilization's long-term viability. Secondly, the social pillar of TBL refers to conducting business in a manner that benefits labour, human capital, and the community. At last, the economic element of the TBL framework relates to the business's operations' impact on the economic system (Elkington, 1997).

This interest regarding TBL and TBL reporting has been evidently embraced by all kinds of organizations in recent times including those which work in the context of gaining profits, those that are welfare-based, as well as the public based organizations across the globe (Milne & Gray, 2013). As highlighted by Arowoshegbe et al. (2016) within their research, TBL reporting is a key announcement that helps the general public as well as stakeholders of an organization in knowing the measures being taken by that organization for ensuring sustainability that is also known as community-based operations. This effectively signifies the sheer importance of this aspect pertaining to TBL, while also evidently promoting the relationship that exists between TBL and sustainability that work together to create a win-win situation for the organization that spans the areas of people, planet, as well as profit in general. This study is focusing on the environmental and social dimensions of the TBL as we have observed no difference between the economic dimension of OFDs in Norway, in which all the players in the industry are basically helping restaurants to get more exposure and businesses by using their digital platforms, and at the same time earning their own revenues by mainly charging restaurant owners and end consumers the “commission for delivery” and “delivery fees” respectively (Statista, 2021b).

At last, when the context of sustainability and TBL are being discussed, it is important to shed light on the differences between CSR and sustainability that are crucial to be understood. Where CSR focuses on the identification, knowledge, and adherence to regulations that bound organizations to the adaptation of its environmental and social impacts, sustainability refers to creating a future for the generations to come in which they don't have to face much trouble with reference to the utilization, and availability of naturally occurring resources (Sheehy & Farneti, 2021). The most significant variant between both concepts is that CSR relates to a regulation, which is an operational inclination that organizations must consult in different

domains and activities, whereas sustainability is the thought and sympathy with the future of this world in general terms (Sheehy & Farneti, 2021). With the correct understanding of the differences between both concepts, it may be arguable that organizations in different industries can communicate better operational targets to their employees and staff members so that a more consistent approach in this regard is also established for enhanced results.

3.3 Current sustainability issues in the OFDs industry

As mentioned in the “Background and Motivation” section (1.1), OFDs industry is having an overwhelming growth around the globe, however, issues under the environmental and social dimension of the TBL have been raised, which have already caught the attention of a lot of conscious consumers, especially from Millennials and Gen Z.

3.3.1 Environmental issues

In the context of the environmental dimension, young consumers have become aware of the environmental harm caused by OFDs because of the rising trend toward ethical shopping and have expressed their worries about the negative consequences these businesses have had on the environment (Butler, 2018). Major issues in the industry are as per below:

- a. **Increasing carbon footprint:** Due to an increase in the popularity of OFDs, the usage of transportation is also increasing, creating a major environmental issue as delivery vehicles emit a significant amount of carbon dioxide which causes greenhouse effect (Li et al, 2020). This issue has also been related to health concerns for the surrounding societies in general, which makes it more crucial to look upon and consider amendments (Wakeland et al., 2011). As mentioned in section 2.2, the two key players in Norway have presented increasingly effective strategies in this regard, where it compensates the associated authorities for carbon emissions that are made during the food delivery. Besides, some OFDs companies in other countries are also encouraging their “riders” to use bicycles and electric vehicles for the delivery works, which in turn will help the OFDs companies to improve the negative environmental effect caused by their business and at the same time, strengthen their brand image (Wen et al, 2019).
- b. **Sheer volume of plastic disposal:** The popularity of single-use disposable plastic food packaging grew in many parts of the world in 2020 because of the increasing usage of OFDs during the COVID-19 pandemic (Li et al, 2020). This is because many customers believed single-use packaging was safer and more hygienic but many of these

packagings are unsustainable (Neo, 2020). However, the effectiveness with which many nations deal with the plastic waste generated by OFDs is determined by how far their recycling infrastructure has evolved and the expansion of the OFDs business (Li et al, 2020). Nevertheless, several countries are analysing how to address the problem of plastic waste in the OFDs sector. Major players of OFDs in the United Kingdom have restricted the automatic distribution of cutlery and it proved to be a success when the OFDs platforms provided a recommendation suggesting a “utensil opt-in” instead of a “opt-out” (Zylberberg, 2019). In China, one of the famous OFDs platforms also includes the option of “disposable cutlery not required” to mitigate the issue of plastic waste and pollution (Liu & Chen, 2019). Similarly, as mentioned in section 2.2, Wolt has also used different initiatives to tackle this plastic pollution, e.g., helping restaurants to get ecological packagings, highlighting restaurants which use environmentally friendly bags and boxes to customers, etc., while its competitors have not done as much.

- c. **Food waste:** One of the reasons for the food waste issue is strongly linked to OFDs that impose a “minimum price” requirement for each food delivery order, which causes customers to purchase more food than they need, thus uneaten food is wasted (Li et al, 2020; Liu & Chen, 2019). As consumers become more aware of the significant levels of food waste created in the OFDs industry, companies are taking steps to help solve the problem rather than contributing to it. OFD platforms such as DoorDash in 2018 launched an environmentally and socially impactful initiative in the United States to combat hunger and food waste. They offered uneaten prepared meals to needy hungry people through their platform (Zylberberg, 2019). While in Norway, according to our observations, seems not much has been done to tackle this issue.

3.3.2 Social issues

For the social dimension of the TBL, as mentioned previously, it focuses on the organization's engagement with the community and handles topics such as community involvement, employee relations, and fair compensation and employees' welfare (Goel, 2010). Apart from the moral issue of being "good" to society, it has a high chance that ignoring the social aspect of the TBL can have an impact on a company's performance and long-term viability. Some major social issues associated with the OFDs are presented as followings:

- a. **Unfair compensation and welfare:** Starting from the strikes that Foodora Norway faced (which has been mentioned in section 2.2), it should be highlighted that there

have been similar cases of OFDs riders going on strikes across the globe, which is a pattern that showcases the fact that their requirements are not being met as they should be. Riders of OFDs stay firm on the requirements pertaining to ensuring better salaries, better work opportunities, as well as trade union options, so that can have some authority when it comes to the protection of their rights. Many times, OFDs riders are not always considered full-time workers, thus are not being paid on the same account, whereas this job is as demanding as any other, because the riders need to not only be in the best of health themselves, but also must take great care in managing the food deliveries and their individual vehicles in the process (Marrone & Finotto, 2019). As mentioned previously in section 2.2, Wolt Norway has already started to tackle this social issue in the OFDs industry by having measurements on the welfare of their riders, which can be regarded as an industry pioneer in the country.

- b. **Road Safety:** As the salary of delivery “riders” in the OFDs industry, especially those who are not full-time employees of the companies, are often hourly and order-based, they are frequently racing against time to meet delivery deadlines and earn higher income because of the commission and management systems in place on the OFDs platform. This can have an impact on road safety because riders may disregard traffic lights and fail to ride according to road conditions, increasing the risk of traffic accidents (Byun et al., 2020; Zhang et al., 2020). Furthermore, according to our observation, we argue that owing to tight delivery schedules, riders on electric bikes and bicycles often utilize pedestrian lanes, which adversely affects pedestrian safety. To tackle this issue, unlike other players in the OFDs industry which require their self-employed riders to follow strict work schedules for their work shifts, some companies, like Wolt, allow their freelance delivery workers to work freely by just clicking a button on the “work partner” app to go online or offline for delivery orders, but still receiving enough social protection for the job (Wolt, n.d.). This arrangement adds flexibility for the self-employed riders while they are delivering food orders, making them less stressed, thus may lessen the road safety issues.

To conclude, the booming of the OFDs industry has created quite a lot of environmental and social issues in the recent years, but it is obvious that players in the industry are mitigating them. However, there is no free lunch in this world and there are always costs and benefits behind companies’ CSR and sustainability strategies. Therefore, it would be interesting to look

deeper into why companies or organizations are willing to spend their limited resources for sustainability, which is by definition, just for the benefit of future generations. We will have a brief discussion of this in the next section.

3.4 Pros and Cons of practicing sustainability

3.4.1 Pros of practicing sustainability

The matter of ensuring sustainable measures and practices has been a key area for organizations and brands belonging to all kinds of industries for years. This is even more essential for OFDs from different countries as they are crucial contributors to their countries' respective economies (Hasanat et al., 2020). The essence of this importance is fuelled by some of the major advantages that are evident with the application of a sustainable approach in organizational contexts:

- a. **Brand Value:** The most highlighted relationship outcome that can be taken from sustainability adaptations for an organization lies in the association of its brand value which is significantly increased in the wake of this factor (Kádeková et al., 2020). An example of this can be found in the step taken by Honda to reduce both consumption of mineral-based fuels and carbon emissions by creating and promoting its new range of fuel-efficient transportation means that meet the renounced needs of social, as well as environmental sustainability standards (Nastu, 2011). This strategy has helped increase the brand's overall value by catapulting its shared interests with the general public in a differentiated light. Since brands are seeking to create an engaging, and innovative relationship with their target consumer markets, it is crucial to understand and implement the role of sustainability in this domain (Lehner & Halliday, 2014). The reason for this is that OFDs can make use of their sustainability policies to launch themselves in the limelight while achieving their own targets in this regard. This creates a multi-dimensional approach that enhances the overall brand value of an OFDs and markets it as a brand that is mindful of the sustainable approach to doing business.
- b. **Customer Loyalty:** In a world of increasingly aware and educated consumer markets, it is important for brands to realize the impact they can make through their knowledge of what their target consumer groups really seek. Taking this step to promote the effective use of consumer insight and data helps an organization in creating better relationships with its target customers as well. As mentioned in a study conducted by Strenitzerová, M., and Gaña, J. (2018), the example of a company providing mobile

communication services shows that customer loyalty tends to increase more than the expectations of service providers if effective sustainability measures are being executed. Consumers wish to be entertained with service/product offerings that not only yield better results for them but for the environment and society as well, which serves as a social obligation for organizations to indulge in activities that support these needs. These as a result help organizations in getting better target achievements that relate to target market groups' attraction and retention as well. In the recent years, awareness regarding sustainability and environmental footprints have increased tenfold, with climate change being called upon as an area of priority-based action (Lee et al., 2018). This knowledge of the general public's inclination towards sustainable consumption portrays a prospective dimension for the OFDs whereby they can associate themselves with the application of sustainable strategies with respect to the OFDs applications that help increase their individual levels of customer loyalty (Galati et al., 2020). Through this advantage of sustainable application, OFDs also help in the contribution towards local communities, which adds to their domain of this area's management in general.

- c. **Profit:** The amassing of public and target consumer market's attention through the inclusion of sustainable approaches within an organization's operations helps it in securing better sales, as well as profit rates because more people become inclined towards purchasing its products or services (Perera et al., 2013). The most significant factor that contributes to this equation is that the current generation is highly mindful of how important sustainability is (Schaltegger et al., 2012). The promotion of sustainability also helps organisations in gaining better profits when more people put their trust in their brand and what they stand for, referring to their approach that minimises negative environmental impact (Zahariev & Arabska, 2015). One example from Ng et al. (2018) is a huge positive impact on consumers' willingness to pay for premium pricing on electric vehicles due to the self-expressive benefits of the product. The symbolic effects created from the possible satisfaction from buying an electric car should motivate the purchase intention of relevant customers, at the same time, they will believe they will be in a superior lifestyle while they do the green consumption.

3.4.2 Cons of practicing sustainability

Like every other factor influencing changes within an organisation's operations, the sustainability-induced approach also has Cons that are associated with its application. Some

examples highlighted as follows so that the organizations in different industries across the global dimension can become aware of what areas they should avoid and overcome in general:

- a. **“Greenwashing” and “Window Dressing”:** Since a consumer cannot directly investigate how the product’s ingredients were sourced, or how the packaging was ensured recyclable in a common manner, many fail to understand that they are being driven towards the call for greenwashed products and services (De Vries et al., 2015). These relate to the offerings that cannot be labelled green or sustainable essentially. Many organizations take this shortcut to create a better brand image, whereas some engage in this lie to fool the public into purchasing offerings that are higher priced than normal under the banner of organic, ethical, or sustainable resourcing which are only some of the examples in this context. One can argue that, when there are too many brands or organizations using these “window dressing” techniques to attract customers’ demand for their businesses, the strength of companies in practicing sustainability may be weakened as consumers no longer believe in every “sustainable brand” they come across as really sustainable.
- b. **Increased costs and investments:** Since sustainability inclusion within an organisation’s value chain and brand requires increased investments, it puts a strain on the financial management of that organisation (Defrancia, 2020). Sustainable options such as recyclable packaging, or the usage of electrically charged bikes for delivery do present a better future in this regard but these strategic applications also come with the need for meeting increased costs because suppliers that provide sustainable raw materials, such as boxes, bags, carriers that can use for food delivery, are limited, and these by-products are difficult to gain, making them more expensive than their usual non-sustainable counterparts (Berg et al., 2020; Ozanne et al., 2016).

The rise in the general public’s awareness pertaining to the domain of CSR and sustainability cannot be ignored, as a high percentage of consumers, especially for younger generations, are now more readily accepting, acknowledging, and demanding the need for sustainable offerings (Kuokkanen & Sun, 2020). As per the study of Heyward (2020), this application of sustainability does not link to the aspect of offering products and services only, because consumers are now seeking to associate themselves with organizations that promote this area through CSR-based strategic applications that are a part of their organizational systems. An example of this is found in the study conducted by Abd Rahim et al. (2011), which found that the people of Malaysia expect organizations to present their operational activities and

milestones in a manner that dictates whether or not they pursue the application of sustainability-based strategies, as the application of aforementioned helps them in shaping their buying behaviours accordingly. The more readily, and evidently an organization promotes and acts upon its strategic sustainability or CSR domain the more trusting, and loyal consumer base it will be capable of building for itself.

Yet despite the domain of sustainability being a crucial factor for shaping the consumers' buying behaviours, it may be said that in many places, especially within the developing countries, people still consider the key traits of a product/service offering i.e., its price and quality the more influencing ones (Arlı & Lasmono, 2010). Taking the example of Indonesia, a developing country with a large population that has mostly middle-income people, it was found that most people prioritized economic responsibility for that of legal, or philanthropic (Arlı & Lasmono, 2010). In comparison, people from developed countries can be seen as ones who are more susceptible to prioritizing the purchase of offerings that promote sustainability rather than simply looking at the price and quality. In essence, it can be said that despite the cons that are evidently proposed with the implementation of sustainability ensuring measures, it is important to address the need for this factor because it promises a better future for the generations to come (Arlı & Lasmono, 2010). As Millar et al. (2012) specified, sustainability is becoming a more prominent matter of discussion and focus currently, and its importance is not only for the present, but for the future as well. Therefore, it is necessary for the OFDs brands and other organizations to adapt, and mould themselves in a way through which they present more sustainable operations while keeping in mind the application of mitigation means that help in offsetting the cons that are presented in this aspect, as well as the directions that ensure a more enhanced future for all.

Last but not the least, as said before, the Millennials and Gen Z are more readily accepting and acknowledging CSR and sustainable options, be it in the industry of food, service, or any other, because to them, ensuring minimal environmental footprint and the highest standard of social achievements is at the top of the priority list. This thought that consumers have also shaped their buying behaviours when it comes to the OFDs industry, and how they can tackle their aforementioned issues in this regard to promote sustainable approaches while satisfying the needs of their target customers as well. This study will create a new model based on the famous "Theory of Planned Behaviour" and try to figure out how sustainability initiatives of OFDs

companies can generate values that can influence the attitude of young generations in Norway, thus increasing purchase intention of these target customers at last.

4. Theories for model development

In this study, our research model is based on Homer and Kahle's (1988) "value-attitude-behaviour" cognitive hierarchy model, Ajzen and Fishbein's (1975, 1980) theory of reasoned action (TRA), as well as their theory of planned behaviour (TPB) (Ajzen, 1991) which is an extended model of the TRA. This study is trying to figure out the relationship between consumers' perceived values, their attitude, and their buying intention towards OFDs in Norway, as well as the influence of their important ones, i.e., the social norm, and their perceived behavioural control of their consumption practices when they order food online through a PtC OFDs platform.

Consumers are willing to spend time and money on a product or service based on how they perceive the benefits and utility which they can get from using it, and this concept is the perceived value (Kim et al., 2012), which may help to drive the consumers in making any purchase decision. Since companies can nurture the purchase intention of different consumers through understanding the perceived value, it will be important for marketing managers to understand it (Zhuang et al., 2010), for example, consumers who are willing to purchase environmentally friendly products, in most of the time, it means they are concerned about the environment (Yaacob & Zakaria, 2011).

Perceived value can act as a signal of consumer judgment and a crucial antecedent of attitude and buying intention, during an essential intermediate state in the consumer purchasing process (Mahesh, 2013). According to Tan and Goh (2018), the higher the perceived value of environmentally friendly products or services, the more likely consumers are going to buy them. As such, this study examines the three major value perceptions of consumers, which are 1) utilitarian, 2) hedonic and 3) symbolic value, of the OFDs in Norway. As mentioned in section 2.2, one of the key players has positioned themselves to be more sustainable in the country thus we argue that there should be three major value perceptions of young consumers toward OFDs in Norway, which can affect their attitude. Besides, consumers' buying

behaviour from a sustainable brand can be well explained by the TRA and the TPB models. Based on a multi-attribute mode, TRA can shield insight into how consumers will act according to their behavioural intentions, as long as their actions are being aware and are controllable (Fishbein & Ajzen, 1975). According to Fishbein and Ajzen (1975), the consumer behavioural intentions can be explained by some factors of the TRA model, which are related either to the attitude or to social norms. In addition, the TPB theory explains how consumers' behaviours changed when they do not have complete volitional control due to some additional factors, and this is termed the "behavioural control" in the theory (Ajzen, 1991).

