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## Faculty of Business Economics

Master of Management

### **Master's thesis**

#### **Measuring customer value**

#### **Simon Dhaenens**

Thesis presented in fulfillment of the requirements for the degree of Master of Management, specialization International Marketing Strategy

#### **SUPERVISOR :**

Prof. dr. Alexandra STREUKENS



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## **Preface**

My gratitude goes to my supervisor, prof Dr Sandra Streukens, for helping me with this master thesis. Her feedback and guidance pointed me in the right direction when necessary and allowed me to accomplish something I am proud of.

I would like to thank my parents for giving me the opportunity to chase my dreams. I would also like to thank my brothers, Jeroen Moerman, Thomas Deman and Christophe Ruiters, for their unconditioned support throughout the year. Their support gave me the power I needed to fulfil this master thesis.

## Summary

Nearly everyone has ever called the local pizzeria or Chinese place and asked them to deliver the food. Instead of offering only one type of food from a certain restaurant, a Food Delivery App (FDA) gives customers a choice between a variety of local restaurants and food chains where they can order from. Thanks in part to the COVID-19 pandemic, this industry has boomed throughout recent years.

Customer value (CV) can be considered as one of the key foundations of marketing. Zeithaml (1988) explains CV as “The consumer's overall assessment of the utility of a product based on perceptions of what is received and what is given”. It is an essential part of both the pre-and post-purchase process. During the pre-purchase phase, it will influence the willingness of the customer to buy the product or use the service. Post-purchase, the CV offered can create customer satisfaction (SAT), which is another key concept in the marketing literature (Leroi-Werelds, 2019). The most widely accepted definition of SAT is the one by Oliver (1997); ‘SAT is the consumer’s fulfilment response. It is a judgment that a product or service feature, or the product or service itself, provided (or is providing) a pleasurable level of consumption-related fulfilment, including levels of under-or overfulfilment’.

The research of Oliver (1980) showed that one of the determinants of the long-term behaviour of customers is SAT. It is one of the foundations of doing business since SAT leads to repeat purchases, brand loyalty and word-of-mouth (Hoyer & MacInnes, 2001; Leroi-Werelds, 2014). Eventually, this will lead to profit since the future profitability of a firm is built upon the present level of SAT, where a high SAT is a good indicator of the future profits of a firm (Anderson & Sullivan, 1993; Cengiz, 2010). This is because SAT is an important end result of the marketing activity of a company (Churchill & Surprenant, 1982). For all businesses that are in search of competitive advantage, CV is therefore of importance (Eriksson et al., 2018). According to Woodruff (1997), a superior CV, in comparison to competitors, leads to a competitive advantage.

It is considered hard to measure by many, but Holbrook (1999) was the first one to propose 8 value types that form CV and which could be used to measure CV. During the last two decennia, the academic literature around CV has been evolving. Many discussed and added to these 8 value types. Leroi-Werelds (2019) recently proposed the use of her Customer Value Index (CVI) framework to measure CV. This CVI consists of 14 positive and 10 negative value types and is essentially a bundle of all the research around CV in the last decennia and an update of the value typology by Holbrook (1999).

This study aims to use Leroi-Werelds’ (2019) CVI framework and apply it in the FDA industry. From here on, two main research questions were formed;

1. ‘What determines Customer Value in Food Delivery Apps?’
2. ‘What is the relative impact of the Customer Value-dimensions on Customer Satisfaction within Food Delivery Apps?’

In the first phase of our research, we made use of the CVI of Leroi-Werelds (2019) to understand the different value types. The literature review also explained the concepts of CV, SAT and the important link between these two. Based on the literature, we were able to identify some value types that were irrelevant in the FDA industry. Next, we conducted interviews to be able to confirm and identify the full list of relevant value types. Twelve value types were deemed relevant in the industry of FDA; *convenience* (the extent to which the FDA makes the life of the customer easier), *status* (whether the use of the FDA has a positive impression on others, which eventually leads to higher social acceptance), *excellence* (the scope to which the quality of the FDA is of high quality), *self-esteem* (the use of the FDA positively influences the attitude of the customer of him or herself), *enjoyment* (the use of the FDA leads to fun, delight, and joy), *aesthetics* (the FDA captivates the customer due to its design and atmospheric aspects), *escapism* (the extent to which the FDA allows to customer to escape from the routine of life and relax), *personalisation* (it is modified to the specific needs of the individual customer), *price* (the FDA is expensive), *time* (the use of the FDA requires time for the customer to compose, use, acknowledge, etc), *performance risk* (the possibility that the FDA could perform not as expected) and *societal costs* (the FDA negatively impacts societal well-being).

Based on these twelve value types, a conceptual model was made, and a Ridge regression was used to test the hypotheses put forward in this conceptual model. Our empirical part of the study allowed us to check which hypotheses were backed by the data and were found significant. This was the case for five hypotheses in our study. The value type that showed the biggest significant positive relationship with SAT was time, closely followed by aesthetics and societal costs. Besides that, convenience and personalisation also were found to have a significant positive relationship to SAT.

The findings of this study are of importance to managers in the FDA industry, especially in the three businesses that were used in our study (UberEATS, TakeAway and Deliveroo). Both the findings on which value types are relevant in the FDA industry as well as the findings of which relevant value types have a positive relationship with the one specific key outcome of our study, SAT, are useful for them and can be used to improve their service and offerings.

The positive relationship of aesthetics with SAT confirms that the design of the FDA needs to be appealing and that its offerings should be shown in an attractive way. Managers of FDA should therefore invest in their team of developers and graphic designers to ensure the design of the FDA is on-point and appealing. While many of the FDA already offer a very convenient app and website, they should further devote resources to increasing the ease of use of their FDA to elevate overall SAT levels. The FDA should be easy to understand so customers can order as fast as possible, and attention should be paid to minimising the customer's wait time to receive their order. FDA management also needs to make sure that workers have good working conditions, are treated fairly, etc. Moreover, it can be worthwhile to invest in Corporate Social Responsibility to elevate their public image, which eventually leads to a higher level of SAT. Managers of FDA should check whether their FDA offers enough possibilities to personalise the customer's order and accordingly add new personalisation features.

Despite the fact that our study offers valuable insights to managers, a few limitations need to be noted in our research. First, in order to generalize findings, a bigger and more representative sample is necessary because our study only consisted of 131 respondents. Second, our  $R^2$  was relatively low, and therefore, only a small percentage of our dependent variable can be explained by our independent variables. The third and last, yet smaller limitation, is that our scales and survey were written originally in English, yet later on translated into Dutch in order to reach more people. This could have led to slightly different wording and could have influenced the responses in comparison to the respondents that filled in the English survey.

These limitations also present a research gap for future research and highlight things that future researchers should keep in mind. For example, a bigger sample size will lead to a more generalizable outcome. Besides that, it could be interesting to extend this research to include different FDA, countries and other key outcomes, such as purchase intention, which could then be used to compare findings between geographical areas or FDA.

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# 1 Introduction

Customer value (CV) can be considered as one of the key foundations of marketing. Zeithaml (1988) explains CV as “ The consumer's overall assessment of the utility of a product based on perceptions of what is received and what is given”. CV is an essential part of both the pre-and post-purchase process. During the pre-purchase phase, it will influence the willingness of the customer to buy the product or service. Post-purchase, the customer value offered can create customer satisfaction, leading to further repurchase intentions and word-of-mouth (Leroi-Werelds, 2019). For all businesses that are in search of competitive advantage, CV is of importance (Eriksson et al., 2018). According to Woodruff (1997), a superior CV, in comparison to competitors, leads to a competitive advantage.

While there has been a lot of research conducted on the concept of CV, it is still considered abstract and hard to measure by many. Holbrook (1994, 1999) was one of the first to develop a customer value framework, which covered eight value types, that many still consider the foundation of measuring customer value. These value types were the core typology many researchers later used to base their research on and measure customer value. Throughout the years, many researchers have added and updated the eight core value types. More recently, Leroi-Werelds (2019) bundled the research and gave an updated view on the value typology by Holbrook (1999). Her research proposes the use of a Customer Value Index (CVI) which consists of 14 positive and 10 negative value types.

Another key concept in marketing is customer satisfaction (SAT). According to Oliver (1997), SAT is the consumer’s fulfilment response. It is a judgment that a product or service feature, or the product or service itself, provided (or is providing) a pleasurable level of consumption-related fulfilment, including levels of under-or over-fulfilment. Previously written literature, such as Leroi-Werelds (2019) and Cronin (2000), highlight the important relationship between CV and SAT.

Nearly everyone has ever called the local pizzeria or Chinese place and asked them to deliver the food. Instead of offering only one type of food from a certain restaurant, Food Delivery Apps (FDA) give customers a choice between a variety of local restaurants and food chains where they can order from. The food is then delivered by workers of the app, mostly by bike or scooters. FDA are big business. According to Hirschberg et al. (2016), five businesses were already valued at over 1 billion USD in 2016. At the time of writing, JustEat/TakeAway is valued at over 12 billion euros. Competitor Deliveroo is valued at over 5 billion euros. In 2020, UberEATS had an estimated revenue of 4.8 billion USD. The recent COVID-19 crisis impacted restaurants all over the world and made the delivery of food more important since many countries restricted dine-in possibilities.

Looking at the literature, no previous research has been done on what specific value types are relevant within the Food Delivery App industry and how they link to SAT. The main purpose of this study is to gain insights into the relevant value types in the FDA industry through the use of the CVI of Leroi-Werelds (2019). The end goal is to have an overview of the

relevant value types and assess their relationship to SAT within the FDA industry. These results can later be used in further research or by managers of FDA businesses. While the FDA industry is spread worldwide, I will focus on the FDA industry in Belgium. This geographical target will allow me to find interviewees more easily. I am planning to conduct a survey with these users, which will mainly cover the experiences and satisfaction that they had with FDA.

Based on these goals, two main research questions that motivate this study were defined;

1. 'What determines Customer Value in Food Delivery Apps?'
2. 'What is the relative impact of the Customer Value-dimensions on Customer Satisfaction within Food Delivery Apps?'

In order to answer these questions, I will first conduct a rather limited, exploratory qualitative study. This qualitative study will consist of a literature review, together with a limited round of interviews with FDA users. This will help me to reveal which of the 24 value types proposed by the CVI of Leroi-Werelds (2019) are relevant for FDA. Extensive previous research has been done on measurement scales for all value types, which will help me start my descriptive, quantitative study. This part will consist of a survey of users, which will assess the relationship between these value types and customer satisfaction.

## **2 Literature Study**

This study is an application of the Customer Value Index by Leroi-Werelds (2019), which is built upon several concepts that are key to understanding the study. Therefore, each concept is explained thoroughly to give a basic understanding and increase general readability. First, the theoretical background of Customer Value is explained, described and characterised. Moreover, the different value typologies are discussed and analysed. Second, we dig deeper into the concept of Customer Satisfaction and its importance. Third, we analyse and highlight the important relationship between these two concepts.

### **2.1 Customer Value**

#### **2.1.1 Theoretical background**

Customer value (CV) can be considered as one of the key foundations of marketing. Zeithaml (1988) was one of the first to cover this concept. She explains CV as “ The consumer's overall assessment of the utility of a product based on perceptions of what is received and what is given”. However, other definitions, such as the one by Anderson et al.(1992) that defines CV as “the perceived worth in monetary units of the set of economic, technical, service and social benefits received by a customer firm in exchange for the price paid for a product offering, taking into consideration the available alternative suppliers’ offerings and prices”, exist. Meanwhile, Gale (1994) describes CV as the perceived quality, adjusted for the relative price of the product, wherein perceived quality is the opinion of the customer about your product in comparison to the product of your competitor. The definition of CV by Zeithaml (1988) is by far the most fundamental, cited and built upon explanation in the CV literature and is, therefore, the one used in this study (Leroi-Werelds, 2019).

It is clear that all these definitions have a rather similar vision and approach to the concept of CV, but what does CV involve? During the last decennia, a lot of research has been done on defining what characteristics CV entails. Leroi-Werelds (2019) has bundled this research together to aid in understanding the concept of CV. Besides bundling the research, her research revealed a seventh foundational characteristic. All of the characteristics are listed below, each with their explanation and scientific support, together with simple, practical examples.

