

Perceived Firm Innovativeness in the Tourism Industry:

Dutch Tour Operators and the Effect of Perceived Firm Innovativeness on Firm
Credibility, Purchase Intention and Customer Loyalty



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Master Thesis

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Preface

Hereby I proudly present my final work of the Master Marketing at Radboud University Nijmegen called *‘Perceived Firm Innovativeness in the Tourism Industry: Dutch Tour Operators and the Effect of Perceived Firm Innovativeness on Firm Credibility, Purchase Intention and Customer Loyalty’*. The last six months were entirely dedicated to studying literature, collecting and analysing data, interpreting results and preparing precise implications in order to compose this master thesis. This was accompanied by trial and error, of which I learned a lot. Nevertheless, the subject was very intriguing given my background of studying Tourism Management and the fact that this industry still represents the field in which I pursue a career.

I would like to thank Prof. dr. Bas Hillebrand for his great supervision, constructive feedback and support throughout this process, especially in this COVID-19 period. Additionally, I would like to thank my second supervisor/examiner for the time and effort has put into reading my master thesis. Moreover, I would like to thank the respondents who participated in filling out the pilots and survey. Also, many thanks to the students, with whom I conducted the pilots and survey, for the great cooperation. Finally, many thanks to my family and friends for their support and motivating efforts.

I hope you will enjoy reading my master thesis!

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Abstract

The aim of this research was to investigate whether PFI, by the means of a relatively novel scale, had an effect on firm credibility, purchase intention and customer loyalty with regard to Dutch tour operators in the tourism industry. It was motivated by the fact that this subject had been limited researched in the service context and a new scale had been developed that has a great ability of giving precise recommendations related to this subject. Moreover, as proven in earlier studies, being perceived as innovative is favourable for firms as it stimulates purchase intentions, higher customer loyalty levels and firm credibility. By proving that this also holds for tour operators, tour operators can compete better as competition is fierce and global trends urge firms to come up with innovative ideas. After doing three pilots, a survey was disseminated via an online travelblog. This resulted in a total of 182 respondents who filled out the survey. The results have been analysed by executing different analyses in SPSS even as using a partial least square – structural equation model (PLS-SEM) in ADANCO. The results show that the Norwegian Innovation Index (NII) as utilized scale for PFI of Dutch tour operators is not very accurate. This is based on the fact that there were (almost) no significant effects found among PFI of Dutch tour operators, firm credibility, purchase intention and customer loyalty whereas utilizing the PFI back-up scale does show significant and positive effects. Also, the dimensions of the Norwegian Innovation Index (NII) overlap. However, evidence was found for the fact that customers show more willingness to book a product/make use of a service of Dutch tour operators and do this repeatedly due to a deeply held commitment, when Dutch tour operators are perceived trustful in their disseminated information and capable on delivering this perception. For research implications and limitations, the results suggest that the Norwegian Innovation Index (NII) does not fully work in this context and requires more research (in other contexts). This research confirms the accuracy of the scale of Kunz et al. (2011) for measuring PFI. However, the sample is not found representative and discriminant validity problems were present. For practical implications, the results suggest that managers of tour operators should not excessively focus on PFI as it will not lead to higher extents of firm credibility, purchase intention and customer loyalty. However, it could not do any harm to focus on novel features with regard to the functionality and usefulness of services. Also, it is important to use tangible brand cues that are likable, trustful and show expertise in order to increase firm credibility. Herewith, it is recommended to differentiate advertising campaigns for groups, e.g. age.

Keywords: *perceived firm innovativeness (PFI), firm credibility, purchase intention, customer loyalty, tour operator, tourism industry*

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1. Introduction

1.1 General introduction

Considerable empirical research has proven that being (successfully) innovative as a firm assures growth, sustainable profit, higher firm valuations and thus long-term success (Peters and Pikkemaat, 2006; Meissner, Polt and Vonortas, 2016; Evanschitzky, Eisend, Calantone, Jiang, 2012; Baldwin and Johnson, 1996). This also counts for the tourism industry, in which customers choose worldwide sold services and where new and pleasurable experiences are vital for dealing with saturation of services and customer satisfaction (Jin, Goh, Huffman and Yuan, 2015; Hwang and Hyun, 2015; Peters and Pikkemaat, 2006). The absence of an innovation strategy, often caused by managerial myopia or inertia, can have enormous repercussions. For instance, bankruptcy like the founding father of tour operators Thomas Cook in 2019. In spite of successfully entering the market with a radical business model that focused on offering holiday packages back in the days, Thomas Cook could not keep up with the shift towards digitalization (such as online booking and travel apps) and the sharing economy nowadays (Goldstein, 2019; Collinson, 2019). Their receptivity and inclination to act upon these trends and adopt new ideas evolved too late. In short, the firm innovativeness of Thomas Cook lacked greatly.

Firm innovativeness refers to the firm's capability, mindset and inclination to be open to and work on new ideas that lead to developments and launches of new products (Kunz, Schmitt and Meyer, 2011; Rubera and Kirca, 2012). Whilst many studies have made valuable contributions to the firm innovativeness literature, few academics also focused on firm innovativeness from a customer-centric perspective (Kunz et al., 2011; Keiningham et al., 2019). Their studies touched upon the notion of perceived firm innovativeness (hereinafter called PFI), i.e. *“the degree to which customers believe a firm is capable of enduringly developing and launching novel, creative and impactful products and services”* (Kunz et al., 2011, p.817). This is a customer perception based on indirect (e.g. word-of-mouth) and direct (e.g. personal interaction) experiences with a firm (Lervik-Olsen, Kurtmollaiev and Andreassen, 2017). In a service context, and thus in the tourism industry also, these experiences often represent the actual services (Bitner, Ostrom and Morgan, 2008). As (positive) customer evaluations in the tourism industry are based on the extent to which customers find new and pleasurable experiences that contain innovative attributes and fit their way of living (Kunz et al., 2011; Hwang and Hyun, 2015), it is essential that direct and indirect experiences reflect these aspects. Previous literature showed that routinely putting effort into (indirect/direct)

experiences ensures stronger perceptions of PFI (Lervik-Olsen et al., 2017). Subsequently, it was found that PFI in fine-dining restaurants and several non-service settings positively influences two (post) consumption behaviours: brand credibility and customer loyalty (Jin et al., 2015; Shams, Brown and Alpert, 2017). Furthermore, brand credibility, i.e. the customer's perception of trustworthiness of the information disseminated by a brand, has been proven to be a good predictor of a customer's purchase intention (Jin et al., 2015; Shams et al., 2017). Empirical research also revealed that perceived brand innovativeness positively affects purchase intention (Shams et al., 2017). These empirical observations indicate that doing investments in the 'right' innovation elements that are of interest for customers increase the value of a firm (Lervik-Olsen et al., 2017). All these insights should show firms that PFI is thus a critical factor in creating a strong feeling of allegiance and influencing other (post) consumption behaviours that create a high value of a firm.

However, despite the importance of PFI and its effect on (post) consumption behaviours, the notion got barely attention in the tourism industry. Therefore, the purpose of this research is to examine the relationship among PFI and (post) consumption behaviours (purchase intention, firm credibility and customer loyalty) in a tour operator context. Tour operators, or travel agencies, are companies that have arrangements with hotels, transportation companies, airlines and other suppliers and compose these elements into (customized) holiday packages which are offered both directly and indirectly to the customer (Sheldon, 1986; Molenaar, 2008). They are the key players in the tourism industry that have most interaction with customers (Van Wijk and Persoon, 2006).

1.2 Problem statement

1.2.1 Research question

As previously discussed, the aim of this research is to find out if and how PFI of tour operators affects firm credibility, purchase intention and customer loyalty in specific. Therefore, this research will address the following research question: *'To what extent does PFI of Dutch tour operators affect firm credibility, purchase intention and customer loyalty?'*

It should be noted that whilst other studies related to PFI mainly focused on credibility on a brand level, this research will centralise credibility on a firm level. Between both levels is a very fine line, often not observed by customers. Since PFI is examined from a customer perspective and customers will base their opinion on the tour operator, and thus the firm in general, it was decided to replace 'brand' by 'firm'.

1.2.2 Theoretical relevance

This research contributes to literature in three ways. First, it adds to the limited research of PFI in the service context. The notion of PFI and its relationship with brand credibility and customer loyalty has only been studied in fine-dining restaurants and several non-service settings. It was found that PFI positively affects brand credibility and customer loyalty (Jin et al., 2015; Shams et al., 2017). To solve the lack of academic attention of PFI in the service context, this research will examine whether these positive effects also apply to another service context: the tourism industry, i.e. tour operators in specific. Thus, this research largely replicates the study of Jin et al. (2015) in a different context. One can speak of neglect spotting, in which academics investigate concepts or areas (in a certain context) that have been insufficiently or not properly researched (Saunders, Lewis and Thornhill, 2019).

Second, by including purchase intention, this research extends the work of Jin et al. (2015). Whilst Jin et al. (2015) proved that brand credibility and customer loyalty are positively influenced by PFI, the research of Shams et al. (2017) revealed that purchase intention is a crucial concept in this relationship as well. The latter has been studied in non-service settings, which precisely aroused the interest of testing all components collectively and in a service context. This research will thus examine whether the found positive effects of PFI on brand credibility and customer loyalty hold for tour operators when including purchase intention into the relationship. With this contribution, one can speak of both application and neglect spotting. Application spotting applies here as the used framework of Jin et al. (2015) is complemented by a so-called deficiency that will obtain better insight in the relationship among PFI and (post) consumption behaviours, namely purchase intention. Simultaneously, the work of Shams et al. (2017) is under-researched in a service context and thus neglected (Saunders et al., 2019).

Third, by using the Norwegian Innovation Index (NII) of Lervik-Olsen et al. (2017) for measuring PFI, this research determines PFI from another perspective than Jin et al. (2015) did in their study. The Norwegian Innovation Index (NII) for measuring PFI consists of the following dimensions: value proposition, value delivery, customer treatment and interaction space (Lervik-Olsen et al., 2017). These dimensions are built upon the assumption that perceived changes in innovations must be noticeable by customers. This as customers are the first-rate judges of innovations based on direct or indirect experiences with a firm. In short, it all depends on the cues customers utilize (Lervik-Olsen et al., 2017). Looking at the dimensions used in the study of Jin et al. (2015), items with regard to novelty, creativity and service quality predominate. These items seem only suitable for fine-dining restaurants and remain therefore vague concepts for this research. In the end, by using the Norwegian Innovation Index (NII),

precise recommendations on resource allocations for specific ‘innovation areas’ or dimensions can be given to managers of tour operators. This with the certainty of changes being observed by customers, and that is what matters. Here, one can speak of application spotting as a distinctive perspective within the notion of PFI is being used (Saunders et al., 2019) in relationship with brand credibility, purchase intention and customer loyalty. Underlying mechanisms among these constructs can be better determined as every aspect will be measured from a customer perspective.

1.2.3 Practical relevance

In the last two decades competition within the tourism industry has been fierce due to the fast and large growth of market players (Peters and Pikkemaat, 2006; Chiang Hong, 2008). This is also acknowledged by several Dutch market players within the tourism industry (CBS, 2019). While trying to gain competitive advantage in the past years, the COVID-19 pandemic highly impacted the industry economically and international tourism went back to the levels of thirty years ago (UNWTO, 2020). Therefore, it is for managers of tour operators crucial to understand how to strengthen credibility and allegiance within their firm. Especially customer loyalty can be essential, since attracting new customers is more expensive than preserving customer relationships (Yusof, Awang and Jusoff, 2017; Keller and Swaminathan, 2020). Next to this, global trends still urge firms to come up with innovative ideas (Meissner et al., 2016). PFI contributes to this as literature suggests that when customers perceive firms as more innovative than their competitors, these specific firms become more appealing to customers (Lervik-Olsen et al., 2017). Also, a higher degree of PFI is favourable for firms as it stimulates firm credibility, purchase intentions and customer loyalty and thus increases the value of a firm (Jin et al., 2015; Shams et al., 2017; Lervik-Olsen et al., 2017). By proving that this also holds for tour operators, managers of tour operators will be more conscious about the impact and importance of being innovative even as the need of conveying this to their customers. Furthermore, firms should continuously deliver on both direct and indirect experiences with the firm as the degree of PFI is based on this (Lervik-Olsen et al., 2017). This research identifies four dimensions of PFI, which are perceived changes that are noticeable by customers when interacting with the firm. These dimensions also consist of clear aspects that can be improved by the firm. The research can and will therefore provide managers of tour operators with specific instructions on how to allocate the innovation resources that are appealing to customers, in order to affect the degree of PFI of tour operators and improve the value of the firm in the end (Lervik-Olsen et al., 2017).

1.3 Structure of the report

This remainder of the report starts with a description of the theoretical background (chapter two) and thus outlining the main concepts of this research: *dimensions PFI, PFI, firm credibility, purchase intention, customer loyalty*. Chapter two also reveals the hypotheses and corresponding conceptual model. In chapter three, the methods for conducting this research and thus empirically testing the stated hypotheses are described. This also includes validity and reliability checks and a description of corresponding research ethics. Chapter four shows and in-depth analysis and the results of the conducted research. The last chapter, chapter five, presents the discussion, implications, limitations and directions for future.

2. Theoretical background

This chapter presents a theoretical framework that supports this empirical research and provides an outline of relevant theories and assumptions with regard to the key concepts. First, a short description of the differentiation between innovation and innovativeness is given. Second, the main concept (PFI) is extensively characterized. The next paragraph is specifically devoted to PFI dimensions. Furthermore, firm credibility, purchase intention and customer loyalty are discussed in detail. The accompanying hypotheses are here proposed simultaneously. Finally, a graphical representation of the stated hypotheses for this empirical research is provided.

2.1 Innovation vs innovativeness

The focal concept in this research is PFI. Before moving on to a further characterization of this concept, the distinction between innovation and innovativeness must be clearly indicated to prevent confusion. Innovation in general refers to a new outcome of firms' activities. Innovativeness is linked to the extent to which a firm or brand is open to new ideas and come up with new solutions (Kunz et al., 2011; Danneels and Kleinschmidt, 2001). The key difference is thus that innovativeness is an enduringly characteristic of a customer, firm, product or service (Keiningham et al., 2019) whereas an innovation is an actual new product/service or a new feature of a product/service that generates success at a certain point (Kunz et al., 2011).

Next to this, multiple perspectives on innovativeness exist. First, customer innovativeness is referred to as the propensity of a customer to adopt new products or services relatively fast when these new products or services appear in the market (Keiningham et al., 2019; Vandecasteele and Geuens, 2010). It indicates innovative customer behaviour (Vandecasteele and Geuens, 2010). Second, the definitions of product and service

innovativeness are more or less similar. Both definitions indicate *“the newness or radicalness of an innovation (service or product)”* (Keiningham et al., 2019, p.374) as perceived by managers, firms, customers or experts. Product and service innovativeness from a customer perspective is crucial as it is the foundation for PFI (Keiningham et al., 2019). Furthermore, the notion of brand innovativeness has to do with the ability of a brand to provide new and useful solutions with a degree of creativity and a promising future of innovative activeness (Shams et al., 2017; Pappu and Quester, 2015). It is often researched from a customer perspective and when firms own multiple brands as they perform distinctive levels of innovativeness (Shams et al., 2017).

Customer, product/service and brand innovativeness are excluded from this research as innovativeness in this research refers to firm innovativeness. Firm innovativeness is, as previously discussed, the capability, mindset and inclination to be open to and work on new ideas that lead to developments and launches of new products (Kunz et al., 2011; Rubera and Kirca, 2012). These ideas are primarily focused on technical and marketing resources as this is proven to enhance performance, where customers simultaneously seek for new and pleasurable experiences that fit their life style (Danneels & Kleinschmidt, 2001; Kunz et al., 2011; Hwang & Hyun, 2015). Firm innovativeness can be investigated from a firm, expert or customer perspective (PFI). Firm innovativeness perceived by the firm or an expert refers to the extent to which representatives of the firm or an expert in the field perceive a firm capable in establishing new, creative and impactful products and services (Keiningham et al., 2017). However, firm innovativeness from a customer perspective, or PFI, matters most as it was proven that these perceptions positively affect (post) consumption behaviour and thus influence customer attitudes (Jin et al., 2015; Shams et al., 2017; Keiningham et al., 2019). The next paragraph will elaborate on PFI and its dimensions.

2.2 Perceived Firm Innovativeness (PFI)

In several studies, PFI is defined as follows: *“the degree to which customers believe a firm is capable of enduringly developing and launching novel, creative and impactful products and services”* (Kunz et al., 2011, p.817). This definition will also be used in this research.

Previous studies have defined novelty as follows: new product attributes, design innovations, process innovations, marketing innovations and broad-based business innovations that are implemented by a firm (Kunz et al., 2011). Novelty can thus be apparent in different manners. Hence, firms concerned with novelty will often be seen as future-oriented (Kunz et al., 2011). Also, creativity is seen as crucial for a firm being perceived as innovative. Creativity

entails *‘all kind of company efforts and activities that are seen as unique from the competition and as meaningful to the customer’* (Kunz et al., 2011, p. 817). A surprising effect is also strongly related to creativity as it excites customers. Pleasurable experiences will lead to satisfied customers and positive customer evaluations (Hwang and Hyun, 2015). If products or services comprise creative and new attributes, but also have substantial market impact, firms will be seen as a pioneer in its industry. The latter can be said as firms are then able to produce certain consumption patterns and impact the industry in which they operate (Kunz et al., 2011)

Ultimately, it is the customer’s perception that matters as it appraises the success of innovation practices (Kim, Tang and Bosselman, 2018). This implies that the above-mentioned elements need to be observable (Lervik-Olsen et al., 2017), especially in a service context where the so-called touching points or individual interactions serve as points of assessment (Bitner et al., 2008). Customers’ perceptions of firm innovativeness are holistic and mainly based on information customers have retrieved from new products and services that a firm has been launching over time (Keiningham et al., 2019). Lervik-Olsen et al. (2017) argue that direct and indirect experiences with the firm, such as interaction through firm-generated content or word-of-mouth, play a major role in this. The firm should continuously and quickly deliver on these experiences, especially in a service context, in order to generate and evolve strong customer perceptions on firm innovativeness (Lervik-Olsen et al., 2017). The criteria that customers utilize for evaluating whether a firm is innovative or not, i.e. the PFI dimensions, will be elaborated in the next paragraph. Also, the notion itself will be explained further.

2.3 Dimensions of PFI

Until now, only two scales have been developed to measure PFI. One of these scales, is the scale that Kunz et al. (2011) validated for discovering novelty, creativity and market impact of products or services of a firm in specific. The seven dimensions state, amongst other, if a firm is dynamic, a pioneer, foresighted and regularly produces new products/services (Kunz et al., 2011). To date, this scale has been only used in non-service settings and fine-dining restaurants. The latter is examined in the study of Jin et al. (2015) who, however, replaced ‘market impact’ by ‘service quality’ due to the context. The second scale is more customer-oriented (Keiningham et al., 2019) as it has one main principle: customers are first-rate judges of innovations and base their perception on direct or indirect experiences with a firm (Lervik-Olsen et al., 2017). The dimensions of this Norwegian Innovation Index (NII) are focused on perceived changes that are detectable for customers. The latter is made possible through extensive research of Lervik-Olsen et al. (2017), who found appropriate cues that customers

utilize when developing perceptions. These cues are either ‘mechanic’ or ‘humanic’, meaning that physical artifacts (like tools) and human interaction are the driving forces (Lervik-Olsen et al., 2017). The Norwegian Innovation Index (NII) distinguishes four dimensions: change in *value position*, *value delivery*, *customer treatment* and *interaction space* (Lervik-Olsen et al., 2017). Collectively, they examine a firm’s innovation efforts and provide clear guidance in allocating resources in the ‘right’ innovation elements that are attractive to customers (Lervik-Olsen et al., 2017; Keiningham et al., 2019).

First, change in value proposition refers to ‘*the degree to which the customer perceives the functionality and usefulness of the service as novel compared to already existing alternatives*’ (Keiningham et al., 2019, p.374+375). At the root of this dimension lies the Adoption Theory of Rogers. The theory describes that services are perceived as more innovative when they offer more and better benefits to the customer than the services already existing (Keiningham et al., 2019). An example of this dimension is a change of concept to challenge competitors by Sunny Cars, a German car rental specialist that offers its service in many countries. It changed its value proposition from renting with many additional charges (e.g. insurance) to all-inclusive renting quickly after being established in the market (Sunny Cars, n.d.). Another example is the launch of a baggage check-in option, via the Dutch postal service when booking a flight with the Dutch airline Transavia. They promise its customers ‘Make your lost-cost feel good’ by providing hospitable and fast service during the whole customer journey (Wolveren, 2018). The option allows customers to have their hold luggage picked up from home and already checked-in at the airport (Evers, 2018). This option was implemented by Transavia first and offered more benefits to the customer than when flying with other airlines.

Second, change in value delivery is the extent to which the customer perceives the process of offering the service as novel (Keiningham et al., 2019). Especially in a service context, this dimension is crucial as services are dynamic and unfold themselves by a sequence of activities. Customers evaluate this ‘service process’ via individual interactions, or touching points, with the firm. Therefore, it is essential to coordinate and manage activities ensuring that the performed activities carry out the value proposition of the firm (Bitner et al., 2008). Depending on how (fast) the service innovation is delivered, the service innovation can be perceived as novel (Keiningham et al., 2019; Lervik-Olsen et al., 2017). An example of this dimension is the Self-Service Units that were implemented at Amsterdam Airport Schiphol two years ago. The airport discovered that today’s travellers expect exceptional and faster service (including receiving information) when communicating online but also in the terminal itself. Therefore, Schiphol introduced interactive screens that are 24/7 available in the traveller’s

native language in the terminal. As a result, travellers can always find the answer to their question and no longer have to consult flight information screens or ask an employee for help. For complicated questions, a video chat function is available (Schiphol, n.d.).