This section will look at how factors, which are related to value perceptions, attitude, social norms and behavioural control, influence the intention of young generations in Norway to order food from the popular PtC OFDs platforms. Utilitarian, hedonic, and symbolic value perceptions being created from the benefits of using the online food delivery services will be described and explained for how they can influence the attitude of consumers.

There are few studies that combine TPB, utilitarian value, and hedonic value to examine OFDs; as a consequence, utilitarian value and hedonic value must be included in this study. Additionally, as mentioned in section 1.2, consumers in Norway have put a heavyweight on sustainability, thus the symbolic value that can be potentially generated by the social and environmental sustainability policies of the OFDs key players in Norway, will be an additional aspect added to the present two values for our study.

4.1 Traditional product benefits of OFDs

According to Hooley and Saunders (1993), instead of being more interested in the attributes or technical features, the benefits which a customer can get from buying, using or consuming a product or a service, will be more important to impact the buying behaviour of a customer.

In the research of Lai (1995), the study proposed eight generic benefits that a consumer can get from the consumption or utilization of a product or a service, and they are functional, hedonic, social, affective, epistemic, aesthetic, situational and holistic benefits. Depending on the nature of the products or services, some will only offer a single benefit to consumers, while other may be able to offer several benefits at a time. In the context of the OFDs, according to previous

studies, functional and hedonic are the major benefits associated with this particular service industry.

4.1.1 Functional Benefits

As per Sheth et al. (1991), the functional benefit is defined as the perceived benefit derived from an individual's capacity for functional, utilitarian, or physical performance. When a consumer use, consumes or utilizes a product or a service, he or she may experience the functional benefit directly from the concrete product attribute (Sheth et al, 1991). It may also include the perceived usefulness that customers obtain from the attributes and performance of a product or service offering. In food-related findings, functional benefits have traditionally been used to signify reasonable pricing, health, and safety (Kim & Eves, 2012; Perrea et al., 2015). As per previous research (Dospinescu et al, 2020; Chen et al. 2020; Hwang & Kim, 2020), functional benefits derived from OFDs can be examined by the ease of use, efficiency, reasonable price of food, safety, and range of food selection. According to Pigatto et al. (2017), consumers of OFDs are interested in the electronic services provided by delivery companies in terms of functionality and ease of use regarding orders, payment, and order processing. Besides, Bolton and Lemon (1999) also found out that pricing is a crucial factor that influences consumers' opinions of services, and it will also impact customer experience levels (Bolton & Lemon, 1999; Shankar et al., 2001; Voss et al., 1998). Furthermore, the functional characteristic is influenced by the perceived value for money and benefits those consumers receive from purchasing relatively affordable food (Yeo et al., 2017) via the PtC OFDs platforms.

4.1.2 Hedonic Benefits

As per Lai (1995), hedonic benefits refer to the capacity of a product or a service that meets the consumer's need for enjoyment, fun, pleasure, or distraction from work. This is a critical aspect of many products or services offerings as consumers sometimes look for "non-serious" benefits as they just want to relax or be distracted (Olshavsky & Granbois, 1979).

Consumers' preferences and hedonic motives associated with information systems through applications have become essential factors in service businesses, according to previous studies (Morosan & DeFranco, 2019), thus it should also apply to OFDs where consumers usually order food through apps. Hedonic benefits can be feelings generated by consumption experiences (Sheth et al, 1991). To offer these benefits, it will involve maintaining service

quality, dependability, and efficiency in order to improve customers' purchasing experiences and build positive future customer encounters. Based on previous research on the hedonic benefits of OFDs (Chen et al. 2020; Hwang & Kim, 2020), this study will also focus on the fun, enjoyment, happiness, entertainment, and excitement as created by the services. These benefits impacted the overall shopping experience of using OFDs. The performance of service benefits of OFDs may be seen because of a customer's shopping experience with application services, just as it can be seen in other types of corporate performance (Elvandari et al., 2017). In addition, consumer happiness is significantly connected to the OFDs industry, according to research (Suhartanto et al., 2019; Yeo et al., 2017).

Although previous studies only examined the functional and hedonic benefits which can be retrieved from the utilization of OFDs, as mentioned in the introduction section, given the high awareness of sustainability and its stressed importance from both consumers and businesses in Norway, we tend to believe that social benefits, which will potentially create symbolic value, will also be an essential factor in studying consumer behaviour in this specific service industry. More discussion will be presented in the following sections.

4.2 The three major value perceptions influencing attitude

The perceived value of a product or service to consumers is a critical aspect in all marketing initiatives (Holbrook, 1994), and it is also the overall judgement of the trade-off of products or services' price and quality offered. (Zeithaml, 1988). Talking about industries providing services, a person's value perception is elicited during and after their interaction with a focal point or service. (Babin & Attaway, 2000). During the consumption experience, value perceptions involve both cost-benefit analysis (which is objective) and subjective analysis perceived (Bloch & Bruce, 1984). In other ways, the more objective utilitarian value judgments may be distinguished from the more subjective hedonic value, whilst it is possible to connect symbolic value to the beneficial consequence of more sustainable consumption as part of the prosocial movement. (Keeble, 2013; Management Study Guide, n.d.)

Furthermore, according to Homer and Kahle's (1988) cognitive hierarchy model, value, and attitude, which are two distinct cognition aspects, occur in a hierarchical sequence, from more abstract (e.g., value) to more concrete (e.g., attitude). Applying this model to this study, it is arguable that the three major value perceptions related to OFDs consumption should influence consumers' attitude. Keeble's study (2013), which is quite similar to Homer's model, also

concluded that, for younger generations who are aware of the importance of sustainable consumerism and are involved in such activities, thus symbolic value should also be on top of the two major types of value perceptions: the utilitarian and hedonic (Keeble, 2013), for a brand which has practicing sustainability policies and makes them transparency to their target customers.

4.2.1 Utilitarian value and Hedonic value

The functional and hedonic benefits of OFDs, have been discussed in section 4.1, which should result in utilitarian and hedonic values, respectively. When it comes to paying for products and services, most customers are more concerned with utilitarian and hedonic values as a basic, which impact their attitude and behavioural intentions (Babin & Attaway, 2000). In prior studies, utilitarian and hedonic values were found to be important drivers of online purchasing behaviour. (Childers et al., 2002; Chiu et al., 2012; Van Der Heijden, 2004; Jones et al., 2006; To et al., 2007; Gupta & Kim, 2009). Purchase decisions can be decided more subjectively, according to Babin et al. (1994), because utilitarian value is generated from the previous purchase experience of consumers. While hedonic value, as per Yeo et al. (2017, as referred by Chen et al., 2020), it also has a substantial impact on the behavioural intention to utilize OFDs. Moreover, consumers' continuous usage of mobile phones or tablets to book accommodations when travelling can also be influenced by hedonic and utilitarian values, according to Ozturk et al. (2016, as referred by Chen et al., 2020), in which the same outcome may also apply to OFDs as smart phones, tablets and computers are also the main touchpoints in the consumer journey.

It is arguable that task-related, functional, or objective benefits of consumer experiences can be defined as utilitarian value. Consumers are often interested in purchasing items and services in a timely and effective manner, and with little complexity or discomfort in the process of achieving their intended goal. At the same time, justifying economic value is critical for customers' ethical behavior (for example, people desire both reduced pricing and ethical features represented in products/services) (Eckhardt et al., 2010). Crowley et al. (1992) examined twenty-four product categories and concluded that the drivers of utilitarian value were "useful," "beneficial," "wise," and "valuable." Aside from cost-savings, convenience, a wide range of alternatives, and information accessibility, all of these factors contribute to the

utilitarian value of internet purchasing (To et al., 2007). The utilitarian value of OFDs, according to Yeo et al. (2017), has a significant influence on consumers' motivation and attitude to use them. Consumers' attitudes and intention to use OFDs platforms are impacted by ease of use, according to Ray et al. (2019). Based on the outcomes of prior studies, it is clear that the utilitarian value of consumers is extremely important and therefore should be incorporated in this study framework, as its influence on customers' attitudes, and thus buying intention, towards OFDs.

The multisensory and emotional elements of buying experience deliver hedonic value, as consumers crave fun, enjoyment, and entertainment in their buying experiences. (Babin et al., 1994; Childers et al., 2002; Holbrook & Hirschman, 1982; Holbrook, 1994). Talking about Hedonic value, it is more personal and subjective than utilitarian and functional value (Babin & Attaway, 2000; Holbrook & Hirschman, 1982). Its primary focus is not just on acquiring a product or service, or accomplishing tasks, but also on the pleasure experienced during the purchasing process. Hirschman and Holbrook (1982) also concluded that more value may be derived from the enjoyment and interest during the shopping time of a consumer.

Dedeoglu et al. (2018) define hedonic value as an important gain from emotional and entertaining feelings from a service or product. Hedonic sentiments include pleasant, lovely, and pleasurable feelings, according to Batra and Ahtola (1991). Nice, cheerful, agreeable, and pleasant are the perspectives of hedonic value, according to Crowley et al. (1992). Furthermore, among the twelve qualities of hedonic value described by Voss et al. (2003) are fun, excitement, pleasant, exhilarating, and enjoyable. Customers can earn hedonic value by evaluating if the whole shopping experience was delightful and enjoyable, whether it helped them forget about their stress, and how much time they spent engaging in the buying experience after using online shopping platforms. (Jones et al., 2006; Arnold & Reynolds, 2003; Hoffman & Novak, 1996). Hedonic value has a substantial influence on consumers' contentment with e-commerce portals, as well as their intention to repurchase in the future (Alalwan, 2020). According to Yeo et al. (2017), hedonic value has a positive impact on purchase intention for OFDs, while Ozkara et al. (2017) and Childers et al. (2002) also discovered that hedonic value has a strong favourable influence on the purchase intentions of consumers while they are shopping on the internet. As

per all these previous research, hedonic value has a considerable impact on customers' online attitudes and behaviour.

As a result, consumers gain immediately from utilitarian and hedonic value, which are the most significant advantages of OFDs over the traditional physical food delivery (Chen et al., 2020). First and foremost, the convenience and efficiency of placing a food delivery order are critical; this is why PtC OFDs platforms were created in the industry, and it is the most distinct from a traditional food delivery service (Chen et al., 2020). Second, the hedonic value of OFDs is an added benefit. If the purchasing experience of a customer is positive, they will return to the platform when they need a delicious meal. There are other studies that apply utilitarian, hedonic, or combined utilitarian and hedonic values to explore consumers' intention to use OFDs or to discuss consumer behaviour of online purchasing. Avcilar and Ozsoy (2015), who used both perceived utilitarian value and hedonic value to discuss online purchasing intentions. To analyse the elements that may impact customers' purchase intentions in online shopping, Pahnla and Warsta (2010) utilized utilitarian value, hedonic value, as well as social factors and habits, in order to figure out the variables which can influence buying intentions of consumers when they do the purchase on the internet. Yeo et al. (2017) also utilized hedonic value but not utilitarian value to examine the intention of utilizing OFDs. As a result, it is making sense to include utilitarian and hedonic values, which are two very influential factors, into this study, and the below two hypotheses are formulated:

H1: The utilitarian value has a significant positive impact on consumers' attitude toward the online food delivery services

H2: The hedonic value has a significant positive impact on consumers' attitude toward the online food delivery services

4.2.2 Symbolic value

Empathetic or social values are linked to symbolic value, which is based on consumers' increasing awareness of the importance of sustainability issues in consumption (e.g., the consequences of consuming things like food and energy, the importance of reducing potential harms to the environment, the need for recycling resources and the benefits of purchasing

environmentally friendly products or services) (Greendex, 2014). Previous studies have some similar findings on the symbolic value, for example, Solomon (1983) considers products or services to be role-fulfilling stimuli rather than just functional solutions to needs, while Koller et al. (2011) discovers social factors are closely linked to an individual's self-perception. In this way, customers may use sustainable products/services, or products/services from a sustainable company, to express their self-concept in front of a public audience. Consumption of sustainable products and services, according to Lin et al. (2017), tends to meet customers' needs for social acceptance and approval, as well as address their outer-directed self-esteem. Besides, symbolic interaction can be explained by consumers' selection as image management for self as well as for others, and they can use the symbolic interaction to show what kind of person they are (Lee, 1990). The study concluded that, on the one hand, if the consumption of a product is more visible or public, consumers will be more conscious about their selection. On the other hand, the more private the consumption, the more the consumer is concerned about a product's functional aspects. This study of Lee (1990) may be relevant to OFDs in Norway because when the rider who wears the uniform of the company delivers the food from the restaurant to the consumers, and also when the consumers are eating the food with the company's paper bags or packaging, these may be visible to people who are around and close to the consumer. Besides, since PtC OFDs are becoming more and more popular in Norway, we argued that discussion about food and services quality as well as the issues about sustainability will be possible amongst friends and different social groups. Thus, a better self-image may be projected if one says that he or she will only use an OFDs company which has better policies in tackling sustainability issues.

In addition, sustainability is an up-and-coming trend because there is a widespread belief in society that environmental challenges must be addressed (Koller et al., 2011). According to Yoo et al. (2013), as referred by Rizkalla & Setiadi, (2020), buying a socially responsible product or service is a representation of the symbolic affiliation for some consumers. Using sustainable goods or services can also show a person's prosocial and readiness to bear expenses for the benefit of others, a behaviour that can have a signalling impact if the costs result in third-party advantages linked to good acts (Bliege Bird & Smith, 2005). In addition, by buying sustainable products or purchasing products/services from a company that stressed more on

sustainability, a socially visible image of better citizenship and a nice neighbourhood will be projected by consumers, and they may enjoy fulfilment by receiving others' admiration (Ng et al., 2018).

As a result, OFDs in Norway may conduct their sustainability policies through business strategy and management of food delivery resources and backend operations to communicate with consumers in an ethical, responsible and. transparency manner in order to create symbolic value for consumers (Lever & Evans, 2016). Green and Peloza (2011) stated that the sustainability policies of a company have a positive effect on consumer perceived value, which is debatable that it is the perceived symbolic value. When consumers see the corporation's ethics and CSR, it improves the relationship with the consumers; in the meantime, when consumers view the firm's performance with justice, they will develop a positive image and reputation for the corporation, which will impact their consumption intention. (Chang, 2017). Many studies show that perceived value has a positive effect on purchase intentions (e.g., Zhang et al., 2015; Zhao et al., 2017). As a result, it can be debatable that such perceived value as derived from the sustainability policies of OFDs companies will be of a symbolic value to their customers. With such a symbolic dimension, it can be a strong driver of purchase intention, across various product categories, as concluded by Homburg et al. (2015). More research have concluded something similar about the relationship between symbolic value, customers' attitude, and their behaviours, for examples, Baek and Ok (2017) emphasizes that symbolism will be beneficial in the emotions and attitudes of consumers on the websites of different hotels and accommodations, whereas Candi et al. (2017) highlights the role of symbolic product in increasing customer attitude in the context of customer's reviews which they made online. Besides, according to Wigley (2008), disclosing information about sustainability policies or events has a considerable impact on consumer attitudes and buying intentions. Because of these, the third hypothesis is created as per below.

H3: The symbolic value has a significant positive impact on consumers' attitude toward the online food delivery services

4.3 Theory of Reasoned Action and Theory of Planned Behaviour

Scholars and researchers frequently analyse behavioural intentions, which are direct indicators of actual behaviour, in order to better understand how a consumer would act (Fishbein & Ajzen, 1975; Ajzen & Fishbein, 1980; Wang & Tsai, 2014; Rausch & Kopplin, 2021). Behavioural intention has been described by Fishbein and Ajzen (1975) as ‘the subjective likelihood of performing a particular behaviour’ (p.12). Intentions represent behavioural motivating elements and show how much effort people are willing to put to achieve a specific behaviour. According to the TRA, a person's intentions are impacted by his/her perceived subjective norms and attitude towards a behaviour. Purchase is a type of behaviour that the TRA might very well be used to explain. Purchase intention is also defined by Wang and Tsai (2014) as ‘the likelihood that a customer will buy a particular product’ (p.29).

In circumstances where people lack total volitional control, however, the intention to conduct a behaviour does not end up with the execution of that behaviour. Different situational constraints can hinder a person from doing the desired behaviour, hence there is a known gap between intention and behaviour (Hoyer et al., 2013). One example can be, a woman buys a less expensive handbag at the end, even though she may want to purchase one from a luxury brand because she does not have enough money. Ajzen (1991) acknowledged this gap between intentional behaviour and actual behaviour; thus “behavioural control” is added to the TRA model so as to overcome this limitation, and this extended model of the TRA is the famous TPB model.

For simple explanation of the model, the TPB argues that behaviour is a consequence of (1) relevant information, or beliefs about the behaviour and (2) assessment of these specific beliefs (Ajzen, 1991; Hoyer et al., 2013). Three general types of salient beliefs are distinguished among many beliefs that each person can hold about any given behavior: behavioural beliefs that influence attitudes toward behaviour, normative beliefs that shape perceptions of subjective norms, and control beliefs that provide the basis for perceptions of behavioural control (Ajzen, 1991).

Although to close the potential gap between intention and actual behaviour, perceived behavioural control is added to the model of the TRA, however in reality, actual behaviour of consumers is still not 100% predicted. For example, as per Kollmuss & Agyeman (2002), some consumers may act like they have a pro-environmental attitude and intention, especially when they are doing survey, but turn out they may not really carry out the sustainable purchase. This is one of the common biases in research which is called the “Social Desirability bias” and we will explain it a bit more in the later section of this study.

Thus, in order to understand factors which will affect the purchase intention of consumers so as to educate them to purchase from sustainable brands or from companies that care more about sustainability, it is especially important for marketing specialists to have a deeper knowledge of TRA and TPB models.