##### **1. CV involves an interaction between a subject and an object**

There is an interaction needed between the subject and object to have CV since there can be no CV if there is no one to experience it (Holbrook, 1999). The subject is usually the customer or consumer, and the object can be any product, ranging from a service to toothpaste to a DVD player (Leroi-Werelds, 2014). As in the example of a food delivery app, the food delivery app can and does not have any value if there is no one to use it and place an order.

## **2. CV implies a trade-off between the benefits and costs of the object**

This is based on the most cited definition of customer value by Zeithaml (1988), which implies CV entails an assessment by the customer of what is received and what is given. Benefits can be seen as the positive consequences and costs as the negative consequences derived from the object's use (Leroi-Werelds, 2014). A clarifying example is when using a food delivery app, the customer can conveniently choose and order from a list of restaurants that will deliver the food to his door, while the use of this service will lead to a monetary cost, such as a delivery fee.

## **3. CV is not inherent to an object but in the experiences derived from the object**

CV is gained from experience, meaning that CV is not found in the brand, product, or object but is acquired from its consumption of it (Holbrook, 1999). A perspective that is quite similar to the concept of value-in-use, a notion that implies that real value only emerges during its use. The firm offers potential value-in-use, which then can transition into CV while experiencing the product or service (Leroi-Werelds, 2014). An example is the customer helpdesk that is available to users of a food delivery app in case of problems or questions. The helpdesk can be seen as an object and is not inherently valuable but only valuable if the customer uses it.

## **4. CV is personal**

CV is perceived as utter dependant on the individual (Smith et al., 2007). It is perceived solely by the customer instead of determined by the seller (Woodruff 1997). This characteristic is one of the reasons why marketing exists in the first place. Popular marketing practices such as marketing segmentation are based on this notion (Holbrook, 1999). This characteristic can be viewed both objectively and subjectively. Objectively, I may be a huge fan of a certain dish, but someone else might not since it has ingredients in it to which he or she is allergic. Subjectively, one could like to go to a restaurant, while someone else could prefer to eat that meal at home.

## **5. CV is situation-specific**

CV not only depends on the individual, but CV also depends on the circumstances in which the assessment is made (Holbrook, 1999; Leroi-Werelds, 2014). For example, the delivery of food may be very helpful when you are hungry and too lazy to cook. Meanwhile, it may be a lot less useful when you just ate and are not hungry anymore.

## **6. CV consists of multiple dimensions**

When talking about the CV of a product or service, many times, multiple value types are involved (Gallarza et al., 2017). However, academic literature fails to agree on which set of value types should actually be used (Leroi-Werelds, 2019). An illustration of the multidimensionality of CV is that when ordering a meal through a food delivery app, the CV can consist of a range of value types, such as convenience, enjoyment, and excellence.

## **7. CV is (co-)created by the customer by means of resource integration**

After reviewing the literature, Leroi-Werelds (2019) added a seventh characteristic; that the customer acts as a resource integrator. The firm provides potential value, but only with the integration of other products and services one could transform this potential value into real value (Leroi-Werelds et al., 2017). When ordering a dish through a food delivery app, the subject uses other resources such as the internet and the app to make the order. Later on, when eating the food, cutlery, a plate, and even his skills are used to be able to extract real value from the food.

### **2.1.2 Customer Value Typology**

One could now ask why and to whom it is of importance to measure CV. It is an essential part of both the pre-and post-purchase process (Leroi-Werelds, 2019). So, for any business that is in search of competitive advantage, the measurement of CV is relevant (Eriksson et al., 2018). The value for the customer is the cause why customers choose one company over another (Osterwalder & Pigneur, 2010). Therefore, a superior CV, in comparison to competitors, will lead to a competitive advantage (Woodruff 1997).

While there has been a lot of research conducted on the concept of CV, its characteristics and its importance for measuring, it is still considered abstract and hard to measure by many. As previously mentioned, dividing opinions exist on which value types should be used to measure CV. Many CV typologies have been proposed over the years. However, the one by Holbrook (1999) was one of the first comprehensive CV frameworks and is widely accepted (Leroi-Werelds, 2019; Gallarza et al., 2017). Leroi-Werelds' (2014) research found that this framework is able to predict SAT and therefore is, from a methodological point of view, the best choice to measure CV. Another advantage of the framework is the availability of existing scales. These scales are already validated by other researchers and can easily be used for new research.

Holbrook's (1999) framework has three underlying dimensions, the first being extrinsic vs intrinsic. Extrinsic value occurs when the product or service is used for its functional contribution to achieving some other goal. This is the case when someone would use a smartphone to use a range of apps, such as a food delivery app. On the other hand, intrinsic value happens when consumption is a goal in itself. The consumption of the meal ordered through the food delivery app offers no value beyond the experience appreciated for its own sake.

The second set of underlying dimensions is self-oriented vs other-oriented values. When value is self-oriented, the user values some aspect of the consumption of the service or good only for their own sake. This happens, for example, when I consume a meal. I am the one receiving the benefits of consumption. With other-oriented value, value is offered to others as well. The consumption has an effect on others, like the purchase of an expensive car to impress my neighbours.

The third and last set of dimensions is active vs reactive value. Active value happens when a physical or mental manipulation of an (in)tangible object takes place. A practical example of this is the physical manipulation (typing, swiping and clicking) of a smartphone (the object) to use apps. On the contrary, value is reactive when a product or service does things to or with a customer as part of the consumer experience. This is the case when looking at and admiring the new, cool-looking car that you bought.

Based on these three dimensions, the framework reveals eight core value types. 'Efficiency' is the ratio of outputs to inputs; in the case of an FDA, this can, for example, be operationalised as the number of calories in the meal per dollar spent. When a product or service is capable of achieving something I want to, 'excellence' occurs. 'Status' is the manipulation of your own consumer behaviour to gain approving reactions from others, such as the buying of a Ferrari, which will certainly impress others. Closely related is 'esteem', which is the reactive counterpart of 'status'. This value type is about the self-appreciation of a product or service that can passively lead to an increase in my public reputation. An example of this is having expensive art in your house, where it enhances your self-view but can improve the view of others on me as well. Having fun when using a product or service is called 'fun', where you gain enjoyment from doing something. 'Aesthetics' concerns the beauty aspect of the service or good, often one of the main aspects in the fashion industry. 'Ethics' entails the act of doing something out of goodwill for others, like donating blood to a blood bank. When someone worships a divine, religious or mystical power, we talk of 'spirituality'. An example of this is doing a prayer to find inner peace with one's self.

		<b>Extrinsic</b>	<b>Intrinsic</b>
<b>Self-oriented</b>	<b>Active</b>	Efficiency	Play
	<b>Reactive</b>	Excellence	Aesthetics
<b>Other-oriented</b>	<b>Active</b>	Status	Ethics
	<b>Reactive</b>	Esteem	Spirituality

Figure 1: Customer Value Framework by Holbrook (1999)

Many still consider this framework the foundation for measuring customer value. However, throughout the years, many researchers added and updated the eight core value types.

The literature found that 'efficiency' should be replaced with 'convenience' and 'play' with 'enjoyment', especially when the product or service is affiliated with new technologies (Leroi-Werelds, 2019). These changes find support in both the theory and practice (De Keyser et al., 2019; Van Belleghem, 2017). Since our study focuses on FDA, which is closely related to new technologies, both of these changes are advisable (Leroi-Werelds, 2019).

Leroi-Werelds et al. (2014) combined both '*status*' and '*esteem*' and called it social value. However, one should only do this in case the object serves to influence others (Leroi-Werelds, 2019). This is not the case in our study and, therefore, should be viewed apart from each other. The value type '*status*' is towards others, while '*esteem*' concerns individual thoughts on yourself; hence '*esteem*' could be called '*self-esteem*' (Gallarza et al., 2017). Next, the value type '*spirituality*' is replaced in the academic literature with the value type '*escapism*'. According to Gallarza et al. (2017), Holbrook himself approved this adaption since '*escapism*' fits better in business contexts (Leroi-Werelds 2019). We also have two new value types that find their descent in a value type from Holbrook's typology. Both '*ecological benefits*' and '*societal benefits*' find their roots in '*ethics*' and were discovered by the work of Sudbury-Riley and Kohlbacher (2016). Their findings highlight the growing importance of sustainability in the decision-making process of customers.

Besides dividing, deriving, combining or renaming the original eight value types, advances in both business and literature contexts exposed several new value types. '*Personalisation*' finds its roots in big data, where customer data is used to make static (based on data from similar customers) or dynamic (based on data from the customer itself) personalisation possible (Huang and Rust, 2017; Leroi-Werelds, 2019). Closely related to '*personalisation*' is '*control*'. This value type was revealed by the research of Kleijnen et al. (2007). Their findings show that '*control*' has a strong impact on the customer value perceptions and hence is a noteworthy new value type. New technologies are on the rise, and when encountered, they can lead to curiosity and give people a desire to know more about them. Therefore, Leroi-Werelds (2019) proposes the value type '*novelty*', which entails these instances. '*Relational benefits*' is another new value type exposed by the literature over the years. This value type is mainly a thing in contexts with human interaction, but according to Wirtz et al. (2018), new technologies, such as service robots, can have a negative impact since they lack the authenticity and genuineness of a human being (Leroi-Werelds, 2019). Meanwhile, research around collaborative consumption uncovered the value type '*social benefits*'. This value type is especially relevant in social contexts (Leroi-Werelds, 2019).

It is clear that the above-mentioned value types all are related to the positive side of CV. However, when looking at the functional characteristics of CV, CV is seen as a trade-off between benefits and costs (see functional characteristic two) (Woodruff, 1997). Gallarza et al. (2017) were the first that shined a light on the limitation of the typology of Holbrook. Based on this limitation, the literature also uncovered negative value types. These value types are not just the counterparts of the positive ones but standalone value types that should receive their own research (Cenfetelli and Schwarz, 2011).

The most mentioned, and probably the one that comes first to mind, is the negative value type '*price*', which entails the monetary cost involved in the service or good (Gallarza et al., 2017). Multiple researchers, such as Willems et al. (2016), saw '*price*', together with the value types '*time*' and '*effort*', as a part of '*efficiency*'. Kleijnen et al. (2007) also uncovered '*time*' as an individual value type in their research around mobile financial services. Meanwhile, '*effort*' finds support in research around self-service technologies and the Internet of Things (Blut et al., 2016; Mani and Chouk, 2018). Furthermore, Blut et al. (2016) also showed the relevance of '*risk*' as a value type.



However, this value type can be defined broadly and was therefore often separated by researchers into a range of value types, being; 'privacy risk', 'security risk', 'performance risk', 'financial risk' and 'physical risk' (Gallarza and Gil-Saura, 2006; Kleijn et al., 2007; Mani and Chouk, 2018; Ng and Wakenshaw, 2017; Wirtz et al., 2018). The counterparts of 'societal benefits' and 'ecological benefits', named respectively 'societal costs' and 'ecological costs', are also two negative value types that showed up in the literature (Leroi-Werelds, 2019). According to Sudbury-Riley and Kohlbacher (2016), they cannot be seen as only the opposites of the former since their research found that the rejection of unethical behaviour is not similar to awarding ethical behaviour.

Leroi-Werelds (2019) bundled all of this research and gave an updated view on the value typology by Holbrook (1999). The updated framework consists of the previously mentioned 14 positive and 10 negative value types. Since this framework is the foundation of our study, a deeper overview of the value types is given to better understand each of them.

Positive Value Types	Description
Convenience	The extent to which the object makes the life of the customer easier.
Excellence	The scope to which the quality of the object is of high quality. Based on the context, this can relate to the quality of the product(s) or service(s), or both.
Status	Whether the object has a positive impression on others, which eventually leads to higher social acceptance.
Self-esteem	The object positively influences the attitude of the customer of him or herself.
Enjoyment	The customer's use of the product or service leads to fun, delight, and joy.
Aesthetics	The product or service captivates the customer due to its design and atmospheric aspects. These include things such as colour and layout and can be related to all the human senses (smell, touch, sight and hearing).
Escapism	The extent to which the object allows to customer to escape from the routine of life and relax.
Personalisation	It is modified to the specific needs of the individual customer.