Third, change in customer treatment has to do with ‘*the degree to which a customer perceives the interactions between him/her and the firm as new*’ (Keiningham et al., 2019, p.375). This largely depends on the communication between the firm and its customers. Communication has a major effect on customer satisfaction and other (post) consumption behaviours, especially in a service context (Keiningham et al., 2019). Previous literature proved that communication quality and interpersonal communication channels positively affect perceived firm innovativeness, showing thereby again the key role communication has. (Johnson, Donohue and Johnson, 2001). Training employees should require them to approach customers in new ways, even by new technologies (Keiningham et al., 2019). A prominent example of this is the shift towards the use of chatbots, an artificial intelligence tool that is becoming more commonly used in every industry (Witbaard, 2020). In 2016, Dutch tour operator and airline Corendon wanted to better interact with their customers. Therefore, they integrated a new chat function, made possible through a chatbot, in their app (Cinjee, 2016).

Lastly, change in interaction space refers to the extent to which customers perceive the presentation of the physical and virtual surrounding of the service innovation as novel (Keiningham et al., 2019). This dimension is closely related to the servicescape developed by Bitner et al. (2008). Ambient conditions, spatial layout and signs, symbols and artifacts are central to this notion (Kim and Moon, 2009). The design of the context (e.g. facility aesthetics) both interior and exterior is also important in a service context as it develops emotions and responses to service innovations (Parasuraman, Zeithaml and Berry, 1988; Keiningham et al., 2019). Innovating the design of the context can thus be highly valued, which thus implies innovativeness (Keiningham et al., 2019). An example of this dimension is a change in the layout of a website. Belvilla, a Dutch tour operator of vacation rentals, improved their website in 2019 as it became obsolete (G. Janse, personal communication, January, 2019).

Hence, the following hypothesis is formulated:

H1. Perceived change in (a) value proposition, (b) value delivery, (c) customer treatment and (d) interaction space are dimensions of PFI of tour operators.

2.4 Firm credibility

Firm credibility is the customer’s perception of trustworthiness of the information disseminated by a firm, which simultaneously shows the capability of the firm to continuously delivering this

perception (Jin et al., 2015; Shams et al., 2017). It exists when the customer can utilize past actions of the firm in an assured manner to predict future behaviour (Herbig and Milewicz, 1993). This implies that firm credibility can also be identified as pre consumption behaviour, i.e. past actions of the firm can play a major role before purchasing a product or service again.

Customers often base their perception of firm credibility on the following three dimensions: perceived expertise, trustworthiness and likability. Perceived expertise has to do with whether the firm is seen as competent and as the market leader of the industry the firm is operating in. Trustworthiness refers to the firm's capability to sincerely deal with customer interests even as being dependable. Likability is linked to whether the firm is being intriguing, entertaining and worth spending time with (Keller and Swaminathan, 2020).

Firm credibility is (almost) identical to brand credibility. As earlier mentioned, there is a very fine line, often not observed by customers. Yet, the latter is most appointed to in studies that examined PFI (Jin et al., 2015; Shams et al., 2017). The underlying theory of brand credibility is the signalling theory. This theory suggests that firms could use brands as signals (or tangible cues) for disseminating information in a certain market that is characterised with 'imperfect and asymmetric information' (Erdem and Swait, 1998, p.137; Shams et al., 2017, p.147). This all to prevent emerging uncertainty coming from different sources, which in turn can influence the consideration set of customers (Jin et al., 2015; Shams et al., 2017). Brand signals are being evaluated as credible when firms are able and have the willingness to offer the promised products or services. This so-called consistency must thus be clearly reflected in firms' marketing mix strategies (Erdem and Swait, 1998; Erdem and Swait, 2004). For example, if a firm has an innovative reputation, it can be used as a cue to reinforce expertise (Shams et al., 2017). Also, if firms have proven to come up with new product or service solutions (based on interests) it can serve as a cue to enhance trustworthiness and expertise (Kunz et al., 2011).

Firm credibility is a state, but prone to change over a time period (i.e. the perceived credibility today may be different from yesterday or tomorrow) (Herbig and Milewicz, 1993). Therefore, firms make effort to ensure a high degree of firm credibility (Erdem and Swait, 1998). Next to this, and more importantly to note, a high degree of firm credibility decreases the customer's perceived risk (Myrden and Kelloway, 2014; Erdem and Swait, 1998). Consequently, a lower degree of perceived risk will establish customer confidence, which in turn is a driver of purchase behaviour (Shams et al., 2017; Myrden and Kelloway, 2014; Jin et al., 2015). Being perceived highly credible thus also guarantees firms to launch line and category extensions more easily (Kotler, Bowen and Makens, 2014).

As mentioned earlier, the relationship between PFI and firm credibility, only appointed

as brand credibility, has been often examined. For example, Shams et al. (2017) examined the link between perceived brand innovativeness and brand credibility in the mobile phone industry. They found a direct and positive link between both concepts, which lead to a managerial implication suggesting to continuously communicate to customers about their innovative reputation in order to quickly reap the benefits. In addition, Jin et al. (2015) assessed the same relationship in fine-dining restaurants. They found an even stronger positive effect for this relationship than Shams et al. (2017) did. This implies that the relationship could be stronger in a service setting than a non-service setting. Also, a positive relationship between PFI and trustworthiness in the B2B health care context is proven by Falkenreck and Wagner (2011). Trustworthiness is a component of firm credibility.

Based on these academic contributions, it is expected that PFI of tour operators has a direct and positive effect on firm credibility. Firm credibility will thus, similar to previous studies that assessed PFI, be treated as a construct related to post consumption behaviour in this research. Accordingly, the following hypothesis is formulated:

H2. PFI of tour operators positively influences firm credibility.

2.5 Purchase intention

Purchase intention does, as well as firm credibility, belong to both pre consumption and post consumption behaviour. Purchase intention is the likelihood of buying a product/service from a firm, which thus is a predictor of actual purchase (Keller and Swaminathan, 2020). It is considered to be the primary consequence of customer satisfaction (Myrden and Kelloway, 2014). Also, purchase intention is linked to the customer's attitude, perception and behaviour which in turn are also affected by internal and external influences, like worth-of-mouth (Keller and Swaminathan, 2020; Mirabi, Akbariyeh and Tahmasebifard, 2015). Firms are explicitly interested in this concept as customers' considerations provide them with cues of why customers do (not) choose to purchase their product/service (Hoyer, MacInnis and Pieters, 2018). Purchase intention is often interchangeable with 'firm preference'. Firm preference is officially defined as the degree to which a customer prefers a provided service from a certain firm more (and is thereby included in the consideration set) than the similar service provided by another firm (Hellier, Geursen, Carr and Rickard, 2003; Jin et al., 2015). In fact, this described preference will often be the actual purchase (Hellier et al., 2003).

Previous studies have drawn little attention to the relationship between PFI and purchase intention. From a brand perspective, Shams et al. (2017) argue that perceived brand

innovativeness involves being creative, which develops customer enthusiasm and interest. These positive feelings are associated with higher intentions to purchase a certain product or service from a brand, thus making it a part of pre consumption behaviour again. Under the assumption that highly innovative brands achieve a higher degree of purchase intentions (for example by the surprising effect), Shams et al. (2017) examined the relationship between perceived brand innovativeness and purchase intention. They were the first in proving a direct and positive effect between perceived brand innovativeness and purchase intention. Next to this, Keiningham et al. (2019) state that PFI influences preferences. This relationship has been examined by Jin et al. (2015) in fine-dining restaurants. They also proved a positive link between both concepts, which indicates that there is a degree of emotional attachment present in the relationship (Jin et al., 2015).

Based on these findings, it is expected that PFI of tour operators has a direct and positive effect on purchase intention. Purchase intention will thus, similar to the study of Shams et al. (2015), be treated as a construct related to post consumption behaviour in this research. Hence, the following hypothesis is created:

H3. PFI of tour operators positively influences purchase intention.

A high degree of firm credibility increases the customer's confidence and reduces the customer's perceived risk, which often leads to purchasing an intangible service (Myrden and Kelloway, 2014; Erdem and Swait, 1998). Firm credibility is thus proven to be a vital actor in affecting consideration sets (Shams et al., 2017). Previous studies predominantly focused on researching the relationship between brand credibility and purchase intention. For a long time, it was assumed that this relationship was mediated by the concepts of perceived quality, perceived value and perceived risks (Jin et al., 2015). However, many studies proved the opposite. Direct relationships between firm or brand credibility and purchase intention were found (Jin et al., 2015; Myrden and Kelloway, 2014; Wang and Yang, 2010; Shams et al., 2017). For instance, Shams et al. (2017) examined this direct relationship, but also considered a possible mediating effect among perceived brand innovativeness, brand credibility and purchase intention. They argued that brand credibility enhances perceptions of quality, which are essential in explaining the relation between perceived brand innovativeness and customer loyalty. Perceptions of quality would therefore be an antecedent in the whole relationship.

Shams et al. (2017) proved the presence of a direct and positive effect between firm credibility and purchase intention even as the existence of a partially mediating effect among

brand innovativeness, brand credibility and purchase intention. The latter is however beyond the scope of this research, but not excluded if results show otherwise, as a direct effect is proven stronger in the previous studies. In line with this, the following hypothesis will be assessed:

H4. Firm credibility positively influences purchase intention.

2.6 Customer loyalty

Customer loyalty is an essential goal for firms that operate in the service context, because it is a significant element in determining a long-term competitive advantage of the firm (Jin et al., 2015). Also, putting effort in maintaining good relationships with customers can be beneficial as attracting new customers is more expensive than preserving customer relationships (Yusof, Awang and Jusoff, 2017; Keller and Swaminathan, 2020). Customer loyalty implies the tendency to purchase a certain product of a firm repeatedly due to deeply held commitment despite situational and external influences (Jin et al., 2015; Hwang and Hyun, 2015). The basic principle of customer loyalty is customer satisfaction. When a customer is satisfied, loyalty will extremely increase and the other way around (Bowen and Chen, 2001).

Literature distinguishes loyalty in attitudinal and behavioural loyalty (Getçi and Zengin, 2013; Jin et al., 2015). Whilst attitudinal loyalty is focused on the psychological commitment of the customer towards a firm, behavioural loyalty centralizes actual behaviour that often indicates the frequency of repeat purchases (Getçi and Zengin, 2013; Jin et al., 2015). The scales related to behavioural loyalty often disregard discovering the reasons behind the willingness to do repeat purchases, which results in a lack of understanding why customers choose to purchase a product or service from a certain firm (Getçi and Zengin, 2013). The latter is noticeably not at stake when one is willing to concentrate on attitudinal loyalty. In general, a sense of engagement and devotion is present when a customer shows high levels of attitudinal loyalty. Typically, the customer also holds a favourable attitude towards the firm when showing a high degree of attitudinal loyalty (Bowen and Chen, 2001). However, this does not always apply to situations in which customers repeatedly purchase a product or service from a certain firm. When a (better) substitute emerges, customers will easily transition to the competitor due to a lack of commitment (Jin et al., 2015; Bowen and Chen, 2001).

Jin et al. (2015) and Kunz et al. (2011) both examined the effects between customer loyalty, firm credibility and PFI. Kunz et al. (2011) investigated the relationship between PFI and customer loyalty through two customer processing routes: the functional-cognitive route and the affective-experiential route. The former processing route states that customers should

appraise the characteristics of a firm in a well-reasoned way. Innovativeness is evaluated as a positive characteristic, which could serve as a good cue and could contribute to a positive evaluation in general. The affective-experiential route however is more hedonic-oriented, meaning that emotions, fantasy and good feelings are central. This so-called ‘positive affect’ is thus derived from positive and arousal related feelings (Kunz et al., 2011). Kunz et al. (2011) confirmed that PFI affected customer loyalty, through both routes that ignited cognitive and emotional satisfaction first. In this research it was acknowledged that satisfaction serves as an antecedent for customer loyalty.

In addition, Jin et al. (2015) assessed the direct effect between PFI of fine-dining restaurants and (attitudinal) customer loyalty even as two indirect relationships that included brand credibility and brand preference. Jin et al. (2015) did not find support for a direct and positive effect between PFI and customer loyalty nor a positive relationship when including brand preference. However, the effect of PFI on brand preference did get support. Next to this, the relationship between PFI and brand credibility as well as between brand credibility and customer loyalty was proven direct and positive. This led to the conclusion that brand credibility could lead to a higher level of attitudinal loyalty.

Based on these academic contributions, it is expected that firm credibility has a direct and positive effect on customer loyalty. In line with this, the following hypothesis is created:

H5. Firm credibility positively influences customer loyalty.

2.7 Conceptual model

Below a graphical representation of the stated hypotheses in the previous paragraphs is shown.

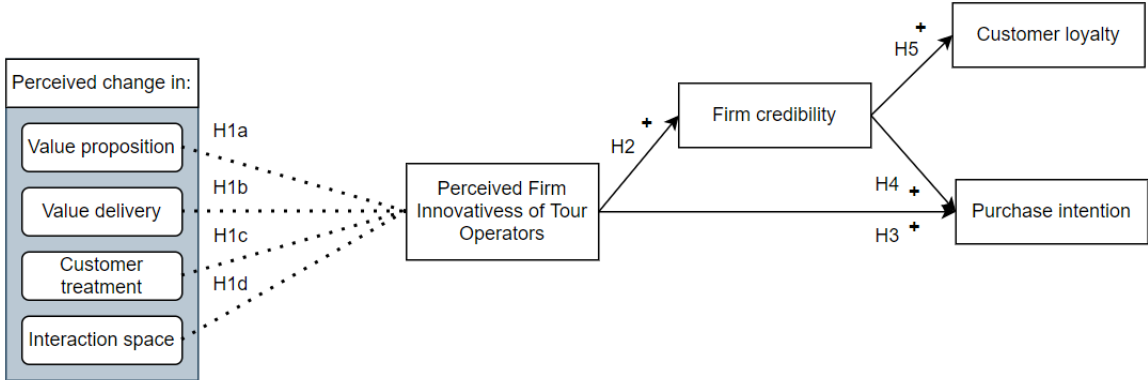


Figure 2.1 Conceptual model

3. Methodology

Chapter 3 represents the methodology of this research. First, the research design is explained. Next, an operationalization of the constructs even as the control variables is given. Third, the conducted pilots and their outcomes are described. Fourth, the target population and used sampling methods are discussed. Fifth, the data analysis procedure is represented. Sixth, significant reliability and validity measures are reported even as the research ethics.

3.1 Research design

Since the research question aims to examine the effect of PFI on several constructs and the latter consist of many scales that can be statistically analysed, this research had a quantitative approach. Also, the utilized scales even as the hypotheses to be tested were derived from theory. This made this research a deductive research (Vennix, 2019). The data gathering method that is often appropriate in quantitative research is a survey (Vennix, 2019; Verhoeven, 2014). This data gathering method was also central in this research. By collecting data in this way, numerical data could be collected and relationships among constructs could be easier determined. This because numerical data is transferable to analytic programs. Furthermore, surveys are being used to collect data from a large amount of people and could be systematically processed later on (Vennix, 2019). This was also suitable in this research as the aim was to obtain a total amount of 200 respondents. Also, in previous studies, academics that researched PFI successfully conducted surveys (e.g. Jin et al., 2015). Lastly, the pilots and the survey were conducted with three other researchers.

3.2 Measurement

3.2.1 Operationalization of constructs

The constructs utilized in the survey concern PFI, firm credibility, customer loyalty and purchase intention. Existing scales have been used for the operationalization of these constructs. This to ensure high construct reliability (i.e. to what extent does the set of items actually represent the same construct) and convergent validity (i.e. to what extent does the set of items that are expected to relate actually relate). These existing scales were obtained from previous studies of Lervik-Olsen et al. (2017), Jin et al. (2015), Kizgin, Jamal, Lal Dey and Rana (2018) and Getçi and Zengin (2013). Important to note is that the Norwegian Innovation Index (NII) of Lervik-Olsen et al. (2017) for measuring PFI was chosen due to the more customer-oriented, or outside-in, perspective on what innovativeness encompasses. The dimensions of this scale were defined after extensive research on cues that customers use to base their perceptions on.

Thus, when firms develop and launch innovations, change is observable by customers in these four dimensions (Lervik-Olsen et al., 2017). In a service context, this observable change is pivotal as innovative (features of) services not always contain tangible elements, which makes doing evaluations about services complicated (Pikkemaat and Zehrer, 2016). In other words, contrary to the scale of Kunz et al. (2011) that is used in studies examining fine-dining restaurants and other non-service settings, the Norwegian Innovation Index (NII) is less vague and seems more suitable for studies in the tourism industry. Also, the Norwegian Innovation Index (NII) would provide clear guidance regarding allocating innovation resources that would result in firms becoming more innovative (Keiningham et al., 2019). The remaining scales were chosen based on the pilots (paragraph 3.3) and on the critical values related to the construct and convergent reliability stated below.

Based on the guidelines of Henseler, Hubona and Ash Ray (2016) and Field (2018), the values of the criteria for measuring the construct reliability and convergent validity of the existing scales were excellent and therefore approved for this research (see Table 3.1). The operationalization of the scales can be found in Appendix I. The operationalization of the scales is based on a 7-point Likert scale ranging from ‘very small extent’ to ‘very large extent’.

Table 3.1. Overview construct reliability and convergent validity of construct scales from theory

Construct	Source	Original # items	Construct reliability (α) *	Convergent validity (AVE) **
PFI	Lervik-Olsen et al. (2017)	13	***	-
Firm credibility	Jin et al. (2015)	5	.95	.81
Customer loyalty	Getçi and Zengin (2013)	3	.88	.71
Purchase intention	Kizgin et al. (2018)	4	.91	.71

* $\alpha \approx .80$ (Field, 2018), ** AVE > .50 (Henseler et al., 2016), *** The α -values of the Norwegian Innovation Index (NII) are calculated in the quantitative pilots as they were not available in previous studies

3.2.2 Control variables

In this research several control variables were included. Control variables are useful for better explaining causal relationships between constructs and differences in groups. Especially in the tourism industry, segmentation can be important due to fierce competitors. Thus, taking into account control variables would give managers of tour operators ample implications who to target for communication campaigns in order to create acknowledged observable change in for example customer treatment. Whilst the scales related to the chosen control variables age,

gender, highest level of education and travel companion were straightforward (see Appendix I), the scales of product category involvement and the PFI back-up scale were not. Again, existing scales have been used for the operationalization of these two control variables in order to ensure high levels of construct reliability and convergent validity. The existing product category involvement scale was collected from the study of Kyle, Absher, Norman, Hammitt and Jodice (2007), whereas the PFI back-up scale was obtained from the study of Kunz et al. (2011). The latter, however, mainly served another purpose in this research. Whenever the effects among the Norwegian Innovation Index (NII) of Lervik-Olsen et al. (2017) and the other constructs would seem insignificant or show reliability or validity problems, the PFI back-up scale could replace the Norwegian Innovation Index (NII). In such a situation, different items would thus measure PFI. Product category involvement refers to ‘*the degree to which people devote themselves to an activity or associated product*’ (Kyle et al., 2007, p. 399). In this research this control variable could be a key factor in explaining whether (not) being highly involved in going on a holiday differs effects among PFI and the other constructs.

Once more, the scales were chosen based on the pilots and on the critical values related to the construct and convergent reliability stated next. Based on the guidelines of Henseler et al. (2016) and Field (2018) again, the values of the criteria for measuring the construct reliability and convergent validity of the existing scales were quite good. Despite the fact that the α -value with regard to the product category involvement scale was lower than the critical value of $\approx .80$, the value was not unacceptable. This as Hair, Black, Babin and Anderson (2018) state that only α -values below .60 are poor and around .70 moderately good. Hence, both scales were approved for this research (see Table 3.2). Appendix I displays the operationalization of the scales, which is based on a 7-point Likert scale ranging from ‘totally disagree’ to ‘totally agree’.

Table 3.2 – Overview construct reliability and convergent validity of scales control variables from theory

Control variable	Source	Original # items	Construct reliability (α) *	Convergent validity (AVE) **
PFI back-up scale	Kunz et al. (2011)	7	.94	.66
Product category involvement	Kyle et al. (2007)	3	.71	.61

* $\alpha \approx .80$ (Field, 2018), ** AVE > .50 (Henseler et al., 2016)

3.3 Pilots and final survey

Before conducting the final survey, three pilots were executed. In this manner, unclear elements and mistakes were avoided as far as possible and the validity of the scale items,

meaning that the items measure what they intend to measure, got ensured. This was pivotal since all scale items were translated in Dutch and modified into the context of this research. One qualitative and two quantitative pilots have been conducted together with three other researchers.

3.3.1 Qualitative pilot

In the qualitative pilot eight random persons, of which four between the age of 18-25 and four between the age of 26-65+, who have travelled with a tour operator before participated. The used method was the plus-minus method, a commonly-used approach in which participants are asked to put plusses and minuses in a certain text if they find something (un)clear. Subsequently, an interview is held in order to find out the motives behind the plusses and minuses (De Jong and Schellens, 2002). In this qualitative pilot, participants received the survey and were asked to put plusses and minuses when the line of questioning or the question/statement itself was completely (un)clear. It was also mentioned that other input, such as spelling, would be welcome. This all to get a deeper understanding of wrong interpretations.

The results of this first pilot mainly uncovered points of improvement instead of praise. First, the introduction of the survey was too elaborated, thereby destroying the essence of the survey. Also, many scale items related to the Norwegian Innovation Index (NII) that were modified based on the context of the research appeared unclear. For example, the word ‘service of the tour operator’ was interpreted broadly and mostly in an incorrect way, meaning that respondents associated service elements with the chosen tour operator that were actually carried out by an airline or a hotel and not the chosen tour operator itself. Next, participants indicated that the line of questioning with regard to the Norwegian Innovation Index (NII) was difficult and that they did not know if ‘a change in’ meant a positive or negative change. The difficultness also applied to the statements with regard to product category involvement. Moreover, examples that were intended to clarify statements caused confusion. Finally, respondents discovered spelling errors and guiding statements (which could result in biases). They also stated a few suggestions for improving response categories. The most positive remarks were related to the statements of (post) consumption behaviours like customer loyalty.