4.3.1 Consumer’s attitude can influence behavioural intention

According to Fishbein and Ajzen (1975), attitude will be one of the major factors in affecting the behavioural intention of a person. Definition from Hoyer et al. (2013) of attitude is that “an overall evaluation that expresses how much we like or dislike an object, issue, person, or action” (Hoyer et al., 2013, p.122). As a result, a consumer's attitude is based on their perception that a product or service has an attribute that allows it to perform a certain task, as well as their emotional assessment of that attribute. (Fishbein & Ajzen, 1975; Keller, 1993). Based on these, it could be understandable that consumers are having different attitudes towards different brands, products, services, marketing activities, etc. In addition, as attitude guides consumers’ thoughts and feelings, it is an essential component in affecting one’s behaviour (Hoyer et al., 2013). Moreover, as per Ajzen (1991), there can be four elements of attitude: knowledge, intentions, emotions, and values, thus it is arguable that when the three major values as created by a product/service’s benefits (which are mentioned in section 4.2) are perceived by a consumer as high, the satisfaction as derived from the product/service will also be higher, thus leading to a more positive attitude towards a specific behaviour intention.

According to Schiffman and Kanuk (2010), purchase intention is described as the transaction behaviour displayed after evaluating the goods and services by customers. Previous studies,

like Michaelidou and Hassan (2008) and Paul et al. (2016), also concluded that attitude of a consumer is impactful on purchase intentions of food-related or sustainable products, and the relationship between attitude and behavioural intention is positively related, i.e., the more positive the attitude, the stronger the intention (Arli et al., 2018). Examples can be, on the environmental aspect of the sustainability, quite a lot of studies have found that when investigating the relationship between environmentally friendly products and the respective behaviours, a positive attitude will always impact the green purchase intention positively (Wang et al., 2016). The same conclusion was also made by Chen and Tung (2014), Teng et al. (2015) and Wang et al. (2019), while their studies were about environmentally friendly and ethical hotels, and organic food. However, Day et al. (1979) reminds that, even with the same product/service attributes, attitudes of consumers can still be different in different situations and markets, thus it is essential to fix a specific cultural and product context, in order to study the relevant consumers' attitudes.

Attitudes can affect behavioural intention of a consumer, for example, according to Paul et al. (2016), attitude to “green” food can have a significant effect on purchase intentions. For online food delivery services in Norway, customers will form an attitude after they have a thoughtful evaluation on the experience of using the relevant service based on the three major value perceptions in the section 4.2, and if the evaluation is more positive, the attitude will be positive too and vice versa (Schiffman & Kanuk, 2010; Belanche et al., 2020a). With a more positive attitude towards a particular online food delivery service, customers should have a stronger intention to use the same company during their next purchase (Belanche et al., 2020a). Therefore, we hypothesize the following:

H4: Attitude positively influences consumers' behavioural intention towards the online food delivery services

4.3.2 Consumer's subjective norms can influence behavioural intention

According to Fishbein and Ajzen (1975), the definition of the subjective norms (or social norms) will be: “the person's perception that most people who are important to him think he should or should not perform the behaviour in question” (Fishbein and Ajzen, 1975, p. 302),

thus it is another important factor in the TRA and TPB models which can impact the purchase intention.

Subjective norms take into consideration the fact that people are influenced by their social circles, and to put it another way, one's intention to purchase a product or service is influenced not just by one's own attitudes about such behaviour, but also by the opinions of important others around him or her, thus subjective norms are driven by a person's normative beliefs and motivation to comply with them (Aizen, 1991). According to Aizen (1991), the subjective norms will have a stronger effect in influencing behavioural intention, as long as there is a stronger pressure from the social circles around a particular person. It shows how individuals are influenced in society, i.e., how their reference group will form an image of him or her if they engage in specific behaviours, thus this social pressure will impact a particular person to conduct a particular behaviour or not (Ajzen, 1991).

According to past studies, due to social pressure from important ones or there is guidance/advice on good or appropriate behaviours in society from them, people will tend to comply with the subjective norms. For example, Yeon Kim and Chung (2011) concluded that consumers tend to have a bigger intention to buy sustainable skincare products, if their important family and friends around them thought those products were good and worth buying. There is also a study on university students about sustainable apparels, which are more “green” and the company also taking procedures to ensure the benefits of others in the society, with a result of subjective norm having a positive effect on the sustainability purchase intention of consumers, i.e., they will purchase from such a sustainable clothing brand once they know that their “important ones” also agree with such a product (Bong Ko & Jin, 2017).

As a result, in the case of OFDs, it is worth noting that their phenomenal expansion in recent years (Statista, n.d.; Research and Market, n.d.) cannot be explained without accounting for the extraordinary explosion of consumer awareness about them (Hwang et al., 2019), and this is debatable that the subjective norms have taken a part of it. Based on the aforementioned factors in this section, consumers tend to adopt the views of their social circle (especially those who are important) into their own beliefs; for example, if a family member said that choosing a sustainable OFDs is important, that consumer may believe it as well (Liao et al., 2007). One's

subjective norms in determining whether or not to use online OFDs are likely to be influenced by society's favourable opinion of these business models with more sustainable practices, which leads to their widespread use among relevant groups (Belanche et al., 2020a).

In addition, the importance of subjective norms in the TRA/TPB models is also being supported by the theory of “Social construction” from Berger and Luckmann (1966), which stated that social realities are developed and sustained in social interaction. People tend to interpret objective facts guided by a common understanding, practices, conceptual framework, etc. through which describing and explaining the world, and these interpretations will need to be approved by the majority or by important relevant groups before they can be officially established and forms social realities. The three stages of the social construction will be 1) externalization, means humans explains meaning both mentally and physically to their reality (such as other people around) by using languages, 2) objectification, in which more subjective meanings and ideas were “harden” and reality then becomes more established and 3) internalization, which described the process of accepting the external and objective world as part of a person’s internal and subjective values.

As a result, we argue that the importance of the subjective norms will also apply to the situation in Norway in the OFDs industry. There may be possibility that, when the social circles or relevant groups of a particular consumer recognize and approve the sustainable player in the industry as focusing more on saving the environment as well as being good to the society, they would tend to have more intention to use their services when they try to order food online. Thus, below is hypothesized:

H5: Subjective norm positively influences consumers’ behavioural intention towards the online food delivery services

4.3.3 Perceived behavioural control

The last important component in the TPB, is the “perceived behavioural control”, and according to Ajzen (1991), it refers to an individual’s judgement of their ability to perform a specific behaviour. Opportunities and resources of an individual, such as money, time, knowledge, skill sets, environmental barriers, etc., will affect the behaviour’s real performance

(Ajzen, 1991). These factors about opportunities and resources reflect people's genuine control over their behaviours. In addition, according to Fishbein and Ajzen (2010), there should be an increased likelihood for an individual of carrying out a behaviour if the intention is stronger. However, with a low actual behavioural control (such as lacking important skills or lacking of control over environmental barriers), a specific individual may end up not performing his or her intention.

Although actual and perceived behavioural control are not the same, the actual behaviour of an individual will be influenced more by the latter one (Ajzen, 1991). According to different scholars, the definition of perceived behavioural control can be “judgments of how well one can execute courses of action required to deal with prospective situations” (Bandura, 1982, p.122, as referred by Ajzen 1991). Thus, whether people have confidence in their ability to carry out a task or behaviour should impact their actual behaviour. While making purchase decisions with the presence of some external factors, higher perceived behavioural control can be observed if the consumers are having better opportunities and more resources. According to Ajzen (1991), attitudes and social norms of the TPB model will indirectly affect the actual behaviour through behavioural intention, in turn, the perceived behavioural control could also be the direct predictor of both behavioural intention and actual behaviour. Since the scope of our study is only up to the behavioural intention in the TPB, factors in relating to actual behavioural control and actual behaviours will not be examined.

As a result, it is the level of control that one senses over the behaviour's execution. For instance, consumers are more ready to buy from a sustainable brand when they believe they can manage these uncontrolled external elements (e.g., higher price, convenience and easy to get the products or services, etc.), according to previous research (Xu et al., 2020). In the TPB model (Ajzen, 1991), the motivational aspect of the purchase decision process will kind of determine the attitudes and subjective norms, and the perceived behavioural control will in turn show one's perceived abilities to carry out the action.

Talking about the OFDs, the two common touchpoints for consumers to order food are the apps or the website. Although these websites or apps platforms tend to be quite simple to use and manage (Teo & Lee, 2010), consumers will only keep using and suggest these platforms to

others, if they have the feeling that they have got the control over using them (Liao et al, 2007). If a customer decides to utilize a food delivery app, knowing whether he or she has control over the app and its delivery systems can often increase the likelihood of using the services. According to Belanche et al.(2020a), certain population groups will be easier to adopt. In fact, adoption of this behaviour is frequently linked to challenges that are more prevalent in particular demographic groups. Thus, we argue that older people who will not be so familiar with technology will probably have bigger barriers to using OFDs in comparison to younger generations. Because of this, we believe that both Millennials and Gen-Z in this study will be able to manage the digital platforms of the OFDs without any difficulty. Instead, as mentioned previously in this section, cost or money should be a critical resource that will affect the perceived behavioural control of a consumer. In this study about OFDs in Norway, we argue that if the delivery charge of a sustainable player is a lot higher than other major competitors in the industry, consumers may not use their services despite the fact they appear to be more sustainable in the industry.

4.3.4 Possible interactions between the attitude, subject norms and PBC

According to the previous studies (Eagly & Chaiken, 1993; Bansal & Taylor, 2002; Barua, 2013; Yzer, 2007), there can be interactions between “attitude”, “subjective norm” and “perceived behavioural control”, thus having a combined effect on the behavioural intention. These studies figured out that, besides its major impact on the behavioural intention, the PBC can be a potential moderator between behavioural intention and attitude or the subjective norm in the TPB construct. Although in the TRA approach, it is normal for one to expect independent and direct relationships between attitudes and subjective norms to intention, studies concluded that PBC can impact both attitudes and subjective norms, for example, if an individual perceived they can carry out their attitudinal or normative beliefs, there will be a higher chance for one to form an intention, and vice versa as actual behaviour seems not so possible if there is low PBC. Moreover, several previous research also found that, with high PBC, the strength of the relationship between attitude and subject norms in terms of predicting behavioural intention was improved. (Yzer, 2007)

Thus, in the content of the OFDs, it may be possible that, consumers who have higher income or who are more skilful in managing technology, will be more likely to have a favourable intention to purchase food online via the OFDs app or website, as long as they also have a positive attitude as well as norms to form positive intention to purchase at the same time.

4.3.5 Other Control Variables

Besides, the “Delivery cost” as a perceived behavioural control in this study, we would also like to include “Customer satisfaction” and “Past purchase experience” as another two control variables in the model. They are frequently being discussed in other previous research and are also suitable to be applied to this study of the OFDs industry in Norway.

Customer satisfaction refers to a consumer's overall impression or perception of a company, (Anderson et al., 2004). Customer satisfaction can result in loyalty (Bolton & Drew, 1991), willingness to pay a premium price (Homburg et al., 2005), and favourable word-of-mouth referrals (Szymanski & Henard, 2001). As a result, this should be control in this study for it can impact the purchase intention of OFDs.

While for the “Past purchase experience,” is closely related to purchase frequency, which can be defined as the number of times a customer buys a product or a service in a given period of time. It is also proven to influence purchase behaviour as it helps to reflect customers’ engagement (Bagozzi & Warshaw, 1990). Therefore, it will also be controlled in this study.

In addition, socio-demographic factors like age, gender and income are usually being tested and concluded to impact the purchase behaviour of sustainable consumption (Valaei & Nikhashemi, 2017; ČAter & Serafimova, 2019), thus they will also be the control variables in this study.

5. Research Model

Based on the literature review of the previous section, the research model is generated as per below:

1. The three major value perceptions (utilitarian, hedonic and symbolic) will influence the attitude of a consumer towards the OFDs in Norway. The higher the value perceptions

created to the consumer, the more satisfied they will be with the services, and thus a more positive attitude will be generated.

2. The more favourable the attitude and subjective norms towards the OFDs in Norway, the stronger should be an intention to purchase. However, the relative importance of these factors can vary across different situations (Ajzen, 1991).

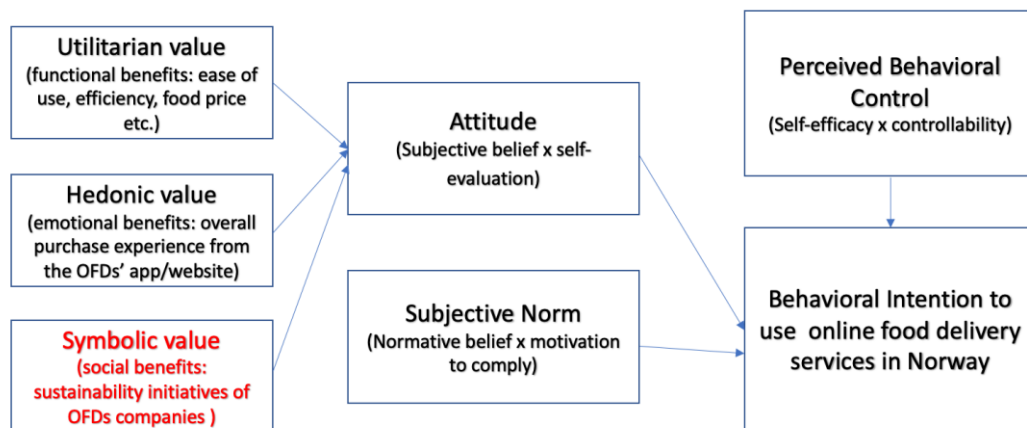


Figure 3: The research model: OFDs in Norway

6. Research Methodology

To address the hypotheses as developed in the previous section, a deductive way should be used, and quantitative data should be collected. For this study, a questionnaire was designed to investigate the behaviour of Millennials and Gen Z in using the OFDs in Norway, as doing a survey allows the same set of questions was asked to every single respondent. It is an effective way to collect structured data from a big pool of samples before quantitative analysis (Saunders et al., 2016). Besides, making use of a survey is cost-effective but at the same time, it allows appropriate control over the process of research even though this study is collecting certain volume of data from the target audiences. It will also allow a more reliable comparison between the findings of this study and the findings of previously established literature (Saunders et al., 2016).

The questionnaire of this study was developed in English as we believe that young generations in Norway have particularly good English skills in general. Together with the link to the online survey, which was developed by Qualtrics, a brief explanation about the scope of this study, the estimated time to finish the survey, as well as the name of the researchers, were sent to the

potential respondents. A message about the guaranteed anonymity of the survey was also included in the invitation email.

The main construct of the questionnaire will have 30 questions and the table below shows the distribution:

Table 1: No. of questions for each variable

Variables	No. of questions
Part 1 – Major Value perceptions	
Utilitarian Value	5
Hedonic Value	5
Symbolic Value – Environmental	4
Symbolic Value – Social	4
Part 2 – Theory of Planned Behaviour	
Attitude	3
Subjective Norm	3
Perceived Behavioural Control – Delivery Cost	1
Other Control Variable – Past Purchase Experience	1
Other Control Variable – Customer Satisfaction	1
Purchase intention	3

Following this main construct of the questionnaire, the respondent was asked to answer some basic socio-demographic questions (e.g., Age, gender, income) at the end.

6.1 Measures

Except for the control variables, all the questions in the main construct of the questionnaire used a seven-point Likert scale which required the respondents to measure their responses or preferences from totally disagree (1) to totally agree (7). This is because, to obtain high accuracy of the collected data, Johns (2010) recommended either the five or seven-point Likert scale as the optimal measurement as having an odd number of selections would be easier to get a neutral response from the respondent. By giving a higher score of preference, it means a

particular respondent is having a higher evaluation of a particular attribute. For the variables of the perceived behavioural control as well as other control variables like age and gender, they were in a mono-operationalized scale.

The questionnaire's components are all based on relevant literature, ensuring good validity and reliability. As mentioned in the previous section, there were three parts to the questionnaire:

- Part 1 included items about the major value perceptions as generated by OFDs in Norway.
- Part 2 included items about the TPB.
- Part 3 would be items related to the basic information from the respondent.