Control	The customer can influence or direct the object. This includes a wide variety of different aspects, such as the content, timing and/or the sequence of the process or outcome.
Novelty	The extent to which the product or service leads to curiosity and pleases the desire for knowledge (e.g. wanting to know more about it). Only new objects, such as new technologies, are influenced by this value type.
Relational benefits	The use of the object will result in an improved relationship between the customer and the service provider.
Social benefits	The use of the object will result in an improved relationship with other customers.
Ecological benefits	The extent to which the object has a beneficial impact on the well-being of the environment and nature.
Societal benefits	To which level the object has a positive impact on the well-being of society. Examples are Corporate Social Responsibility initiatives such as fair trade and employee fairness.

### **Negative Value Types**

Price	The extent to which the object is expensive.
Time	Use of the object requires time for the customer to compose, use, acknowledge, etc.
Effort	Use of the object requires an effort of the customer to compose, use, acknowledge, etc.
Privacy risk	The degree to which the use of the object can result in the loss of privacy.

Security risk	Using the object can lead to issues around the security of personal information and can result in losing personal information to hackers or criminals.
Performance risk	The possibility that the object could perform not as expected.
Financial risk	The use of the object can cause a loss of money.
Physical risk	When using the object, the customer risks an injury or other health-related issues.
Ecological costs	The object has a negative influence on the well-being of the environment.
Societal costs	The object negatively impacts societal well-being. Examples are child labour, poor working conditions, etc.

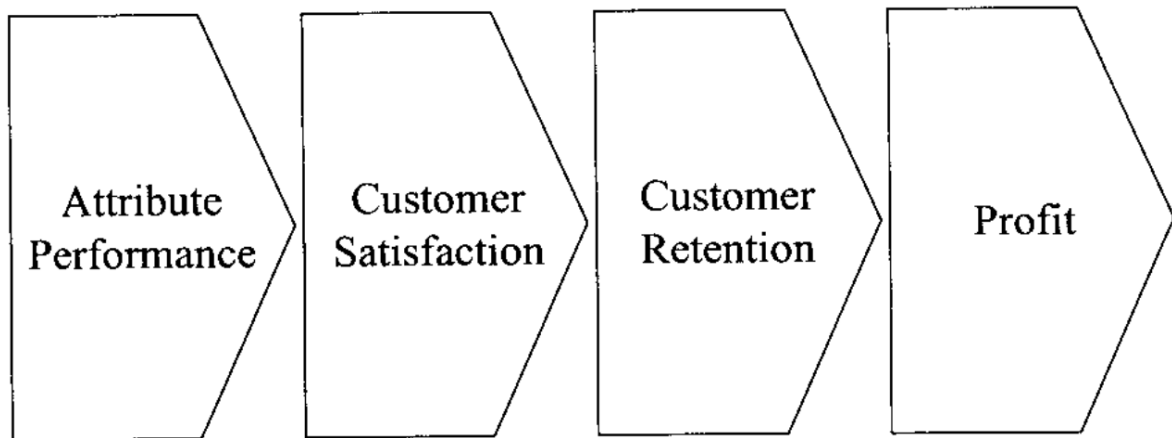
*Figure 2: Adapted Customer Value Typology of Leroi-Werelds (2019)*

Leroi-Werelds (2019) proposes the use of her updated value typology to measure the concept of CV. This aforementioned CV typology framework includes all the positive and negative value types. However, not every value type is of relevance in certain situations. While for example, in the case of a water bottle bought in a supermarket, we can make the assumption that the value type novelty is not relevant.

## **2.2 Customer Satisfaction**

Another key concept in the theory and practice of the marketing field is Customer Satisfaction (SAT). Several theories around SAT have been researched, yet the expectancy disconfirmation theory has been the most popular and acknowledged expression of SAT (McQuitty et al., 2000). This theory is based on the post-choice evaluation belief that if performance exceeds expectations, users will be satisfied. On the contrary, if performance fails to meet expectations, consumers will be dissatisfied (Aigbavboa & Thwala, 2013). The most widely accepted definition of SAT that embraces this theory is the one by Oliver (1997); 'SAT is the consumer's fulfilment response. It is a judgment that a product or service feature, or the product or service itself, provided (or is providing) a pleasurable level of consumption-related fulfilment, including levels of under-or overfulfilment'.

The importance of (measuring) SAT was conceptualised by the satisfaction-profit chain of Anderson and Mittal (2000), which shows that SAT ultimately leads to profit.



*Figure 3: Satisfaction-profit chain by Anderson & Mittal (2000).*

The role of attribute performance (CV) on SAT will be discussed in the next chapter of this study. As regards the link between SAT and customer retention, the research of Oliver (1980) showed that one of the determinants of the long-term behaviour of customers is SAT. It is one of the foundations of doing business since SAT leads to repeat purchases, brand loyalty and word-of-mouth (Hoyer & MacInnes, 2001; Leroi-Werelds, 2014). Besides that, an increase in SAT is likely to lead to a decrease in the price elasticity of demand which results in better customer retention (Anderson, 1996).

Eventually, this will lead to profit since the future profitability of a firm is built upon the present level of SAT, where a high SAT is a good indicator of the future profits of a firm (Anderson & Sullivan, 1993; Cengiz, 2010). This is because SAT is an important end result of the marketing activity of a company (Churchill & Surprenant, 1982). Keith (1960) even saw the whole concept of marketing as the process of satisfying the customer's desires. Meanwhile, the research of Anderson et al. (2004) indicates that a higher level of SAT also creates more shareholder value. Even when looking for external financing, SAT plays an important role. The research of Anderson and Mansi (2009) showed that a higher SAT relates to a higher credit score and, subsequently, a lower cost of debt.

It should be clear that SAT is a key concept; however, it should be noted that a managerial focus on the improvement of SAT in their firm alone is unlikely to be enough to ensure long-term performance. While it benefits short-term performance, one should also look at other factors influencing the performance of a firm. For example, the research of Mittal et al. (2005) found that a successful dual approach to both SAT and cost reduction is necessary to excel in the long run.

## 2.3 The relationship between Customer Value and Customer Satisfaction

Above, we have examined and defined both the concepts of CV and SAT, which showed that both of the concepts are of great importance to businesses. However, it is also important that we also examine the relationship between the two concepts. Highlighting and understanding this relationship will help to reach customer success. When someone does not recognise the concept of CV when approaching and measuring SAT, it is expected to fail (Evans, 2002).

A general framework that helps us better understand and acknowledge the reason for the relationship between CV and SAT is the Theory of Planned Behaviour by Ajzen (1985) and its predecessor, the Theory of Reasoned Action (Fishbein and Ajzen, 1975). These studies propose the Beliefs-Attitudes-Intentions (BAI) framework that finds its roots in social psychology.

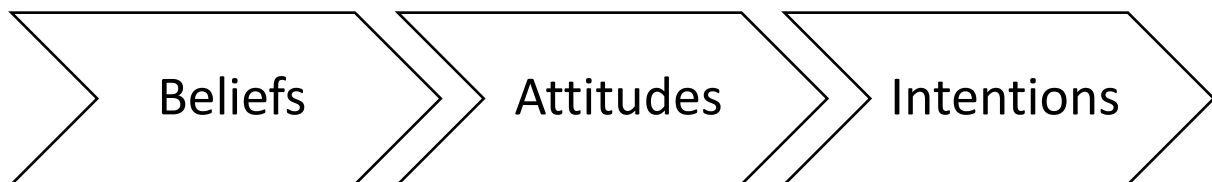


Figure 4: BAI framework based on the Theory of Planned Behaviour from Ajzen (1985)

We recognise three main items in this framework. The first item is beliefs. These beliefs are the rational cognitive assessments the customer has about the service or good. Ajzen (1985) identified three main categories of beliefs; behavioural beliefs, normative beliefs and control beliefs. Behavioural beliefs concern the beliefs one has about the object by linking certain attributes of the product or service to events, other objects or characteristics. Normative beliefs cover the likelihood that other individuals or groups approve or disapprove of the service or good. Control beliefs consist of the beliefs about the presence (or absence) of necessary resources and opportunities. Ajzen (1985) considered these beliefs as the prevailing indicators of the intentions and, later on, actions of a person. Which beliefs are relevant depends on the subject of the study. For example, in the study of Lu and Lin (2002) around customer behaviour in the online market space, they used an infrastructure belief, context-belief and content belief, which are three examples of behavioural beliefs. According to Lam et al. (2004), these beliefs are what we earlier described as CV.

The next part of the framework is attitudes, which are developed from the beliefs people have about the object of attitude. These attitudes reflect the person's level of positive or negative evaluation of the good or service. According to multiple researchers, such as Froehle and Roth (2004), the attitude towards a company, good or service is conceptually similar to what we described as SAT in the previous chapter of our study.

Lastly, these attitudes, amongst other things, influence the intentions, which correspond to how likely someone is to perform a certain behaviour. Intentions consist of all motivational factors that impact the behaviour. The higher the level of intentions, the likelier it is that a person will do a certain behaviour. An example of a specific desirable future behaviour is the loyalty of customers towards a service provider.

This framework explains the link between CV and SAT on the basis of human behaviour and is thus quite general. Accordingly, the framework has been used and applied by many researchers to explain the relationship between CV, SAT and customer loyalty in their studies. The research of Lam et al. (2004) reconfirmed that beliefs are equal to CV, SAT to attitude and customer loyalty to intentions. They confirmed and used this relationship in a business-to-business service context. Meanwhile, Lu and Lin (2002) used the framework to research customer behaviour in the online market space.

Besides this more general approach, more specific research has been done on the important relationship between CV and SAT. Leroi-Werelds (2014) developed a structural model that, among others, showed the relationship between CV and SAT. The satisfaction profit chain (mentioned in the last chapter) also highlights the relationship between CV and SAT. There, the performance of the attributes proposed by the company influences the customer perceptions, which subsequently form CV, which in their turn is measured by SAT (Anderson & Mittal, 2000; Mittal et al., 2014). Besides these previously mentioned studies, other research has been done on the relationship between the two. The research of Oh (1999) identified CV as a major construct or variable that needs to be taken into consideration when researching SAT. A reason for this is that SAT is a function of expectations, which consist of a range of value types (McQuitty et al., 2000). The research of both Willems et al. (2016) and Gallarza et al. (2017) revealed that there is a linear relationship between the value types and SAT. As value types make up the expectations in the pre-purchase phase, this relationship is logical since SAT was earlier defined as the judgement of fulfilment of the service or product.



## **3 Research Methodology**

This chapter provides information about the research methodology used to address the objective of the study, which is to determine the relationship between CV and SAT for FDA. First, we discuss the exploratory research that has been done in order to compile a conceptual model. Second, an overview is given of this conceptual model. Third, the research setting of our study is described. In the last chapter, the design of the questionnaire is discussed.

### **3.1 Exploratory research**

In order to uncover which value types were relevant for FDA, a limited number of personal interviews needed to be conducted. The goal of these interviews was to uncover hidden or be able to delete unnecessary value types. In order to conduct this small but necessary exploratory research, an interview guide was compiled, which allowed a smooth process of conducting the interviews. This research guide can be viewed in the appendix. All of the interviews were transcribed, and these transcriptions can be found in the appendix. The laddering technique was used to conduct these interviews. This useful technique focuses on the motivation behind an answer, which is uncovered by asking the question 'Why?' repeatedly. This type of questioning allows us to identify a set of linkages, ranging from attributes to consequences and, later on, values.

#### **3.1.1 Profile of the interviewees**

A total of five interviews were conducted, all conducted in person. The persons were selected through convenience sampling since this is only a rather small exploratory part of my research. This sampling method allowed a convenient and fast selection of subjects, leading to the rapid collection of the necessary information. All of the interviewees were men between the age of 18 and 30. The only selection criteria used was that they made use of one of the following apps during the last twelve months; UberEATS, Deliveroo and TakeAway.

#### **3.1.2 Results of the exploratory research**

Before conducting the interviews, it was clear certain value types were not relevant to the study. These value types were therefore not included in the interview. Meanwhile, certain value types were doubted and were tested to be able to pin down the (ir)relevance.

Thanks to this exploratory research, 10 value types were deemed irrelevant before doing the interviews. This was the case for the value types; novelty, relational benefits, social benefits, physical risk, ecological benefits, ecological costs, financial risk, societal benefits, privacy risk and security risk.



As mentioned before, the laddering technique was used to conduct these interviews, and the results were analysed and coded in line with this technique. This resulted in different insights.