Based on these results, the introduction was shortened and the ‘service of the tour operator’ was defined just once. In addition, the questions related to the Norwegian Innovation Index (NII) were adjusted by adding the sentence ‘to what extent did you observe a change in...’ in the header instead of in each statement. Mentioning the insignificance of a negative or positive change was not an aspect that was added in the survey due to possible biases that could

potentially harm the internal validity of the survey. Also, the statements pertained to the Norwegian Innovation Index (NII) were made clearer by deleting most of the examples and only mentioning 'service' instead of 'service/holiday'. Other improvements in the statements were not made, thereby avoiding possible internal validity problems once more. Lastly, spelling errors and guiding statements were solved and suggestions for improving the response categories (e.g. presenting the question 'when was the last time you went on a holiday with a tour operator' in a multiple-choice question instead of an open question) were carried out.

3.3.2 Quantitative pilot I

With the above-mentioned improvements, a survey was disseminated among random persons via the survey tool Qualtrics. Eventually, 22 respondents, of which eleven respondents between the age of 18-25 and eleven respondents between the age of 26-65+, who have travelled with a tour operator before were gathered. Also, a reliability analysis was performed on the constructs. This to ensure the stability of the indicators which together form a certain construct.

Based on the critical value of $\alpha \approx .80$ for acceptable levels of internal consistency (Field, 2018), the results showed indeed acceptable α -values for the constructs except for product category involvement (see Appendix II). The internal consistency of product involvement category however improved significantly when deleting the first item of the scale. Nevertheless, due to possible content validity problems and many remarks on the ambiguity of the statements of this scale, it was decided to use another scale. The latter is already mentioned and argued for in paragraph 3.2.1. Next to this, many respondents indicated to have booked with a tour operator more than five years ago as well. Keeping the current COVID-19 pandemic and the associated travel restrictions in mind, it was decided to extend the number of years to nine years ago in order to reach a bigger target group. Moreover, respondents specified that the statements related to purchase intention and customer loyalty were quite similar. Despite the high internal consistency of these constructs measured in the reliability analysis, it was concluded that the scale for customer loyalty had to be substituted by a scale that emphasized attitudinal customer loyalty instead of behavioural customer loyalty. The latter could induce problems with analysing later on as purchase intention is closely related to firm preference and its associated actual behaviour. The new scale is already mentioned and argued for in paragraph 3.2.1. In addition, respondents repeatedly indicated the difficulty of some statements with regard to the Norwegian Innovation Index (NII). Herewith, respondents pointed out that that they had booked a holiday with the chosen tour operator just once, making it difficult to recall experiences. Similarly to the qualitative pilot, it was decided to improve as little as possible

thereby avoiding possible internal validity problems in the core scale of the research. Only the sentences in the header of each question were a bit shortened and, wherever possible, examples were fully deleted. Also, the word ‘service’ got substituted for ‘holiday offer’. Finally, typing errors have been tackled and improvements with regard to the functionality of the survey made.

3.3.3 Quantitative pilot II

Again, with above-mentioned improvements, the survey was disseminated among random persons. Eventually, 20 respondents of which twelve respondents between the age of 18-25 and eight respondents between the age of 26-65+, who have travelled with a tour operator before were gathered. Once more, a reliability analysis was performed on the constructs. This is especially important as new scales were utilized. The results showed slightly changed α -values (see Appendix II), both increased and decreased, when keeping in the mind the results of quantitative pilot I and the critical value of $\alpha \approx .80$ (Field, 2018). The general PFI scale ($\alpha = .713$) and value delivery ($\alpha = .699$) as part from the Norwegian Innovation Index (NII) were the construct and item that decreased most compared to quantitative pilot I. In addition, both purchase intention and customer loyalty scored a lower α -value compared to quantitative pilot I. Therefore, the scales were looked into again. Item three of customer loyalty (‘I will always use this brand’) seemed more suitable to purchase intention as it has a behavioural character, i.e. predictor of actual purchase and thus behaviour. On the other hand, item four of purchase intention (‘I will recommend this tour operator to my friends’) seemed more appropriate as part of customer loyalty due to its passive or attitudinal character. For this reason, these items have been switched, thereby also inducing a higher level of internal consistency for both constructs. The latter also appeared for the new scale of product category involvement. It increased significantly to $\alpha = .958$ and got no critical respondents’ comments. The remainder of the slightly changed α -values did not prompt for substitutions of scales or other improvements. In addition, compared to quantitative pilot I (see Appendix II), the standard deviations improved meaning that the observed values were less dispersed and thus more normally distributed.

3.3.4 Final survey

In Appendix III the final survey can be found. In view of the target population, the survey has been translated in Dutch. This translation, next to the original scales used for the operationalization of the constructs and labels used in SPSS, can be found in Appendix IV. The final survey contained some statements related to the construct customer satisfaction. This in light of the research of other researchers. Customer satisfaction was disregarded in this research.

3.4 Sampling

3.4.1 Target population

This research was aimed at making statements about the extent to which PFI of Dutch tour operators affect certain (post) consumption behaviours. As PFI has to do with whether customers believe a firm is capable of developing new and inventive products and services that have a great effect in society, the customer's perception is central. Also, the (post) consumption behaviours are related to the customer's perception of firms or behaviour towards firms. This all implied that the unit of analysis was the customers themselves, which in this context were Dutch travellers who have booked with a tour operator before. It can also be stated that the unit of analysis was similar to the unit of observation as data was also collected from Dutch travellers who have booked with a tour operator before. In this context, the level of aggregation of units and associated variables, i.e. the level of which statements are made is similar to the level the data is gathered (Vennix, 2019), is equal.

To summarize, the unit of analysis or target population was Dutch travellers who have booked with a tour operator before. These Dutch travellers needed to be at least eighteen years old to be able to participate in the survey. This as the minimum age for booking a holiday with a tour operator is eighteen years. Also, it was undeniable that Dutch travellers who did not book a holiday with a tour operator before, did not have experiences with services and holiday offers of tour operators and thus could not say much about perceived changes in PFI dimensions. Finally, large sample sizes are desired as they ensure statistical power to results. This does make a research in turn valid and reliable (Hair et al., 2018). In this research, the targeted sample size was 200 respondents. This was based on the theory related to Partial Least Squares – Structural Equation Modeling (PLS-SEM), the analysis method that was used in this research. It stated that ten times the number of independent variables should be the minimum sample size (Hair et al., 2018). In this research, theoretically, one exogenous variable is identified: PFI. This would be 10 respondents and thus extremely low. Therefore, the number was multiplied by 20.

3.4.2 Sampling method and procedure

3.4.2.1 Sampling method

According to NBTC (2019), the holiday participation of the Dutch population was about 83% in 2019. Of this 83%, about 39% booked a holiday package and 38%-43% booked a holiday with a tour operator (Delfos, 2019). Next to this, the Dutch population aged eighteen years and older was about fifteen billion in 2019 and 2020 (CBS, 2021). This all proved the large volume of the target population, which made it important to include a representative part of the target

population. Since there was no database that included the target population available (due to privacy regulations), the sampling method could not be random. Therefore, it was decided to utilize the convenience sampling method. Convenience sampling is a non-random sampling method in which persons from the target population meet certain characteristics and are asked to participate in a research. These characteristics are often related to the easiness of reaching the persons even as the willingness of these persons to take part in a research (Verhoeven, 2014; Etikan, Musa and Alkassi, 2016). The way of collecting data played a significant role in this sampling method. It was decided to choose one online platform for disseminating the survey as using more online platforms would presumably cause biases. In this way, a better distribution of respondents could be obtained. The platform used was the online travelblog TravelKees. In general, this online travelblog generates a moderate level of traffic, diverse in terms of age, that is interested in traveling and/or has booked a holiday with a tour operator before.

A disadvantage of this sampling method is that results are often not generalizable as the target population is not fully represented. Also, the problem of outliers could cause harm in the analysis of the results. These outliers are often not taken into account, while they do have a significant impact. Despite this impact cannot be well quantified (Etikan et al., 2016), extra attention is paid to this problem in the analysis. Finally, it must be noted that since the sampling method could not be random, possible other non-random sampling methods were consulted. Nonetheless, these methods could not have improved much on the above-mentioned pitfalls as they cope with similar disadvantages (Verhoeven, 2014; Vennix, 2019; Etikan et al., 2016).

3.4.2.2 Procedure

As mentioned earlier, in view of the target population the survey was translated in Dutch. The online survey tool Qualtrics, licensed by Radboud University, was utilized for conducting the survey. This as the tool provides more design possibilities and gives better and clearer insights in the results. The latter can subsequently be easily obtained in (SPSS) reports. The Qualtrics link to the survey was integrated on the online travelblog.

As none of the researchers was physically present, persons from the target population could not be asked if they wanted to participate in the research. Thus, the researchers were dependent on the traffic on the online travelblog. Therefore, the survey was moved to the top of the online travelblog so that visitors could easily find the survey. An appealing phrase was added in order to encourage visitors to fill out the survey ('have a chance of winning' and 'short survey'). Due to the absence of the researchers, it was also essential that everything was clearly stated in the introduction of the survey. The introduction therefore contained the subject and

goal of the research and statements related to research ethics. The subject was stated as ‘innovation of tour operators’, leaving thereby the ‘change aspect’ behind. In this way possible biases by, for example, looking up information before starting the survey instead of recalling aspects from memory were avoided. In addition, it was indicated that opinions were at the core of the survey, there were no (in)correct answers and honesty and carefulness were of great importance while answering the questions. Respondents could email the researchers afterwards when having questions or if they wanted to receive the results of the survey. After accepting the terms and conditions stating that the respondent was eighteen years old or older, understood the text and thus agreed to participate in this research, the survey started.

The routing of the survey was as follows: the first three questions concerned tour operator related questions, such as with which tour operator the respondent had booked a holiday. The term ‘tour operator’ was explicitly defined here to avoid potential biases, especially as some of the questions had a semi-open response category. Asking these questions at the beginning of the survey was crucial, since the remainder of the survey was focused on questions/statements while keeping the respondent’s chosen tour operator in mind. Next, the statements related to the Norwegian Innovation Index (NII) and PFI back-up scale were described. Thereafter, the statements with regard to the post consumption behaviour constructs were written down. These constructs were discussed later in the survey as they were more focused on experiences, rather than perceived changes, with the chosen tour operator. Also, the limits of the 7-points Likert scale demanded another indication (e.g. ‘totally disagree’ instead of ‘very small extent’). Lastly, the more general and personal questions were asked at the end of the survey. In this manner, it was certain that respondents would give most attention to the questions/statements of great importance. Then the survey was finished and the respondent was thanked for participating.

Important to note is that respondents were not required to fill out the questions before being able to proceed with the next question. The percentage of respondents withdrawing could be more limited with this choice. Also, by not making every question mandatory the respondent’s mind is often at ease (Verhoeven, 2014; Saunders et al., 2019). The response categories of the questions/statements varied in the survey: from semi-open response categories to open questions. However, questions/statements based on a 7-point Likert scale dominated. Finally, in every question/statement related to a new subject was indicated that the respondent had to think (again) of the previously chosen tour operator while answering.

3.4.3 Description of the sample

3.4.3.1 Total amount of respondents and missing data

A total of 213 respondents filled out the survey. Since 31 respondents did not (fully) complete the survey, only 182 filled out surveys were useful. According to the data cleaning method clarified by Hair et al. (2010), these non-finished surveys may be removed from the dataset. Therefore, the 31 respondents who did not fully complete the survey were deleted from the dataset. Another non-ignored type of missing data that arose while analysing the sample was missing values. This was due to not obligating the respondent to fill out every question or give an opinion on every statement before being able to proceed with the next question. To determine the size of the missing values, each question/statement was inspected for missing values and deviant numbers. As the sample contained < 400 respondents, the percentage of missing data was not allowed to exceed the 10% ($t = 1.65$ and $p < .10$) (Hair et al., 2010). It appeared that the highest percentage of missing values on item level was 2,2% (value proposition 3) and on construct level 7,1% (PFItotal). The missing values were therefore negligible. Also, no deviant numbers were found. To conclude, nothing needed to be deleted or further analysed for possible patterns. Appendix V shows the frequency table with the percentage of missing values.

Also, it should be noted that despite the definition of tour operators was provided in the survey, six respondents still considered Transavia (Dutch airline) and Booking.com (website for renting accommodations) as tour operators. When deleting these respondents from the dataset, the percentage of missing values did not change. It can be argued for those respondents acknowledged these firms to be tour operators and thus answers would not be different when, for example, the entire tourism industry was included. Based on both arguments, it was decided to leave the dataset the same as little to no harm would be done to the results in the end.

To conclude, the aim of including 200 respondents in the survey was not achieved.

3.4.3.2 Demographics of sample

In terms of demographics, the sample contained more women (65,4%) than man (34,6%) or other (0%). Moreover, the sample was overrepresented by the age group 18-25 years old. The second biggest age group was 46-56 years old. Both observations were explainable as the travelblog has many visitors and readers falling into both age groups. This was due to the age of the travel blogger himself and his children who have friends reading the travelblog. In addition, the sample was overrepresented by highly educated respondents: University of Applied Sciences and University together accounted for 75,3% of all respondents. This could be due to the demographics of the visitors and readers of the travelblog. Another explanation

could be the difficultness of the survey. This was a recurring aspect in the pilots as well. It could also be related to the 31 non-finished surveys. In addition, the Dutch market leader TUI and D-reizen/VakantieXperts could be identified as the second and third largest tour operator respondents have booked a holiday with. However, most respondents booked with tour operators other than those listed in the survey. A more detailed overview of the demographical variables of the sample can be found in Appendix VI. Thus, the sample in general was not representative, and thereby not generalizable for the whole Dutch population who have booked with a tour operator before. Nevertheless, the results could still provide valuable insights.

3.5 Data analysis procedure

As there are multiple constructs included in this research, it was of high importance to choose appropriate analytical methods for testing the hypotheses described in Chapter 2. Similar to the studies of Jin et al. (2015), Kunz et al. (2011), Lervik-Olsen et al. (2017) and Shams et al. (2017) that examine PFI, it was decided to utilize partial least squares structural equation models (PLS-SEM). These statistical models try to explain dependence relationships among multiple variables simultaneously (Hair et al., 2018). In this research these multiple variables concerned PFI, firm credibility, purchase intention and customer loyalty. An advantage of this analysis method is that it includes causal relationships with partial and total effects of the constructs, thus it examines complete theories. Fundamentally, it combines a common factor analyses and multiple regression analyses through the structural and measurement model (Henseler et al., 2016; Hair et al., 2018). Therefore, common factor analyses and the multiple regression analyses performed in SPSS were also pivotal in this research. A common factor analysis can be compared to the measurement model and is often essential for a good interpretation of latent constructs or multidimensional scales (Hair et al., 2010). Especially with the use of the Norwegian Innovation Index (NII), which was hardly utilized in other studies, common factor analyses in SPSS were also important. In addition, multiple regression analyses in SPSS could be applied in this research as multiple independent variables/items were present for predicting a dependent variable, e.g. two dimensions of PFI → firm credibility. In this way the relationship between more independent variables could be weighted separately on the dependent variable to ensure maximal prediction (Hair et al., 2018). However, also simple regression analyses were part of this research. In the end, the results of the analyses conducted in SPSS were compared to the results of the PLS-SEM analysis. Both results together have drawn conclusions with regard to (not) rejecting the stated hypotheses. The statistical programs used in this research were IBM SPSS Statistics 25 and ADANCO.

3.6 Construct reliability and validity

Again high levels of construct reliability, convergent validity and discriminant validity with respect to the scales of the utilized constructs were desired. Whilst construct reliability and convergent validity were already earlier defined, discriminant validity comes to light for the first time. Discriminant validity is the degree to which a construct is legitimately different from other constructs (Hair et al., 2018). In order to reach high levels of internal consistency, three factor analyses and several reliability analyses for measuring construct reliability were executed. The reason for conducting three factor analyses was that when all items were put into one factor analysis, too much overlap was visible. Therefore, (1) PFI, (2) (post) consumption behaviours and (3) control variables have been separately analysed. By doing these factor analyses, potential items that could harm scales can be deleted, allowing thereby the researcher to do the remaining analyses with the best interpretation of the (latent) constructs. This best interpretation of the constructs was in turn necessary for measuring the level of convergent validity and discriminant validity. Table 3.3 presents an overview of the measurements.

Table 3.3 Internal consistency and convergent validity of constructs based on results

Construct	Original # items	Cronbach's Alpha (α) *	# of items deleted	Cronbach's alpha (α) *	Convergent validity (AVE) **
PFI	13	.906	1	.906***	.501 ****
Firm credibility	5	.921	0		.760
Customer loyalty	3	.811	1	.825	.856
Purchase intention	4	.924	0	.934*****	.836
PFI back-up scale	7	.864	0		.553
Product category involvement	3	.884	0		.822

* $\alpha \approx .80$ (Field, 2018), ** AVE > .50 (Henseler et al., 2016), *** Construct reliability PFI dimensions separately: VD&CT: .897 – VP: .849 – IS: .918, **** Convergent validity PFI dimensions separately: VD&CT: .663– VP: .769– IS: .860, ***** Cronbach's alpha based on replacement Purchaseintention4 and Customerloyalty3

3.6.1 Factor analysis I and reliability analysis: PFI (Norwegian Innovation Index)

The approach of the first factor analysis concerned the common factor analysis. This way the researcher could look at the shared item variance while keeping in mind that a unique variance might be present. In order to be allowed to use common factor analysis, a value of .50 and higher is required for the KMO-test and Bartlett's Test of Sphericity needs to be significant (Field, 2018, p.684). The first output showed a KMO = .871 and a significant Bartlett's Test of

Sphericity (X^2 : 1516.490, $p < .001$). Thus, it was allowed to conduct the factor analysis. After checking the requirements for utilizing an oblique rotation method, accurate communality values and cross loaders stated by Field (2018), it could be concluded that only item Valuedelivery4 seemed to have a low communality value (.227) and to be a cross loader as the difference between the highest and second highest loading was .099. It was therefore decided to delete this item from the dataset. Within this first iteration only three factors, that explained approximately 64,3% of the variance together (based on the Eigenvalue and scree plot), could be determined. In iteration two, which thus excluded Valuedelivery4, KMO slightly decreased to .867 and a significant Bartlett's Test of Sphericity (X^2 : 1464,213, $p < .001$) was found. It was thus again permitted to conduct the common factor analysis. Based on similar requirements, no other items were at risk for deletion. Within this second iteration again three factors, that explained approximately 67,8% of the variance together, were found.

Further interpretation of the factors was done by choosing the highest factor loadings for one factor, i.e. a factor loading must at least be higher than .50 and ideally higher than .80 (Field, 2018; Hair et al. 2018). To conclude, factor one covers all remaining value delivery and customer treatment items, whereas factor two only covers all value proposition items. Factor three only includes interaction space items. Conceptually, the results related to factor two and three fit. Contrary to literature, customer treatment and value delivery do correlate. This result is taken into account in further analyses. The reliability test, measured through Cronbach's Alpha (α), showed the following results: (1) $\alpha = .849$ for value proposition, (2) $\alpha = .897$ for value delivery and customer treatment, (3) $\alpha = .918$ for interaction space. Based on the critical value of $\alpha \approx .80$ (Field, 2018), these results imply that the internal consistency is quite good. However, the α -value of interaction space could be improved to .932. Despite the fact that Field (2018) states that the item must be deleted if an α -value increases with .05, this was not performed due to the potential harm to content validity. Subsequently, all items were put into one reliability analysis that would give an α -value for PFI in total: $\alpha = .906$. Remarkable is that this α -value did not improve when Valuedelivery4 got deleted from the dataset. This strongly suggests that the reason for deletion has only been good for the validity of this research. Appendix VII presents an overview of the significant results.

3.6.2 Factor analysis II and reliability analysis: FC, PI and CL

Again the common factor analysis approach has been used for this factor analysis. KMO and Bartlett's Test of Sphericity showed: KMO = .896 and a significant Bartlett's Test of Sphericity X^2 : 1956,251, $p < .001$. It was thus allowed to conduct the common factor analysis.

After checking the requirements for utilizing an oblique rotation method, accurate communality values and cross loaders stated by Field (2018), it could be concluded that no items were at risk for deletion. This iteration showed the appearance of two factors, good for approximately 68,9% of the total variance explained. Since no item had to be erased the pattern matrix could be interpreted directly. It appeared that the items related to firm credibility almost fully load on factor two, whereas the items with regard to customer loyalty and purchase intention together are more scattered. Yet, they mainly and highly load on factor one. The latter is not remarkable, because both constructs are woven into each other as explained in chapter two. To conclude, in spite of using an attitudinal loyalty scale and performing more rotations, the researcher could not guard against the interrelatedness of both constructs.