The tables below summarises the existing literature on which the questionnaire was based:

Table 2: Question wordings based on existing literature for the variables in the model (Part 1)

Variables	Items	Questions	Reference
Part 1 – Value perceptions			
Utilitarian Value	UtiVal_1 UtiVal_2 UtiVal_3 UtiVal_4 UtiVal_5	- The “chosen OFDs” provides an easy way for me to order food online. - The “chosen OFDs” is efficient. - The food of the “chosen OFDs” is reasonably priced. - The “chosen OFDs” has a wide range of food selections. - Using the “chosen OFDs” to order food online is safe.	Dospinescu et al. (2020) Chen et al. (2020) Hwang & Kim (2020)
Hedonic Value	HedVal_1 HedVal_2 HedVal_3 HedVal_4 HedVal_5	- Using the “chosen OFDs” is fun to me. - Using the “chosen OFDs” to order food online brings enjoyment to me. - Using the “chosen OFDs” to order food online makes me happy. - Using the “chosen OFDs” to order food online is entertaining to me. - Using the “chosen OFDs” to order food online is exciting to me	Chen et al. (2020) Hwang & Kim (2020)
Symbolic Value – Environmental Aspect	SymVal_EN1 SymVal_EN2 SymVal_EN3 SymVal_EN4	- By using the “chosen OFDs”, I feel I behave in a responsible way towards the environment. - By using the “chosen OFDs”, I demonstrate to my friends that I care about environmental conservation. - By using the “chosen OFDs”, my friends perceive me to be concerned about the environment. - By using the “chosen OFDs”, it makes me feel smart as I can help the to preserve the environment.	Lin & Leckie (2017)
Symbolic Value – Social Aspect	SymVal_SO1 SymVal_SO2 SymVal_SO3 SymVal_SO4	- By using the “chosen OFDs”, I feel I behave in a responsible way for other people in the society. - By using the “chosen OFDs”, my friends and family perceive me to be concerned about other people’s welfare in the society. - By using the “chosen OFDs”, I demonstrate to my friends and family that I care about the welfare of other people in the society. - By using the “chosen OFDs” it makes me feel smart as I can help the welfare of other people in the society.	Hasanzade et al. (2018) Lin & Leckie (2017)

Table 3: Question wordings based on existing literature for all the variables in the model (Part 2)

Variables	Items	Questions	Reference
Part 2 – Theory of Planned Behaviour			
Attitude	ATT_1 ATT_2 ATT_3	- Ordering food online from the “chosen OFDs” is positive to me. - Ordering food online from the “chosen OFDs” is beneficial to me. - Ordering food online from the “chosen OFDs” is attractive to me.	Song et al. (2021)
Subjective Norm	SUB_1 SUB_2 SUB_3	- My family thinks I should use the “chosen OFDs” rather than other competitors. - My friends thinks I should use the “chosen OFDs” rather than other competitors. - My colleagues thinks I should use the “chosen OFDs” rather than other competitors.	Belanche et al. (2020b)
Perceived Behavioural Control – Delivery Cost	Delivery Cost	- I am willing to order food from the “chosen OFDs”, even though their delivery cost were somewhat higher than it is today.	Chang & Watchravesringkan (2018)
Other Control Variable – Past Purchase Experience	Past Purchase Experience	- During the last six months, how many times did you order from the “chosen OFDs” online PER MONTH in average?	Bagozzi and Warshaw (1990)
Other Control – Customer Satisfaction	Customer Satisfaction	- I am satisfied with the overall experience of the “chosen OFDs”.	Homburg (2005)
Purchase intention	PI_1 PI_2 PI_3	- I will use the “chosen OFDs” when ordering food online. - I am willing to use the “chosen OFDs” when ordering food online. - I likely to use the “chosen OFDs” when ordering food online.	Hwang and Kim (2020)

6.2 Method bias in designing the questionnaire

When designing the questionnaire, we understood there are opportunities for a respondent to be biased (Podsakoff, 2003). There are different kinds of method bias when designing the questionnaire for research which can affect the result, however, we took some measures to reduce them. The first thing we did was to develop our questionnaire based on validated scales of past pieces of literature. The second important thing we considered was the language to be used. This questionnaire was developed in English as this is the common language for potential respondents in this study. Besides, we avoided the use of complicated words and tried to use words or phrases with a single meaning. By doing these, method bias which is created by respondents seeking less difficult means to select their responses according to their ability may be avoided (MacKenzie & Podsakoff, 2012).

In addition, this questionnaire asked the respondents to answer questions about their previous shopping experience of OFDs in Norway, thus it might be more challenging for them to recall such experiences than asking them something about the present state (MacKenzie & Podsakoff, 2012). To solve the issue, the questionnaire started with questions about the utilitarian and hedonic values of the OFDs, which should be easier for respondents to answer in comparison with symbolic value, which might be more unfamiliar for them (MacKenzie & Podsakoff, 2012).

Another method bias this questionnaire needed to avoid is called the “social acceptability” or “social desirability” bias, which associates with the respondents normally wanting to give responses that are perceived to be “right” and being desired and accepted socially (MacKenzie & Podsakoff, 2012). To prevent this bias, respondents were told that their responses are fully anonymous, and all the collected data would be kept strictly confidential in the invitation emails and at the beginning of the questionnaire. Besides, “No right or wrong answers” and “the experience of you using the online food delivery services are the only valuable thing this study wants to know” were also highlighted before the respondents started to answer the questionnaire. Moreover, respondents were also told that their participation would be totally voluntary, and it would be fine for them to terminate the survey at whatever time they want. This may also help to increase the response rate as this might help to boost the confidence of potential respondents in answering this questionnaire, thus it would help to increase the reliability of the collected data.

6.3 Pre-test

This study conducted a pre-test before the questionnaire was distributed to the target respondents, so as to make sure that adequate answers, which can represent the reality of what we are going to measure, are collected. Besides, by doing a pre-test, the content validity of the questionnaire can be strengthened. (Saunders et al., 2016).

During the pre-test, the questionnaire was sent out to 12 people who are from our private network to ensure accurate wording and appropriate flow of the questions. The respondents are aged from 19-32 (5 male vs 7 female, 6 Norwegians vs 6 non-Norwegians). During one of the thesis supervisions, we have discussed with our supervisor specifically the below socio-demographic information of the questionnaire:

- 1) Whether potential respondents will have a concern on the question about their age
- 2) Whether potential respondents can understand the term “disposable income”

Therefore, these two questions are asked these two questions particularly during the pre-test. The responses from respondents of the pre-test about the design of the questionnaire can be found in Appendix 5.

Overall, most of the respondents of the pre-test thought the questions are clear and easy to understand. They did not have any concerns in answering the question about age but many of them did not understand what “disposable income” is. As a result, we changed to use the term “discretionary income” and gave a definition to help respondents to answer this question about their income. To prevent misunderstanding, we also changed the sentence structure and wordings of some questions based on the comments of respondents. Some of them mentioned the questionnaire consists of some repetitive questions, but we explained that it was the methodology of measuring the latent variables in our research. In addition, we also checked the estimated time for respondents in completing the questionnaire, so that we could use this as a criterion to delete responses which were finished in an unreasonable short period of time before data analysis.

6.4 Data Collection and Sample

This study uses an online self-reported questionnaire, which was developed by Qualtrics which allows us to save the data file into SPSS format for further data analysis. The questionnaire was sent out by email, and this was the only method in our study to collect primary data.

6.4.1 Sample

An intentional sampling was used and the questions in the questionnaire were set out in a predetermined order. To be a qualified respondent to this online survey, participants were required to be living in Norway for at least six months to make sure that they have enough time to experience the OFDs in this country. They also needed to answer the question *“In the last 6 months, which of the following online food delivery services in Norway did you use the most?”* and they were given four options of *“Foodora”, “Wolt”, “Others (Please specify)”* and *“I did not use any of the online food delivery services.”*. Those who indicated that they did not use

OFDs were disqualified. For those who chose “Foodora” or “Wolt” in this question, they were requested to answer the rest of the questions in the survey according to their experience for that brand. Besides, to classify respondents into “Millennial” or “Generation Z” consumers, we used their age to define them according to section 2.3.

Due to the above requirements, this study distributed the survey to the students at the Norwegian School of Economics NHH by using their school email addresses as given by the NHH. According to the General Data Regulation Procedures, we accounted for the non-disclosure of any personal data thus we handled and distributed the survey with care.

The survey was kept online and active between the period of 2-31 Mar 2022. To get a sufficient number of respondents, we did the below:

1. 1st round – Invitation email to participate in the survey (Appendix 2) sent to 3,371 students at NHH on 2 Mar 2022
2. 2nd round – A reminder email to participate in the survey (Appendix 3) was sent to the same email list of NHH’s students on 10 Mar 2022.
3. 3rd round – A second reminder email to participate in the survey (Appendix 4) was sent to the same email list of NHH’s students on 23 Mar 2022.

6.4.2 Response Rate

Out of the 3,371 potential respondents in the NHH email database, 237 of them took the survey thus the response rate was around 7%. However, out of those who participated, 26 of them only lived in Norway for less than 6 months (11% out of the total respondents) and 62 of them did not use any OFDs in the last 6 months (26% out of the total respondents), thus they were disqualified and could not go through the major parts of the survey. Therefore, we were left with 149 qualified responses. However, out of these qualified respondents, only 127 people completed the whole survey, which means the completion rate was 85%, which was a high rate. This high response rate reflected the respondents’ representativeness, but it should not be the best way to examine the accuracy of the survey results (Nulty, 2008).

7. Data Analysis

In this section we will describe the data analysis process, as well as the statistical methods applied in this study. The findings from the data analysis are discussed. The data gathered will be quantitatively analysed using the statistical analysis tool, IBM SPSS 28 (Statistical Package for the Social Sciences) and SmartPLS 3.0. The following is the data analysis strategy:

1. Descriptive Statistics
2. Confirmatory Factor Analysis (CFA)
3. Hypothesis testing using Structural Equation Modelling (SEM)
4. Comparison study using independent sample t-tests

7.1 Descriptive Statistics

We analysed the descriptive of the dataset using SPSS software. To describe our data set, which is a representation of a sample of a population, descriptive statistics were examined (Hayes, 2022). We collected the data from 237 participants as mentioned in section 6.4.2, however, 110 of them were either disqualified or did not complete the questionnaire. The data of all these respondents were removed from the analysis. We were left with 127 complete responses after structuring the data.

Despite our efforts in the survey questionnaire process, there can be a potential risk of inconsiderate answers from the respondents. These can develop because of factors out of our control, such as lack of respondent engagement or distractions in the surroundings (Meade & Craig, 2012). As a result, in the following step, we evaluated the effectiveness of replies with the objective of detecting such improper responses, which is particularly necessary for surveys produced from internet (Meade & Craig, 2012).

To begin, we identified these responses using a post-hoc response time technique. Therefore, we considered how long it takes to finish the questionnaire (West et al., 2014). Hence, everybody who completed the survey in fewer than 120 seconds was excluded. We didn't observe any respondents finish the survey in less than 120 seconds. In addition, 3 respondents used non-PtC OFDs, these participants were also excluded from further analysis. Finally, we received 124 valid and complete replies, representing both Norwegian and non-Norwegian students in the Gen Z and Millennial age groups.

Table 4: Sample Demographics Characteristics of Respondents (N = 124)

Characteristics	N	%
Gender		
Male	69	55.6%
Female	53	42.7%
Rather not say	2	1.6%
Nationality		
Norwegian	109	87.9%
Non-Norwegian	15	12.1%
Age Group		
Gen Z	90	72.6%
Millennials	34	27.4%
Income Level (per month)		
Less than NOK 11,000	107	86.3%
Above NOK 11,000	17	13.7%
Frequently used OFDs brand		
Foodora	98	79%
Wolt	26	21%

Table 4 illustrates the sample's social demographics, such as gender, nationality, age group, income level, and their choice of Wolt or Foodora as frequently used OFDs brand in terms of frequency and percentage of the sample. The percentage of male respondents (55.6%) was slightly higher than the percentage of females who responded (42.7%). According to the nationality distribution of respondents, Norwegians accounted for 87.9% of the total sample size. They were significantly higher than the non-Norwegian response rate of 12.1%. As seen in Table 4, the Gen Z age group (ages 18 to 25) was the most highly represented age group in the total sample, accounting for 72.6 %, followed by the Millennial age group (ages 26 to 41) to 27.4% of the sample. There were more respondents in the Gen Z age group, which corresponded to the age distribution of NHH students who are our only source of data collection. In the previous six months, about 80% of respondents utilized Foodora's OFDs in Norway, while the remaining respondents used Wolt's services. Lastly, the discretionary income level (per month) of 107 respondents (86.3%) was less than NOK 11,000. Whereas for only 17 respondents (13.7%), it was above NOK 11,000. Rent, school expenditures, and other miscellaneous expenses were subtracted from the monthly income before getting the discretionary income. Since most of our respondents are full-time students, with only a few working students, and at the same time, according to our own experiences, giving the high living standard in Norway, normally a student will need to spend at least NOK 8000 per month (around NOK 4,500 for the rent in a student housing near the school and around NOK 3,500 for food and groceries). Therefore, we set the cut-off of the income group at NOK 11,000. We assumed that there would be differences between these two groups.

7.1.1 Normality

Table 5 shows the data's descriptive statistics based on normality for the constructs. Examining whether the constructs are normally distributed is an important prerequisite for determining how differently the sample responds, thus we tested all construct items for normality (Russell et al, 1998). It is also a crucial assumption to consider in order to do CFA. In the statistics program SPSS, we looked at the Skewness and Kurtosis to see if the data was normally distributed.

A data set's skewness is an indicator of its symmetry distribution. A data set is said to be symmetrical if it has the relatively similar skewness to the left and right of the centre. Negatively skewed numbers show data that it is skewed to the left of the centre point, whereas positive skewness values suggest data that is skewed towards the right (Nist, 2012). Kurtosis is used to measure the tailedness or the combined weight of a construct. In relation to a normal distribution, it reveals how heavy-tailed or light-tailed the constructs are. Heavy tails, or outliers, are more likely in data sets with a high kurtosis value. In data sets with low kurtosis, light tails or a lack of outliers are typical (Nist, 2012).

The mean of a normal distribution of data in the range of 1 to 7 is 4, but it is usual for a data set to have some asymmetry, which can be measured using skewness and kurtosis. As a result, we measured the skewness and kurtosis of the construct elements in our research. The skewness and kurtosis measurements of all constructs are shown in Table 5. We determined a variation from normality as an absolute skewed value of >2 and an absolute kurtosis value of >7 , as defined by West et al (1995). In Table 5, none of the constructs exceeds any of these criteria, implying adequate normal distribution.

Moreover, we also checked the skewness and kurtosis of all the individual items in the constructs (Appendix 6: Descriptive Statistics). Even if the kurtosis and skewness of the UtiVal_1, UtiVal_4, UtiVal_5, PI_1 and PI_3 were rather high, it was still within acceptable limits. As a result, we determined the data distribution of the constructs and the individual items to be acceptable in terms of normalcy, thus we proceeded to verify our hypotheses using confirmatory factor analysis and structural equation modelling.

Table 5: Skewness and Kurtosis

Construct	Standard				
	Mean	Deviation	Variance	Skewness	Kurtosis
Utilitarian Value	5.218	0.969	0.940	-0.562	0.302
Hedonic Value	4.385	1.224	1.499	-0.097	-0.072
Symbolic Value (Environmental)	3.087	1.202	1.444	0.217	-0.635
Symbolic Value (Social)	3.121	1.281	1.640	-0.003	-0.972
Attitude	4.704	1.015	1.030	-0.339	0.332
Subjective Norm	3.667	1.030	1.061	-0.921	1.151
Purchase Intention	5.554	0.879	0.773	-1.095	2.768

7.2 Confirmatory Factor Analysis

Our study's measurement model with a well-established underlying theory was evaluated using Confirmatory Factor Analysis (CFA) (Hurley et al, 1997). We used the SPSS software to conduct the CFA of the data generated. CFA is based on a priori hypotheses and theory foundation, and it emphasizes the goodness of fit of the model. Furthermore, CFA uses the pattern of factor loadings to either support or not support the theory's hypotheses. The model and number of factors are decided by theory in advance, and hence cross-loadings and factor loadings below 0.5 are not permitted in our study (Hurley et al, 1997; Hair et al., 2009). We conducted CFA as various latent variables in the measurement model might impact the test results, and if necessary, it helps to adjust the model (Ho, 2006). Hence, we analysed and discussed in *Appendix 8: Rotated Component Matrix of first-factor loadings* and *Table 6: Rotated Component Matrix of second-factor loadings*, where we looked at the internal relationships between the construct items to see if the factor loadings were significant.

Further, we assessed scale validity using convergent and discriminant validity to ensure that items accurately reflected the research questions based on literature (Hair et al., 2009). In *Table 7: Inter-Item correlation matrix*, the degree of inter-item correlation between the items of the same construct was measured by analysing the convergent validity (Hair et al., 2009). This convergent validity test helped to confirm that the items (for example: UtiVal_1, UtiVal_2...UtiVal_5) within a particular construct (Utilitarian Value) have a good correlation, indicating that it is measuring the desired construct. Hence, we looked at the patterns of inter-item factor loadings among our items within the construct to check convergent validity in Table 7 (Henseler et al, 2014).

To establish discriminant validity, the combined scale should suggest a low correlation between constructs, as shown in *Table 8: Inter-construct Correlations and AVE Square Roots*. Discriminant validity measures the differentiation between two conceptually similar constructs (*Inter-construct correlation*) (Hair et al., 2009). It assures that a specific construct (for example: Utilitarian Value or Hedonic Value) is statistically unique and reflects factors that other constructs in the measurement model do not (Hair et al. 2010). Furthermore, because it is crucial that the items assess the same construct and have internal consistency, the dataset may face reliability issues (Saunders et al, 2016; Hair et al., 2010). As a result, determining reliability is necessary. To conclude, scale validity and reliability should also be checked because it is a foundation for our structural equation modelling (Henseler et al, 2014). We will cover this in more detail in the sections on construct validity (7.2.3) and reliability (7.2.4).

Hair et al. (2010) further recommended using several fit indices to obtain sufficient evidence for model fit. We tested goodness-of-fit by providing the chi-square test (χ^2/df), root mean squared error of approximation (RMSEA), the standardized root mean residual (SRMR) and Comparative Fit Index (CFI) (Appendix 7: Goodness of fit). As a measure of model fit, researchers proposed using the chi-square test (χ^2/df), with values of 5 or lower being a typical baseline (Hu & Bentler, 1999). The chi square value of 2.17 in our model was within acceptable limits. The RMSEA was .073 suggests a good fit, this was in line with the research as the accepted RMSEA value should be between .05 and .08 (Hair et al., 2010). The RMSEA value of our model was close to the cut-off, and reasons can be that our study had a small sample size (Taasoobshirazi, 2016). We measured 0.081 for SRMR. A good fit in SRMR is acceptable when the value is less than .10 (Hu & Bentler, 1998). Lastly, we also measured the CFI value = 0.956 which was right near the acceptable range (>0.95). Hence, all the fit indices to measure the model fit were under acceptable ranges.