The first major insight is that while the value type 'effort' was mentioned in the interviews, further analysis showed a close relationship with the value type 'convenience'. This is due to the fact that the subject of the study, the FDA, is designed in a way to minimise any effort to order and make it very convenient to use. For this reason, 'effort' was deemed irrelevant for this study.

Another important discovery is the relation between 'personalisation' and 'control'. While these were seen as two separate value types by Leroi-Werelds (2019), the exploratory research revealed that the two are very closely related. Hence, in this study, both value types are merged into one value type, 'personalisation'.

Taking into account both the irrelevant value types and the important insights, we are able to pin down the relevant value types. According to the exploratory research, a total of 12 value types are relevant to the study of FDA. These value types are; convenience, status, excellence, self-esteem, enjoyment, aesthetics, escapism, personalisation, price, time, performance risk and societal costs. These value types are reflected in the conceptual model that is shown on the next page.

## 3.2 Conceptual model

In the literature study, previous research has been discussed that highlighted the relationship between CV and SAT. Based on this, together with the value proposition of the FDA and the results of the exploratory research, the beneath shown conceptual model is proposed. In this model, the independent variable is CV, and the dependent variable is SAT.

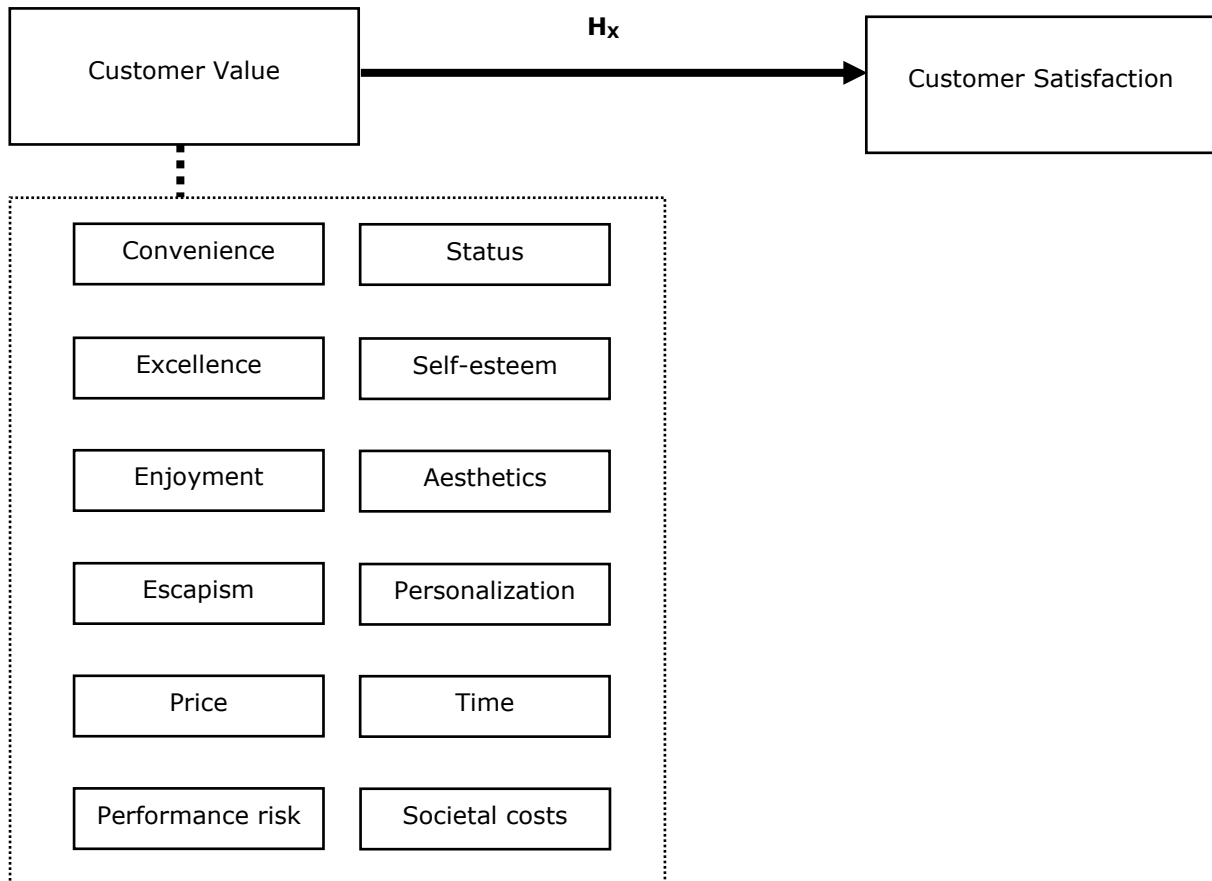


Figure 5: Conceptual Model

### 3.2.1 Hypothesis development

Based on this conceptual model, twelve different hypotheses have been developed about the relationship between CV and SAT in FDA.

- H1:** Convenience has a positive impact on SAT
- H2:** Status has a positive impact on SAT
- H3:** Excellence has a positive impact on SAT
- H4:** Self-esteem has a positive impact on SAT
- H5:** Enjoyment has a positive impact on SAT
- H6:** Aesthetics has a positive impact on SAT
- H7:** Escapism has a positive impact on SAT

- H8:** Personalisation has a positive impact on SAT  
**H9:** Price has a positive impact on SAT\*  
**H10:** Time has a positive impact on SAT\*  
**H11:** Performance risk has a positive impact on SAT\*  
**H12:** Societal costs have a positive impact on SAT\*

**\*= while this is a negative value type in the CVI of Leroy-Werelds (2019), it was measured, or results were cleaned, in a way that a higher score implies a positive impact on the customer**

### **3.3 Research setting**

In our study, we are going to test the relationship between CV and SAT in the Food Delivery Apps (FDA) industry. Nearly everyone has ever called the local pizzeria or Chinese place and asked them to deliver the food. Instead of offering only one type of food from a certain restaurant, FDA gives customers a choice between a variety of local restaurants and food chains where they can order from. The food is then delivered by workers of the app, mostly by bike or scooters.

### **3.4 Research design**

In order to test this relationship, we conducted a questionnaire with people that have used at least one of the three most common FDA operating in Belgium (UberEATS, Deliveroo and TakeAway) in the last year. At the time of writing, these are the three major players in the FDA industry in Belgium and were therefore chosen to maximise familiarity with the services under study. To do this, the questionnaire was personalised with the FDA they had used in the last twelve months. If multiple FDA were selected, a random FDA of their selection was showcased.

This study aims to highlight what determines SAT in FDA. To conduct this part of the research, a quantitative strategy was adopted. The goal was to obtain as much as possible data from the unit of analysis in a relatively short period of time. Therefore an easily understandable questionnaire was designed and later on distributed through the IT tool, Qualtrics. This tool allows easy collection and analytics of the collected data. Since this study is rather limited in size and has a small budget, non-probability sampling seemed appropriate.

To help with data collection, the University of Hasselt was given a request to deliver the questionnaires to all students and faculty in their email database. Each person in the database received an invitation to fill in the survey through a link in the email. The specific method of collecting is called convenience sampling, where the subject was chosen based on the easy availability, and there is no prior known chance to be selected. The candidates were self-selected but were disqualified if they did not make use of any FDA during the last twelve months. Besides the database of the University of Hasselt, the survey was also shared on LinkedIn and Facebook amongst family and friends.

Since the respondents were observed at one single point in time, this study is cross-dimensional. All of the respondents were instructed to only fill the questionnaire in once. However, the questionnaire was fully anonymously, so it is not possible to check if a respondent filled in the questionnaire more than once. The goal was to have a total sample of around 150 respondents, which was deemed appropriate for this study.

### **3.5 Questionnaire design**

Extensive previous research has been done on acceptable measurement scales for our study. In the table below, a full overview of both the questions and proven support in the literature is given. We use previously used scales since these are validated by other researchers, therefore increasing the reliability and validity of the study. The proposed conceptual model showcases the 12 value types used in our questionnaire to measure the relationship between CV and SAT; convenience, status, excellence, self-esteem, enjoyment, aesthetics, escapism, personalisation, price, time, performance risk and societal costs.

After a small introduction of the research and myself, a screening question was introduced. This question, " Which food delivery apps have you used in the last 12 months?", allowed four possible answers; None, UberEATS, Deliveroo, TakeAway. This was done for two reasons. First, it was implemented in order to check if the respondents were able to assess the CV and SAT in FDA since they recently used one. Second, it allowed me to personalise the questionnaire with them, or if multiple selected, a random FDA they used in the last year.

After the screening question, questions were asked to measure the 12 value types and the satisfaction level of the customers using the FDA. The questionnaire ended with some demographic questions. Below, you can find an overview of the questions and how they relate to the value types. To ensure validity and reliability, previously validated scales were used. While for most of the value types, one scale was used, sometimes it was deemed necessary to include multiple scales in order to have enough appropriate items that could measure the value type. All of the items were measured using a 7-point Likert scale, with 4 being 'Neither agree nor disagree'. Therefore, everything above 4 is considered positive, and everything below 4 is considered negative. In the appendix, you can find the full questionnaire.

<b>Value type</b>	<b>Literature</b>	<b>Question</b>
Convenience	Lin et al. (2005)	"It is quick to complete a transaction at XYZ"
	Mathwick et al. (2001)	"It is easy to complete a transaction at XYZ" "Ordering through XYZ is an efficient way to manage my time" "Ordering through XYZ makes my life easier"
Excellence	Petrick (2002)	"XYZ is very reliable"
		"The service of XYZ is of outstanding quality"
		"The service of XYZ is consistent"
Status	Pihlström and Brush (2008)	"Using XYZ helps me to feel accepted by others"
		"Using XYZ gives me social approval"
		"Using XYZ gives a good impression to other people"
Self-esteem	Sparks et al. (2008)	"Ordering through XYZ increases my sense of self-worth"
		"Ordering through XYZ gives me a sense of pride"
Enjoyment	Pihlström and Brush (2008)	"Using XYZ gives me pleasure"
	Willems et al. (2016)	"Ordering through XYZ is truly a joy"
Aesthetics	Mathwick et al. (2001)	"XYZ is aesthetically appealing"
		"I like the way XYZ's app looks"
		"The way XYZ displays its offerings is attractive"

Escapism	Mathwick et al. (2001)	"Ordering through XYZ 'gets me away from it all"
	Sánchez-Fernández et al. (2009)	"Using XYZ has served as a way of temporary escape for you"
Personalisation	Lin et al. (2005)	"The level of personalisation at XYZ is about right"
	Kleijnen et al. (2007)	"I have control over the transaction when using XYZ"
Price	Ruiz et al. (2008)	"I am happy with the prices of XYZ"
		"The price charged to get this company's services is high"
		"The pricing structure is clear to understand"
Time	Sánchez-Fernández et al. (2009)	"The time spent ordering is right"
		"The time you have waited between order and delivery is reasonable"
Performance risk	Kleijnen et al. (2007)	"As I consider using XYZ, I worry about whether the service will really perform as well as it is supposed to"
Societal costs	Willems et al. (2016)	"XYZ is a socially responsible company"
Customer satisfaction	Lin et al. (2005)	"You are satisfied with your decision to order through XYZ"
		"Your choice to purchase from XYZ was a wise one"
		"You think you did the right thing to purchase at XYZ"

**Note: XYZ = One of the three FDA under study**

*Figure 6: Schematic overview of questionnaire design*



## 4 Results

This chapter dives deeper into the results of the study. In this chapter, we first start with taking a look at how the data was collected and cleaned. Second, we dive deeper into the demographics of our sample. Third, we go on with the descriptives of the data. Last, we identify the equation of the regression and do the regression.

### 4.1 Data collection and cleaning

All of the data was collected through Qualtrics between April and May 2022. The Qualtrics software was used to obtain the data since it offers an easy design of the survey and collection of the data. The data was then transferred to the SPSS software for a more detailed analysis. The data was cleaned by removing the incomplete responses, as well as the respondents that responded that they did not use any FDA during the last twelve months. With the forced response option included in every question, no missing values within the survey were possible. No outlier with repetitive behaviour was identified. The sample for this study consisted of persons who have used a FDA in the last twelve months. While there were 234 responses, 103 of them did not make use of any of the three mentioned FDA (UberEats, TakeAway and Deliveroo) or did not finish the survey. Since they were not useful for the survey, they were excluded from filling in the survey and were redirected to the end of the survey. The cleaned data consisted of 131 respondents and was further analysed with the most recent version of the SPSS software (28.0).