The reliability test, measured again through Cronbach's Alpha (α), showed the following results: (1) $\alpha = .921$ for firm credibility, (2) $\alpha = .811$ for customer loyalty, (3) $\alpha = .924$ for purchase intention and (4) $\alpha = .923$ for customer loyalty and purchase intention together based on the factor analysis. These α -values are excellent. Result (4), that indicated that customer loyalty and purchase intention load on one factor, gave the opportunity to look into the items Customerloyalty3 and Purchaseintention4 as they have replaced each other due to the results of the pilots (see paragraph 3.2). Strangely, when replacing them based on how both scales originally looked like, both Cronbach's Alphas highly increased: purchase intention: $\alpha = .934$ and customer loyalty: $\alpha = .865$. Several options were extensively investigated in order to see if action should be taken here. It was decided to definitely replace both items as the original scales looked like and subsequently eliminate Purchaseintention4 from the dataset. By doing this, the internal consistency of both purchase intention and customer loyalty became higher (PI: $\alpha = .934$, CL: $\alpha = .825$) and more importantly it ensured less interrelatedness of the scales based on the factor loadings (see Appendix VII). Purchaseintention4 seemed thus to be the item causing the high interrelatedness. This altering did not negatively influence the content validity as similar facets of the theoretical construct were still measured. In other words, deleting Purchaseintention4, that refers to the use of a tour operator's product, does not avoid measuring the willingness to use a tour operator's product as other items centre stage this subject in different words as well. Customerloyalty3, however, does refer to a different subject which would have harmed the content validity if removed from the dataset. In addition, the AVE-values of both purchase intention and customer loyalty even as several effects measured later on in the analysis increased (see paragraph 3.6.4, 4.3 and 4.4). To conclude, altering the scale did matter. Yet, these results showed that the risk of validity problems is still high. In Appendix VII an overview of the output can be found.

3.6.3 Factor analysis III and reliability analysis: PFI back-up scale and PCI

Once more the common factor analysis approach has been used for this factor analysis. KMO and Bartlett's Test of Sphericity showed: KMO = .828 and a significant Bartlett's Test of Sphericity (X^2 : 872,387, $p < .001$). Thus, it was allowed to conduct the factor analysis. After checking the requirements for utilizing an oblique rotation method, accurate communality values and cross loaders stated by Field (2018), it appeared that an orthogonal rotation method was obligated to use (see Appendix VII). Once carried out, no items needed to be deleted from the dataset. This iteration showed the appearance of two factors, good for approximately 63,9% of the total variance explained. Since no item was removed, the rotated factor matrix could be interpreted directly. It appeared that the items related to PFI back-up scale almost fully load on factor one. Factor two only showed factor loadings of product category involvement $> .80$. The reliability analysis, measured through Cronbach's Alpha (α), showed the following results: (1) $\alpha = .864$ for the PFI back-up scale and (2) $\alpha = .884$ for product category involvement. Based on the critical value of $\alpha \approx .80$ (Field, 2018), these α -values are quite good. The internal consistency could not be improved by deleting more items.

3.6.4 Convergent and discriminant validity

First, the superior measure for determining convergent validity is the average variance extracted (AVE), or percentage explained variance. This measure or percentage must be $>.50/50\%$ for the first factor, before one's allowed to say that items related to a scale measure accurately reflect the construct or concept and thus share a high proportion of variance (Hair et al., 2018; Henseler et al., 2016). Based on the outcomes of the factor analyses, the items related to each construct were put into a separate new factor analysis. The approach of this factor analysis was, contrary to earlier, the principal components. This as a minimum number of factors is determined, namely one as convergent validity is unidimensional (Henseler et al., 2016) and maximum variance is asked for. The assumptions were met in order to perform the analysis. All cumulative percentages of explained variance appeared to be above the critical value of .50, which implied that all constructs do have acceptable AVE-values and that the scales do measure the intended construct (see Table 3.3). Additionally, with the intention of ensuring that the dimensions themselves share high levels of common variance, the PFI dimensions were analysed separately on convergent validity. Similar outcomes emerged from this analysis.

Second, in order to measure the discriminant validity of all items, all items were put into one and new common factor analysis. The assumptions were met in order to perform the analysis. Subsequently, the pattern matrix (see Appendix VII) was subject to an in-depth

analysis that centralized the fact that no item is inaccurately appointed to the wrong factor or that correlations are weak and thus show distinctiveness if factor loadings are scattered across multiple factors (Henseler et al., 2016; Hair et al., 2018). Similar to some results of the factor analyses conducted earlier, most items load on a specific factor occasionally showing low correlations spread across more factors. However, the items related to purchase intention and customer loyalty together highly load on factor one. As discovered earlier, value delivery and customer treatment also collectively load on factor two. Therefore, it can be concluded that there was evidence that not all items/constructs are unique and cover phenomena that other items/constructs do not. Thus, the discriminant validity is moderate and does indicate problems.

3.7 Research ethics

Research ethics were taken into account during the whole research process. The research method was quantitative of nature, which resulted in a survey disseminated via the online travelblog TravelKees without the researchers being psychically present. It was thus important to inform respondents as best as possible before they filled out the survey. Therefore, before proceeding with the survey, respondents were clearly informed about the goals of this research.

First, it was mentioned that the data obtained would be carefully and only utilized for the purpose of this research. Also, respondents were made cognizant of the fact that they remained anonymous during the whole research process. This got ensured by only integrating the link to the survey on the online travelblog TravelKees so respondents could only access the survey by visiting the online travelblog itself. The link thus remained anonymous which made respondents untraceable. Moreover, by conducting the survey in Qualtrics, an online survey tool licensed by Radboud University, trust could be gained and confidentiality ensured. Furthermore, it was made clear that respondents had the possibility to withdraw from participation without further explanation. It was also explained that answers would not be saved and thus not processed when this situation occurred. Subsequently, respondents had to accept that they were eighteen years old or older, understood the text stating all the above and agreed to participate in this research while keeping these terms and conditions in mind. At the end of the survey, it was described that if respondents wanted to receive the results of the research or had questions, they could email one of the researchers instead of leaving an email address behind. With the latter, anonymity could be threatened otherwise. However, in order to encourage respondents to participate, two Bol.com gift cards could be won. Therefore, email addresses were required to fill out (only if respondents agreed with specifying their email address). It was explicitly mentioned that after raffle, email address would be eliminated.

4. Results

This chapter describes the remainder of conducted analysis and obtained results of this research. First, the descriptive analysis is reported. Next, the results of the regression analysis for testing the hypotheses in both SPSS and ADANCO are provided. Subsequently, the results with regard to the hypotheses are discussed in detail. Finally, additional analyses are presented.

4.1. Descriptive analysis

In order to see if statistical coherence is present, the constructs were assessed by using the correlation matrix (see Table 4.1). Simultaneously, the descriptive statistics were generated (mean and standard deviation). The correlation matrix on item level was also generated for possible in-depth analysis later on (see Appendix VIII).

Table 4.1 Correlation matrix and descriptive statistics

Construct	1	2	3	4	5	6	7	8
1. PFI *****								
2. Value proposition	.704**							
3. Value delivery*****	.835**	.508**						
4. Customer treatment	.843**	.420**	.660**					
5. Interaction space	.752**	.289**	.463**	.574**				
6. Firm credibility	.062	.131	.077	.028	-.035			
7. Customer loyalty	.185*	.206**	.229**	.099	.055	.315**		
8. Purchase intention	.164**	.158*	.222**	.073	.065	.595**	.614**	
Mean	4.20	4,54	4.28***	4.11	3.97	5.55	2.88	4.78
Standard deviation	.990	1.27	1.26***	1.24	1.36	.822	1.50	1.58

*n = 182, *p < .01, ** p < .05,*** Valuedelivery4 excluded. Included: $\mu = 4.19$ and $\sigma = 1.14$, **** Valuedelivery4 excluded. Included: 3.1: .866**, 3.2: .501**, 3.4: .682**, 3.5: .510**, 3.6: .070, 3.7: .198** and 3.8: .203**, ***** Valuedelivery4 excluded. Included: 1.2: .692**, 1.3: .866**, 1.4: .842**, 1.5: .753**, 1.6: .061, 1.7: .177* and 1.8: .161**

As previously noted, Valuedelivery4 needed to be eliminated from the dataset based on the conducted factor analyses in SPSS. However, as the results are based on the analyses from both SPSS and ADANCO and the latter is not yet performed, the correlation matrix contains for the sake of completeness correlations both in- and excluding Valuedelivery4. Also, the construct PFI is included as the correlations among this construct and the constructs of (post) consumption behaviour are hypothesized. Nevertheless, it is interesting to see whether the PFI dimensions solely correlate with the constructs of (post) consumption behaviour or not. It can be concluded that PFI does not show a significant correlation with firm credibility. There are also no significant correlations among the PFI dimensions solely and firm credibility. These correlations do also not change to significant values when including Valuedelivery4 in the dataset. However, PFI does show a significant but relatively weak correlation (.182) with

purchase intention. This correlation slightly decreases when including Valuedelivery4 in the dataset. Also, the PFI dimensions solely only display significant correlations between value proposition and purchase intention and value delivery and purchase intention. The correlation of the latter also weakens by .19 when including Valuedelivery4 in the dataset. In spite of not stating a hypothesis between PFI and customer loyalty, the correlation matrix displays a significant but rather weak correlation (.185) between both constructs. This correlation also decreases when including Valuedelivery4. The reason for this significant correlation may be due to the reduction of the α -level. Lowering the α -level leaves more space for the researcher to check whether a certain null-hypothesis is incorrectly rejected and thus controls for Type I error (Field, 2018). Looking into the PFI dimensions solely once more, only value proposition and value delivery show significant correlations with customer loyalty. Moreover, firm credibility correlates relatively high with both customer loyalty (.315) and purchase intention (.595). This is an good indication that there are indeed (positive) relationships present. Finally, the descriptive statistics show that the means of the constructs are relatively high. This means that many respondents answered 'neutral' or 'somewhat agree'. Also, with the exception of PFI and firm credibility, the standard deviations are all above 1. This indicates that there are considerable differences present among the answers of the respondents.

4.2 SPSS analysis: factor analyses, simple and multiple regression analyses

4.2.1 Factor analyses: important alterations

The factor analyses have been already conducted earlier. To sum up briefly, for the PFI construct, Valuedelivery4 was eliminated. Also, the remaining items of value delivery and customer treatment fully loaded on one factor together. These loadings were almost all higher than .700, indicating that they also strongly loaded on this factor. As no other iteration could prevent this situation, it was decided to merge the remaining items of value delivery and customer treatment to one dimension. Subsequently, only three PFI dimensions were taken into account in the remaining analyses in SPSS. Based on this result, hypothesis 1 is already rejected.

In addition, purchase intention and customer loyalty highly loaded on one factor together despite meeting the rest of assumptions. Their interrelatedness could not be prevented but it could be reduced by definitely replacing both Customerloyalty3 and Purchaseintention4 based on how both scales originally looked like and eliminating Purchaseintention4 from the dataset. However, it was decided to still treat both constructs as two separate constructs as they concern both endogenous variables in this research. Herewith, it was acknowledged that due to the discriminant validity problem the results linked to these constructs must be carefully interpreted. With these conclusions, the remainder of the analysis in SPSS is performed.

4.2.2 Assumptions simple and multiple regression analyses

In order to correctly determine the regression coefficients and obtain indications for (not) rejecting the stated hypotheses, it was checked whether all five assumptions related to the regression analyses were met (see Appendix IX for output). First, both the independent variable(s) and the dependent variable must be metrically scaled, i.e. interval or ratio level (Hair et al., 2018). The measurement levels of the PFI dimensions and the three (post) consumption behaviours can be characterized as interval levels. This as only 7-point Likert scales were utilized for these constructs in the survey. This assumption is thus met. Second, each variable needs to be normally distributed. If there are no symmetrical distributions present, possible implications for correlation, linearity and homoscedasticity will rise (Hair et al., 2010). Looking at the skewness and kurtosis values, it can be stated that only firm credibility highly deviates from the rule of thumb that indicates that the skewness and kurtosis must be $<(-) 3 / <(-) 3$ (Hair et al., 2018). Firm credibility shows a skewness value of 8.32 and a kurtosis value of 6.27. However, looking at the P-P plot, the deviation does not seem unacceptable. The other P-P plots do not display disastrous deviations. As the deviations are relatively robust in regression analyses (Hair et al., 2018, p.291), it can be said that the assumption is met. Third, linear relationships between the independent variable(s) and the dependent variable must be present (Hair et al., 2018). This assumption is pivotal as linear relationships are the foundation for correlations, the basics of regression analyses (Hair et al., 2018). Looking at the partial regression plots and residual scatterplots, it can be said that no nonlinearity patterns are detected. The observations are thus relatively widespread. Therefore, the assumption is met. Fourth, the presence of heteroscedasticity is one of the most common assumption violations that leads to an incorrect estimation of the standard errors (Hair et al., 2018). The residual scatterplots present unbiased widespread observations. This indicates that the assumption of homoscedasticity is not violated. Fifth, based on the VIF-values, it was tested to see whether the independent variables highly correlate with each other or not. This assumption only applies to hypotheses 2 and 3 as they entail multiple independent variables. Based on the criterium of VIF-value < 10 (Hair et al., 2018), there is no question of multicollinearity. The assumption is thus met. Finally, by analysing the partial regression plots once again, it was determined that influential observations were present. However, it concerned acceptable leverage as the fundamental problem lies within the sample and not with extreme values (Hair et al., 2018).

4.2.3 Simple and multiple regression analyses

Both simple and multiple regression analysis were used to assess whether PFI significantly explains firm credibility. In this manner, every independent effect (signifying the PFI

dimensions solely) and a joint effect (PFI as one construct) could be exposed and interpreted. The results of the multiple regression analysis indicate that the model does not show a significant percentage of variance explained by the PFI dimensions in firm credibility ($R^2 = .024$, $F(3, 181) = 1.455$, $p = .229$). Of the results (see Table 4.2), the merged dimension of value delivery and customer treatment shows the worst p-value ($p = .660$). Also, interaction space shows a negative effect, indicating that the more change a respondent has experienced in for example the design of physical surroundings or appearance of the tour operator's webpage, the less the respondent believes the tour operator is credible. However, this observation is not significant. Similar results are shown when performing the simple regression analysis. In fact, the percentage of variance explained is worse: $R^2 = .004$, $F(1, 181) = .701$, $p = .403$. Based on these results, hypothesis 2 is rejected. See Appendix X for the extensive output.

Table 4.2 Effects of PFI on firm credibility

	<i>Multiple Regression Model 1</i> Main effects			<i>Simple Regression Model 1</i> Main effect		
	β	<i>SE</i>	<i>p</i>	β	<i>SE</i>	<i>p</i>
1. Value proposition	.137	.071	.113			
2. Interaction space	-.099	.070	.271			
3. VD & CT*	.044	.093	.660			
4. PFI total				.062	.078	.403
R^2 (Adjusted R^2)	.024	(.007)		.004	(-.002)	

$n = 182$, $p < .05$, *Value delivery and Customer treatment

Again, both multiple and simple regression analysis were conducted to test whether PFI significantly explains purchase intention (see Table 4.3 and Appendix X). The results of the multiple regression analysis imply that 3,5% of the variability in purchase intention is not significantly accounted for the PFI dimensions ($R^2 = .035$, $F(3, 180) = 2.165$, $p = .094$). Nevertheless, the simple regression analysis shows a significant relationship between PFI in total and purchase intention, but the standardized effect shows little influence ($\beta = .164$, $p < .05$). This model explains a significant proportion of variance ($R^2 = .027$, $F(1, 180) = 4.962$, $p < .05$). The R^2 -square is however rather low. It can be stated that the conflicting results can be traced from the correlation matrix and results after performing a hierarchical linear regression analysis. The latter showed a significant relationship between value proposition and purchase intention, but while adding other PFI dimensions this relationship became weaker and not significant. Covariance plays a part here as the dimensions are seen as separate independent variables compared to the PFI in total construct. Based on the fact that the model in the simple regression analysis is significant and a significant correlation is present, hypothesis 3 is partially accepted.

Table 4.3 Effects of PFI on purchase intention

	<i>Multiple Regression Model 1</i> Main effects			<i>Simple Regression Model 1</i> Main effect		
	β	<i>SE</i>	<i>p</i>	β	<i>SE</i>	<i>p</i>
1. Value proposition	.103	.106	.232			
2. Interaction space	-.041	.104	.648			
3. VD & CT*	.134	.139	.180			
4. PFI total				.164	.116	.03
R ² (Adjusted R ²)	.035	(.019)		.027	(.022)	

n = 182, *p* < .05, *Value delivery and Customer treatment

A simple regression analysis was utilized for investigating whether firm credibility has a significant positive effect on purchase intention. The results show that 35,4% of the variance is significantly explained by this model ($R^2 = .354$, $F(1, 180) = 98.025$, $p < .001$). The effect appears relatively strong and positive ($\beta = .595$, $p < .001$), which indicates that high credibility of tour operators leads to a higher willingness of customers purchasing their product (see Table 4.4). Therefore, hypothesis 4 is accepted. See Appendix X for the extensive output.

Once more, a simple regression analysis was utilized for testing whether firm credibility has a significant positive effect on customer loyalty. The results display a significant proportion of variance ($R^2 = .099$, $F(1, 181) = 19.776$, $p < .001$). 9,9% of the customer's loyalty is thus explained by the credibility of the tour operator. The main effect is not strong, but not weak either ($\beta = .315$, $p < .001$). Also, the effect is positive (see Table 4.4). Therefore, hypothesis 5 is accepted. See Appendix X for the extensive results.

Table 4.4 Effects of firm credibility on purchase intention and customer loyalty

	<i>Simple Regression Model 1</i> Main effect			<i>Simple Regression Model 1</i> Main effect		
	β	<i>SE</i>	<i>p</i>	β	<i>SE</i>	<i>p</i>
1. Firm credibility*	.595	.090	.000			
2. Firm credibility**				.315	.100	.000
R ² (Adjusted R ²)	.354	(.350)		.099	(.094)	

n = 182, *p* < .001, *Dependent variable: purchase intention, **Dependent variable: customer loyalty

4.3 Structure Equation Modeling – Partial Least Square (PLS) Analysis

4.3.1 Assessment of measurement model

The measurement model specifies the relationship among the indicators and the variables (Hair et al., 2018). In this research a formative measurement model with composite indicators

was central. This as the set of indicators entirely form or cause each construct in this research (Hair et al., 2018). For further specification, it must be noted that this research contained one exogenous construct, namely PFI. This as only PFI serves as an independent variable and its values were obtained outside the model (Hair et al., 2018; Henseler et al., 2016). Firm credibility, purchase intention and customer loyalty serve as endogenous constructs because they are determined by, and therefore dependent on, other constructs in the model (Hair et al., 2018; Henseler et al., 2016; Van Riel, Henseler, Kemény and Sasovova, 2017).

By creating a base model in ADANCO, the goodness of model fit became apparent (see Appendix XI). Looking at the saturated model for the model fit, the SRMR-value appeared .066 and thus below the critical value of SRMR <.08 (Henseler et al., 2016). Therefore, the model fit was good. As measurement models with composite indicators can also be utilized for dimension reduction (Hair et al., 2018), i.e. common factor analysis, this base model was investigated on its factor loadings. Again, Valuedelivery4 appeared to have the lowest factor loading (.442), to be a cross loader and, when looking forward, this item showed very low indicator reliability levels. Therefore, it was decided to also eliminate Valuedelivery4 from the dataset in this analysis. This deletion resulted in a slight decrease of the saturated model, but did not cause any problems with regard to the model fit. Subsequently, an in-depth assessment of the measurement model was performed. None of the criteria related to the measurement tools were violated except for the discriminant validity. The HTMT-ratio indicated a violation of the critical value of .85 between purchase intention and customer loyalty (AVE = .8774). In other words, purchase intention and customer loyalty appeared not to be absolutely different from each other once more. Also, the discriminant validity between value delivery and customer treatment was quite high, but below the critical value. Although, it gave an indication for problems later on, also given the results of the analysis performed in SPSS.

Based on these results, several iterations have been conducted in ADANCO in order to deal with this problem. Eventually, it was decided to replace both items and subsequently remove Purchaseintention4 from the dataset again (see final measurement model in Appendix XI). In this manner, the best level of discriminant validity could be reached (AVE= .695, instead of AVE=.739 when leaving Purchaseintention4 in the dataset) and the convergent validity became higher for especially customer loyalty. Also, the reliability of the indicators of customer loyalty increased to better levels and the indicator multicollinearity for purchase intention in particular improved ($VIF \approx 6.94 \rightarrow VIF \approx 6.28$). Similar can be said about customer loyalty. However, these VIF-values appeared to be relatively low. Simultaneously, it was assessed whether value delivery and customer treatment needed to be merged into one dimension due to

the relatively high HTMT-value. However, when performing several iterations the model fit decreased far below .05. Also, given the HTMT-value (.744) no immediate action was required.

After this altering, the final measurement model was assessed once more (see Appendix XI). First, the indicator loadings ranged from .817 to .978. As all indicator loadings are required to be higher than .705 (Hair et al., 2018), it can be concluded that the indicator loadings do explain a great part of the constructs. Second, the indicator reliability was investigated. The results presented only values ranging from .667 and .957, which implies that the indicator reliability is relatively high. Third, the internal consistency of the construct was assessed by three measurement tools (Cronbach's Alpha (α), Dijkstra-Henseler rho (ρ_A) and Dillon-Goldstein rho (ρ_C)) that indicate that acceptable values must be higher than $\alpha/\rho_A/\rho_C = .70$ (Henseler et al., 2016). It can be concluded that all three tools showed values much higher than $\alpha/\rho_A/\rho_C = .70$, which means excellent construct reliability. Fourth, in order to assess the extent to which indicators relate to each other in the same construct, the AVE-values were checked. They all appeared to be higher than the critical value of .50 (Henseler et al., 2016). Fifth, the discriminant validity was investigated. The HTMT-values indicated no violations, which implies that the constructs are to a moderate extent unique given the height of the values. Lastly, all VIF-values appeared to be below the generally accepted cut-off threshold of 10 (Hair et al., 2018). However, three items related to purchase intention showed VIF-values higher than 6, which still indicates overlapping items (Hair et al., 2018). Moreover, the VIF-values related to customer loyalty showed low levels of collinearity, which could imply too little overlap (Hair et al., 2018). In this case, it is recommended to link these constructs with higher order constructs. The latter must be the exogenous construct in the structural model (Hair et al., 2018). The next paragraph will focus on this execution.