7.2.1 First-factor analysis

In Appendix 8 (Rotated Component Matrix of first-factor loadings), all the 27 variables (including both the independent and dependent variables) were subjected to a first-factor analysis. To determine which components should be included in the final model, we first evaluated each factor's loading to a threshold of 0.5. (Hair et al., 2009). Hair et al. (2009) suggested a criterion of 0.5 for a sample of approximately 120 replies, which is the closest number to our sample of 124 responses. As a result, we used a 0.5 limit for the loadings in the SPSS software while doing factor analysis. Other loadings that were less than 0.5 were

eliminated by the SPSS software, so the rotated matrix mainly showed values larger than 0.5. Appendix 8 displays the factor loadings evaluated from the first-factor analysis. We observed that all the items within constructs were having sufficient factor loading, i.e., above 0.5 except for the items in the Utilitarian Value construct, mainly concerning UtiVal_1, UtiVal_2 and UtiVal_5 as highlighted in Appendix 8.

The item UtiVal_5 was cross-loading with the “attitude” component, and it was also near the threshold of 0.5, according to the rotated component matrix (Appendix 8). Low convergent validity for the UtiVal_5 construct might be attributed to method bias, i.e., our respondents might not understand this item well. Furthermore, the question concerning UtiVal_5 “*Using <the chosen OFDs> to order food online is safe*” might be seen as a broad question. We believed that the reason for low convergent validity is because UtiVal_5 may have an indirect impact on the attitude component, resulting in cross-loading with it. Furthermore, UtiVal_5 had low discriminant validity since it loaded almost as much on the sixth component (.542) as it did on the fifth component (.515). This item only had poor discriminant validity in the matrix.

Hence, since UtiVal_5 showed poor validity, we opted to remove it from further analysis. Additionally, out of our expectation, the first and second Utilitarian value elements (UtiVal_1 and UtiVal_2) were loading independently from its construct, hence having low convergent validity. These two items were forming a new factor as can be seen highlighted in Appendix 8. However, we expected that eliminating UtiVal_5 out of the model while performing second-factor loadings might improve the model. Hence, we decided to include UtiVal_1 and UtiVal_2 and eliminated UtiVal_5 for the next factor analysis. It is also worth noting that all of the items relating to Symbolic values, which were the symbolic value's environmental aspect (SymVal_En1, SymVal_En2, SymVal_En3, SymVal_En4) and social aspect (SymVal_So1, SymVal_So2, SymVal_So3, SymVal_So4), were loaded as a factor. We decided to group them together as one independent variable (that is the “symbolic value”) for further analysis in SEM and independent t-tests.

7.2.2 Second-factor analysis

In the second-factor analysis, UtiVal_5 was excluded as we observed it had low convergent and discriminant validity. Additionally, even though the first and second items of the “Utilitarian Value” construct (i.e., UtiVal_1 and UtiVal_2) exhibited low convergent validity,

we still included them in our second-factor analysis since they were based on established studies from Dospinescu et. al. (2020); Chen et. al. (2020) and Hwang and Kim (2020).

Hence, we used 26 items in the second-factor analysis. We observed that there were no additional challenges to the scale validity in this analysis. All the components loaded over 0.5 where they were supposed to load (Hair et al., 2009). The Rotated Component Matrix for the second-factor loadings is illustrated in Table 6. We used this model for further analysis in the next sections.

Table 6: Rotated Component Matrix of second-factor loadings

Rotated Component Matrix						
	Component					
	1	2	3	4	5	6
<i>UtiVal_1</i>						0.689
<i>UtiVal_2</i>						0.634
<i>UtiVal_3</i>						0.625
<i>UtiVal_4</i>						0.582
<i>HedVal_1</i>		0.832				
<i>HedVal_2</i>		0.771				
<i>HedVal_3</i>		0.810				
<i>HedVal_4</i>		0.844				
<i>HedVal_5</i>		0.858				
<i>SymVal_En1</i>	0.639					
<i>SymVal_En2</i>	0.865					
<i>SymVal_En3</i>	0.841					
<i>SymVal_En4</i>	0.895					
<i>SymVal_So1</i>	0.799					
<i>SymVal_So2</i>	0.867					
<i>SymVal_So3</i>	0.837					
<i>SymVal_So4</i>	0.851					
<i>ATT_1</i>					0.747	
<i>ATT_2</i>					0.867	
<i>ATT_3</i>					0.616	
<i>SUB_1</i>			0.873			
<i>SUB_2</i>			0.903			
<i>SUB_3</i>			0.911			
<i>PI_1</i>				0.834		
<i>PI_2</i>				0.796		
<i>PI_3</i>				0.848		
Extraction Method: Principal Component Analysis.						
Rotation Method: Varimax with Kaiser Normalization.						
a. Rotation converged in 6 iterations.						

7.2.3 Construct Validity

The degree to which construct items correctly represent the conceptual information they are meant to assess is referred to as construct validity (Hair et al., 2010). In terms of measuring construct validity, we will discuss convergent validity and discriminant validity in this section.

7.2.3.1 Convergent Validity

In terms of convergent validity, we are looking at the factor loadings of construct items in the model to determine how much they converge or have high variance (Hair et al., 2010). All factor loadings of the six constructs' items "utilitarian value", "hedonic value", "symbolic value", "attitude", "subjective norm", and "purchase intention" were more than 0.50, as shown in Table 7. As a result, convergent validity was achieved when the factor loadings were more than 0.50, according to Hair et al. (2010). We also computed the model's average variance extracted (AVE) and composite reliability (CR) to ensure convergent validity. Hair et al. (2010) claimed that CR values greater than 0.70 indicates high level of reliability, and as all constructs in our study had a CR of 0.70 or higher, convergent validity was established. When it comes to AVE, we get values that indicate acceptable convergence. As for convergent validity, AVE should be equal or greater than 0.50 and lower than CR. Hence, convergent validity was significant for our final model as shown in Table 7.

Table 7: Inter-Item correlation matrix

Construct	CR	AVE
Utilitarian Value	.728	.535
Hedonic Value	.913	.678
Symbolic Value (Environment and social)	.969	.685
Attitude	.865	.563
Subjective Norm	.958	.802
Purchase Intention	.921	.682

7.2.3.2 Discriminant Validity

To examine the discriminant validity, the constructs were created by combining the elements' means. When the inter-construct correlations is lower than the AVE square root values, we can infer that there is enough discriminant validity (Wixom & Todd, 2005). When evaluating discriminant validity, the inter-construct correlations should be smaller than the square root of

the AVE (Fornell & Larcker, 1981; Chin, 1998). Table 8 shows that all constructs had higher variation with their indicators than with other constructs, as observed by comparing the numbers on the diagonal, which reflected the AVE square roots as highlighted, and the values beneath them, representing the constructs' respective correlations. For instance, symbolic value constructs' correlation values were less than its AVE square root (e.g., when we check on the horizontal matrix, .267 and .231 are the correlation values of utilitarian and hedonic values between symbolic value respectively, and they are less than .828). As illustrated in Table 8, we can see the satisfactory discriminant validity was met based on this criterion for all the six constructs.

Table 8: Inter-construct Correlations and AVE Square Roots

	AVE	Utilitarian Value	Hedonic Value	Symbolic Value	Attitude	Subjective Norm	Purchase Intention
Utilitarian Value	.535	.731					
Hedonic Value	.678	.439**	.823				
Symbolic Value	.685	.267**	.231**	.828			
Attitude	.563	.382**	.379**	.210*	.750		
Subjective Norm	.802	.335**	.322**	.331**	.302**	.896	
Purchase Intention	.682	.384**	.273**	.129	.437**	.317**	.826

7.2.4 Reliability

The reliability of the model's constructs was determined using Cronbach's Alpha, AVE, and CR (Hair et al., 2010). Hence, we tested these measurement criteria to check the internal consistency (Hair et al., 2010). We examined the model's reliability, and the findings are shown in Tables 7: Inter-Item correlation matrix above and Table 9 below. The scale was consistent since all the alpha values were larger than 0.7. (Table 9). The CR and AVE readings were all more than or equivalent to the 0.7 and 0.5 lower limits, respectively (Table 9). Therefore, in the reliability test, we concluded it was internally consistent and that all the objects are reliable.

Table 9: Cronbach's alpha

Construct	Cronbach's Alpha
Utilitarian Value	.711
Hedonic Value	.910
Symbolic Value	.941
Attitude	.778
Subjective Norm	.950
Purchase Intention	.886

7.3 Hypothesis Testing using SEM

Our study's final construct was based on the 26 items that all scored greater than 0.5 factor loading in the second-factor analysis (*Table 6: Rotated Component Matrix of second-factor loadings*). After establishing the measurement model based on the CFA, we computed the remaining variables and conducted path analysis in SEM in the statistical software SmartPLS 3, so as to explore the relationship between the independent and dependent variables.

In order to use SEM for our analysis, it was important to meet the specific assumptions of using this approach (Kumar, 2015). Firstly, as shown in section 7.1.1, the data was determined to be normally distributed. Therefore, the normality assumption has been fulfilled and this is the most important assumption for SEM which we needed to fulfil. Secondly, we also needed to make sure that there is no missing data in the data set. As shown in 7.1, we conducted a data cleaning process to remove invalid and incomplete responses thus this assumption has also fulfilled.

Besides, we adopted a widely applied approach in SEM known as Partial Least Squares-Structural Equation Modelling (PLS-SEM) over Covariance Based - Structural Equation Modelling (CB-SEM) for this study. This is because PLS-SEM allows us to estimate complicated models having different constructs, independent variables, and structural paths (Hair et al., 2019). Hair et al. (2019) also advised that PLS-SEM can be utilized over CB-SEM method in a research study depending on several conditions. For instance, when the study involves investigating an established framework, as well as when the research goal was to explore established theories. We noticed this criterion in our study as we assessed the influence of the three key values on attitude. Hair et al. (2019) also recommended PLS-SEM for testing various constructs in a path model. As path analysis in PLS-SEM is a technique that allows complex models to be evaluated (Streiner, 2005), we will make use of this technique to conduct

our path analysis in this study as we have met these requirements under PLS-SEM. However, we also observed a limitation in finding the goodness of fit in using the PLS-SEM approach. It was a limitation as the PLS-SEM approach lacks a global scalar function and, as a result, global goodness-of-fit measurements. Hence, measuring goodness of fit in PLS-SEM was unsuitable (Henseler & Sarstedt, 2012). Even though measuring the model fit was unsuitable in PLS-SEM, we can still use SRMR, Chi-square and Normed Fit Index (NFI) to indicate the model's predictive capabilities. The measurements for fit indices are as SRMR value was 0.83. This value was within the acceptable range of less than 0.10 (Hu & Bentler, 1998), chi square test value of 2.10 was less than the acceptable limit of 5 and the NFI value of 0.96 was close to the acceptable range of 1. Hence, the fit indices are all within acceptable limits. As a result, the assumptions for conducting SEM for our investigation have been met (Kumar, 2015).

To start with the analysis, we used PLS-SEM to assess the interactions between the model's constructs and computed the path coefficients. The path coefficient exhibits the interaction or the effect of a variable that is considered to be a cause of another variable (McLntosh & Gonzalez-Lima, 1994). Using the structural model's coefficients, we can put our proposed hypotheses to the test (Hair et al., 2010). For comparison purposes, we created four models in our analysis as described in Table 10: Path coefficients and p-values, using purchase intention as dependent variable.

Secondly, the goal of our study was to evaluate the impact on the dependent variable, which is the "purchase intention", caused by independent variables. We thought of using a simple multiple regression approach to evaluate the causal relationships in our research at the beginning. In multiple regression, however, we can only study the direct impact of an independent variable on the study's dependent variable (McLean, n.d.). Hence, we used this path analysis approach as it is a subset of SEM since our study may have indirect effects between the major values (Utilitarian Value, Hedonic Value and Symbolic Value), attitude and purchase intention. To conclude, as our model was a path model, SEM was best suited to construct the path analysis for our study because it can consider both direct and indirect effects (McLean, n.d.). The path analysis can be seen in section 7.3.2 (Figure 4).

The following section contains the results using path analysis in SEM. Additionally, hypothesis testing of indirect effects of the 3 major values to purchase intention through attitude was also conducted in Appendix 10.

7.3.1 Path Analysis

In order to obtain the path coefficients in SEM, we tested the SmartPLS algorithm, followed by bootstrapping with 500 subsamples executed by SmartPLS. In bootstrapping, subsamples are drawn to ensure the stability of the results (Hair et al, 2011). In Table 10, we formed four models by using the coefficients and p-values from SmartPLS to determine the relatively more powerful predictive model for our research. We created the models by adding independent variables one at a time (Phase, n.d.) as can be seen in Table 10. We performed this analysis to determine which independent variables are significant in defining a fit model.

The coefficients observed in Table 10 illustrates the standardized Beta values (β), it is the expected change in the outcome variable per unit change in the independent variable (Choueiry, n.d.). In Table 10, we analysed the independent variables to a single dependent variable, i.e., purchase intention. As our study's hypotheses evaluated the likelihood of a one-way direction and due to the small sample size, we employed a one-tailed test to get the p-value. (Bruin, 2006). The highlighted p-values were the significant values with a significance level of less than .05 under 95% confidence interval. Additionally, we also examined the value of adjusted R-square to assess how the independent variable explained the variance in purchase intention. A significantly larger adjusted R-square indicates that the model fits the data well, whereas a lower adjusted R-squared indicates that the model does not fit well (Muralidhar, 2021). As a result, we presented the standardized beta coefficients with respect to purchase intention and one-tailed p-values for each variable in each model as well as adjusted R-square in the table.

Table 10: Path coefficients and p-values, using purchase intention as dependent variable

Constructs	Model 1	Model 2	Model 3	Model 4
Utilitarian Value	.392 (.000)	.255 (.000)	.256 (.000)	.255 (.000)
Hedonic Value	.070 (.172)	.292 (.000)	.292 (.000)	.292 (.000)
Symbolic Value	.131 (.173)	.122 (.045)	.122 (.051)	.122 (.060)
Subjective Norm	.201 (.072)	.189 (.065)	.127 (.120)	.118 (.145)
Attitude		.416 (.000)	.277 (.002)	.279 (.004)
Customer Satisfaction			.245 (.040)	.253 (.043)
Delivery Cost			.070 (.225)	.062 (.244)
Past Purchase experience			.101 (.054)	.114 (.039)
Gender				-.002 (.489)
Age				-.060 (.208)
Income				.099 (.063)
Adjusted R-square	.229	.256	.319	.330
Interaction is significant at the .05 level (one-tailed)				

7.3.1.1 Model 1

A. Impact of the 3 major values towards Purchase Intention

In Model 1, we analysed the impact of the 3 major values and subjective norm toward the dependent variable “purchase intention”. Firstly, we examined this model to observe the direct effect of the values on purchase intention in the absence of the attitude variable. We observed that in Model 1, the “utilitarian value” ($\beta = .392$, p-value = .000) was the only variable having significance towards purchase intention. The other two values, “hedonic value” ($\beta = .070$, p-value = .172) and “symbolic value” ($\beta = .131$, p-value = .173) were not significant towards purchase intention.

Therefore, once the “attitude” variable was included in the model, we might be able to observe any indirect influence of the major values on purchase intention.

B. Impact of Subjective Norm towards Purchase Intention

In addition, in Model 1, we also assessed the impact of “subjective norm” towards purchase intention. In *H5: Subjective norm positively influences consumers’ behavioural intention towards online food delivery services in Norway* ($\beta = .201$, p-value = .072). The effect of subjective norm on purchase intention was positive, but nonetheless it had insignificant p-value, hence, H5 was not supported.

We concluded that these independent variable in Model 1 accounted for 22.9% of the population variance in purchase intention (Adjusted R-squared .229), which in other words, this model can explain 22.9% of purchase intention in the population. In order to explain the variation in purchase intention, we will note the values of adjusted R-squared in the following models.

7.3.1.2 Model 2

A. Impact of the 3 major values through attitude toward purchase intention

In Model 2, we added the variable “attitude” and examined the effect of utilitarian value, hedonic value, and symbolic value on purchase intention through attitude (Table 10). We tested the first three hypotheses *H1: The utilitarian value has a significant positive impact on consumers’ attitude toward the online food delivery services* ($\beta = .255$, p-value = .000); *H2:*

The hedonic value has a significant positive impact on consumers' attitude toward the online food delivery services ($\beta = .292$, p-value = .000) and H3: The symbolic value has a significant positive impact on consumers' attitude toward the online food delivery services ($\beta = .122$, p-value = .045).

We observed that all the values were significantly and positively related to consumers' attitudes. Therefore, hypotheses H1, H2 and H3 were supported in Model 2.

B. Impact of Attitude towards Purchase Intention

Next, we analysed the TPB dimension "attitude" to the model. *H4: Attitude positively influences consumers' behavioural intention towards online food delivery services in Norway ($\beta = .416$, p-value = .000).* In Table 10, attitude was having a significant impact on purchase intention, therefore, H4 was supported.

The independent variables of Model 2 (which are the 3 major values and attitude) accounted for variance of 25.6% in purchase intention in this model (Adjusted R-square .256).

7.3.1.3 Model 3 - Impact of Control Variables

In Model 3, as mentioned in section 4.3.3 and 4.3.5, we anticipated there should be some impact from the control variables, which are delivery cost (the perceived behavioural control in TPB), customer satisfaction and past purchase experience, in improving the model. Hence, we added these control variables for further analysis. Firstly, we observed that "customer satisfaction" ($\beta = .245$; p-value = .040) had significant influence, hence it provided value in our study's model. However, the other two control variables: delivery cost ($\beta = .070$; p-value = .225) and past purchase experience ($\beta = .101$; p-value = .054) did not help in improving the model as their p-values were insignificant.

Even after adding all these control variables, utilitarian value ($\beta = .256$, p-value = .000), hedonic value ($\beta = .292$, p-value = .000) and attitude ($\beta = .277$, p-value = .002) remained significant. Although, symbolic value ($\beta = .122$, p-value = .051) lost its significance by a close margin. Even though symbolic value is losing its significance, p-value = .051 is very close to the significance level of .05, hence we concluded that it has directional support for it to impact

purchase intention. We concluded a higher Adjusted R-square value of .319 than the previous two models, which means this model can account for variance of 31.9% in purchase intention.