### 4.2 Demographics

In total, UberEats was selected 34 times, TakeAway 98 times and Deliveroo 61 times. When multiple FDA were selected, a randomised FDA of their selection was shown. Hence the total of responses is lower than the total of selected FDA.

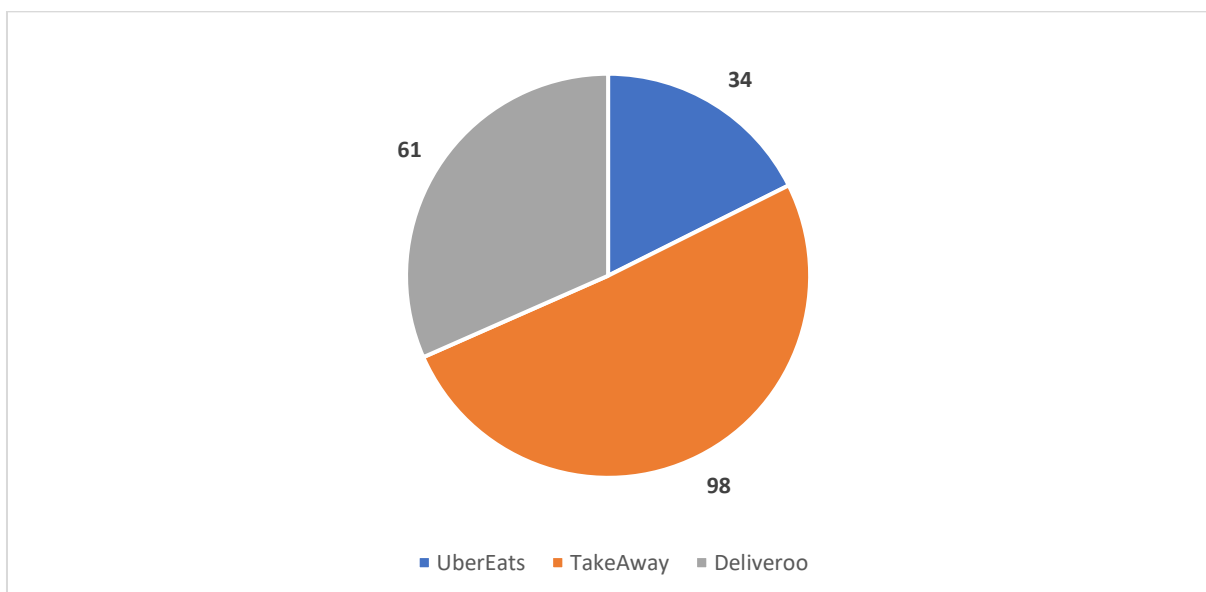


Figure 7: Distribution of FDA



The sample of people that completely filled in the survey consisted of 60 males, 69 females, two persons identified as X and no one preferred not to say his or her gender.

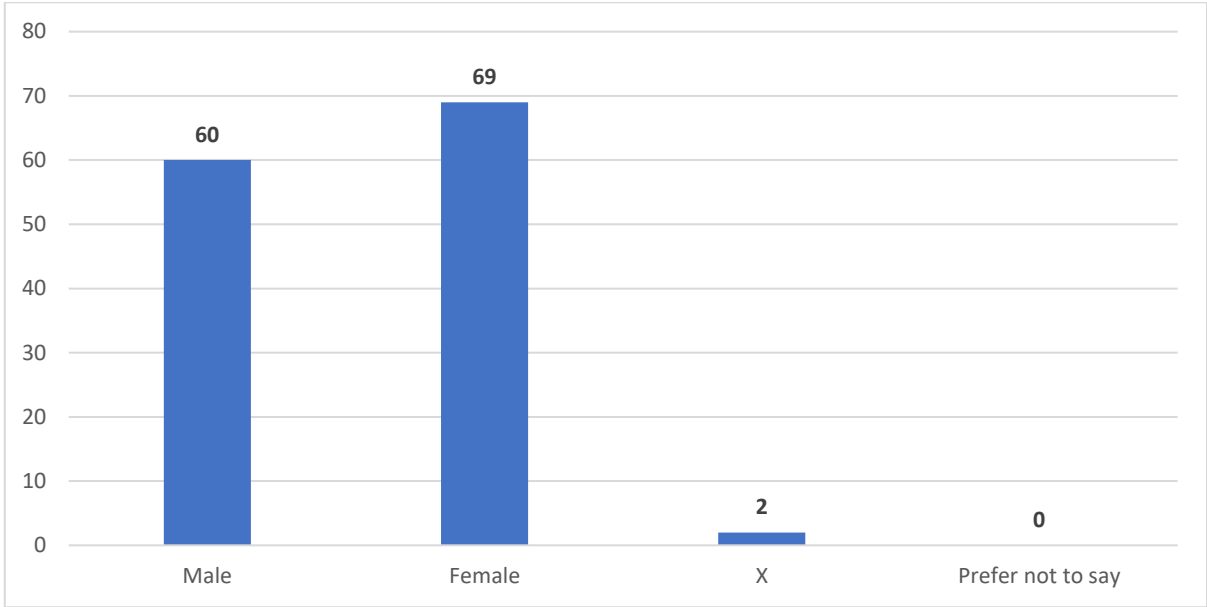


Figure 8: Distribution of gender

While the distribution between genders was quite equal, most of the respondents belonged to one specific age group. A reason for the predominant share of responses in the age group of 18-24 years has a quite logical explanation. This is because the survey was distributed through my and my friends' Facebook, Instagram, and LinkedIn, where my (and theirs) personal network is mainly situated. Besides that, the survey was also distributed to UHasselt students and staff, where the ratio between students and staff is 4:1 (UHasselt, *Facts and Figures*, 2021).

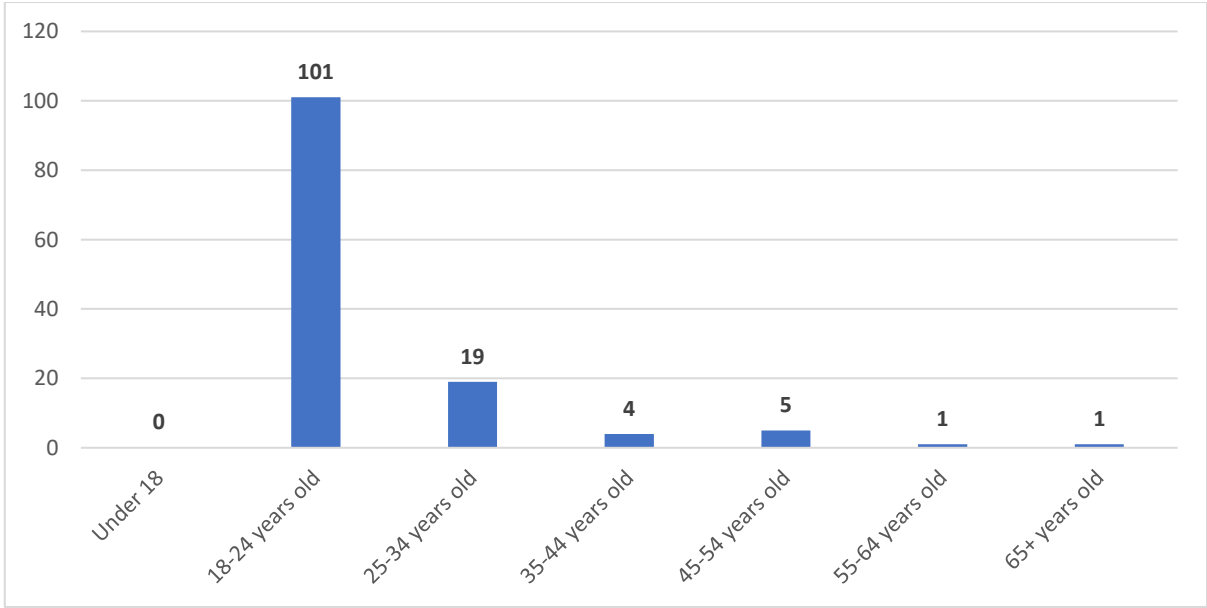


Figure 9: Distribution of age groups

## 4.3 Data analysis

### 4.3.1 Descriptives

#### 4.3.1.1 Cronbach's alpha

Cronbach's alpha is a measure of internal consistency and indicates whether multiple items may be seen as one group. This measure helps us to assess the overall reliability of the scales. Since our survey used multiple items to measure one construct, it is important to check whether our items are reliable. Two value types were measured with a single item, meaning that no Cronbach's Alpha can be computed.

It should also be noted that Cronbach's alpha is used to assess the reliability of reflective scales. While most of our items in the survey were measured in a reflective way, some were measured in a formative way. However, due to the fact that sometimes a mix between the two measurement methods was used, but mostly reflective, we treat every item as a reflective scale and therefore compute the Cronbach's alpha. While this may not be the best solution to the problem, the level of statistical analysis necessary to solve the problem is too complex to use in this thesis.

Value type	Cronbach's alpha
Convenience	0.704
Excellence	0.792
Status	0.907
Self-esteem	0.923
Enjoyment	0.814
Aesthetics	0.842
Escapism	0.824
Personalisation	0.597
Price	0.612
Time	0.670
Performance risk	Single-item construct
Societal costs	Single-item construct
Satisfaction	0.861

Table 1: Cronbach's Alpha

According to Malhotra (2017), the scales can be considered reliable if Cronbach's alpha is above 0.70, which is the case for most of the variables. However, three variables seem to score rather low. As mentioned above, we used a mix of both reflective and formative scales. While the value type 'personalisation' used a mix of reflective and formative scales, the value types 'price' and 'time' were both measured by fully formative scales. Their low score on Cronbach's alpha could relate to the fact that Cronbach's alpha normally should only be used for fully reflective scales. We continue our analysis with all the scales in our regression. However, it should be noted as a limitation of the research.

### 4.3.1.2 Mean values

Now that both the reliability and validity of the scales are confirmed, we can look at other descriptives, such as the mean value. The following table gives an overview of the means of the twelve relevant value types and SAT. Most of the value types were measured through multiple items. Therefore, the average of all the variables is calculated to show the average response of the items on the value types. Only the value types 'Performance risk' and 'Societal costs' were measured with one item.

All of the items were measured using a 7-point Likert scale, with 4 being 'Neither agree nor disagree'. Therefore, everything above 4 is considered positive, and everything below 4 is considered negative. All of the items, including the negative value types, were measured or structured in a way that a higher score is seen as something positive.

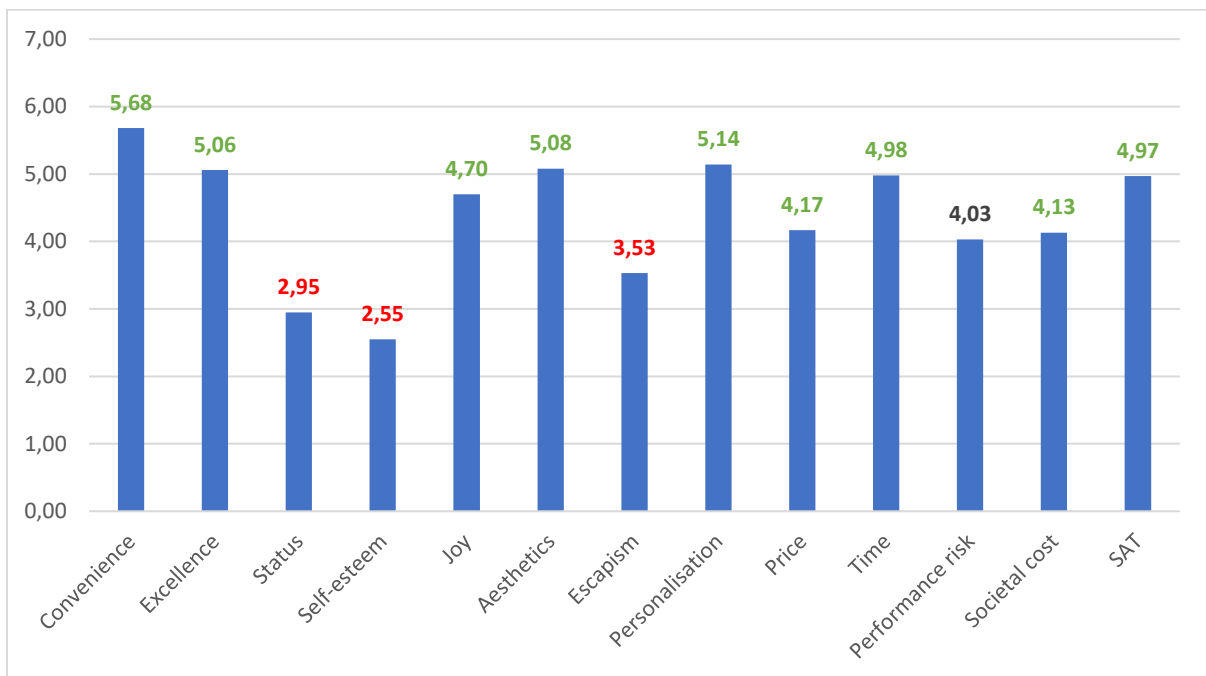


Figure 10: Means of the value types

Examining the means of all the value types, one value type scores around the neutral score of 4, being 'Performance risk'. This indicates that the respondents neither agree nor disagree with the item. Three value types score below the neutral score of 4, being 'status', 'self-esteem' and 'escapism', indicating that respondents do not agree with the items of the survey. Meanwhile, eight value types score above the neutral score of 4, indicating that the respondents agree with the items used in the survey. Looking at the average SAT, respondents seem to be rather satisfied with their decision to order through the FDA.