4.3.2 Assessment of structural model

As the final measurement model met almost all requisites, the structural model could be investigated. In order to deal with the indicator multicollinearity problem discussed in the previous paragraph, a second order construct has been implemented. It was also required to use this second order construct as PFI (as only exogenous construct) is made up of four first order factors, or dimensions, and it is important to analyse them without covariance among them (Hair et al., 2018). Using this construct also helps with interpreting the dependence relationships among several variables. Since two steps were needed to be taken in order to create a second order construct of PFI, two models were established (see Appendix XII).

Since the second order construct was, amongst other reasons, implemented for dealing

with the indicator multicollinearity problem and thus changed the structure, the requisites of the measurement model were briefly checked once more. The model fit was good (.059) compared to the critical value of SRMR $<.08$. The other requisites were also met. However, notable is the low AVE-value of PFI: .559 compared to the other AVE-values. Next, the further assessment of the structural model was done by investigating whether the predictor constructs show high levels of collinearity. Based on the VIF-values again, it can be stated that all indicators were below the generally accepted cut-off threshold of 10. However, the items measuring purchase intention still showed VIF-values above 6 whereas the items measuring customer loyalty showed VIF-values close to 1. This both indicates that collinearity problems are still present (Hair et al., 2018). Yet, all VIF-values are improved due to the use of a second order construct. Moreover, Table 4.1 was analysed on its given bivariate correlations as correlations higher than .50 may be also problematic (Hair et al., 2018). What is not striking is that the correlations between purchase intention and customer loyalty and value delivery and customer treatment appeared to be higher than .50. However, the correlations between customer treatment and interaction space and firm credibility and purchase intention were also a bit higher than .50. This did not necessarily mean that it should be a problem, especially since the VIF-values appeared excellent. To conclude, it must be acknowledged that interpreting the results must still be done carefully. Second, the R^2 -values were examined in order to measure the in-sample power of the endogenous variables (Hair et al., 2018). The results showed the following: FC: $R^2 = .001$, PI: $R^2 = .418$ and CL: $R^2 = .125$. These R^2 -values display rather weak and moderate relationships and thus in-sample power. Therefore, it can be stated that the endogenous variables are not bad but not well predicted either. The adjusted R^2 -values were also negligible due to little difference. The remaining two assessments are based on the effect sizes and path coefficients, which are related to the hypotheses as well. Both are discussed next.

4.3.3 Hypotheses testing

In order to assess the hypotheses, the effect sizes and path coefficients were analysed. The former was analysed by assessing the Cohen's f^2 -values whereas the latter was analysed by investigating the significance of standardized regression coefficients. To obtain these insights, a bootstrapping procedure was utilized. Bootstrapping estimates standard errors for the model to subsequently compute t and p values for path coefficients, i.e. the change in the dependent variable when the independent variable rises and remaining independent variables stay constant (Hair et al., 2018; Henseler et al., 2016). As recommended, the bootstrapping procedure was executed with 4999 subsamples (Henseler et al., 2016). Also, Mode A was chosen as weighting

scheme in ADANCO as it deals with high(er) levels of collinearity (Van Riel et al., 2017).

Table 4.5 Direct effects PLS-SEM model

Effect	Coefficient	t-value	p-value (two tailed)	Cohen's f ²	Effect size
PFI → FC	-.038	-.415	.678	.002	-
PFI → PI	.138	1.497	.328	.033	-
FC → PI	.637	11.486	.000	.695	strong
FC → CL	.354	5.206	.000	.143	moderate

Note 1. FC = firm credibility, PI = purchase intention, CL = customer loyalty.

Note 2. Only effect sizes of significant direct effects are presented

The results (see Appendix XII) show that PFI does not have a significant positive effect on firm credibility ($\beta = -.038$, $t = -.415$, $p = .678$). In fact, the effect that is found here is negative, which indicates that the customer's perception of the credibility of tour operators becomes less when customers score higher on PFI. However, this result is insignificant. Hence, hypothesis 2 is rejected. Next, there is no significant direct effect of PFI on purchase intention ($\beta = .138$, $t = 1.497$, $p = .328$). Despite the fact that the direct effect is positive and the insignificance is less bad than the effect on firm credibility, it seems thus that hypothesis 3 is up for rejection. This statement is also based on the indirect effect that PFI (X) has on firm credibility (M) and subsequently on purchase intention (Y). The results show a negative insignificant indirect effect among these constructs ($\beta = -.024$, $t = -.410$, $p = .682$). Besides this, the total effect is positive but insignificant ($\beta = .114$, $t = .978$, $p = .328$). To conclude, hypothesis 3 is rejected. In addition, the results present a significant positive effect between firm credibility and purchase intention ($\beta = .637$, $t = 11.486$, $p < .001$). Looking at Cohen's f² value (f² = .695) and keeping the guidelines in mind (Henseler et al., 2016), this effect is strong. It thus means the more a tour operator is perceived as credible, the higher the customer's intention to book a product/make use of a service of the tour operator. Hypothesis 4 is therefore accepted. Finally, a significant and positive effect is found between firm credibility and customer loyalty ($\beta = .354$, $t = 5.206$, $p < .001$). Based on the Cohen's f² value (f² = .143), the effect is moderate. The indirect effect, i.e. PFI (X) – firm credibility (M) – customer loyalty (Y), displayed however an insignificant and negative effect ($\beta = -.013$, $t = -.397$, $p = .691$). The reason is that an insignificant and negative effect between PFI and firm credibility is present. Yet, hypothesis 5 is still accepted.

4.4 Additional analyses

Several additional analyses have been conducted in order to see whether the results differ for some groups and/or are affected by control variables that better explain the causal relationship between the constructs. Also, striking observations are further analysed. However, more

importantly, since the Norwegian Innovation Index (NII) showed insignificant effects with firm credibility and purchase intention, an additional analysis with the PFI back-up scale of Kunz et al. (2011) has been executed. In this manner, different items measured PFI which, in effect, could determine whether the Norwegian Innovation Index (NII) is not accurate compared to the PFI back-up scale or whether the effects are simply not significant for Dutch tour operators.

4.4.1 Effects of product category involvement and other control variables

The following control variables are taken into account in an additional analysis in both SPSS and ADANCO (see Appendix XIII): age, gender, educational level, travel companion and product category involvement. In SPSS, age, gender, educational level and travel companion are transformed into dummies as they all are categorical variables and regression analysis requires only metric variables. The reference categories were determined by choosing the categories with the most observations as this is required when there are no specific theoretical, and thus more practical, reasons present. Moreover, this ensures a stable basis of comparison (Hair et al., 2010). First, the reference category for age was 18-25 years old. The results show that age does not influence the relationship between PFI and firm credibility (also when looking at the dimensions solely), but does influence the effect between PFI and purchase intention with the categories 46-55 ($\beta = .171, p < .05$) and 56-65+ years old ($\beta = .200, p < .01$). Similar can be said about the age category 18-25 when changing the reference category to 46-55. Yet, the PFI dimensions solely show no significant effects while the F-test is significant. This result displays that the coefficients are jointly significant, as here above, but lack significance solely. Whereas age does influence customer loyalty together with firm credibility (36-45: $\beta = .193, p < .01$, 56-65+: $\beta = .205, p < .01$), age does not influence purchase intention. Second, the reference category for education level was wo (university). The results clearly display no influence of education level and PFI (both separately and together) on firm credibility, while a significant effect for all dummy variables on purchase intention is present. Again, the PFI dimensions solely show no significant effects while the F-test is significant. Also, education level and firm credibility together significantly influence purchase intention and customer loyalty. Notably, by including firm credibility into the model with educational level, the percentage of variability in purchase intention increases by 33% ($R^2 = .405, F(4, 175) = 29.769, p < .001$). A possible explanation for this is that all dummy variables appear to be significant in this model. Third, the reference category for gender was woman. However, despite significant F-tests that SPSS presents when analysing the effect of gender and firm credibility on purchase intention and customer loyalty, gender does not affect any relationship. Next, the reference category for travel

companion was travelling with family. The results only show a significant effect for travel companion together with PFI on purchase intention (friends: $\beta = -.291, p < .001$). Notably, it appears that the willingness to purchase is significantly lower for customers who travel with friends than for customers who travel with family. Yet, the PFI dimensions separately show insignificant effects, indicating again that the coefficients are only jointly significant. Travel companion solely does however affect purchase intention and customer loyalty. After all, this is not of importance. Finally, an influence of product category involvement among the relationships was not present. In ADANCO, the dummy variables and product category involvement were added to the two ultimate endogenous variables of the model: purchase intention and customer loyalty (see Appendix XIII for the models). The results show that only education level influences purchase intention ($\beta = -.185, t = -3.161, p < .001$). This negative effect implies the higher the education level, the lower the customer's intention to book a product/make use of a service of the tour operator. However, Cohen's f^2 shows that this is a weak effect: .051 (Hair et al., 2018). Moreover, for customer loyalty, similar observation is made. A weak, negative but significant effect is found for the relationship between education level and customer loyalty ($\beta = -.167, t = -2.287, p < .05, f^2 = .029$). This significant effect also indicates the higher the educational level, the lower the customer's intention to purchase.

4.4.2 Subsamples and other striking observations

Based on the overrepresentation of some groups in the sample, the sample was firstly split for gender in SPSS. For men, significant effects were found between value proposition and purchase intention ($\beta = .328, p < .05$) and interaction space and firm credibility ($\beta = -.346, p < .05$). However, the latter is not fully predictive on its own as the F-test is not significant. Also, for men, the effect between firm credibility and purchase intention is significant and stronger ($\beta = .618, p < .001$) than for women ($\beta = .579, p < .001$). Moreover, for only women, a significant and positive effect is found between firm credibility and customer loyalty ($\beta = .409, p < .001$). Second, for the age groups 18-25 and 36-45, PFI shows a significant effect on purchase intention, but not on firm credibility. Yet, the former age group displays a significant effect between value proposition and firm credibility. This result is however accompanied by model fit problems due to the insignificant F-test. In addition, all age groups show significant effects between firm credibility and purchase intention. The age group 36-45 presents the strongest effect ($\beta = .740, p < .01$), also for the effect between firm credibility and customer loyalty ($\beta = .556, p < .05$), whereas the age groups 18-25 ($\beta = .253, p < .05$) and 56-64 ($\beta = .452, p < .05$) also display significant effects. Third, for education level, only customers who have a secondary

vocational education a significant effect was found between the merged dimension of value delivery and customer treatment on firm credibility ($\beta = .511, p < .05$). Furthermore, customers with a secondary vocational education, university of applied sciences and university show significant effects between firm credibility and purchase intention. However, customers with a secondary vocational education present the strongest effect ($\beta = .659, p < .001$). Also, customers who have graduated from a university of applied sciences (hbo) ($\beta = .329, p < .01$) or a university (wo) ($\beta = .371, p < .01$) display significant relationships between firm credibility and customer loyalty. Finally, for travel companion, it appears that only customers who travel with friends and other persons show significant effects between the merged dimension of value delivery and customer treatment and purchase intention. The former travel companion group also displays a significant effect between value proposition and firm credibility ($\beta = .307, p < .05$). In addition, customers who travel with other persons show that all PFI dimensions solely significantly affect firm credibility. Also, customers who travel with their partner show, the highest significant effect between firm credibility and purchase intention ($\beta = .603, p < .001$). The effect between firm credibility and customer loyalty ($\beta = .344, p < .05$) is also only significant for this group.

Furthermore, SPSS showed a significant but rather weak correlation (.185) between PFI and customer loyalty earlier. Hence, this found correlation was further analysed. In SPSS, only the PFI showed a significant but weak effect on customer loyalty ($\beta = .185, p < .05$), which only explains 3,4% of the variance proportion ($R^2 = .034, F(1, 180) = 6,405, p < .05$). The PFI dimensions solely do not show significant effects. Also, in ADANCO, both (in)direct effects do not show a significant effect. Since the found effect is weak and PFI only explains 3,5% of customer loyalty, it appears that PFI is not a significant determinant for customer loyalty.

4.4.3 Effects of PFI back-up scale on firm credibility and purchase intention

The conducted factor analysis showed that none of the items of the PFI back-up scale needed to be removed from the dataset and the reliability of the items in the construct was high. Before performing two simple regression analyses in SPSS, the assumptions were briefly checked. It appeared that all assumptions were met. Subsequently, the results remarkably show a significant positive effect ($\beta = .380, p < .001$) between the PFI back-up scale and firm credibility. This effect displays a significant proportion of variance: $R^2 = .144, F(1, 180) = 30,291, p < .001$. The effect is however moderate. Next, the results also show a significant positive effect of the PFI back-up scale on purchase intention ($\beta = .356, p < .001$). Around 12,6% of the proportion of the variance for purchase intention can be significantly explained by the PFI back-up scale ($R^2 = .126, F(1, 179) = 25,918, p < .001$). The effect is however weak.

In ADANCO, this relationship is analysed as well. By investigating the measurement and structural model, it appeared that the saturated model fit was bad and could not be improved when deleting several items of the PFI back-up scale. In fact, deleting items threatened the model fit even more. Some iterations showed improvements in the requisites, but deteriorated other requisites even more. Also, when keeping all items in the model, the model fit measures exceed HI95 and HI99 the least. It was therefore decided to continue the analysis with all items of the PFI back-up scale, herewith acknowledging that the model is unlikely to be true. Despite this acknowledgement, it was interesting to review the results. Important to note is that the discriminant validity between purchase intention and customer loyalty slightly improved compared to the analysis that included the Norwegian Innovation Index (NII). Next, the R²-values indicated weak and moderate in-sample power of the endogenous variables (see Appendix XIII), but were highly improved compared to the earlier performed analysis that included the Norwegian Innovation Index (NII). The overview of the results in Appendix XIII show that hypotheses 2 and 3 could potentially be accepted with the use of this PFI back-up scale as all effects are significant and positive. However, the direct effect of PFI on purchase intention is relatively weak ($f^2 = .028$) compared to this effect on firm credibility ($f^2 = .185$). Moreover, significant indirect effects are found between PFI (X), FC (M) and both PI (Y1) ($\beta = .224, t = 5.155, p < .001$) and customer loyalty (Y2) ($\beta = .139, t = 3.912, p < .001$). The total effect between PFI and purchase intention ($\beta = .362, t = 5.484, p < .001$) is also significant.

Since the control variables age, education level and travel companion seemed to have significant effects in the earlier conducted analysis, they have been briefly analysed when using this PFI back-up scale as well. In SPSS, both age and travel companion show significant effects between the PFI back-up scale and both firm credibility and purchase intention. Only education level together with the PFI back-up scale showed a significant influence on purchase intention. Remarkably, all dummy variables are significant. Also important to note is that the percentage of variance explained increased by at least 10% in every tested relationship when including the control variables (see Appendix XIII). In ADANCO, again only education level appeared to show a significant relationship between the PFI back-up scale and purchase intention.

5. Discussion and conclusion

The final chapter presents a general conclusion about the hypotheses and answers the research question. Next, the results are discussed in light of literature and practical implications for managers of Dutch tour operators and whom (in the tourism industry) think may benefit from these results are given. Finally, the limitations and directions for further research are presented.

5.1 Conclusion

In this research the following research question was central: *'To what extent does PFI of Dutch tour operators affect firm credibility, purchase intention and customer loyalty?'* To answer this question, five hypotheses derived from theory were formed and tested (see Table 5.1). Hypothesis 1 covered the question whether all dimensions of the Norwegian Innovation Index (NII) are accurate dimensions of PFI of Dutch tour operators, as it is indirectly proclaimed as a suitable scale for service contexts due to its main principle that customers are first-rate judges of innovations (Lervik-Olsen et al., 2017). Evidence to support this hypothesis was not entirely found as the factor analysis in SPSS showed that value delivery and customer treatment are heavily interrelated. This discriminant validity problem also appeared when performing the PLS-SEM analysis in ADANCO. However, merging both dimensions into one dimension in this analysis worsened the model fit and other measurement model requisites. The reason for this observation could be the very fine line between perceiving the process of delivering a service as new (value delivery) and the interaction between the customer and a tour operator as new in service contexts (customer interaction). Especially since individual interactions (and thus communication) characterize 'service processes' (Bitner et al., 2008). To conclude, it can be stated that only three dimensions are accurate dimensions of PFI of tour operators.

Next, previous studies often examined the relationship between PFI and firm credibility. They all found direct and positive links between both concepts in distinctive contexts (Jin et al., 2015; Shams et al., 2017), of which Jin et al. (2015) an even stronger effect in a service context. However, this research demonstrates the contrary. No evidence was found for a positive effect between PFI of Dutch tour operators and firm credibility in both SPSS and ADANCO. In fact, the PLS-SEM analysis indicated that this relationship is negative. Also, the PFI dimensions solely showed insignificant effects and none of the control variables seemed to influence this relationship. Yet, customers who travel with other persons believe that Dutch tour operators are more trustful in their disseminated information and thus more credible. Similar can be said about customers that obtained a secondary vocational education and perceived many changes in value delivery and customer treatment. What was striking is that PFI of Dutch tour operators does positively influence firm credibility when utilizing the PFI back-up scale in both SPSS and ADANCO. The effect is however not very strong. An additional analysis demonstrated that age and travel companion influence together with the PFI back-up scale the extent to which Dutch tour operators are believed credible.

Furthermore, previous studies (in service contexts) proved that PFI influences purchase intention due to the positive emotional attachment (e.g. enthusiasm or a surprising effect) that

is often created when a firm is highly innovative (Shams et al., 2017; Jin et al., 2015). However, contrary results were found for neither fully accepting nor rejecting this theory. The results in SPSS indicated that PFI of Dutch tour operators does have little influence on purchase intention, but the PFI dimensions of Dutch tour operators solely do not, mainly due to the present covariance. The significant effect was only found for the age groups 18-25 and 36-45. These age groups taken together concern half of the respondents from the sample, which presumably resulted in the significant but weak effect for the overall sample. Although the percentage of explained variance slightly improved when the significant control variables age, education level and travel companion were included, the effects were still weak to moderate. Also, the significant but weak correlations found between value proposition and purchase intention and value delivery and purchase intention are explainable, as the former only applies to men and the latter can be related to customers who travel with friends. Both groups consist of a low number of respondents in the sample, which presumably resulted in the insignificant effects among the PFI dimensions solely and purchase intention in the end. The PLS-SEM analysis also demonstrated that there is no direct and positive effect present between both constructs. Therefore, hypothesis 3 is partially rejected. Yet, the additional analysis with the PFI back-up scale in both SPSS and ADANCO surprisingly indicated that PFI of Dutch tour operators significantly and positively affects purchase intention. In ADANCO, the indirect effect showed a higher effect, meaning that PFI through firm credibility generates a stronger effect on purchase intention than PFI directly on purchase intention. Again, age, education level and travel companion significantly influence this relationship. In fact, the customer's purchase intention is not dependent on a certain education level as all education levels were significant. In addition, it is proven that firm credibility is a vital actor in consideration sets (Shams et al., 2017). Subsequently, many studies examined the effect between brand or firm credibility and purchase intention and proved this effect is present (Jin et al., 2015; Shams et al., 2017). This research provides convincing evidence for a direct effect as well. In both SPSS and ADANCO, customers strongly show more willingness to book a product/make use of a service of Dutch tour operators when Dutch tour operators are perceived trustful in their disseminated information and capable on delivering this perception. This effect is found stronger for men, customers that obtained a secondary vocational education, customers between the age of 36-45 and customers who travel with their partner. Important to note is that when including educational level as control variable in this relationship, the effect between both constructs is for 40,5% explained. Finally, the study of Jin et al. (2015) proved that firm credibility could directly lead to higher levels of customer loyalty due to two customer processing routes (Kunz

et al., 2011). This research does confirm this effect. In both SPSS and ADANCO, a moderate and positive effect between firm credibility and customer loyalty was found. This means that customers tend to book a product/make use of a service of Dutch tour operators repeatedly due to a deeply held commitment when Dutch tour operators are perceived credible. This direct effect is only found significant for women (the largest group) and stronger for customers that obtained secondary education, customers between the age of 36-45 and customers who travel with their partner. Age and educational level seemed to moderately influence this direct relationship. In addition, the PLS-SEM analysis confirmed that PFI through firm credibility does not generate an effect on customer loyalty. An additional analysis also confirmed that PFI is not directly a determinant for customer loyalty.

Based on these findings, an answer to the research question is formulated. PFI of Dutch tour operators does not affect firm credibility and customer loyalty based on the Norwegian Innovation Index (NII). Also, PFI of Dutch tour operators does almost not influence purchase intention based on this scale. This as more insignificant effects related to both constructs were found and the only significant effect, that only explains 2.7%, was weak. However, firm credibility solely does strongly influence purchase intention and moderately influence customer loyalty. Nevertheless, when including PFI of Dutch tour operators into these relationships, the effects become meaningless. Yet, PFI of Dutch tour operators does affect all (post) consumption behaviours to some extent if the PFI back-up scale was utilized as primary scale. Finally, it must be noted that this conclusion comes with limitations, allowing the researcher to carefully translate results into recommendations. Paragraph 5.3 elaborates on this.