7.3.1.4 Model 4 - Impact of Gender, Age and Income

Finally, we examined Model 4 by adding socio-demographic factors (gender, age and income) as control variables too. All the variables, “gender” ($\beta = -.002$; p-value = .489), “age” ($\beta = -.060$; p-value = .208) and “income” ($\beta = .099$; p-value = .063) were insignificant antecedents in our model.

In Model 4, we observed that the “utilitarian value”, “hedonic value” and “attitude” had significance on purchase intention. For symbolic value ($\beta = .122$, p-value = .060), we observed that it was again insignificant by a close margin at a confidence interval of 95%. However, if considering using a confidence interval of 90% for our analysis, symbolic value will become significant. As a result, we argued H3 should be “directionally supported”.

Moreover, we also concluded an adjusted R-squared coefficient of .330. Since the adjusted R-square examines whether the model was influenced by adding variables, it was clear that the adjusted R-square was the highest in Model 4 in this study and it can account for 33% of the variance in purchase intention. Therefore, it became our final model since it had the highest adjusted R-square and the maximum number of variables that were significant in influencing the dependent variable. Table 11 provides a summary of all the findings in the hypothesis testing.

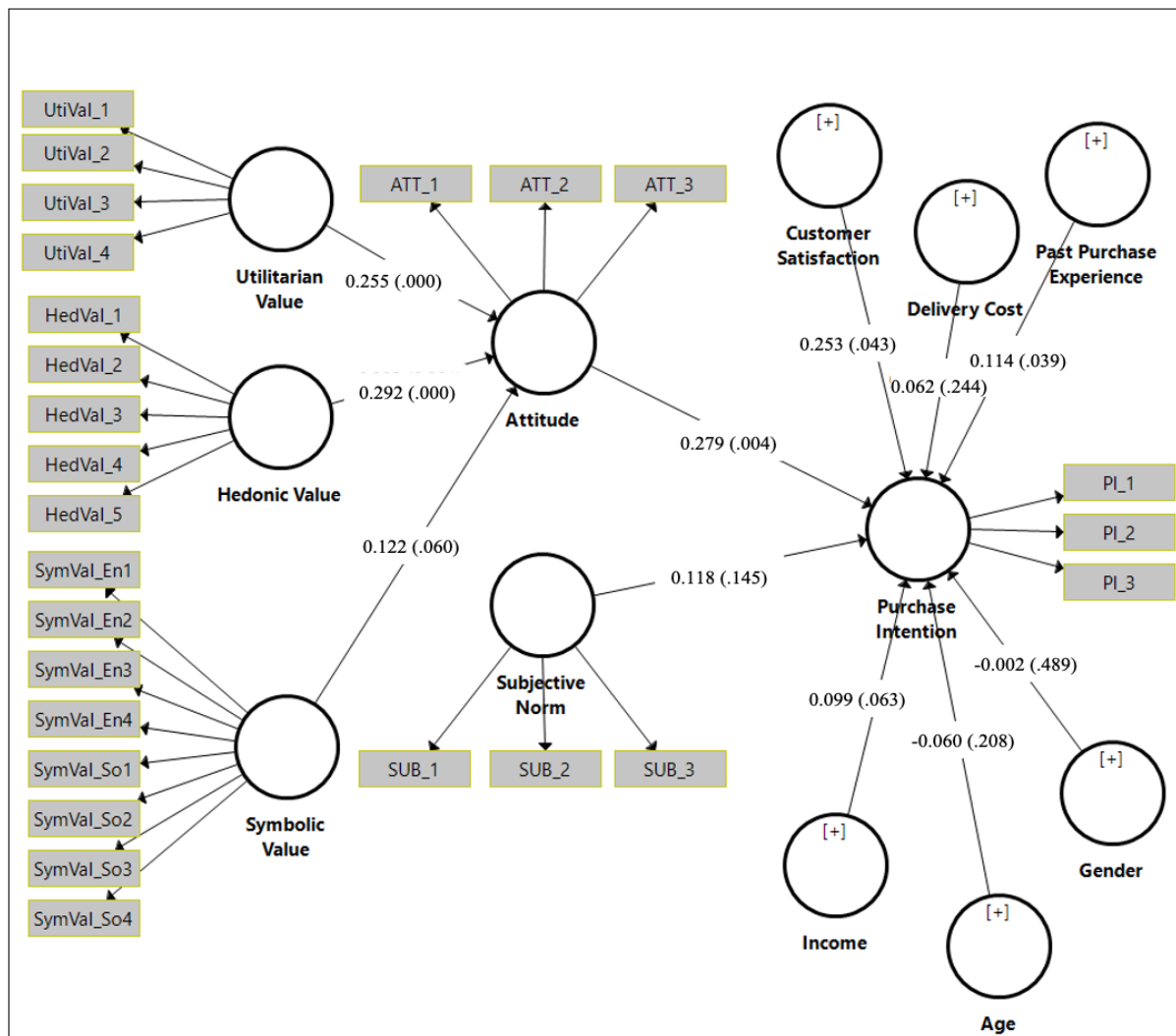
Table 11: Results of Hypothesis Testing

Hypothesis	Variable Relationship	Results
H1	Utilitarian Value -> Attitude	Supported
H2	Hedonic Value -> Attitude	Supported
H3	Symbolic Value -> Attitude	Directionally Supported
H4	Attitude -> Purchase Intention	Supported
H5	Subjective Norm -> Purchase Intention	Not Supported

7.3.2 Final Model

The coefficients are incorporated in our final model (Model 4) to perform path analysis as can be seen in *Figure 4* below.

Figure 4: Path analysis in SEM of the Final Model (Model 4)



In addition to illustrating our main study by using path analysis, we also examined, through attitude, the indirect influence of the three major values toward purchase intention. Since this is an additional but interesting finding from our main study, we have put this in Appendix 10: Indirect effects of the values to purchase intention through attitude, where we tried to figure out whether the variable of “attitude”, when influenced by the major values, was important to consumers' behavioural intention in OFDs.

7.4 Independent Sample t-tests

In this section, we examined the differences between sub-groups using independent t-tests. To compare the two mutually exclusive sets of samples, we used independent sample t-tests in SPSS to see if there are significant differences in their mean scores (Christopher, 2017). In this section, we used an independent t-test to see if symbolic value would be different between different gender, nationality, age group, income group. We also compared the symbolic value's difference between the customers of Foodora and Wolt. We expected that Wolt's customers should have a higher symbolic value when using OFDs due to the "sustainable" positioning of Wolt Norway as mentioned in section 2.2. For Gender, it was divided into two categories, male and female. Similarly, we also used the same approach to examine if symbolic value would be different for nationality (Norwegian Vs non-Norwegian), age group (Millennials Vs Gen Z) and income group (income below NOK11,000 Vs income above NOK11,000).

SPSS Statistics generated 'Group Statistics' and 'Independent Samples Test' tables as the output for the independent t-test which are depicted in the below sections. To utilize an independent t-test, we must look at each group's mean and the standard deviation between those samples. We also looked at the 'two-sided p-value' to check if the two sub-groups have a significant difference (Christopher, 2017).

Another finding worth noting was Levene's Test for Equality of Variances. This is a test that examines if the two groups have similar or different levels of score variability. Because the confidence interval was 95% for our study, the significance threshold for each test was set at .05 (Brown & Forsythe, 1974). As we assumed that there was no difference between the sub-groups in the sample, thus we must reject our hypothesis in order to show that there are differences in the two sub-groups based on the mean scores (Brown & Forsythe, 1974).

7.4.1 Gender vs Symbolic value

With the help of an independent t-test, we checked if there was a difference in symbolic value between males and females. In the Group Statistics in Table 12, the mean for male was 3.15 and the mean value for females was 3.00. The standard deviation for males was 1.23 and for females, it was 1.09. The number of male participants was 69 and females was 53. Hence, it seems that the male sub-groups had a higher mean when compared to females with respect to symbolic value.

Table 12: Gender vs Symbolic value

Group Statistics				
	Male/Female	N	Mean	Std. Deviation
Symbolic Value	Male	69	3.15	1.23
	Female	53	3.00	1.09

Independent Samples Test					
		Levene's Test for Equality of Variances		t-test for Equality of Means	
		F	Sig.	df	Significance Two-Sided p
Symbolic Value	Equal variances assumed	2.308	.131	120	.236
	Equal variances not assumed			117.70	.232

The value in the “Sig.” column of the independent samples t-test table (Table 12) under Levene's Test for Equality of Variances was .131. A number larger than .05 indicates that the male and female sub-groups had similar variability (Christopher, 2017). In other words, male sub-group did not differ much from the female sub-group. Furthermore, it implied that the variance in the two circumstances was not statistically different. Because the “Sig.” value was bigger than .05, we must read from the first row in this case (*Equal variances assumed*) (Christopher, 2017). In these t-test findings, we indicated whether the mean for males and females were statistically different or not. The “Significance: Two-Sided p” value was 0.236, as highlighted in the above table. We can infer that there was no statistically significant difference between gender in our sample for symbolic values because the p-value was larger than .05 (Christopher, 2017).

7.4.2 Nationality vs Symbolic value

In this section, we used the same approach to determine if there were differences in symbolic value between different nationalities (Norwegians and non-Norwegians). In the Group Statistics box in Table 13, the mean for “Norwegian” was 3.17. The mean for ‘non-Norwegians’ was 2.60. The standard deviation for Norwegian was 1.09 and for International was 1.64. The number of participants in Norwegian was 109 while non-Norwegians was 15 and there were higher numbers of Norwegian respondents when compared to non-Norwegians.

Hence, the weakness of this test was that there were only 15 non-Norwegians among the sample, which was rather a small sample size.

Table 13: Nationality vs Symbolic value

Group Statistics				
	Are you holding a Norwegian Citizenship?	N	Mean	Std. Deviation
Symbolic Value	Norwegian	109	3.17	1.09
	non-Norwegian	15	2.60	1.64

Independent Samples Test					
		Levene's Test for Equality of Variances		t-test for Equality of Means	
		F	Sig.	df	Significance Two-Sided p
Symbolic Value	Equal variances assumed	4.827	.030	122	.039
	Equal variances not assumed			15.74	.041

The value in the “Sig.” column of the independent samples t-test table (Table 13) under Levene's Test for Equality of Variances was .030. A value of less than .05 indicates that our two sub-groups of nationality (Norwegians and non-Norwegians) had different levels of variability (Christopher, 2017). SPSS accounts for this by producing findings in the second row (“Equal variances not assumed”) since the “Sig.” value was less than .05 as highlighted (Christopher, 2017). Now we examined the findings of our t-test and observed that the “Two-Sided p” value in this case was .041, thus there was a statistically significant difference between Norwegians and non-Norwegians because the p-value was smaller than .05 (Christopher, 2017).

7.4.3 Age Group vs Symbolic Value

In this section, we analysed to determine if there were differences in symbolic value between age groups (Gen Z and Millennials). In the Group Statistics box in Table 14, the mean for ‘Gen Z’ was 3.09. The mean for ‘Millennials’ was 3.12. The standard deviation for Gen Z was 1.09 and for Millennials was 1.38. The number of participants in Gen Z were 90 and Millennials were 34. Hence, we observed a higher number of respondents for Gen Z when compared to

Millennials. However, the weakness of the test was again, there were more than double the number of respondents in Gen Z than in Millennials.

Table 14: Age Group vs Symbolic values

Group Statistics				
	Gen Z and Millennials	N	Mean	Std. Deviation
Symbolic Value	Gen Z	90	3.09	1.09
	Millennials	34	3.12	1.38

Independent Samples Test					
		Levene's Test for Equality of Variances		t-test for Equality of Means	
		F	Sig.	df	Significance Two-Sided p
Symbolic Value	Equal variances assumed	4.973	.028	122	.920
	Equal variances not assumed			49.59	.928

Under Levene's Test for Equality of Variances, the value in the “Sig.” column of the independent samples t-test (Table 14) was .028. The variability between the two age groups was assumed to be different. We had to read from the second row (“Equal variances not assumed”) in this case since the “Sig.” value was less than .05 (Christopher, 2017). The results in the independent t-tests table illustrated the “Two-Sided p” value of .928 as highlighted. Since the p-value was more than .05, we may infer that the differences between Gen Z and Millennials were not statistically significant (Christopher, 2017).

7.4.4 Income level vs Symbolic Value

In Table 15, the mean for the sub-group with a discretionary income of 0- NOK 11,000 was 3.05, while the mean for the sub-group with a discretionary income of more than NOK 11,000 was 3.38.

Table 15: Income level vs Symbolic value

Group Statistics				
	How much discretionary income do you have for each month?	N	Mean	Std. Deviation
Symbolic Value	0-11,000	107	3.05	1.19
	More than 11,000	17	3.38	1.06

Independent Samples Test					
		Levene's Test for Equality of Variances		t-test for Equality of Means	
		F	Sig.	df	Significance Two-Sided p
Symbolic Value	Equal variances assumed	.792	.375	122	.283
	Equal variances not assumed			22.95	.252

In the independent samples t-test (Table 15), the value in the “Sig.” column was .375 under Levene’s Test for Equality of Variances. It means that the variability in both the income levels was not significantly different. Since the “Sig.” value in Table 15 was more than .05, we examined the first row (“Equal variances assumed”). In this example, we observed the “Two-Sided p” value was .283 in table 15. Because the p-value was higher than .05, we may infer that the difference was not statistically significant in symbolic value across our sample's income levels. This test's drawback was that the number of respondents with income ranging from 0 to NOK 11,000 was much larger (107 respondents) than those with incomes over NOK 11,000 (17 respondents).

7.4.5 Frequently used OFDs brand vs Symbolic value

In this section, we tried to see if there were any differences in symbolic value between the customers of Foodora and Wolt in Norway, as in the questionnaire, we asked respondents to pick which brand they used most frequently in the last 6 months, then they were required to answer questions of our survey according to their experience of that particular brand. In Table 16, the Group Statistics box showed the mean for those who used Foodora most frequently was 3.00 in the Group Statistics box of Table 16, while for sub-group who used Wolt most

frequently instead, it had a mean of 3.48. Foodora user's standard deviation was 1.14, whereas Wolt users was 1.25. Foodora was selected by 98 participants, whereas Wolt has 26 participants. The sample size of Wolt's customers in this t-test was a lot smaller than Foodora's, which in turn became the weakness of this test.

Table 16: OFD use vs Symbolic values

Group Statistics				
	In last 6 months, which OFDs did you use?	N	Mean	Std. Deviation
Symbolic Value	Foodora	98	3.00	1.14
	Wolt	26	3.48	1.25

Independent Samples Test					
		Levene's Test for Equality of Variances		t-test for Equality of Means	
		F	Sig.	df	Significance Two-Sided p
Symbolic Value	Equal variances assumed	.553	.459	122	.031
	Equal variances not assumed			36.80	.042

In the independent samples t-test (Table 16), the value in the "Sig." column was .459 under Levene's Test for Equality of Variances. In this example, the "Sig." value was higher than .05, we checked results from the first row ("Equal variances assumed"). The "Two-Sided p" value was .031. We may infer that there was a statistically significant difference between the customers of Foodora and Wolt since the p-value was less than .05.

8. Discussion and Conclusion

This section summarizes the key findings from our research study's CFA, hypothesis testing using SEM, and independent t-tests, presented in section 7. Following that, we will discuss possible explanations for our findings based on and conclude our research.

The purpose of our study was to figure out factors which can influence the purchase intention of your generations when they purchase food by using PtC OFDs in Norway. We were especially interested in whether the "sustainability" factor, which we expected a symbolic value could be generated from, will play a key role in this context. As a result, as discussed in section

4, we tried to examine the relationship between consumers' perceived values (utilitarian, hedonic and symbolic), attitude, subjective norm, and purchase intention toward OFDs in Norway. The data analysis section yielded several significant results. In Table 11: Results of hypothesis testing, we observed that 3 out of 5 hypotheses were supported or directionally supported. We will start to discuss our research questions as follows.

RQ1: Is the sustainability factor of PtC OFDs in Norway influencing the purchase intention of young generations when they purchase food online?

8.1 Sustainability and symbolic value

RQ1 of our research aimed to see if the sustainability factor will be important when young generations intend to buy food through OFDs in Norway. As mentioned in section 4.2.2, we assumed symbolic value could be created from sustainability initiatives (both for environmental and social aspects) of the OFDs company, which could in turn influence attitude. Based on literature, even though we separated the environmental and social elements of sustainability in our study, we found that these two elements loaded on the same construct in CFA, as shown in sections 7.2.1 and 7.2.2. As a result, we grouped these environmental and social elements into a single variable called "symbolic value". One reason might be that to our respondents, there was no difference between "environmental sustainability" and "social sustainability", what they presumed might just be one "sustainability" which should be a good thing to have in general.

In our data analysis, we observed in Model 2 (section 7.3.1.2) that the link between symbolic value and attitude was significant. Regarding *H3: The symbolic value has a significant positive impact on consumers' attitude toward the online food delivery services* ($\beta = .122$, $p\text{-value} = .045$). From section 4.2.2, the findings on the symbolic value were in line with the findings of Lee (1990), Yoo et al. (2013) and Ng et al. (2018) and its impact on the attitude is also aligning with the TPB model. However, symbolic value lost its significance by a close margin when control variables were added in Model 3 and 4. By looking at the adjusted R square, it was obvious that, adding control factors had improved both models. However, since the symbolic value lost its significance, it might mean collinearity exists between control variable and the independent variables.