### 4.3.1.3 Collinearity matrix

In the correlation matrix, values are shown that reflect the relationship between two variables. The values range from -1 to +1 and indicate both the strength and nature of the relationship. A positive value indicates that an increase in the first variable would also mean an increase in the second variable. When the value is negative, the variables tend to move in the other direction of each other. According to Malhotra (2017), a correlation coefficient of between 0,5 and 1 represents a strong relationship, a correlation coefficient of between 0,3 and 0,49 a moderate relationship and a correlation coefficient between 0,1 and 0,29 a weak relationship.

Looking at the collinearity matrix in our study, which can be found in full in the appendix, we identify mostly weak and moderate relationships. We identify a couple of strong relationships as well. 'Status' seems to be strongly positively related to 'self-esteem' and 'escapism'. Meanwhile, 'self-esteem' is also positively related to 'escapism'. Moreover, the value type 'joy' also has a strong positive relationship with 'escapism'.

	<b>Escapism</b>	<b>Self-esteem</b>
<b>Status</b>	0.508	0.764
<b>Self-esteem</b>	0.515	
<b>Joy</b>	0.502	

Table 2: Correlation matrix

## 4.4 Regression

### 4.4.1 Regression equation

The general regression equation is:

**Y** (dependant variable): SAT

**X** (independent variables): Value types

**e**: error term

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta \dots X \dots + e$$

Based on this general regression equation and the conceptual model shown in chapter 3.2, one multivariate regression has been made in order to analyse the data:

$$\hat{Y} = \alpha + \beta_1(\text{Convenience}) + \beta_2(\text{Status}) + \beta_3(\text{Excellence}) + \beta_4(\text{Self-esteem}) + \beta_5(\text{Enjoyment}) + \beta_6(\text{Aesthetics}) + \beta_7(\text{Escapism}) + \beta_8(\text{Personalization}) + \beta_9(\text{Price}) + \beta_{10}(\text{Time}) + \beta_{11}(\text{Performance risk}) + \beta_{12}(\text{Societal costs})$$

#### 4.4.2 Hypotheses

Based on the conceptual model, we identified twelve hypotheses, which we are trying to test with the regression model:

**H1:** Convenience has a positive impact on SAT

**H2:** Status has a positive impact on SAT

**H3:** Excellence has a positive impact on SAT

**H4:** Self-esteem has a positive impact on SAT

**H5:** Enjoyment has a positive impact on SAT

**H6:** Aesthetics has a positive impact on SAT

**H7:** Escapism has a positive impact on SAT

**H8:** Personalisation has a positive impact on SAT

**H9:** Price has a positive impact on SAT\*

**H10:** Time has a positive impact on SAT\*

**H11:** Performance risk has a positive impact on SAT\*

**H12:** Societal costs have a positive impact on SAT\*

**\*= while this is a negative value type in the CVI of Leroi-Werelds (2019), it was measured, or results were cleaned, in a way that a higher score implies a positive impact on the customer**

#### 4.4.3 Multicollinearity

Before doing any regression, we check whether any multicollinearity exists between any of the dependent variables in our model since this could negatively affect our regression. Multicollinearity is the overlap between two dependent variables. We are able to check this based on the VIF-values. The most frequent cut-off value for the VIF is two, meaning that if a variable scores above two, there is multicollinearity, and we should act accordingly.

When we take a look at table 2, we can see that in our model, two variables have a value of VIF higher than two, both 'excellence' and 'status'. This could lead to problems, and therefore several steps can be taken to solve this issue of multicollinearity. First, we could delete these variables. However, this could lead to an omitted variable bias. Another solution to this problem is using a Ridge regression. With this regression, we add a little bias in order to get more stability in our regression. This solution seems the most appropriate for our study.

Model	VIF
Constant	1,375
Convenience	1,733
Excellence	2,655
Status	2,674
Self-esteem	1,615
Joy	1,785
Aesthetics	1,763
Escapism	1,612
Personalisation	1,321
Price	1,412
Time	1,464
Performance risk	1,300
Societal costs	1,375

Table 2: Multicollinearity

#### 4.4.4 Regression analysis

##### 4.4.4.1 Ridge regression

Resulting from the presence of multicollinearity, we have chosen to do a Ridge regression. In order to be able to conduct a good Ridge regression, we should determine our constant  $k$  of the Ridge regression. This value of  $k$  determines how much bias we are going to add and, therefore, how much the ridge parameters differ from the parameters obtained using the normal regression method. The estimation of this value is rather subjective and can be derived from the Ridge trace. In this graph, we look for the value of  $k$  where our dependent variables seem to stabilize.

Based on figure 9, we are able to identify our value of  $k$ . As seen in figure 9, the values stabilize around the 0.66 mark on the x-axis and therefore, we choose 0.66 as the value of  $k$ .

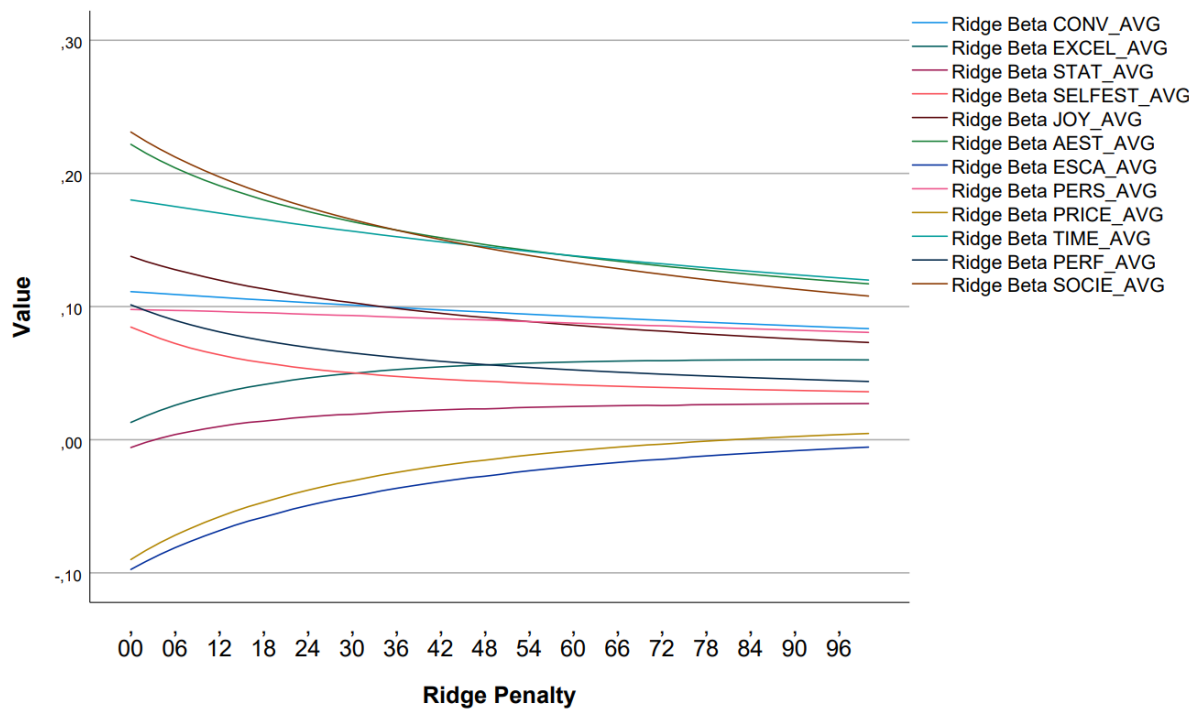


Figure 9: Ridge trace

#### 4.4.4.1.1 R-squared

Before discussing the output of the Ridge regression itself, we take a look at the R-squared of our regression. R-squared ( $R^2$ ) is a measure that shows how much of the variance of a dependent variable is explained by the independent variable in the regression model. The value of  $R^2$  ranges from 0 to 1, and according to Malhotra et al. (2017), the higher the value of R-square is, the better the fit is. However, when adding dependent variables, the  $R^2$  increases each time a dependent variable is added. In our regression model, a lot of dependent variables are included, so we take a look at the adjusted  $R^2$ , which compensates for the addition of variables. The adjusted  $R^2$ , therefore, only increases if the added variable enhances the model.

<b>R<sup>2</sup></b>	0.343
<b>Adjusted R<sup>2</sup></b>	0.277

Table 3: R-squared

Table 3 shows the values for both  $R^2$  and adjusted  $R^2$ . The adjusted  $R^2$  is rather low in our case, with a value of 0.277. This means that 27.7% of the dependent variables can be explained by the independent variable, SAT.

#### 4.4.4.2 Ridge regression output

In order to test the hypotheses, a Ridge regression was conducted, which allows us to analyse if there is a significant relationship between the independent variable and dependent variables. In order to assess this, we take a look at the p-value. The null hypothesis is that there is no significant positive relationship between SAT and the value type. To be able to reject the null hypothesis at a level of 95% confidence, the p-value needs to be lower than 0.05. This would show that there is a significant relationship between the independent variable and dependent variable.

In the event that this is the case, we take a look at the standardised Beta coefficient. This value shows both the strength and direction of the relationship.

Dependent variables:	Independent variable: SAT	
	Standardized Beta coefficient	P-value
Convenience	,091	0,030
Excellence	,059	0,190
Status	,026	0,514
Self-esteem	,040	0,351
Joy	,084	0,072
Aesthetics	,134	<0,001
Escapism	-,017	0,667
Personalisation	,086	0,029
Price	-,006	0,907
Time	,135	0,009
Performance risk	,051	0,256
Societal costs	,129	0,006

Table 4: Ridge regression output

When we take a look at the output of our Ridge regression in table 4, we have three dependent variables that are significant at a 95% confidence level; convenience, aesthetics, personalization, time and societal costs.

Taking a look at the standardised Beta coefficient, we are able to identify how strong the relationship between the dependent variable and the independent variable, SAT, is. All of them show a positive relationship, meaning that both move in the same direction. The value of the standardized Beta coefficient reflects how much of an increase is expected when the independent variable increases by one. So, for example, when SAT increases by 1, Convenience is going to increase as well, by 0.091.



Hypotheses	Backed by results
<b>H1:</b> Convenience has a positive impact on SAT	<b>Yes</b>
<b>H2:</b> Status has a positive impact on SAT	No
<b>H3:</b> Excellence has a positive impact on SAT	No
<b>H4:</b> Self-esteem has a positive impact on SAT	No
<b>H5:</b> Enjoyment has a positive impact on SAT	No
<b>H6:</b> Aesthetics has a positive impact on SAT	<b>Yes</b>
<b>H7:</b> Escapism has a positive impact on SAT	No
<b>H8:</b> Personalisation has a positive impact on SAT	<b>Yes</b>
<b>H9:</b> Price has a positive impact on SAT	No
<b>H10:</b> Time has a positive impact on SAT	<b>Yes</b>
<b>H11:</b> Performance risk has a positive impact on SAT	No
<b>H12:</b> Societal costs have a positive impact on SAT	<b>Yes</b>

*Table 5: Hypotheses overview*

With the results of the Ridge output, we are also able to identify which hypotheses are backed by our results. At a level of 95% confidence, we are able to reject the H0 hypotheses and conclude that H1, H8, H10 and H12 are all backed by results and therefore show a positive impact on SAT.