Table 5.1 Overview results hypotheses

Hypotheses	Results in SPSS	Results in ADANCO	Conclusion
H1. Perceived change in (a) value proposition, (b) value delivery, (c) customer treatment and (d) interaction space are dimensions of PFI of tour operators.	Rejected	-	Rejected
H2. PFI of tour operators positively influences firm credibility.	Rejected	Rejected	Rejected
H3. PFI of tour operators positively influences purchase intention.	Accepted*	Rejected	Rejected*
H4. Firm credibility positively influences purchase intention.	Accepted	Accepted	Accepted
H5. Firm credibility positively influences customer loyalty.	Accepted	Accepted	Accepted

**partially accepted/rejected*

5.2 Discussion

5.2.1 Theoretical implications

This research replicated and extended to a large extent the study of Jin et al. (2015) in a new area of the service context, but proved predominantly contradicting results. With the limitations

keeping in mind, it thereby adds to the limited research of PFI in the service context by refining and advancing knowledge on the effects of PFI in the service context and the measurement scales utilized to assess PFI. Whereas both Jin et al. (2015) and Shams et al. (2017) demonstrated that PFI does influence firm credibility in a service and non-service setting, this research confirms the opposite. The difference is primarily due to the use of measurement scale. Jin et al. (2015) and Shams et al. (2017) utilized the scale of Kunz et al. (2011), appointed as PFI back-up scale in this research, for which strong effects were found in their studies. This research utilized however the Norwegian Innovation Index (NII) as it was believed to present dimensions that are better detectable for customers, making it a suitable scale for service contexts. Nevertheless, when utilizing the scale of Kunz et al. (2011), PFI does moderately influence firm credibility. This indicated that if the scale of Kunz et al. (2011) would have been at the heart of this research, it would mean that the effect is less strong for Dutch tour operators than for other firms in (non-)service contexts. Also, unlike the studies of Jin et al. (2015) and Shams et al. (2017), which found strong significant effects between PFI and purchase intention, this research demonstrated that this effect is not entirely significant or insignificant due to distinctive results in the analyses. Again, the difference is mainly due to the use of scale as the scale of Kunz et al. (2011) does show that PFI moderately influences the customer's intention to book a product/make use of a service of tour operators. However, the only but weak significant effect with the use of the Norwegian Innovation Index (NII) was found for the age groups 18-25 and 36-45, which given the sample could be biased but could also mean age does matter. The latter is especially interesting since it was proved that age but also education level and travel companion influence the effect between PFI and purchase intention and for both scales. This finding has not been proved in the studies of Jin et al. (2015) and Shams et al. (2017). In the end, if the scale of Kunz et al. (2011) would have been at the heart of this research, it would mean that the effect between PFI and purchase intention is less strong for Dutch tour operators than for other firms in (non-)service contexts. In fact, when the mediator firm credibility was introduced, the effect was stronger indicating a partial mediation is present. This is in line with the found results in Shams et al. (2017), but also with Jin et al. (2015) who found credibility decreases risk and bolsters customer confidence that subsequently leads to purchase.

This all means that, despite the extensive research Lervik-Olsen et al. (2017) did for creating the scale, the Norwegian Innovation Index (NII) is not a very accurate scale to use for measuring PFI of Dutch tour operators. Despite the sample is not representative in this research, group differences showed few weak significant effects but predominantly insignificant effects, leading to no other conclusion than that the scale does not fully work in this context. However,

it cannot be simply said that the Norwegian Innovation Index (NII) is not accurate for measuring PFI in general. This requires more examination, including assessing the created dimensions by Lervik-Olsen et al. (2017). Whereas Lervik-Olsen et al. (2017) and Keiningham et al. (2019) speak about four dimensions, this research finds strong evidence for only three dimensions: value proposition, interaction space and a merged dimension of value delivery and customer treatment (of which value proposition displayed most significant but weak effects). A possible explanation is the fine line between perceiving the process of delivering a service as new and the interaction between the customer and a tour operator as new especially since individual interactions characterize ‘service processes’ (Bitner et al., 2008). In the end, this research does confirm that the scale of Kunz et al. (2011) remains a proper scale for measuring PFI.

Furthermore, this research confirms that firm credibility affects purchase intention. However, this research shows a stronger positive effect compared to the coefficients presented in the study of Shams et al. (2017). Also, by brand preference Jin et al. (2015), amongst other, refer to the brand selected for purchase. They found a moderate effect between brand preference and purchase intention. Thus, it appears that being perceived as credible as a tour operator is more important than for other firms in (non-)service contexts as the customer will show more intention to book a product/make use of a service of the tour operator. This is not surprising given the current COVID-19 pandemic that characterizes a lot of uncertainty, while firm credibility lowers the customer’s perceived risk (Erdem and Swait, 1998). Next, this research demonstrated that education level highly influences this relationship. This has not been found in previous studies. Moreover, similar to the study of Jin et al. (2015), this research confirms that firm credibility affects customer (attitudinal) loyalty. However, the direct effect found in their results was much higher than the effect found in this research. This means that when being perceived as trustful when disseminating information and capable on delivering this perception as a tour operator, customers will show more loyalty but less than for other fine-dining restaurants. Also, similar to Jin et al. (2015), this research did not find support for both a direct and indirect effect between PFI and customer loyalty. This is contrary to the study of Kunz et al. (2011), which focused on non-service contexts. Therefore, it can be said that a relationship between PFI and customer loyalty is not relevant in service contexts. However, when utilizing the PFI scale of Kunz et al. (2011), the effect is significant but model fit problems play a role here. Also, this research demonstrated that age and education level influence this relationship to a great extent. This has not been found in previous studies. To conclude, this research contains reasonable results for an important step towards proving the accurateness of the Norwegian Innovation Index (NII), but also the importance of being perceived credible.

5.2.2 Practical implications

In general, this research suggests that managers of tour operators should not excessively focus on PFI as it will not lead to higher extents of firm credibility, purchase intentions and customer loyalty. However, value proposition displays most significant but weak effects and the scale of Kunz et al. (2011) proves otherwise. Therefore, taken together, it could not do any harm to focus on novel features with regard to the functionality and usefulness of services provided by tour operators. In this manner, services are often perceived as more innovative due to better benefits compared to substitutes (Keiningham et al., 2019). Being a creative, dynamic and forward-looking tour operator is also involved with this and will presumably lead to positive effects on the scale of Kunz et al. (2011). Managers of tour operators could thus make an effort to understand what features customers require as minimal level of a service and which features exceed this in order to be perceived as novel. It should thereby be noted that age, education level and travel companion are important determinants in this. Managers of tour operators could therefore adapt their strategy towards these groups, especially when the intention is to create more willingness to book a product/make use of a service of the tour operator.

Furthermore, to beat up against the fierce competition, especially in this COVID-19 pandemic with many uncertainties, it is for managers of tour operators key that the tour operator is perceived as trustful when disseminating information and capable on delivering this perception in order to create higher levels of purchase intention and customer loyalty. Since customers could not go on a holiday and this influenced the turnover of tour operators the past year, preserving customer relationships is even more important and in general less expensive. Therefore, it is important to use tangible brand cues, based on the identity of the tour operator, that are likable, trustful and show expertise (Keller and Swaminathan, 2020). If the tour operator actually offers the promised products or services, the tour operator will be evaluated as credible. To (marketing) managers of tour operators it is thus suggested to clearly integrate such brand cues in the marketing mix strategies and be consistent with them in communications (Erdem and Swait, 1998; Erdem and Swait, 2004). Finally, influences of and differences between gender, age, education level and the customer's travel companion were found with regard to firm credibility, purchase intention and customer loyalty. Therefore, it is recommended to adapt the marketing mix strategies to these groups in order to motivate specific behaviour. For example, the effects were found higher for customers between the age of 36-45 and customers who travel with their partner. However, also separate campaigns for men and women (as the effect between firm credibility and purchase intention is found higher for men and as only women showed a significant effect between firm credibility and customer loyalty) and customer

customers who did a secondary vocational education or secondary education must be created.

5.3 Limitations and directions for further research

Like any other research, this research suffers from limitations. First, and most important, the sample is not found representative. This is, amongst other, the result of the used sampling method, which rendered the randomness of the sample. Consequently, the researchers were dependent on the visitors of the travelblog TravelKees, who fell within certain groups. Further research is recommended to use (a) database(s) from (Dutch) tour operators if possible. Second, despite using a scale that measures attitudinal loyalty and taking measures in every analysis, the researcher could not guard against discriminant validity problems between purchase intention and customer loyalty. Thus, the hypotheses are supported but both constructs had an effect on each other, which, in effect, does make the results not entirely valid. Further research should only include purchase intention or customer loyalty in the model when examining PFI. The context does not matter. Third, this research shows significant effects among PFI, purchase intention and customer loyalty when the scale of Kunz et al. (2011) is included. However, as acknowledged, the effects in ADANCO were found with a bad model fit. Despite the best model fit was generated, the effects are thus unlikely to be true. This limitation is accompanied by sample problems. Therefore, further research could and, in fact, must test the indirect effects with the scale of Kunz et al. (2011) once more. This as the direct effects were already proven valid due to the regression analyses. Fourth, the differences between groups and the influence of control variables should be re-examined in a representative sample as they have been tested in an unrepresentative sample. Fifth, the main results were obtained with the knowledge that respondents had difficulty indicating the extent of changes in the PFI dimensions. Therefore, the research actually required older respondents since they have been able to experience more. Since the sample is overrepresented by the age group 18-25, the applicability of the Norwegian Innovation Index (NII) was ambitious. In fact, this age group has presumably not often booked a holiday with a tour operator, making answering questions even more difficult. Next, the sample contained respondents who have been on a holiday until nine years ago. Regardless of marketing activities of the tour operator, opinions are based on these experiences which could thus cause a bias due to obsolescence. Finally, this research demonstrated that only three dimensions are accurate dimensions of PFI of tour operators. This was presumably attributable to the fine line between value delivery and customer treatment. Further research should test this observation in multiple contexts and seek for the exact overlap. In this way, it can be decided whether three dimensions are indeed accurate or four dimensions should be maintained. In fact, research should often use the Norwegian Innovation Index (NII) in other contexts to assess this.

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Appendix I– Original scales of constructs and control variables

Perceived innovativeness of tour operators

Dimensions	Items	Source
Change in value proposition	To what extent has there been a change in... - how the tour operator's offerings match your wants? - how the tour operator's offerings meet your needs - in the tour operator's overall market offering?	Lervik-Olsen et al. (2017)
Change in value delivery	To what extent has there been a change in... - the way the tour operator delivers what it offers - how easy it is to make use of the tour operator's offerings? - how fast the tour operator delivers what it offers? - your efforts when making use of the tour operator's offerings?	
Change in customer treatment	To what extent has there been a change in... - the way the tour operator treats you as a customer? - the way the tour operator takes care of you as a customer - the way the tour operator communicates to you?	
Change in interaction space	To what extent has there been a change in... - the appearance of the tour operator's web page or interiors? - the design of physical surroundings or digital solutions? - the visual appeal of the tour operator's facilities?	

Firm credibility

Items	Source
Claims from this tour operator are believable	Jin et al. (2015)
Over time, my experience with this tour operator led me to expect it keep its promises	

This tour operator has a name you can trust

This tour operator is committed to delivering on its claims

This tour operator has the ability to deliver what it promises

Customer loyalty

Items	Source
I will not switch to other brands even though there are lots of other brand options	Getçi and Zengin (2013)
I am willing to pay more than any other brand to get this particular brand	
I will always use this brand	

Purchase intention

Items	Source
It is very likely that I will buy the service from this tour operator	Kizgin et al. (2018)
I will purchase the service from this tour operator the next time I want to book a holiday	
I will definitely try the service from this tour operator	
I will recommend this tour operator to my friends	

Control variables

Control variables and items	
Age	18-25, 26-35, 36-45, 46-55, 56-64, 65+
Gender	Man, woman, I'd rather not tell
Highest level of education	Primary school, high school, mbo, hbo, wo (university)
Travel companion	Alone, with my partner, with (a) friend(s), with family, other...

Product category involvement

Items	Source
Going on a holiday, is one of the most enjoyable things I do	Kyle et al. (2007)
Going on a holiday, is very important to me	
Going on a holiday, is one of the most satisfying things I do	

PFI back-up scale

Items	Source
The tour operator is dynamic.	Kunz et al. (2011)
The tour operator is very creative.	
The tour operator launches new products and creates market trends all the time.	
The tour operator is a pioneer in its category.	
The tour operator constantly generates new ideas.	
The tour operator has changed the market with its offers.	
The tour operator is an advanced, forward-looking firm.	

Appendix II– Reliability analyses and standard deviations pilots

		Value proposition	Value delivery	Customer treatment	Interaction space	Firm credibility	Purchase intention	Customer loyalty	Back-up PFI scale	Product category involvement
<i>Pilot I</i>	Cronbach's Alpha (α)	.905	.864	.934	.966	.913	.929	.734	.836	.311 (when deleted item 1, new α of .760)
	Standard deviation (σ)	3.683	5.653	4.455	4.647	4.261	4.721	3.507	7.045	2.692
<i>Pilot II</i>	Cronbach's Alpha (α)	.937	.699	.908	.832	.916	.871	.707	.713	.958
	Standard deviation (σ)	3.905	4.613	3.613	3.453	3.940	5.224	3.042	4.790	3.620

Appendix III – Final survey

Maak kans op een Bol.com cadeaubon met het invullen van een korte vragenlijst over innovativiteit van reisorganisaties

Beste meneer/mevrouw,

Hartelijk dank voor uw tijd en bereidheid om deel te nemen aan ons onderzoek over de innovativiteit van reisorganisaties. Door mee te doen aan dit onderzoek helpt u ons heel erg bij het afronden van onze studie Bedrijfskunde en maakt u kans op één van de twee waardebonnen van Bol.com ter waarde van €25,- die wij verloten onder de deelnemers.

Het invullen van de vragenlijst duurt ongeveer 10 minuten. Wij vragen naar uw mening; er zijn dus geen goede of foute antwoorden. Het is voor ons van belang dat u de vragen naar alle eerlijkheid beantwoordt en aandachtig deelneemt aan dit onderzoek.

De antwoorden zullen volledig anoniem worden verwerkt en u kunt te allen tijde stoppen met het invullen van de vragenlijst. Uw ingevulde antwoorden zullen dan niet worden opgeslagen. Neem gerust contact met ons op bij vragen of opmerkingen (l.diekema@student.ru.nl).

Met vriendelijke groet,

Lotte Bikker, Luuk Diekema, Thei Striekwold & Zoë Verweijen
Studenten Radboud Universiteit

1. Ik ben 18 jaar of ouder en ik begrijp de bovenstaande tekst en ga akkoord met deelname aan dit onderzoek

- Ja, ik ben 18 jaar of ouder en ik begrijp de bovenstaande tekst en ga akkoord met deelname aan dit onderzoek.
- Nee, ik ben jonger dan 18 en/of ik ga niet akkoord met deelname aan dit onderzoek.

2. Met welke reisorganisatie bent u het meest recent op vakantie geweest? (één antwoord mogelijk) Reisorganisaties zijn bedrijven die contracten hebben met hotels, vliegtuigmaatschappijen, touringcar- of transportbedrijven en andere leveranciers om zo een reisproduct (vervoer en verblijf) samen te stellen dat direct of indirect wordt verkocht aan de klant.

- ANWB reizen
- Buro Scanbrit
- Corendon
- De Jong Intra
- Djoser
- D-reizen/VakantieExperts
- Eliza was here
- ExperienceTravel
- Fox vakanties
- GoGo reizen
- Gofun reizen
- Kilroy

- Kras reizen
- Neckermann
- Pharos reizen
- Peter Langhout reizen
- Prijsvrij
- Riksja Travel
- Shoestring
- Simi reizen
- Sunweb
- TravelXL
- TUI
- Vakantiediscouter
- Anders, namelijk...
- Ik ben de afgelopen 8 jaar niet met een reisorganisatie op vakantie geweest (-> redirection to end the survey)

De volgende vragen gaan over de reisorganisatie die u in de vorige vraag heeft gekozen. U gaf aan dat dit de reisorganisatie is waarmee u het meest recent op vakantie bent geweest.

3. Wanneer bent u voor het laatst met deze reisorganisatie op vakantie geweest?

2021, 2020, 2019, 2018, 2017, 2016, 2015, 2014, 2013

4. Wat was het land van bestemming van deze vakantie?

...

5. Geef uw mening over de volgende stellingen: 7-points Likert scale (zeer kleine mate - zeer grote mate)

Denk aan de eerder gekozen reisorganisatie.

In hoeverre heeft u de afgelopen jaren een verandering waargenomen in...

- Hoe het vakantieaanbod dat deze reisorganisatie aanbiedt, aansluiten bij uw voorkeuren
- Hoe het vakantieaanbod dat deze reisorganisatie aanbiedt, aansluiten bij uw behoeften
- Het vakantieaanbod van deze reisorganisatie als totaalplaatje

6. Geef uw mening over de volgende stellingen: 7-points Likert scale (zeer kleine mate - zeer grote mate)

Denk wederom aan de eerder gekozen reisorganisatie.

In hoeverre heeft u de afgelopen jaren een verandering waargenomen in...

- De manier waarop de reisorganisatie diensten levert die ze belooft.
- Het gemak om gebruik te maken van het aanbod van de reisorganisatie.
- De snelheid waarmee de reisorganisatie diensten levert die ze belooft.
- De moeite die het kost om te oriënteren en te boeken bij een reisorganisatie.

7. Geef uw mening over de volgende stellingen: 7-points Likert scale (zeer kleine mate - zeer grote mate)

Denk wederom aan de eerder gekozen reisorganisatie.

In hoeverre heeft u de afgelopen jaren een verandering waargenomen in...

- De manier waarop de reisorganisatie mij behandelt als klant.
- De manier waarop de reisorganisatie voor mij zorgt als klant.
- De manier waarop de reisorganisatie communiceert met mij.

8. Geef uw mening over de volgende stellingen: 7-points Likert scale (zeer kleine mate - zeer grote mate)

Denk wederom aan de eerder gekozen reisorganisatie.

In hoeverre heeft u de afgelopen jaren een verandering waargenomen in...

- De uitstraling van de fysieke locatie van de reisorganisatie en/of van de webpagina.
- Het ontwerp van de fysieke omgeving van deze reisorganisatie (de winkel) en/of de digitale omgeving van deze reisorganisatie (de website).
- De visuele aantrekkingskracht van de faciliteiten van de reisorganisatie. (Bij faciliteiten kan je denken aan de chatbox op de website, brochures van de reisorganisatie, het online boekingssysteem)

9. Geef aan in hoeverre u het eens ben met de volgende stellingen: 7-points Likert scale (helemaal mee oneens - helemaal mee eens)

Denk wederom aan de eerder gekozen reisorganisatie.

- Deze reisorganisatie is dynamisch.
- Deze reisorganisatie is creatief.
- Deze reisorganisatie introduceert nieuwe producten en creëert constant markttrends.
- Deze reisorganisatie is een pionier in de reisbranche.
- Deze reisorganisatie genereert constant nieuwe ideeën.
- Deze reisorganisatie heeft de markt veranderd met haar aanbod.
- Deze reisorganisatie is een vooruitstrevend, toekomstgericht bedrijf.

Denk nog eens terug aan de reisorganisatie waarmee u het laatst mee op vakantie bent geweest, zoals aangegeven in het begin van deze vragenlijst. De volgende stellingen zullen gaan over uw ervaringen met deze gekozen reisorganisatie. Wij vragen u de stellingen te beoordelen op een schaal van helemaal mee oneens tot helemaal mee eens.

10. Geef aan in hoeverre u het eens ben met de volgende stellingen: 7-points Likert scale (helemaal mee oneens - helemaal mee eens)

Denk wederom aan de eerder gekozen reisorganisatie. De volgende vijf stellingen gaan over uw ervaringen met deze reisorganisatie:

- De beloftes van deze reisorganisatie zijn geloofwaardig.
- Mijn ervaringen die ik in de loop der tijd heb opgedaan met deze reisorganisatie doen mij erin geloven dat ze hun beloftes nakomen.
- Deze reisorganisatie is toegewijd aan het nakomen van haar beloftes.
- Deze reisorganisatie heeft een naam die je kan vertrouwen.
- Deze reisorganisatie heeft de bekwaamheid om te leveren wat ze belooft.

11. Geef aan in hoeverre u het eens ben met de volgende stellingen: 7-points Likert scale (helemaal mee oneens - helemaal mee eens)

Denk wederom aan de eerder gekozen reisorganisatie.

- Ik ben tevreden over de algehele prestaties van deze reisorganisatie.
- Deze reisorganisatie voldoet aan mijn verwachtingen.

- Ik ben zo tevreden over deze reisorganisatie dat je zou kunnen zeggen dat dit bijna mijn ideale reisorganisatie is.
- Het is zeer waarschijnlijk dat ik in de toekomst een vakantie boek bij deze reisorganisatie.
- De volgende keer dat ik op vakantie wil, maak ik nogmaals gebruik van diensten van deze reisorganisatie.
- Ik zal zeker gebruik maken van diensten van deze reisorganisatie.
- Ik zal altijd bij deze reisorganisatie boeken.

12. Geef aan in hoeverre u het eens ben met de volgende stellingen: 7-points Likert scale (helemaal mee oneens - helemaal mee eens)

Denk wederom aan de eerder gekozen reisorganisatie.

- Ik zal niet switchen naar een andere reisorganisatie, ondanks dat er veel andere opties zijn.
- Ik ben bereid meer te betalen voor deze reisorganisatie dan voor andere reisorganisaties.
- Ik raad deze reisorganisatie aan bij mijn vrienden.

U bent bijna aan het einde van deze survey. Tot slot hebben we nog enkele vragen over u.

13. Wat is uw geslacht?

- Man
- Vrouw
- Zeg ik liever niet

14. Wat is uw leeftijd?

- 18-25
- 26-35
- 36-45
- 46-55
- 56-64
- 65+

15. Wat is uw hoogst genoten opleiding?

- Basisonderwijs
- Middelbaar onderwijs
- mbo
- hbo
- wo

16. Ik ben voor het laatst op vakantie geweest met een reisorganisatie met het volgende reisgezelschap:

- Alleen
- Met mijn partner
- Met (een) vriend(en)
- Met mijn familie/ gezin
- Anders, namelijk ...

17. Hoe belangrijk zijn vakanties voor u? *7-points Likert scale (helemaal mee oneens - helemaal mee eens)*

- Op vakantie gaan, vind ik één van de leukste dingen om te doen
- Op vakantie gaan is erg belangrijk voor mij
- Op vakantie gaan, vind ik één van de meeste bevredigende dingen om te doen

18. Heeft u nog opmerkingen over deze enquête?

...