However, both model 3 and the final model (Model 4) showed a "directional support" for *H3* ($p\text{-value} = 0.051$ and 0.060 in model 3 and 4 respectively). This is because if this study were

performed under 90% confidence interval (instead of 95%), symbolic value would be significance to impact on consumers' attitude toward the OFDs.

Overall, symbolic value was significant in Model 2 and had “directional support” in Model 3 and 4. As a result, we concluded that, while young generations in Norway are purchasing food through OFDs, they do care about sustainability policies of the OFDs company which they are using.

8.2 Difference in symbolic values within different sub-groups

We compared different sub-groups (gender, age, nationality, income, and customers of two different key OFDs brands) by using independent t-test and found some of them had differences in symbolic value. We identified significant differences in symbolic value between the subgroups in terms of nationality and different OFDs brands. We inferred a significant difference in nationality between their sub-group of Norwegians and non-Norwegians (section 7.4.2). The mean of Norwegian was 3.17, which is higher than the mean of non-Norwegian was 2.60. It was consistent with what we mentioned in the background section since sustainability was valued higher in Norway by both consumers and businesses. Finally, when the customers of Wolt and Foodora were compared in section 7.4.5, we observed that Wolt's customers had higher symbolic value. Wolt's customers had a mean of 3.48, whereas Foodora's had a mean of 3.00. Based on the difference in symbolic value, which should be generated from sustainability factor of the OFDs, customers of Wolt may be more aware of sustainability issues than Foodora's customers, and hence they might have paid more attention to the company's sustainability practices, leading them to order from Wolt instead of Foodora. It seemed to align with our discussion in section 2.2 that Wolt has prioritized sustainability in their activities, but Foodora makes no mention of CSR or sustainability in their website or app in Norway.

Gender, age, and income level were shown to have no differences of symbolic value amongst their sub-groups in the comparison study (section 7.4). In other words, for gender in section 7.4.1, we discovered no differences between male and female respondents, implying that they may prioritize sustainability identically. However, some research suggested that females place a higher value on sustainable living choices than males (Hunt, 2022), but this did not apply to the OFDs finding in our study. Similarly, we found no difference in symbolic value between Millennials and Gen Z, it can also infer that these two generations have the same perception on sustainability. One possible explanation was because both age groups are close in their growing

background, therefore their ideas on sustainability could be comparable. This conclusion is matching with our findings in section 2.3, where we found a lot of similarity in these two age groups. These two generations are technologically savvy and place a high value on ecological problems, prioritizing companies focusing on sustainable development. Furthermore, there were no variations in symbolic value between respondents with higher and lower income as seen in section 7.4.4. A potential reason can be that both income level groups are being communicated the same sustainability initiatives from a particular OFDs brand in Norway. Their income level should have no impact on their perception towards the sustainability elements from the company.

In conclusion, when the survey participants were divided into sub-groups based on their sociodemographic characteristics and their frequently used OFDs brands, we discovered that there were some differences in symbolic value in the groups of “Norwegian Vs non-Norwegian” and “Foodora’s customers Vs Wolt’s customers”. From the independent t-test, we observed that the mean score of symbolic value for Norwegian and Wolt’s customers are higher than non-Norwegian and Foodora’s customers, respectively.

8.3 Other key factors - Utilitarian value, hedonic value and subjective norm

In the previous sub-section, we have established from RQ1 that symbolic value was significant in Model 2 and had “directional support” in our final model. However, there can be other key factors influencing the purchase intention of young generations in Norway when they use OFDs to purchase food. We discuss the findings from data analysis to see which were the other key factors affecting the purchase decisions in our 2nd research question:

RQ2: What are the other key factors influencing the purchase decision of young generations when they purchase food online from PtC OFDs in Norway?

To answer RQ2, the other factors in our research were related to the utilitarian value and hedonic value. Similar to symbolic value’s analysis, the TPB model's attitude variable was used to examine the impact of values on consumers' purchasing intention towards online food delivery platforms in section 7.3.1.2. Regarding *H1: The utilitarian value has a significant positive impact on consumers’ attitude toward the online food delivery services* ($\beta = .255$, p -value = .000), and *H2: The hedonic value has a significant positive impact on consumers’ attitude toward the online food delivery services* ($\beta = .292$, p -value = .000), the results from

Model 4 show a systematic correlation towards purchase intention via attitude. This observation was in line with the previous research's findings which have been mentioned in section 4.2.

During the first factor loading in CFA (section 7.2.1), it was learned that the factor loading for the UtiVal_5 variable addressing the "safety" element in the utilitarian value was less than 0.5, which was unacceptable. As a result, we eliminated the variable to obtain a fit model in the second factor loading (7.2.2). For our respondents, the question of "Using the chosen brand to order food online is safe" could be too broad and vague, thus they could have different interpretations about this "safety" component of the "utilitarian value". For instance, they might have connected this with the hygiene of the food or the reliability or security of making a payment via the digital platform of a particular OFDs company.

The utilitarian and hedonic value of OFDs platforms have a significant and positive effect on customers' attitudes, indicating that these two key values were also highly important to OFDs young consumers in Norway, when making purchase decisions about buying food online from these PtC OFDs platforms. As a result, we can observe that the functional and performance benefits of OFDs, which in turn generated the utilitarian value, are important key to the young generations' attitude towards the purchase intention of the OFDs. Furthermore, the overall shopping experience of using OFDs, measured by hedonic values has a positive influence on purchase intention.

Regarding the result of *H4: Attitude positively influences consumers' behavioural intention towards the online food delivery services*, it was consistent with the TPB theory and the value-attitude-behaviour model as mentioned in section 4. In the case of *H5: Subjective norm positively influences consumers' behavioural intention towards the online food delivery services*; however, subjective norm contradicts the TPB model. Previously, we expected that individuals are influenced by their important ones when they intend to purchase food through OFDs. A potential reason for this insignificant result could be that using OFDs was not something important in general (e.g., we asked respondents if their important ones approve them to use the chosen OFDs brand over its competitors), thus consumers may not really care of how people around them perceived them when they intent to use the services.

9. Implications

9.1 Theoretical perspective

This study aims to contribute to research on the topic of OFDs industry, which is a booming industry around the world. There was very little or even no research about this industry for the Nordic area, especially in Norway in which both consumers and companies put sustainability in a relatively more important position. Besides, previous studies on this industry did not focus on the segments of Millennials and Generation Z. However, these two generations have become a major contributor to the consumption market, and the goal of this study is to reflect on their value perceptions, attitudes, and consumption needs in the Norwegian OFDs industry. Both the Millennials and Generation Z grew up with smartphones and 24/7 exposure to the Internet, and they are also the generations who tend to value sustainability more in comparison to older generations. Hence, we wanted to investigate what will be the preferences of these unique generations when it comes to ordering food from OFDs, and whether the sustainability factor will play a role.

Since we developed our research model based on the “value-attitude-behaviour” cognitive hierarchy model (Homer & Kahle, 1988) as well as the famous and well-established TPB model from Ajzen (1991), this study has further confirmed that these two models are relevant in studying consumer behaviour towards newly emerging platform-based services.

As mentioned in section 1.2, previous research about the OFDs industry only focused on how utilitarian and hedonic values influence the attitude and behavioural intention of consumers, thus our study which added in symbolic value on top of the other two major values could be a key theoretical contribution in the field of OFDs research because our findings supported that symbolic value is also significance in influencing the purchase intention of young consumers in Norway while they buy food from OFDs platforms. Of course, at the same time, our study also confirmed that utilitarian and hedonic values are still the major drivers to impact the younger generations’ attitude positively, which is aligning with previous studies about OFDs industry (Yeo et al., 2017; Ray et al., 2019, Chen et al., 2020; Dospinescu et al., 2020).

In addition, during the independent sample t-test analysis, on the one hand, this study found out that, in the context of OFDs industry, the young Norwegians have a higher mean score in symbolic value in comparison to non-Norwegians. On the other hand, the same result has also

been observed on the customers of Wolt (who projected themselves to be a sustainable company in Norway) when comparing with Foodora's. Thus, this study may shed light and contribute to the future research of the OFDs, by confirming that symbolic value, which is relevant to self-image and social benefits, may be a new focus in order to impact the attitude and purchase intention of younger generations, especially in Nordic countries.

Last but not the least, the subjective norm in our study was insignificant to the purchase intention of young consumers in Norway when they are using OFDs. This finding is not aligning with Ajzen's TPB model (1991), where the subjective norm should be influencing the behavioural intention. Hence, this study presented the importance of future research to further validate the TPB model in a specific geographic and product context.

9.2 Managerial implications

As the OFDs industry is very competitive and the business environment is ever-changing, the marketing strategy for the key players in the industry must be dynamic to stay in a leading position in the market. For brand and marketing managers of the OFDs companies, the major finding of this study is definitely about the importance of sustainability in this industry, especially for Millennials and Gen Z in Norway.

Although this study tried to analyse the environmental and social aspect of sustainability in the OFDs industry separately, we were not successful as these two elements were grouped together after we performed the CFA as one single variable to influence the attitude of Norwegian young consumers of OFDs. In this sense, we believe that companies which deploy either strategies focusing on helping the environment or improving life of other people in the society, would be more competitive in the Norwegian OFDs market.

For instance, we would suggest OFDs companies to have a "green brand positioning" in order to differentiate themselves from competitors because, according to Mohd Suki (2013), such a "green" positioning is the most significant element that impacts consumer purchase intention to buy a sustainable product or from a sustainable company. To do so, OFDs companies should advertise their sustainability policies about the environment through both traditional (offline) and online marketing channels. For OFDs companies like Wolt which already has a list of initiatives for the "social" sustainability, we argued the same strategy can also be used but with a separate marketing message from its "green" initiatives. However, if the company's target

audience is young generations, using digital marketing advertisements or campaigns should be more effective as they are more tech-savvy and are being exposed to different digital platforms every day. Although we observed that influencer marketing is popular among our target audiences, due to the finding that the subjective norm was not significant in impacting the purchase intention of consumers in OFDs, companies should not prioritize their marketing resource in using influencers for their marketing campaigns.

Moreover, as mentioned in section 1, many conscious consumers know about the impact of OFDs industry on sustainability and we also highlighted some of the major issues in section 3.3. Since “symbolic value”, which is relevant to the sustainability policies of the OFDs companies, is proved to be significant in this study, players in the industry who might not have any measurement for sustainability in their operations, should consider starting to prioritize their resources in putting the relevant initiatives in place. Once they have built up their operational and management systems for sustainability, these can be used as one of the marketing messages to impress the young generations in Norway. We believe that such a “sustainable” position being backed up by solid practices within the operations of the company, will help the OFDs players to differentiate themselves a bit from keen competition. Wolt is exactly using this strategy and being an early mover in this aspect in Norway, our findings may confirm that their efforts could be paid off soon.

Besides, our findings confirmed that utilitarian and hedonic values were still important drivers of purchase intention in OFDs. This implies that companies should keep spending resources on keeping up the service attributes that can generate utilitarian and hedonic benefits to the young customers in the Norwegian OFDs market, which includes enhancing functional attributes (such as delivery service performance and efficiency, food price and range of selections, etc.) as well as hedonic attributes (such as user interface of the apps and website to ensure the quality of shopping experience in general). Even though OFDs companies should roll-out extra marketing campaigns for their sustainability initiatives, they should also keep a sufficient level of marketing exposure for their functional and emotional benefits of using OFDs to their potential consumers.

In short, brand and marketing managers of OFDs should ask for more marketing budget from the company so as to tackle the fact that “sustainability” does play a role in influencing purchase intention of consumers, thus also the business of OFDs in the future.

10. Limitations and future research

To give some directions for further research about consumer behaviour in the OFDs industry, there are a few limitations of this research which we would like to highlight so that other researchers can extend our findings about factors that can impact consumers' purchase intention toward OFDs.

The first limitation is the small sample size of only 124 valid responses in our study. According to section 7.3, this was one of the major reasons for us to use PLS-SEM to analyse our data instead of using the widely applied approach of CB-SEM. This is because, to use CB-SEM, some assumptions are needed to be fulfilled: a large sample size, the data is normally distributed and the model is rightly specified (Hair et al., 2011; Hwang et al., 2010). Our study failed to obtain a large sample size. However, one of the weaknesses of PLS-SEM is that the scores of latent variables may be lack of complete consistency potentially, resulting in biased component estimation, loadings, and path coefficients (Hwang et al., 2020). In addition, a small sample size from a single organisation (NHH) in one city (Bergen) may also mean that our findings is hard to generalise to the entire Norway's population of Millennials and Gen Z. We will suggest future research to deploy probability sampling instead of convenience sampling of this study, as well as enlarging the sample size in order to tackle this limitation (Saunders et al., 2016). In addition, we were not able to have causal inferences in our study because the data was collected in a single point of time and future research should also take into account of this by using cross-sectional design for data collection (Saunders et al., 2016).

Besides, socio-demographic factors like age and income did not show any significance in our research model and this may be due to our focus of our study is the two young generations in Norway. However, a lot of previous literature did conclude that these factors should impact consumer behaviour about attitude and purchase intention. We regarded this as the second limitation in our study and future research should try to replicate a similar study in different countries or for different age groups, so as to investigate deeper into the relationship between values, attitudes and behavioural intention of consumers in the OFDs context. We believe future research should be able to extend the discussion of our study to compare different groups of consumers based on different socio-demographic factors.

The third limitation is about the use of TRA and TPB models to explain purchase intention in using OFDs. According to Hagger (2019), besides attitude, subjective norm and perceived

behavioural control, there could be other factors such as consumers' preference, habits and personality which will also impact purchase intention. In this study, we also found that customer satisfaction and past purchase experience should have some effect in our model because the "symbolic value" became insignificant after we had "controlled" them during the data analysis. So, for researchers who are interested to study consumer behaviour of OFDs, we suggest adding more relevant new factors into the model so as to explain more variance.

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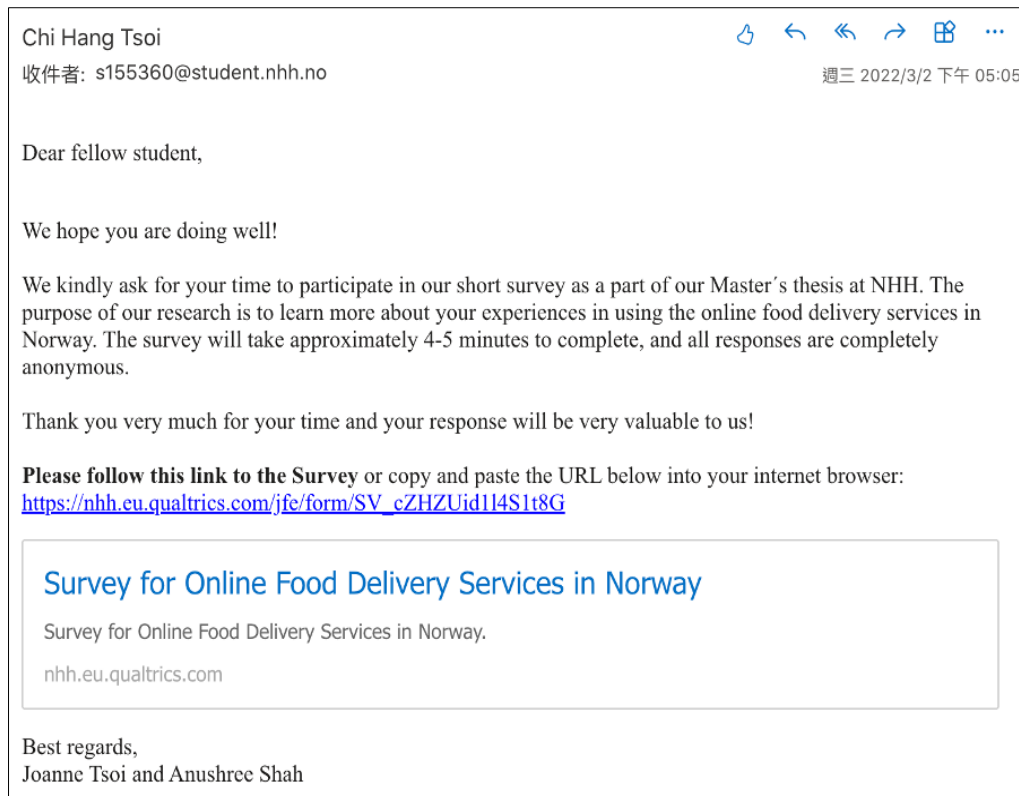
Appendix

Appendix 1: Result of the Pre-test

Age	Gender	Norwegian?	General comments	Any concerns about age question	Understand what is "Disposable income"?
32	M	No	Overall is good, most of the questions are easy to understand	No	Not very sure, suggested to use "Monthly spending on food" to measure
19	F	Yes	Great questions, but some of them are quite similar	No	Yes
26	F	Yes	It is good, but depending on the survey's purpose, the questionnaire may be too short	No	No
20	F	Yes	It is good with a great flow in the wordings	No	No
22	F	Yes	Some of the questions are quite similar, while some questions are weird (but she can't remember which ones are weird...); for the income question, she suggested to add "I dunno" and "I don't want to tell"	No	No
30	M	No	In general, questions are a bit short and can be interpreted differently	No	No
24	F	Yes	The questions are in a good flow and self-explanatory. I did not have to take a lot of time in understanding the questions.	No	Yes
26	F	No	I like it, it was short and sweet. It takes less than 7 minutes" (In the description it says 7 mins, her first impression was that 7 minutes is too long, and she suggested that she wouldn't take that much time in answering a survey)	No	Yes
22	F	No	I like the questions. The citizenship question can be changed to Nationality. It will be clearer.	No	No
26	M	No	A lot of the questions are the same. Like Foodora is fun to me, brings me enjoyment, makes me happy, entertaining.	No	No
26	M	No	It wasn't a long questionnaire, so I like it.	No	Yes
24	M	Yes	The structure is understandable. Except I don't like the questions related to "my friends will perceive me. /I demonstrate to my family."	No	Yes
*All of them are living in Norway for 6-month or more					