## 5 Conclusion and managerial implications

The aim of this study was to first make use of the CVI, proposed by Leroi-Werelds (2019), to answer our two main research questions;

1. 'What determines Customer Value in Food Delivery Apps?'
2. 'What is the relative impact of the Customer Value-dimensions on Customer Satisfaction within Food Delivery Apps?'

Our first part of our research identified the full list of relevant value types; convenience, status, excellence, self-esteem, enjoyment, aesthetics, escapism, personalisation, price, time, performance risk and societal costs. These value types were used to form a conceptual model. In order to test the conceptual model and the hypotheses, we conducted a survey and later on analysed the results with a Ridge regression. The data of the survey found that customers were rather satisfied with their decision to use a FDA.

The results of this regression showed us that five hypotheses were significant, and therefore, multiple value types have a positive impact on SAT. The value type that had the highest standardized Beta coefficient and, therefore, the strongest relationship with SAT was time (0.135). The research of Nayan and Hassan (2020) also highlights the positive relationship between time and SAT. This implies that it is necessary for FDA to make their app easy to understand so customers can order as fast as possible and then minimize the customer wait time to receive their order.

Almost as equally strongly influencing SAT is aesthetics (0.134). This confirms that the design of the FDA needs to be appealing and that its offerings should be shown in an attractive way. Managers of FDA should, therefore, invest in their team of developers and graphic designers to ensure the design of the FDA is on-point and appealing. This relationship was also found by Pal et al. (2021), that also revealed in their research that the aesthetics of the FDA (described as visual design in their study) positively affects SAT.

Another value type that had a quite strong relationship with SAT is societal costs (0.129). This means that FDA management needs to make sure that workers have good working conditions, are treated fairly, etc. Moreover, it can be interesting to invest in Corporate Social Responsibility to elevate their public image. When done properly, this will lead to an increase in overall SAT.

Meanwhile, convenience also shows a positive impact on SAT (0.091). While many of the FDA already offer a very convenient app and website, they should further invest in ease of use of their service to elevate overall SAT levels. This finding was also highlighted in the studies around FDA by both Song et al. (2017) and Nayan and Hassan (2020).

The last value type that influences SAT is personalisation, with a standardized Beta coefficient of 0.086. Managers of FDA should check whether their FDA offers enough possibilities to personalise the customer's order and invest accordingly in new personalisation features.

This study contributes to the marketing research literature in several ways. First, while the research around CV and SAT is comprehensive, the research that makes use of the CVI of Leroi-Werelds (2019) and applies it in a real context is quite limited. Second, it adds to the SAT and CV literature, especially the literature that researched these two concepts in the context of FDA.

## 6 Future research and limitations

The first limitation is that our survey consisted of a mix of reflective and formative scales. Only after the data collection this became clear, and recollection of the data was not possible due to the strict time schedule. Therefore, we continued the analysis of the data, knowing that we had two different types of scales in our survey, and every scale was treated as it was a reflective scale. This led to some difficulties in the analysis, such as a rather low Cronbach's alpha for the variables that were measured with a formative scale. Future research should keep this in mind and choose to use only one type of scale.

The second limitation is that the sample was rather small, with 131 respondents in the survey. In order to generalize the findings to the whole population, research with a greater sample should be conducted to be able to generalize the findings. Therefore, it could be interesting to extend this research both with more participants but also outside of Belgium. We had 234 respondents, yet 103 did not make use of any FDA in the last twelve months. This is rather a big portion that never makes use of any FDA. In certain countries, such as the US, food delivery is more frequently used and would lead to a higher response rate, which may lead to different results. Accordingly, by extending it to another country to increase the sample size, it could also be interesting to check whether any social or cultural influences in other countries have an impact on the results. If research has been done in multiple countries, it could then be used to compare findings between countries and check differences. Another suggestion is that in our study, no distinction was made between the answers of different FDA. However, it could be interesting to conduct research where a distinction is made between FDA to see if there are any differences in both the relevant value types, as the outcome of the regression which assesses the strength and direction of the relationship between the value types and SAT. Furthermore, our research focused on the impact of value types on SAT, and it could be interesting to see the impact on other key outcomes, such as intention to purchase and customer loyalty.

The third limitation is that the coefficient of determination ( $R^2$  and especially adjusted  $R^2$ ) has a rather low score, and therefore only a small part of the dependent variables can be explained by the independent variable, SAT. A possible explanation is that other independent variables are relevant. This presents a research gap and is an interesting pathway to uncover by future research.

A last and rather small limitation is that the original survey and scales were later on translated into Dutch in order to reach more people since Dutch is more easily understood by the population of this study. There is a slight chance that this could have led to slightly other wording and could have influenced the responses of the respondents in comparison to those who answered the survey in the intended language, English.



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# Appendix

## Interview guide

### General topic:

What determines CV with FDA?

When conducting the research, a list of the 24 value types will be close to me, where I can tick off covered value types.

### Example questions:

When was the last time you used a FDA? In what circumstances do you use FDAs? Why do you use FDAs? Are there any reasons why you have (not) used FDAs more frequently?

How do you feel about (Insert non-covered positive value type)? How do you feel about (Insert non-covered negative value type)?

### Probing questions and body language:

Recognize nodding, smiling, looking interested, using confirming words and sounds

Don't feel the need to break the awkward silence, participants usually will feel the need to talk/explain more to break the silence.

How come?

How did that work out for you?

You have talked about ....., can you also say something about...

Can you give me an example of...

What do you mean by...

Can you tell me more about that?

How do you feel about this?

Explain the situation. What happened?

Why did you choose to [do what you did]?

You said something interesting earlier....

So, what I am hearing is that...

You mentioned..., I want to get back to it, but first let's talk about...

## Interview transcriptions

### Interview 1

**When was the last time you used a FDA?** It's been a while, around three months ago.

**Why?** It's not always available in the region I am residing in or it takes a long time to get to me.

**Why does it takes a long time?** They use bikes and it is sometimes very far for them, I don't want to exploit the workers, they already get paid so little.

**Why don't you want to exploit workers?** I have read in the newspapers about how certain FDA's treat their drivers bad, with a weird legal job description and bad working conditions, they sometimes go on strike for that.

**In what circumstances do you use FDAs?** Most of the times it is because I am lazy, tired, have no time or it's bad weather outside. Sometimes I just want to eat something really delicious. I used it a couple of times when I was with friends as well.

**Why do you choose it when you are lazy or tired?** It is a convenient, fast and easy way of getting a meal.

**Why is it convenient?** These apps are easy to use due to their layout, in a couple of taps I can choose what I eat and make changes if necessary. Sometimes with my allergies I need to exclude peanuts from my meal. It also allows me to choose when I need it.

**Why do you choose it when you want something delicious?** I am not a really good cook, so sometimes I award myself with something delicious when I had a difficult day or something.

**Why do you award yourself with a meal?** It makes me happy and allows me to forget household chores etc for a bit.

**Why does it makes you happy?** Delicious food gives me joy and makes me feel good.

**Why do you use FDAs?** I order through an FDA since it gives me a broad variety of restaurants to choose from so there is definitely something I like available.

**Why have you not used FDAs more frequently?** It is more expensive than cooking yourself or even picking it up yourself. On certain moments, the waiting times are very long and then I prefer to go myself to avoid cold food.

**Why do you find it expensive?** I'm just a student so I can't afford to blow my weekly budget on takeaway meals like some other, more rich, students do.

**How do you feel about the privacy risk?** I don't feel any privacy risks are associated with using an FDA.

**How do you feel about the security risk?** I don't think any security risks are associated with using an FDA.

## **Interview 2**

**When was the last time you used a FDA?** Two weeks ago when I was staying with friends in Ghent.

**Why?** It was convenient and fast to order.

**Why was it convenient?** We didn't need to get out of our room to have something to eat. Two taps on my phone and the food is ordered and delivered to my door.

**In what circumstances do you use FDAs?** I used a lot when I was in quarantine or when I want to eat something delicious.

**Why?** Because I don't need to go out myself to get it.

**Why won't you go yourself?** Because I am lazy and want to stay at home.

**Why want you to stay at home?** My life is quite busy and just staying home and ordering online allows me to take a break from my busy lifestyle.

**Why do you want to eat something delicious?** I am happy with good food.

**Why do you use FDAs?** Because it is easy.

**Why is it easy?** I only need to press two buttons and I got food delivered at my doorstep.

**Why do you use a certain FDA?** Because others sometimes don't deliver to my address.

**Why?** I live in a small town and they come on their bikes.

**Why have you not used FDAs more frequently?** It is very costly only rich people can afford that. Besides that, you can't eat every day from a restaurant.

**Why do you find it expensive?** I can eat more affordably at home.

**How do you feel about the personalization in FDA?** I personally don't use it, but my girlfriend sometimes uses it to get rid of pickles on a Bicky burger.

**How do you feel about the control you have in FDA?** You can choose for example the time but most of the times it isn't accurate and I get disappointed it isn't there when asked. So I prefer not to choose a time so I can't be disappointed.

### Interview 3

**When was the last time you used a FDA?** I used it last Monday.

**Why did you use it?** My girlfriend and I didn't want to go to the supermarket, but they were closed anyway. We had a discount code of a FDA as well so thought why not use it.

**Why didn't you want to go to the supermarket?** We didn't have time to go to the supermarket during the day because of courses and work. Then we forgot about it and it ended up being too late and they were closed.

**Why did you end up choosing the FDA with the discount code?** We think it is very expensive to order with the delivery fees but with the discount code the price was all right.

**Why do you find it too expensive?** If I go to the restaurant it's cheaper, you pay a lot of extra fees from the FDA. Their delivery cost nearly doubled due to 'safety precautions' from COVID-19.

**Why do you find the delivery costs too high?** I'm a student and it's just too much, I am not rich. However, I understand that they have high fees in order to pay a normal salary to their drivers. I know they used to exploit their workers.

**Why do you use FDAs?** Because I am lazy, drunk or have a late night appetite. Out of ease or convenience as well. Sometimes I get a push notification with a discount and that convinces me sometimes.

**Why do you find it convenient and easy?** I don't need to move, they just come to my doorstep. It doesn't require any knowledge and it's easy to order in a couple of minutes, whatever you want, whenever you want.

**Why have you not used FDAs more frequently?** It is expensive and 90% of the restaurants are just fast food chains.

**Why don't you like to order at fast food chains?** Sometimes I like it, but sometimes I want a more healthier thing to eat. I don't want to get fat from eating takeaway too much. Besides that, sometimes the fries are cold when they arrive.

## Interview 4

**When was the last time you used a FDA?** It must have been a couple week ago since I last ordered something.

**Why?** I was on holiday for the last three weeks, so didn't need to order something. When I am in Belgium, I order it quite frequently, up to three times a week.

**Why do you make frequently use of it?** I work at a law firm so I don't have much time to cook myself. Sometimes we even order it at the firm.

**Why do you order it at the firm?** It is very fast, convenient and we can make changes if necessary. Some colleagues have a peanut allergy so they can make changes accordingly. We can choose when they deliver it as well.

**Why do you find it convenient?** The layout is so handy, you don't need any knowledge or skills to be able to order and it is so fast to see all of the offerings. They use beautiful pictures of the food, it makes me instantly more hungry.

**In what circumstances do you use FDAs?** Either when I don't have time to cook something or I want something delicious to eat.

**Why do you choose it when you don't have time to cook?** It allows me to eat something healthy and let me feel good. I know most of the options are fastfood, and yes sometimes I order that, but if you know the spots where they have healthy alternatives, I'm able to eat that and feel good.

**Why do you choose it when you want something delicious?** I think the options are more delicious than 90% of the dishes people are able to cook by themselves. It sometimes feels like an award for working hard that I can switch off my mind, relax and eat something very good.

**Why do you award yourself with a meal?** It makes me happy and feel good.

**Why does it makes you relax?** During my day it is quite busy with meetings and clients, but when I have that food delivered to my doorstep, I'm able to switch off the world for a couple of minutes and just enjoy my food without worrying about cleaning my dishes etc afterwards.