19. Als u kans wilt maken op één van de twee bol.com cadeaubonnen ter waarde van €25,-, kunt u hieronder uw e-mailadres achterlaten. Na het verloten van de cadeaubonnen wordt uw e-mailadres uit ons systeem gehaald. Het e-mailadres zal enkel voor dit doeleinde worden gebruikt. Als u heeft gewonnen, zult u eind mei gecontacteerd worden.

...

Bedankt voor uw deelname aan ons onderzoek. Heeft u vragen of wilt u de resultaten van ons onderzoek graag inzien, neem dan contact op met ons via het onderstaande e-mailadres. l.diekema@student.ru.nl (Luuk Diekema)

Appendix IV– Operationalization of constructs (including translation and used labels in SPSS)

Construct	Definition	Dimension	Original item(s)	New item(s)	Labels in SPSS
PFI	the degree to which customers believe a firm is capable of enduringly developing and launching novel, creative and impactful products and services	<i>Change in value proposition</i> To what extent has there been a change in: NL: in hoeverre heeft u de afgelopen jaren een verandering waargenomen in...	How the tour operator's offerings match your wants?	Hoe het vakantieaanbod dat deze reisorganisatie aanbiedt, aansluiten bij uw voorkeuren	Valueproposition1
			How the tour operator's offerings meet your needs?	Hoe het vakantieaanbod dat deze reisorganisatie aanbiedt, aansluiten bij uw behoeftes	Valueproposition2
			The tour operator's overall market offering?	Het vakantieaanbod van deze reisorganisatie als totaalplaatje	Valueproposition3
		<i>Change in value delivery</i> To what extent has there been a change in: NL: in hoeverre heeft u de	The way the tour operators delivers what it offers?	De manier waarop de reisorganisatie diensten levert die ze belooft.	Valuedelivery1
			How easy it is to make use of the tour operator's offerings?	Het gemak om gebruik te maken van het aanbod van de reisorganisatie.	Valuedelivery2

	afgelopen jaren een verandering waargenomen in...	How fast the tour operator delivers what it offers?	De snelheid waarmee de reisorganisatie diensten levert die ze belooft.	Valuedelivery3
		Your efforts when making use of the tour operator's offerings?	De moeite die het kost bij het oriënteren en boeken van een reis bij een reisorganisatie	Valuedelivery4
	<i>Change in customer treatment</i> To what extent has there been a change in: NL: in hoeverre heeft u de afgelopen jaren een verandering waargenomen in...	The way the tour operator treats you as a customer?	De manier waarop de reisorganisatie mij behandelt als klant.	Customertreatment1
		The way the tour operator takes care of you as a customer?	De manier waarop de reisorganisatie voor mij zorgt als klant.	Customertreatment2
		The way the tour operator communicates with you?	De manier waarop de reisorganisatie communiceert met mij	Customertreatment3
	<i>Change in interaction space</i> To what extent has there been a change	The appearance of the tour operator's webpage or interior?	De uitstraling van de webpagina of het (fysieke) interieur van de reisorganisatie.	Interactionspace1

		in: NL: in hoeverre heeft u de afgelopen jaren een verandering waargenomen in...	The design of physical surroundings or digital solutions?	Het ontwerp van de fysieke omgeving van deze reisorganisatie (de winkel) en/of de digitale omgeving van deze reisorganisatie (de website).	Interactionspace2
			The visual appeal of the tour operator's facilities?	De visuele aantrekkingskracht van de faciliteiten van de reisorganisatie. (Bij faciliteiten kan je denken aan de chatbox op de website, brochures van de reisorganisatie, het online boekingsysteem)	Interactionspace3
Firm credibility	the customer's perception of trustworthiness of the information disseminated by a firm, which simultaneously shows the capability of the firm to continuously		Service claims from this tour operator are believable	De beloftes van deze reisorganisatie zijn geloofwaardig.	Firmcredibility1
			Over time, my experience with this tour operator led me to expect it to keep its promises	Mijn ervaringen die ik in de loop der tijd heb opgedaan met deze reisorganisatie doen mij erin geloven dat ze hun beloftes nakomen.	Firmcredibility2

	delivering this perception		This tour operator is committed to delivering on its claims	Deze reisorganisatie is toegewijd aan het nakomen van haar beloften.	Firmcredibility3
			The tour operator has a name you can trust	Deze reisorganisatie heeft een naam die je kan vertrouwen.	Firmcredibility4
			This tour operator has the ability to deliver what it promises	Deze reisorganisatie heeft de bekwaamheid om te leveren wat ze belooft.	Firmcredibility5
Purchase intention	the likelihood of buying a product/service from a firm and can be a predictor of actual purchase		It is very likely that I will buy the service from this tour operator	Het is zeer waarschijnlijk dat ik in de toekomst een vakantie boek bij deze reisorganisatie.	Purchaseintention1
			I will purchase the service from this tour operator the next time I want to book a holiday	De volgende keer dat ik op vakantie wil, maak ik nogmaals gebruik van diensten van deze reisorganisatie.	Purchaseintention2

			I will definitely try the service from this tour operator	Ik zal zeker gebruik maken van diensten van deze reisorganisatie	Purchaseintention3
			I will always use this brand	Ik zal altijd bij deze reisorganisatie boeken.	Purchaseintention4
Customer loyalty	the tendency to purchase a certain product of a firm repeatedly due to deeply held commitment despite situational and external influences		I will not switch to another brand even though there are lots of other brand options	Ik zal niet switchen naar een andere reisorganisatie, ondanks dat er veel andere opties zijn.	Customerloyalty1
			I am willing to pay more than any other brand to get this particular brand	Ik ben bereid meer te betalen voor deze reisorganisatie dan voor andere reisorganisaties.	Customerloyalty2
			I will recommend this tour operator to my friends	Ik raad deze reisorganisatie aan bij mijn vrienden.	Customerloyalty3

Perceived Firm Innovativeness (Back-up scale)	the degree to which customers believe a firm is capable of enduringly developing and launching novel, creative and impactful products and services		The tour operator is dynamic.	De reisorganisatie is dynamisch.	PFItotal1
			The tour operator is very creative.	De reisorganisatie is heel creatief.	PFItotal2
			The tour operator launches new products and creates market trends all the time.	De reisorganisatie introduceert nieuwe producten en creëert constant markttrends.	PFItotal3
			The tour operator is a pioneer in its category.	De reisorganisatie is een pionier in zijn categorie.	PFItotal4
			The tour operator constantly generates new ideas.	De reisorganisatie genereert constant nieuwe ideeën	PFItotal5
			The tour operator has changed the market with its offers.	De reisorganisatie heeft de markt veranderd met haar aanbod.	PFItotal6

			The tour operator is an advanced, forward-looking firm.	Deze reisorganisatie is een vooruitstrevend, toekomstgericht bedrijf.	PFItotal7
Product category involvement	It reflects the degree to which people devote themselves to an activity or associated product		Going on a holiday, is one of the most enjoyable things I do	Op vakantie gaan, vind ik één van de leukste dingen om te doen	Productinvolvement1
			Going on a holiday, is very important to me	Op vakantie gaan is erg belangrijk voor mij	Productinvolvement2
			Going on a holiday, is one of the most satisfying things I do	Op vakantie gaan, vind ik één van de meeste bevredigende dingen om te doen	Productinvolvement3

Appendix V – Frequency table: missing data

Question	N	Mean	Std. Deviation	Missing	
				Count	Percent
Touoperator1	182	14.36	8.496	0	0
		MODE: 24			
Lastbeenonholiday	182	3.71	1.607	0	0
		MODE: 3			
Valueproposition1	182	4.41	1.505	0	0
Valueproposition2	179	4.61	1.485	3	1.6
Valueproposition3	178	4.56	1.369	4	2.2
Valuedelivery1	182	4.01	1.443	0	0
Valuedelivery2	180	4.48	1.428	2	1.1
Valuedelivery3	179	4.34	1.426	3	1.6
Valuedelivery4	179	3.90	1.442	3	1.6
Customertreatment1	181	4.09	1.355	1	0.5
Customertreatment2	180	3.99	1.333	2	1.1
Customertreatment3	179	4.21	1.393	3	1.6
Interactionspace1	180	3.96	1.435	2	1.1
Interactionspace2	180	3.94	1.479	2	1.1
Interactionspace3	179	4.03	1.491	3	1.6
PFItotal1	182	4.99	1.219	0	0
PFItotal2	180	4.93	1.333	2	1.1
PFItotal3	180	4.43	1.286	2	1.1
PFItotal4	180	4.38	1.423	2	1.1
PFItotal5	180	4.26	1.212	2	1.1
PFItotal6	180	4.28	1.270	2	1.1
PFItotal7	179	4.58	1.231	3	1.6
Firmcredibility1	182	5.53	1.135	0	0
Firmcredibility2	180	5.50	1.279	2	1.1
Firmcredibility3	180	5.48	1.179	2	1.1
Firmcredibility4	180	5.63	1.195	2	1.1

Firmcredibility5	179	5.57	1.285	3	1.6
Purchaseintention1	181	4.90	1.827	1	0.5
Purchaseintention2	179	4.64	1.701	3	1.6
Purchaseintention3	180	4.59	1.778	2	1.1
Purchaseintention4	179	3.04	1.695	3	1.6
Customerloyalty1	182	2.76	1.539	0	0
Customerloyalty2	180	2.99	1.699	2	1.1
Customerloyalty3	181	4.96	1.595	1	0.5
Gender	182	1.65	.477	0	0
		MODE: 2			
Age	182	2.38	1.536	0	0
		MODE: 1			
Educationallevel	181	4.10	.883	1	0.5
		MEDIAN: 4			
Travelingcompanion1	182	3.04	.985	0	0
		MODE: 4			
Productinvolvement1	182	6.13	1.009	0	0
Productinvolvement2	180	5.19	1.100	2	1.1
Productinvolvement3	181	5.69	1.279	1	0.5

Appendix VI – Overview demographic information sample

		Frequency	Percentage
<i>Gender</i>	Man	63	34,6
	Woman	119	65,4
	Other	0	0
<i>Age</i>	18-25	85	46,7
	26-35	25	13,7
	36-45	14	7,7
	46-55	35	19,2
	56-64	22	12,1
	65+	1	.5
<i>Education level</i>	Elementary school	0	0
	High school	9	4,9
	Post-secondary vocational education	35	19,2
	University of Applied Sciences	66	36,3
	University	71	39,0
	<i>Travel companion</i>	Alone	8
With my partner		53	29,1
With (a) friend(s)		51	28,0
With my family		63	34,6
Other...		7	3,8
<i>Tour operator travelled with</i>	ANWB Reizen	5	2,7
	Buro Scanbrit	7	3,8
	Corendon	17	9,3
	De Jong Intra	2	1,1
	Djoser	6	3,3
	D-reizen	21	11,5
	/VakantieXperts		
	Eliza was here	3	1,6
	ExperienceTravel	2	1,1
	Fox vakanties	2	1,1
	GoGo reizen	15	8,2
	Gofun reizen	3	1,6
	Kilroy	3	1,6
	Kras reizen	1	.5
	Neckermann	1	.5
	Paros Reizen	1	.5
	Peter Langhout reizen	1	.5
	Prijsvrij	5	2,7
	Riksja Travel	2	1,1
	Simi reizen	3	1,6
Sunweb	11	6,0	

	TUI	32	17,6
	Vakantiediscounter	4	2,2
	Other tour operator...	35	19,2
<i>Last been on holiday</i>	2021	1	.5
	2020	32	17,6
	2019	80	44,0
	2018	24	13,2
	2017	19	10,4
	2016	10	5,5
	2015	11	6,0
	2014	2	1,1
	2013	3	1,6

Appendix VII– Output factor and reliability analyses

PFI – Norwegian Innovation Index (NII) (1st iteration)

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	,871
Bartlett's Test of Sphericity	Approx. Chi-Square
	df
	Sig.
	1516,490
	78
	,000

Factor Correlation Matrix

Factor	1	2	3
1	1,000	,507	,572
2	,507	1,000	,225
3	,572	,225	1,000

Extraction Method: Principal Axis

Factoring.

Rotation Method: Oblimin with Kaiser

Normalization.

Communalities

	Initial	Extraction
Valueproposition1	,538	,611
Valueproposition2	,631	,772
Valueproposition3	,577	,629
Valuedelivery1	,603	,597
Valuedelivery2	,576	,540
Valuedelivery3	,627	,614
Valuedelivery4	,279	,227
Customertreatment1	,654	,595
Customertreatment2	,766	,777
Customertreatment3	,658	,616
Interactionspace1	,806	,879
Interactionspace2	,807	,865
Interactionspace3	,637	,642

Extraction Method: Principal Axis Factoring.

Pattern Matrix^a

	Factor		
	1	2	3
Customertreatment2	,865		
Valuedelivery1	,798	,108	-,177
Valuedelivery3	,773		
Customertreatment3	,744	-,114	,144
Customertreatment1	,704		,155
Valuedelivery2	,645	,172	
Valuedelivery4	,309		,210
Valueproposition2		,893	
Valueproposition1		,783	
Valueproposition3	,132	,688	
Interactionspace1			,923
Interactionspace2			,919
Interactionspace3			,753

Extraction Method: Principal Axis Factoring.

Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 7 iterations.

Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings ^a
	Total	% of		Total	% of		Total
		Variance	Cumulative %		Variance	Cumulative %	
1	6,251	48,085	48,085	5,914	45,495	45,495	5,310
2	1,837	14,130	62,215	1,559	11,991	57,487	3,234
3	1,194	9,187	71,402	,892	6,861	64,347	4,011
4	,812	6,247	77,648				
5	,732	5,628	83,276				
6	,406	3,125	86,402				
7	,395	3,042	89,444				
8	,347	2,673	92,117				
9	,290	2,229	94,346				
10	,252	1,938	96,284				
11	,211	1,622	97,906				
12	,160	1,234	99,140				
13	,112	,860	100,000				

Extraction Method: Principal Axis Factoring.

a. When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.

PFI – Norwegian Innovation Index (NII) (2nd iteration)

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	,867
Bartlett's Test of Sphericity	1464,213
	66
	,000

Factor Correlation Matrix

Factor	1	2	3
1	1,000	,504	,563
2	,504	1,000	,220
3	,563	,220	1,000

Extraction Method: Principal Axis

Factoring.

Rotation Method: Oblimin with Kaiser

Normalization.

Communalities

	Initial	Extraction
Valueproposition1	,538	,611
Valueproposition2	,631	,771
Valueproposition3	,574	,632
Valuedelivery1	,599	,591
Valuedelivery2	,571	,532
Valuedelivery3	,624	,622
Customertreatment1	,652	,603
Customertreatment2	,754	,769
Customertreatment3	,658	,623
Interactionspace1	,800	,864
Interactionspace2	,806	,884
Interactionspace3	,635	,635

Extraction Method: Principal Axis Factoring.

Pattern Matrix

	Factor		
	1	2	3
Customertreatment2	,854		
Valuedelivery1	,787	,109	-,164
Valuedelivery3	,773		
Customertreatment3	,745	-,119	,153
Customertreatment1	,705		,165
Valuedelivery2	,634	,174	
Valueproposition2		,889	
Valueproposition1		,781	
Valueproposition3	,136	,686	
Interactionspace2			,932
Interactionspace1			,913
Interactionspace3			,750

Extraction Method: Principal Axis Factoring.

Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 7 iterations.

Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings ^a
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	6,014	50,114	50,114	5,695	47,457	47,457	5,088
2	1,824	15,203	65,317	1,552	12,936	60,392	3,152
3	1,194	9,951	75,268	,891	7,425	67,817	3,859
4	,769	6,406	81,674				
5	,407	3,395	85,069				
6	,397	3,307	88,375				
7	,355	2,962	91,337				
8	,290	2,415	93,753				
9	,253	2,112	95,865				
10	,214	1,782	97,647				
11	,169	1,408	99,055				
12	,113	,945	100,000				

Extraction Method: Principal Axis Factoring.

a. When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.

PFI – Norwegian Innovation Index (NII) (reliability analysis and factor interpretation)

	Factor		
	1	2	3
Valuedelivery1	,787		
Valuedelivery2	,634		
Valuedelivery3	,773		
Customertreatment1	,705		
Customertreatment2	,854		
Customertreatment3	,745		
Valueproposition1		,781	
Valueproposition2		,889	
Valueproposition3		,686	
Interactionspace1			,913
Interactionspace2			,932
Interactionspace3			,750

Extraction Method: Principal Axis Factoring.

Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 7 iterations.

Reliability Statistics

Cronbach's

Alpha	N of Items
,906	12

Item-Total Statistics

	Scale			Cronbach's
	Scale Mean if Item Deleted	Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
Valueproposition1	46,06	125,898	,468	,907
Valueproposition2	45,87	124,345	,525	,904
Valueproposition3	45,91	123,474	,615	,899
Valuedelivery1	46,47	121,745	,641	,898
Valuedelivery2	45,99	120,822	,666	,897
Valuedelivery3	46,13	120,593	,698	,895
Customertreatment1	46,41	121,564	,688	,896
Customertreatment2	46,49	120,251	,769	,892
Customertreatment3	46,29	121,366	,680	,896
Interactionspace1	46,51	121,562	,645	,898
Interactionspace2	46,53	121,274	,633	,898
Interactionspace3	46,45	121,720	,604	,900

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Valueproposition1	50,38	137,605	,656	,897
Valueproposition2	50,40	137,552	,636	,898
Valueproposition3	50,32	137,851	,613	,899
Valuedelivery1	50,35	138,044	,644	,898
Valuedelivery2	49,87	136,988	,672	,896
Valuedelivery3	50,00	137,103	,691	,896
Valuedelivery4	50,46	144,020	,451	,906
Customertreatment1	50,36	136,324	,775	,893
Customertreatment2	50,28	138,019	,685	,896
Customertreatment3	50,16	137,744	,679	,896
Interactionspace1	49,94	142,795	,462	,906
Interactionspace2	49,74	141,158	,518	,903
Interactionspace3	49,78	140,332	,603	,899

Firm credibility, customer loyalty and purchase intention – (1st iteration)

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	,896
Bartlett's Test of Sphericity	1956,251
	66
	,000

Factor Correlation Matrix

Factor	1	2
1	1,000	-,480
2	-,480	1,000

Extraction Method: Principal Axis

Factoring.

Rotation Method: Oblimin with Kaiser

Normalization.

Communalities

	Initial	Extraction
Firmcredibility1	,629	,605
Firmcredibility2	,812	,789
Firmcredibility3	,783	,784
Firmcredibility4	,717	,705
Firmcredibility5	,734	,752
Purchaseintention1	,854	,772
Purchaseintention2	,848	,738
Purchaseintention3	,868	,776
Purchaseintention4	,681	,649
Customerloyalty1	,681	,601
Customerloyalty2	,581	,506
Customerloyalty3	,593	,591

Extraction Method: Principal Axis Factoring.

Pattern Matrix

	Factor	
	1	2
Customerloyalty1	,854	,210
Purchaseintention4	,842	
Purchaseintention3	,774	-,190
Purchaseintention2	,735	-,214
Customerloyalty2	,702	
Purchaseintention1	,677	-,323
Customerloyalty3	,571	-,310
Firmcredibility2		-,880
Firmcredibility5		-,871
Firmcredibility3	,119	-,822
Firmcredibility4		-,814
Firmcredibility1		-,802

Extraction Method: Principal Axis Factoring.

Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 7 iterations.

Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings ^a
	Total	% of Variance	Cumulative %	Total	% of		Total
					Variance	Cumulative %	
1	6,848	57,071	57,071	6,554	54,613	54,613	5,305
2	2,038	16,983	74,054	1,714	14,285	68,898	5,285
3	,882	7,347	81,401				
4	,507	4,225	85,626				
5	,393	3,278	88,904				
6	,355	2,961	91,866				
7	,265	2,208	94,073				
8	,221	1,841	95,914				
9	,173	1,443	97,358				
10	,125	1,039	98,397				
11	,101	,846	99,242				
12	,091	,758	100,000				

Extraction Method: Principal Axis Factoring.

a. When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.

Firm credibility, customer loyalty and purchase intention (reliability analysis and factor interpretation)

	Factor	
	1	2
Customerloyalty1	,854	
Purchaseintention4	,842	
Purchaseintention3	,774	
Purchaseintention2	,735	
Customerloyalty2	,702	
Purchaseintention1	,677	
Customerloyalty3	,571	
Firmcredibility2		-,880
Firmcredibility5		-,871
Firmcredibility3		-,822
Firmcredibility4		-,814
Firmcredibility1		-,802

Extraction Method: Principal Axis Factoring.

Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 7 iterations.

Reliability Statistics

Cronbach's

Alpha	N of Items
,923	7

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Purchaseintention1	22,93	68,245	,817	,905
Purchaseintention2	23,18	69,816	,832	,903
Purchaseintention3	23,21	68,135	,853	,901
Purchaseintention4	24,77	72,156	,740	,913
Customerloyalty1	25,07	76,018	,676	,919
Customerloyalty2	24,82	73,963	,672	,919
Customerloyalty3	22,86	74,163	,715	,915

Reliability Statistics

Cronbach's

Alpha	N of Items
,934	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Purchaseintention1	14,18	21,320	,905	,894
Purchaseintention2	14,42	22,706	,887	,901
Purchaseintention3	14,47	21,790	,902	,895
Customerloyalty3	14,12	26,093	,696	,958

Reliability Statistics

Cronbach's

Alpha	N of Items
,865	3

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Customerloyalty1	6,02	9,214	,813	,751
Customerloyalty2	5,78	9,124	,696	,854
Purchaseintention4	5,71	8,872	,727	,825

Reliability Statistics

Cronbach's

Alpha	N of Items
,921	7

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Firmcredibility1	22,18	19,541	,726	,916
Firmcredibility2	22,20	17,510	,842	,893
Firmcredibility3	22,21	18,359	,828	,896
Firmcredibility4	22,06	18,626	,782	,905
Firmcredibility5	22,12	17,816	,800	,902

PFI back-up scale and product category involvement – (1st iteration)

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	,828
Bartlett's Test of Sphericity	872,387
	45
	,000

Factor Correlation Matrix

Factor	1	2
1	1,000	,243
2	,243	1,000

Extraction Method: Principal Axis Factoring.
 Rotation Method: Oblimin with Kaiser Normalization.