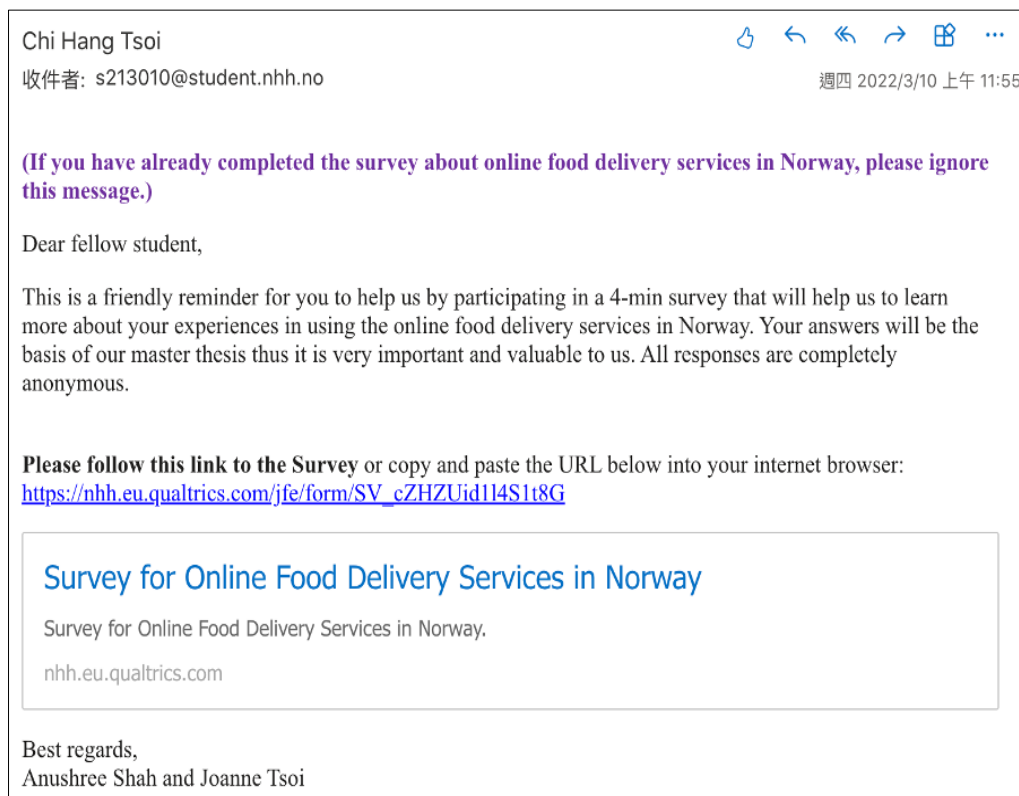
Appendix 2: Email invitation to participate in the survey

Invitation to participate in the survey about Online Food Delivery Services in Norway



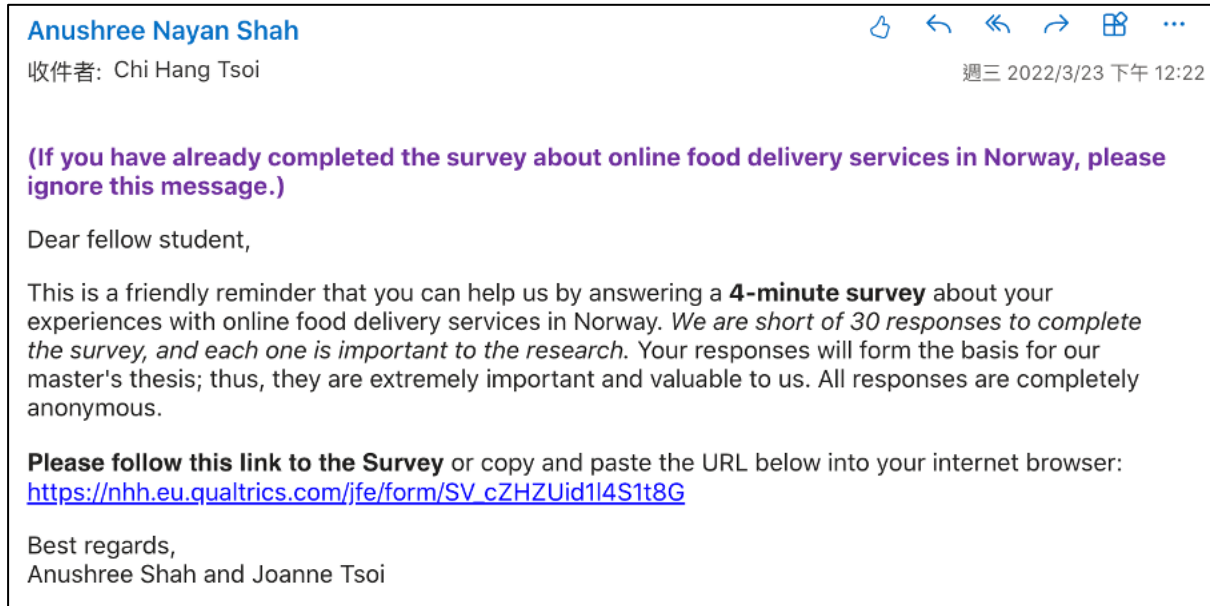
Appendix 3: First email reminder to participate in the survey

Reminder: Invitation to participate in the survey about Online Food Delivery Services in Norway



Appendix 4: Second email reminder to participate in the survey

2nd Reminder: Invitation to participate in the survey about Online Food Delivery Services in Norway



Appendix 5: Qualtrics-designed Questionnaire

Online Food Delivery Services in Norway

Start of Block: Default Question Block

Q0 Survey on the Online Food Delivery Services in Norway

Objective:

We are two master students from the Norwegian School of Economics under the specialization of Brand Management and Marketing.

As a part of our master thesis, we invite people who are living in Norway to participate in a short survey to help us learn more about their experience of using online food delivery services in Norway.

The survey takes 4-5 minutes to finish. Please bear in mind that there is no right or wrong answer to any of the questions and your experiences about the services are what we are interested in. Your response is very valuable to us!

The data collected from this survey will be used for academic purposes only. It is important for you to read the questions in detail and give us your honest answers.

Your responses will be anonymous and all the information you have provided will be treated confidentially. Participation in this survey is voluntary and you can withdraw from the survey at any time you wish.

If you have any questions or comments, please feel free to send us an email at chi.tsoi@student.nhh.no.

Q1 Are you holding a Norwegian Citizenship?

Yes (1)

No (2)

Display This Question:

If Are you holding a Norwegian Citizenship? = No

Q2 How long have you been living in Norway?

Less than 6-month (1)

6-month or more (2)

Skip To: End of Survey If How long have you been living in Norway? = Less than 6-month

Display This Question:

If Are you holding a Norwegian Citizenship? = No

Q3 What is your country of origin?

Q4 In the last 6 months, which of the following online food delivery services in Norway did you use the most?

Foodora (1)

Wolt (2)

Others (Please specify): (3)

I did not use any of the online food delivery services (4)

Skip To: End of Survey If In the last 6 months, which of the following online food delivery services in Norway did you use... = I did not use any of the online food delivery services

End of Block: Default Question Block

Start of Block: Part A - About your experiences with online food delivery services in Norway

Part A - About your experiences with online food delivery services in Norway

Instruction:

In this section, we will ask about your experiences or perceptions about online food delivery services in Norway which you have been using the most. Please answer all of the questions by choosing your preference in the scale from 1 - 7, where 1 represents "Strongly Disagree" and 7 represents "Strongly Agree". Please feel free to use the full range of the scale if you think it is appropriate!

Q5 $\{\{Q4/ChoiceGroup/SelectedChoicesTextEntry\}$ provides an easy way for me to order food online.

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
Your response: (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q6 $\{\{Q4/ChoiceGroup/SelectedChoicesTextEntry\}$ is efficient.

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
Your response: (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q7 The food of $\{\{Q4/ChoiceGroup/SelectedChoicesTextEntry\}$ is reasonably priced.

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
Your response: (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q8 $\{\{Q4/ChoiceGroup/SelectedChoicesTextEntry\}$ has a wide range of food selections.

Your
response:
(1)

End of Block: Part A - About your experiences with online food delivery services in Norway

Start of Block: Part B - Personal Particulars

Part B - Personal Particular

The following information obtained is for statistical purposes only. All information will be treated as **COMPLETELY CONFIDENTIAL**.

Q35 What gender do you identify yourself with?

- Male (1)
- Female (2)
- Rather not say (3)

Q36 What is your age?

- 18 or below (1)
- 19 (2)
- 20 (3)
- 21 (4)
- 22 (5)
- 23 (6)
- 24 (7)
- 25 (8)
- 26 - 41 (9)
- 42 or above (10)

Q37 How much discretionary income do you have for each month (This will be your monthly income, minus taxes and monthly fixed expenses, e.g., rent and utilities)?

- Less than NOK3000 (1)
- NOK3001 - 5000 (2)
- NOK5001 - 7000 (3)
- NOK7001 - 9000 (4)
- NOK9001 - 11000 (5)
- NOK11001 - 13000 (6)
- NOK13001 - 15000 (7)
- More than 15000 (8)

Q38 Are you a student?

- Yes (1)
- No (Please Specify): (2) _____

End of Block: Part B - Personal Particulars

Appendix 6: Descriptive Statistics

Construct	Item	Mean	Standard Deviation	Variance	Skewness	Kurtosis
Utilitarian Value	UtiVal_1	5.93	.989	.978	-1.492	4.580
	UtiVal_2	5.10	1.229	1.509	-.871	.361
	UtiVal_3	4.62	1.406	1.977	-.653	.183
	UtiVal_4	5.48	1.272	1.618	-1.337	2.243
	UtiVal_5	5.87	1.097	1.203	-1.206	1.598
Hedonic Value	HedVal_1	4.46	1.532	2.348	-.357	-.249
	HedVal_2	4.70	1.397	1.951	-.506	-.072
	HedVal_3	4.73	1.212	1.469	-.375	.372
	HedVal_4	3.92	1.446	2.091	0.12	-.385
	HedVal_5	4.12	1.523	2.319	-.278	-.414

<i>Symbolic Value (Environment Aspect)</i>	SymVal_En1	3.67	1.273	1.621	-.243	-.073
	SymVal_En2	2.98	1.388	1.926	.100	-.950
	SymVal_En3	2.81	1.430	2.044	.246	-1.009
	SymVal_En4	2.90	1.453	2.111	.202	-1.007
<i>Symbolic Value (Social Aspect)</i>	SymVal_So1	3.45	1.358	1.843	-.253	-.663
	SymVal_So2	2.96	1.434	2.055	.139	-1.097
	SymVal_So3	2.96	1.376	1.893	.035	-1.148
	SymVal_So4	3.11	1.472	2.166	.020	-1.102
<i>Attitude</i>	ATT_1	4.64	1.192	1.420	-.317	-.515
	ATT_2	4.82	1.282	1.643	-.792	.418
	ATT_3	4.65	1.183	1.399	-.493	.257
<i>Subjective Norm</i>	SUB_1	3.67	1.072	1.150	-1.033	1.501
	SUB_2	3.69	1.100	1.209	-.577	1.075
	SUB_3	3.65	1.068	1.141	-.752	.847
<i>Purchase Intention</i>	PI_1	5.28	1.048	1.099	-1.150	2.927
	PI_2	5.73	.884	.782	-.667	1.502
	PI_3	5.65	1.030	1.060	-1.512	4.417

Appendix 7: Goodness of fit

Index	Ideal Threshold Value	Measured Value
Chi Square test	5 or less	2.17
Root mean square error of approximation (RMSEA)	<0.08	0.073
Standardized Root mean square residual (SRMSR)	<0.10	0.081
Comparative Fit Index (CFI)	>0.95	0.956

Appendix 8: Rotated Component Matrix of first-factor loadings

Rotated Component Matrix							
	Component						
	1	2	3	4	5	6	7
<i>UtiVal_1</i>							0.651
<i>UtiVal_2</i>							0.701
<i>UtiVal_3</i>						0.645	
<i>UtiVal_4</i>						0.791	
<i>UtiVal_5</i>					0.515	0.542	
<i>HedVal_1</i>		0.842					
<i>HedVal_2</i>		0.770					
<i>HedVal_3</i>		0.805					
<i>HedVal_4</i>		0.847					
<i>HedVal_5</i>		0.864					
<i>SymVal_En1</i>	0.529						-0.524
<i>SymVal_En2</i>	0.836						
<i>SymVal_En3</i>	0.864						
<i>SymVal_En4</i>	0.901						
<i>SymVal_So1</i>	0.747						

<i>SymVal So2</i>	0.908						
<i>SymVal So3</i>	0.877						
<i>SymVal So4</i>	0.881						
<i>ATT_1</i>					0.770		
<i>ATT_2</i>					0.847		
<i>ATT_3</i>					0.598		
<i>SUB_1</i>				0.887			
<i>SUB_2</i>				0.908			
<i>SUB_3</i>				0.910			
<i>PI_1</i>			0.837				
<i>PI_2</i>			0.798				
<i>PI_3</i>			0.841				
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.							
a. Rotation converged in 6 iterations.							

Appendix 9: Inter-Item correlation matrix

Construct	Item	Factor Loadings	CR	AVE
<i>Utilitarian Value</i>	UtiVal_1	.689	.728	.535
	UtiVal_2	.634		
	UtiVal_3	.625		
	UtiVal_4	.582		
<i>Hedonic Value</i>	HedVal_1	.832	.913	.678
	HedVal_2	.771		
	HedVal_3	.810		
	HedVal_4	.844		
	HedVal_5	.858		
<i>Symbolic Value (Environment Aspect and Social Aspect)</i>	SymVal_En1	.639	.969	.685
	SymVal_En2	.865		
	SymVal_En3	.841		
	SymVal_En4	.895		
	SymVal_So1	.799		
	SymVal_So2	.867		
	SymVal_So3	.837		
	SymVal_So4	.851		
<i>Attitude</i>	ATT_1	.747	.865	.563
	ATT_2	.867		
	ATT_3	.616		
<i>Subjective Norm</i>	SUB_1	.873	.958	.802
	SUB_2	.903		
	SUB_3	.911		
<i>Purchase Intention</i>	PI_1	.834	.921	.682
	PI_2	.796		
	PI_3	.848		

Appendix 10: Indirect effects of values to purchase intention through attitude

We examine the effect of 3 major values on purchase intention via attitude. We need to test the direct effect and the indirect effect to get the results (Loeys et al, 2015). The effect of the values on purchase intention in the absence of attitude variable (For e.g. - Utilitarian Value → Purchase Intention) is referred to as the direct effect and, the effect of the three values on purchase intention through attitude variable (For e.g. - Utilitarian Value → Attitude → Purchase Intention) is called the indirect effect (Loeys et al, 2015). Hence, we test the indirect effect of attitude between utilitarian value, hedonic value and symbolic value and purchase intention. If the indirect effect is non-significant, but the direct effect is significant, we can conclude that the attitude is not impacted by the values towards purchase intention (Agrawal, 2019). Whereas, if the indirect effect is significant, but the direct effect is non-significant, we can conclude that the attitude is influenced by the values when determining the purchase intention (Agrawal, 2019).

Test of indirect effect of utilitarian value on purchase intention through attitude

We test the indirect effect of utilitarian value on attitude towards purchase intention. It was found that the direct effect of utilitarian value on purchase intention is not statistically significant ($\beta = 0.177$; p-value = 0.196), but the indirect effect of utilitarian value on purchase intention through attitude is statistically significant ($\beta = 0.072$; p-value = 0.025) as highlighted below. Therefore, it was concluded that attitude is influenced by the utilitarian value when determining the purchase intention.

Utilitarian Value → Attitude → Purchase Intention

Direct Effect (Utilitarian Value → Purchase Intention)		Indirect Effect (Utilitarian Value → Attitude → Purchase Intention)	
Path Coefficient	P Values	Path Coefficient	P Values
0.177	0.196	0.072	0.025

Test of the indirect effect of hedonic value on purchase intention through attitude

The direct effect of hedonic value on purchase intention is not statistically significant and the path coefficient is negatively impacted ($\beta = -0.035$; p-value = 0.196), but the indirect effect of

hedonic value on purchase intention through attitude is statistically significant ($\beta = 0.079$; p-value = 0.035). As a result, it was established that while assessing purchase intention, attitude is impacted by hedonic value.

Hedonic Value → Attitude → Purchase Intention

Direct Effect (Hedonic Value → Purchase Intention)		Indirect Effect (Hedonic Value → Attitude → Purchase Intention)	
Path Coefficient	P Values	Path Coefficient	P Values
-0.035	0.655	0.079	0.035

Test of the indirect effect of symbolic value on purchase intention through attitude

Finally, we perform an indirect effect analysis to evaluate whether symbolic value affects the decision. The direct effect of symbolic value on purchase intention is not statistically significant and similar to hedonic value, ($\beta = -0.043$; p-value = 0.637). In contrast to the other two values, symbolic value shows that its indirect effect on purchase intention through attitude is also not statistically significant ($\beta = 0.038$; p-value = 0.149). As a consequence, it was discovered that symbolic value does not indirectly influence attitude when determining purchase intention.

Symbolic Value → Attitude → Purchase Intention

Direct Effect (Symbolic Value → Purchase Intention)		Indirect Effect (Symbolic Value → Attitude → Purchase Intention)	
Path Coefficient	P Values	Path Coefficient	P Values
-0.043	0.637	0.038	0.149

In the next section, we compare different sub-groups using independent sample t-tests to see whether there are any variations with respect to symbolic values. This is assessed because we hypothesize that there will be differences in our paper's socio-demographic characteristic when compared to symbolic values.