**Why have you not used FDAs more frequently?** I sometimes just want to eat something regular, Flemish food. I will become too fat if I don't haha.

**Do you find it expensive?** I know that it is more expensive than getting the food yourself, but for me it is about time. I can't bother wasting time on going to the shop, so I pay for it. Many of my friends think that makes me a rich person, but I don't think so. I just value my time higher than the couple of euros delivery fee and the tip.

**Why do you tip?** Those guys sometimes go through thunderstorms to deliver my food, they earn it. I read in the newspapers they earn too less from the firm itself so...



## Interview 5

**When was the last time you used a FDA?** Yesterday when I ordered it with my friends.

**Why?** My friends came over to play Playstation and drink some beers. We already had some drinks so decided it was easier to get it delivered than going out.

**Why was it easy?** We scrolled through the options, decided and paid in less than five minutes, it is so convenient and easy to use.

**Why do you think it took only five minutes?** These apps are build to consume your attention and make you order. They are built so well that you almost never close the app when you open it.

**In what circumstances do you use FDAs?** Because I'm lazy, I sometimes don't have time or just don't want to cook in the evening.

**Why do you choose it when you don't have time to cook?** If everything is closed down this is sometimes the only option. Some days I just want some fastfood, I think everyone can relate to the craving for fastfood. We should just not too much surrender to these feelings.

**Why should you not surrender to these feelings?** Because fastfood is bad. You feel bad after eating it. I know you can order more healthy things but there are mainly fastfood restaurants on the FDA.

**Why have you not used FDAs more frequently?** It is expensive to order and most of the times I'm alone so I'm unable to order since most of the restaurants have a minimum order quantity.

**Why do you find it expensive?** You often need to pay a delivery fee which is sometimes five euros. Adding this to a 10 euro bill is like a 50% increase. I know the drivers need to make money as well but sometimes I just find it too much to pay sometimes. For example, yesterday with my friends we were with a bunch so what is five euro divided by everyone?

## Survey

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### Start of Block: Intro

Intro Dear participant,

My name is Simon Dhaenens. Thank you for participating in this survey, which will help me graduate from the University of Hasselt.

My thesis studies the concept of Customer Satisfaction in Food Delivery Apps. If you have used a Food Delivery App during the last twelve months, I can use your response to the survey. Participation in this study will involve taking part in a questionnaire that takes no more than 5 minutes. All responses are recorded anonymously and the information provided will be kept confidential, so feel free to provide honest feedback. Your participation is completely voluntary.

What Food Delivery Apps have you used in the last **twelve** months?

- UberEats (1)
- TakeAway (2)
- Deliveroo (3)
- None of the above mentioned (4)

*Skip To: End of Survey If Dear participant, My name is Simon Dhaenens. Thank you for participating in this survey, which wi... = None of the above mentioned*

End of Block: Intro

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Start of Block: UberEats

Q1\_CONV\_UE On a scale from 1-7; to what extent do you agree with the following statements

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
It is easy to complete an order at UberEats (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is quick to complete an order at UberEats (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ordering through UberEats is an efficient way to manage my time (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ordering through UberEats makes my life easier (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Q2\_EXCEL\_UE

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
The services of UberEats are very reliable (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The service of UberEats is of outstanding quality (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The service of UberEats is consistent (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q3\_STAT\_UE

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
Ordering through UberEats helps me to feel accepted by others (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Using UberEats gives me social approval (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ordering through UberEats gives a good impression to other people (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q4\_SELF-EST\_UE

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
Ordering through UberEats increases my sense of self-worth (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ordering through UberEats gives me a sense of pride (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q5\_JOY\_UE

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
Ordering through UberEats gives me pleasure (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ordering through UberEats is truly a joy (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q6\_AEST\_UE

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
The app of UberEats is aesthetically appealing (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like the way UberEats' app looks (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The way UberEats displays its offerings is attractive (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q7\_ESCA\_UE

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
Ordering through UberEats gets me away from the routine of life (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ordering through UberEats has served as a way of temporary escape for you (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q8\_PERS\_UE

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
The level of personalization at UberEats is about right (allergies or other notes on an order) (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have control over the transaction when using UberEats (such as timing, adress of delivery, ...) (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break

Q9\_PRICE\_UE

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
I am happy with the prices of UberEats (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The price charged to get the services of UberEats is high (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The pricing structure is clear to understand (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q10\_TIME\_UE

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
The time you have waited between order and delivery is reasonable (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The time spent ordering is right (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Q11\_PERF\_UE

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
As I consider using UberEats, I worry about whether the service will really perform as well as it is supposed to (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q12\_SOCIE\_UE

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
UberEats is a socially responsible company (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break

Q13\_SAT\_UE

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	agree (6)	Strongly Agree (7)
You are satisfied with your decision to order through UberEats (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your choice to order through UberEats was a wise one (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
You think you did the right thing to order through UberEats (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: UberEats

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**Start of Block: Demographics**

AGE How old are you?

- Under 18 (1)
  - 18-24 years old (2)
  - 25-34 years old (3)
  - 35-44 years old (4)
  - 45-54 years old (5)
  - 55-64 years old (6)
  - 65+ years old (7)
- 

GENDER How do you describe yourself?

- Male (1)
- Female (2)
- X (3)
- Prefer not to say (4)

**End of Block: Demographics**

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## Correlation matrix

		CONV_AVG	EXCEL_AVG	STAT_AVG	SELFEST_AVG	JOY_AVG
CONV_AVG	Pearson Correlation	1	,325**	,128	,112	,180*
	Sig. (2-tailed)		<,001	,146	,205	,040
	N	131	131	131	131	131
EXCEL_AVG	Pearson Correlation	,325**	1	,184*	,199*	,113
	Sig. (2-tailed)	<,001		,035	,022	,197
	N	131	131	131	131	131
STAT_AVG	Pearson Correlation	,128	,184*	1	,764**	,435**
	Sig. (2-tailed)	,146	,035		<,001	<,001
	N	131	131	131	131	131
SELFEST_AVG	Pearson Correlation	,112	,199*	,764**	1	,440**
	Sig. (2-tailed)	,205	,022	<,001		<,001
	N	131	131	131	131	131
JOY_AVG	Pearson Correlation	,180*	,113	,435**	,440**	1
	Sig. (2-tailed)	,040	,197	<,001	<,001	
	N	131	131	131	131	131
AEST_AVG	Pearson Correlation	,395**	,389**	,286**	,210*	,390**
	Sig. (2-tailed)	<,001	<,001	<,001	,016	<,001
	N	131	131	131	131	131
ESCA_AVG	Pearson Correlation	,235**	,134	,508**	,515**	,502**
	Sig. (2-tailed)	,007	,127	<,001	<,001	<,001
	N	131	131	131	131	131
PERS_AVG	Pearson Correlation	,425**	,386**	,210*	,222*	,301**
	Sig. (2-tailed)	<,001	<,001	,016	,011	<,001
	N	131	131	131	131	131
PRICE_AVG	Pearson Correlation	,098	,183*	,007	,018	,143
	Sig. (2-tailed)	,266	,037	,941	,835	,104
	N	131	131	131	131	131
TIME_AVG	Pearson Correlation	,354**	,346**	,108	,047	,165
	Sig. (2-tailed)	<,001	<,001	,221	,592	,060
	N	131	131	131	131	131
PERF_AVG	Pearson Correlation	,146	,442**	-,144	-,084	-,092
	Sig. (2-tailed)	,096	<,001	,101	,341	,294
	N	131	131	131	131	131
SOCIE_AVG	Pearson Correlation	,085	,179*	,126	,127	,097
	Sig. (2-tailed)	,335	,041	,153	,147	,271
	N	131	131	131	131	131
SAT_AVG	Pearson Correlation	,341**	,321**	,199*	,199*	,291**
	Sig. (2-tailed)	<,001	<,001	,022	,023	<,001
	N	131	131	131	131	131

		AEST_AVG	ESCA_AVG	PERS_AVG	PRICE_AVG
CONV_AVG	Pearson Correlation	,395**	,235**	,425**	,098
	Sig. (2-tailed)	<,001	,007	<,001	,266
	N	131	131	131	131
EXCEL_AVG	Pearson Correlation	,389**	,134	,386**	,183*
	Sig. (2-tailed)	<,001	,127	<,001	,037
	N	131	131	131	131
STAT_AVG	Pearson Correlation	,286**	,508**	,210*	,007
	Sig. (2-tailed)	<,001	<,001	,016	,941
	N	131	131	131	131
SELFEST_AVG	Pearson Correlation	,210*	,515**	,222*	,018
	Sig. (2-tailed)	,016	<,001	,011	,835
	N	131	131	131	131
JOY_AVG	Pearson Correlation	,390**	,502**	,301**	,143
	Sig. (2-tailed)	<,001	<,001	<,001	,104
	N	131	131	131	131
AEST_AVG	Pearson Correlation	1	,321**	,493**	,126
	Sig. (2-tailed)		<,001	<,001	,150
	N	131	131	131	131
ESCA_AVG	Pearson Correlation	,321**	1	,352**	-,057
	Sig. (2-tailed)	<,001		<,001	,517
	N	131	131	131	131
PERS_AVG	Pearson Correlation	,493**	,352**	1	,115
	Sig. (2-tailed)	<,001	<,001		,191
	N	131	131	131	131
PRICE_AVG	Pearson Correlation	,126	-,057	,115	1
	Sig. (2-tailed)	,150	,517	,191	
	N	131	131	131	131
TIME_AVG	Pearson Correlation	,386**	,113	,351**	,214*
	Sig. (2-tailed)	<,001	,199	<,001	,014
	N	131	131	131	131
PERF_AVG	Pearson Correlation	,000	-,120	,134	,227**
	Sig. (2-tailed)	,999	,171	,128	,009
	N	131	131	131	131
SOCIE_AVG	Pearson Correlation	,036	,004	,074	,398**
	Sig. (2-tailed)	,680	,961	,399	<,001
	N	131	131	131	131
SAT_AVG	Pearson Correlation	,425**	,159	,368**	,139
	Sig. (2-tailed)	<,001	,070	<,001	,113
	N	131	131	131	131

		TIME_AVG	PERF_AVG	SOCIE_AVG	SAT_AVG
CONV_AVG	Pearson Correlation	,354**	,146	,085	,341**
	Sig. (2-tailed)	<,001	,096	,335	<,001
	N	131	131	131	131
EXCEL_AVG	Pearson Correlation	,346**	,442**	,179*	,321**
	Sig. (2-tailed)	<,001	<,001	,041	<,001
	N	131	131	131	131
STAT_AVG	Pearson Correlation	,108	-,144	,126	,199*
	Sig. (2-tailed)	,221	,101	,153	,022
	N	131	131	131	131
SELFEST_AVG	Pearson Correlation	,047	-,084	,127	,199*
	Sig. (2-tailed)	,592	,341	,147	,023
	N	131	131	131	131
JOY_AVG	Pearson Correlation	,165	-,092	,097	,291**
	Sig. (2-tailed)	,060	,294	,271	<,001
	N	131	131	131	131
AEST_AVG	Pearson Correlation	,386**	,000	,036	,425**
	Sig. (2-tailed)	<,001	,999	,680	<,001
	N	131	131	131	131
ESCA_AVG	Pearson Correlation	,113	-,120	,004	,159
	Sig. (2-tailed)	,199	,171	,961	,070
	N	131	131	131	131
PERS_AVG	Pearson Correlation	,351**	,134	,074	,368**
	Sig. (2-tailed)	<,001	,128	,399	<,001
	N	131	131	131	131
PRICE_AVG	Pearson Correlation	,214*	,227**	,398**	,139
	Sig. (2-tailed)	,014	,009	<,001	,113
	N	131	131	131	131
TIME_AVG	Pearson Correlation	1	,209*	,237**	,413**
	Sig. (2-tailed)		,017	,006	<,001
	N	131	131	131	131
PERF_AVG	Pearson Correlation	,209*	1	,037	,160
	Sig. (2-tailed)	,017		,677	,068
	N	131	131	131	131
SOCIE_AVG	Pearson Correlation	,237**	,037	1	,290**
	Sig. (2-tailed)	,006	,677		<,001
	N	131	131	131	131
SAT_AVG	Pearson Correlation	,413**	,160	,290**	1
	Sig. (2-tailed)	<,001	,068	<,001	
	N	131	131	131	131