Factor Transformation Matrix

Factor	1	2
1	1,000	,448
2	-,448	1,000

Extraction Method: Principal Axis Factoring.
 Rotation Method: Varimax with Kaiser Normalization.

Communalities

	Initial	Extraction
PFItotal1	,499	,404
PFItotal2	,595	,521
PFItotal3	,471	,518
PFItotal4	,552	,547
PFItotal5	,515	,591
PFItotal6	,359	,333
PFItotal7	,462	,499
Productinvolvement1	,673	,788
Productinvolvement2	,686	,768
Productinvolvement3	,579	,654

Extraction Method: Principal Axis Factoring.

Rotated Factor Matrix

	Factor	
	1	2
PFItotal5	,766	
PFItotal2	,720	
PFItotal3	,719	
PFItotal7	,702	
PFItotal4	,695	,254
PFItotal1	,633	
PFItotal6	,558	,147
Productinvolvement1		,882
Productinvolvement2	,143	,865
Productinvolvement3		,805

Extraction Method: Principal Axis Factoring.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings^a
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	4,165	41,651	41,651	3,704	37,044	37,044	3,346
2	2,223	22,225	63,877	1,918	19,178	56,221	2,276
3	,967	9,670	73,547				
4	,612	6,116	79,663				
5	,489	4,892	84,555				
6	,419	4,188	88,743				
7	,356	3,560	92,303				
8	,305	3,054	95,357				
9	,267	2,669	98,027				
10	,197	1,973	100,000				

Extraction Method: Principal Axis Factoring.

PFI back-up scale and product category involvement (reliability analysis and factor interpretation)

Reliability Statistics

Cronbach's

Alpha	N of Items
,884	3

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Productinvolvement1	11,62	4,739	,800	,827
Productinvolvement2	11,86	4,198	,805	,808
Productinvolvement3	12,06	3,812	,747	,876

Reliability Statistics

Cronbach's

Alpha	N of Iter
,864	7

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
PFItotal1	26,84	34,698	,582	,851
PFItotal2	26,91	32,823	,654	,841
PFItotal3	27,40	33,242	,652	,842
PFItotal4	27,45	31,912	,661	,841
PFItotal5	27,57	33,247	,705	,835
PFItotal6	27,57	34,943	,534	,858
PFItotal7	27,25	33,729	,655	,842

Discriminant validity

Pattern Matrix^a

	Factor						
	1	2	3	4	5	6	7
Valueproposition1						-,741	
Valueproposition2						-,886	
Valueproposition3		,145				-,692	
Valuedelivery1	,116	,754					-,137
Valuedelivery2	,122	,630		,113		-,165	
Valuedelivery3	,106	,752					
Customertreatment1		,649					,180
Customertreatment2	-,116	,808					,105
Customertreatment3	-,124	,691					,181
Interactionspace1							,890
Interactionspace2							,920
Interactionspace3							,715
Firmcredibility1					-,815		
Firmcredibility2					-,850		
Firmcredibility3	,189		,112		-,778		
Firmcredibility4	,158				-,767		
Firmcredibility5	,	,121			-,788		
Purchaseintention1	,792				-,231		
Purchaseintention2	,836				-,145		
Purchaseintention3	,863						
Customerloyalty1	,681				,142	-,116	
Customerloyalty2	,623	-,101	-,122	-,107		-,100	
Customerloyalty3	,611				-,276		,169
PFItotal1				-,569	-,249		,116
PFItotal2				-,716	-,202		
PFItotal3				-,744	,103		
PFItotal4			,184	-,685			
PFItotal5				-,743			
PFItotal6				-,547			
PFItotal7	,141			-,678			
Productinvolvement1			,860				
Productinvolvement2			,888				
Productinvolvement3			,784				

Extraction Method: Principal Axis Factoring.

Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 10 iterations.

Appendix VIII – Correlation matrix on item level

Table 4.1. Correlation matrix and univariate statistics

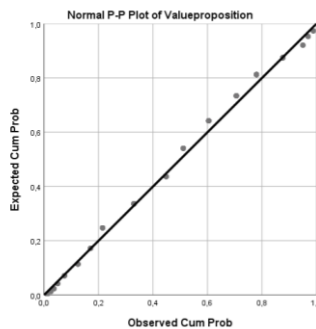
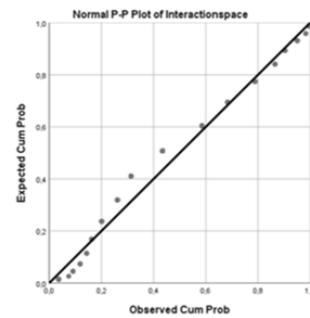
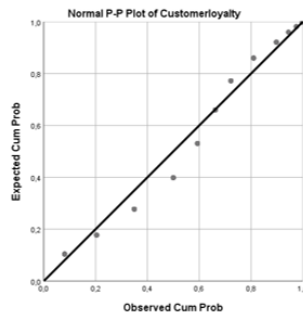
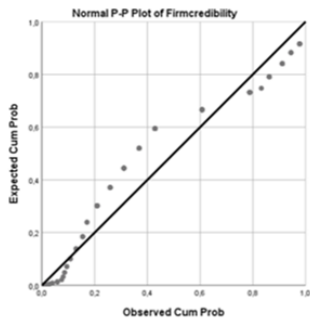
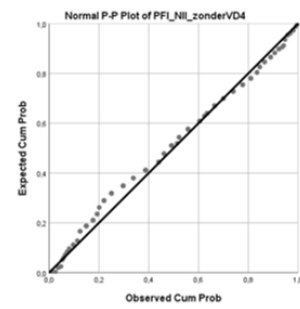
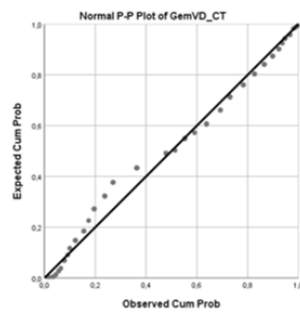
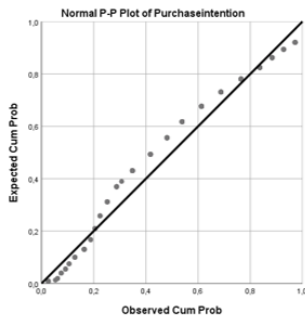
Item	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
1. VP1																										
2. VP2	.687**																									
3. VP3	.600**	.676**																								
4. VD1	.393**	.349**	.431**																							
5. VD2	.356**	.429**	.441**	.660**																						
6. VD3	.342**	.348**	.443**	.697**	.655**																					
7. VD4	.199**	.217**	.222**	.347**	.374**	.303**																				
8. CT1	.271**	.309**	.374**	.504**	.443**	.491**	.326**																			
9. CT2	.311**	.371**	.442**	.587**	.543**	.659**	.440**	.757**																		
10. CT3	.251**	.297**	.348**	.477**	.485**	.550**	.347**	.701**	.754**																	
11. IS1	.174**	.241**	.306**	.323**	.413**	.427**	.402**	.481**	.526**	.534**																
12. IS2	.180**	.201**	.275**	.322**	.380**	.454**	.339**	.495**	.513**	.499**	.876**															
13. IS3	.181*	.264**	.328**	.334**	.361**	.393**	.368**	.467**	.483**	.401**	.735**	.759**														
14. FC1	.100	.040	.094	.066	-.075	-.030	.049	.009	.037	-.001	.019	.011	.046													
15. FC2	.082	.131	.107	.083	-.034	.002	-.006	-.071	.007	-.033	-.068	-.062	-.038	.804**												
16. FC3	.106	.132	.109	.156*	.018	.072	.002	-.028	.064	.049	-.058	-.004	-.038	.629**	.794**											
17. FC4	.105	.081	.129	.102	.067	.056	-.028	-.014	.057	.046	-.096	-.053	-.024	.567**	.654**	.717**										
18. FC5	.080	.041	.142	.157*	.072	.129	.042	.039	.101	.048	-.066	-.002	-.005	.586**	.684**	.743**	.800**									
19. PI1	.102	.092	.131	.177*	.141	.139	.062	.028	.068	.031	-.004	.025	.075	.385**	.480**	.587**	.582**	.568**								
20. PI2	.095	.156*	.150*	.248**	.185*	.181*	.025	.045	.091	.041	.026	.031	.110	.384**	.455**	.515**	.516**	.477**	.876**							
21. PI3	.124	.126	.143	.249**	.155*	.190*	.050	.049	.081	.014	-.024	-.013	.063	.368**	.449**	.513**	.500**	.471**	.882**	.900**						
22. PI4	.138	.181*	.167*	.304*	.150*	.222**	.068	.128	.154*	.055	.106	.149*	.177*	.257**	.364**	.387**	.241**	.267**	.568**	.615**	.654**					
23. CL1	.190*	.243**	.161*	.289**	.232*	.254**	.088	.134	.145	.103	.063	.085	.069	.091	.188*	.300**	.197**	.152*	.486**	.500**	.529**	.750**				
24. CL2	.138	.139	.110	.148*	.046	.154*	-.056	.049	.052	.002	.011	.059	.002	.230**	.320**	.412**	.333**	.301**	.508**	.527**	.520**	.601**	.711**			
25. CL3	.144	.108	.103	.164*	.106	.159*	.037	.043	.084	.051	.099	.132	.116	.350**	.450**	.568**	.513**	.523**	.702**	.637**	.667**	.532**	.477**	.578**		
Mean	4.41	4.61	4.56	4.01	4.48	4.34	3.90	4.09	3.99	4.21	3.96	3.94	4.03	5.53	5.50	5.48	5.63	5.57	4.90	4.64	4.59	3.04	2.76	2.99	4.96	
Standard deviation	1.51	1.49	1.37	1.44	1.43	1.43	1.44	1.36	1.33	1.39	1.44	1.48	1.49	1.14	1.28	1.18	1.20	1.29	1.83	1.70	1.78	1.70	1.54	1.70	1.60	

$n = 182$, * $p < .01$, ** $p < .05$

Appendix IX – Assumptions simple and multiple regression analyses

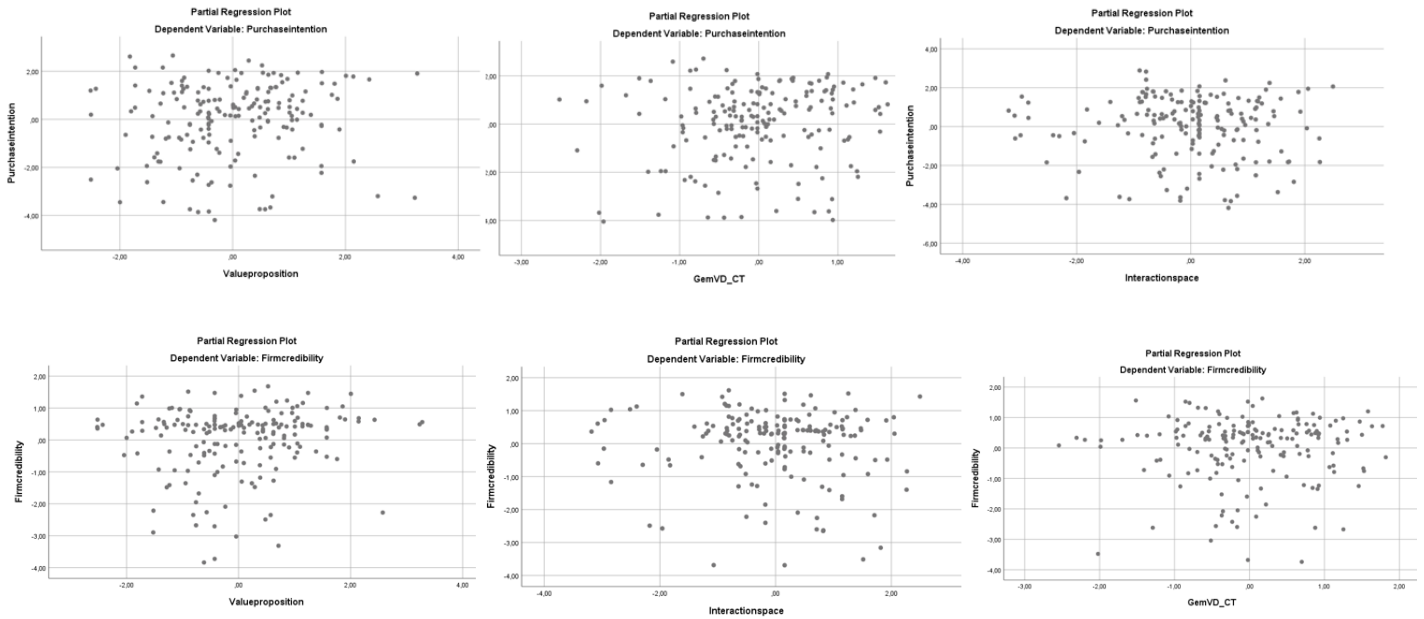
Assumption 2: normality

		Statistics							
		GemVD_CT	Valueproposition	Interactionspace	PFI_NII_zonderVD4	Firmcredibility	Purchaseintention	Customerloyalty	
N	Valid	182	182	182	182	182	181	182	
	Missing	0	0	0	0	0	1	0	
Mean		4,1925	4,5366	3,9744	4,2241	5,5475	4,7767	2,8846	
Std. Error of Mean		,08457	,09439	,10098	,07439	,07818	,11751	,11089	
Std. Deviation		1,14085	1,27335	1,36224	1,00352	1,05464	1,58089	1,49599	
Variance		1,302	1,621	1,856	1,007	1,112	2,499	2,238	
Skewness		-,575	-,453	-,558	-,602	-1,497	-,806	,522	
Std. Error of Skewness		,180	,180	,180	,180	,180	,181	,180	
Kurtosis		1,065	,025	,001	1,378	2,244	-,032	-,779	
Std. Error of Kurtosis		,358	,358	,358	,358	,358	,359	,358	
Percentiles	25	3,6667	4,0000	3,3333	3,7500	5,2000	4,0000	1,8750	
	50	4,1667	4,6667	4,0000	4,2500	6,0000	5,0000	2,5000	
	75	4,8333	5,6667	5,0000	4,8333	6,2000	6,0000	4,0000	

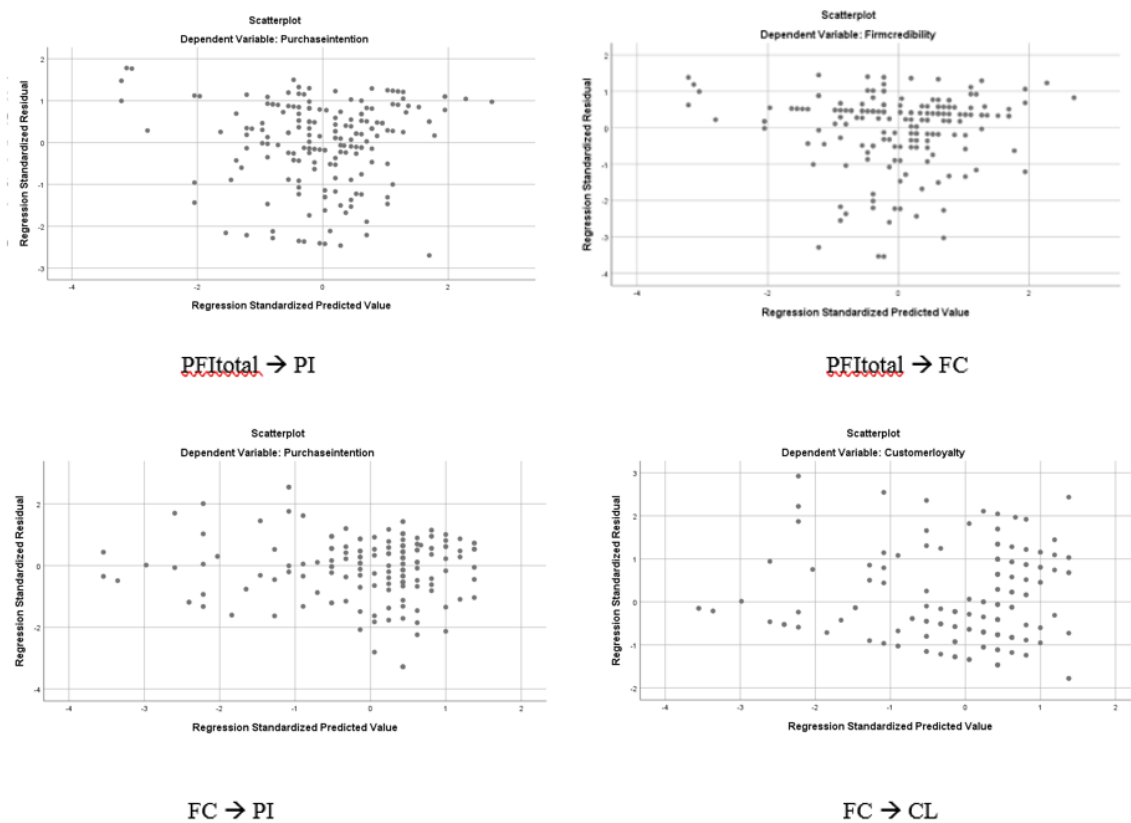


Assumption 3 & 4: linearity and homoscedasticity

Multiple regression:



Simple regression:



Assumption 5: multicollinearity

Model		Tolerance	VIF
1	(Constant)		
	Interactionspace	,677	1,477
	Valueproposition	,740	1,351
	GemVD_CT	,547	1,829

a. Dependent Variable: Firmcredibility

Model		Tolerance	VIF
1	(Constant)		
	Interactionspace	,673	1,487
	Valueproposition	,745	1,342
	GemVD_CT	,547	1,828

a. Dependent Variable: Purchaseintention

Appendix X – Output simple and multiple regression analyses

PFI → firm credibility (multiple and simple regression output)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,155 ^a	,024	,007	1,05069	2,202

a. Predictors: (Constant), GemVD_CT, Valueproposition, Interactionspace

b. Dependent Variable: Firmcredibility

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4,818	3	1,606	1,455	,229 ^b
	Residual	196,503	178	1,104		
	Total	201,321	181			

a. Dependent Variable: Firmcredibility

b. Predictors: (Constant), GemVD_CT, Valueproposition, Interactionspace

Coefficients^a

Model		Unstandardized Coefficients		t	Sig.	95,0% Confidence Interval for B		Correlations			Collinearity Statistics		
		B	Std. Error			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF	
1	(Constant)	5,167	,344	15,030	,000	4,488	5,845						
	Valueproposition	,114	,071	1,593	,113	-,027	,254	,131	,119	,118	,740	1,351	
	Interactionspace	-,077	,070	-,099	-,104	,271	-,214	,061	-,035	-,082	-,082	,677	1,477
	GemVD_CT	,041	,093	,044	,441	,660	-,142	,224	,058	,033	,033	,547	1,829

a. Dependent Variable: Firmcredibility

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	,782	1	,782	,701	,403 ^b
	Residual	200,540	180	1,114		
	Total	201,321	181			

a. Predictors: (Constant), PFI_NII_zonderVD4

b. Dependent Variable: Firmcredibility

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,062 ^a	,004	-,002	1,05551	2,178

a. Predictors: (Constant), PFI_NII_zonderVD4

b. Dependent Variable: Firmcredibility

Model		Coefficients ^a										Collinearity Statistics			
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B			Correlations			Tolerance	VIF	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part				
1	(Constant)	5,271	,339		15,531	,000	4,601	5,941							
	PFI_NII_zonderVD4	,065	,078	,062	,838	,403	-,089	,220	1,000	1,000					

a. Dependent Variable: Firmcredibility

PFI → purchase intention (multiple and simple regression output)

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,188 ^a	,035	,019	1,56575	2,189

a. Predictors: (Constant), GemVD_CT, Valueproposition, Interactionspace

b. Dependent Variable: Purchaseintention

Model		ANOVA ^a				
		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15,926	3	5,309	2,165	,094 ^b
	Residual	433,931	177	2,452		
	Total	449,857	180			

a. Dependent Variable: Purchaseintention

b. Predictors: (Constant), GemVD_CT, Valueproposition, Interactionspace

Model		Coefficients ^a										Collinearity Statistics			
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B			Correlations			Tolerance	VIF	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part				
1	(Constant)	3,607	,514		7,019	,000	2,593	3,965							
	Valueproposition	,127	,106	,103	1,199	,232	-,082	,150	,079	-,040	-,055	,740	1,351		
	Interactionspace	-,048	,104	-,041	-,457	,648	-,253	,341	,176	,093	,132	,677	1,477		
	GemVD_CT	,187	,139	,134	1,346	,180	-,087	,506	,193	,125	,233	,547	1,829		

a. Dependent Variable: Purchaseintention

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,162 ^a	,027	,022	1,56377	2,150

a. Predictors: (Constant), PFI_NII_zonderVD4

b. Dependent Variable: Purchaseintention

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12,134	1	12,134	4.962	,027 ^b
	Residual	437,723	179	2,445		
	Total	449,857	180			

a. Dependent Variable: Purchaseintention

b. Predictors: (Constant), PFI_NII_zonderVD4

Model		Coefficients ^a					95,0% Confidence Interval for B		Collinearity Statistics	
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Lower Bound	Upper Bound	Tolerance	VIF
		B	Std. Error	Beta						
1	(Constant)	3,684	,504		7,306	,000	2,037	4,022		
	PFI_NII_zonderVD4	,259	,116	,161	2,228	,027	,074	,532	1,000	1,000

a. Dependent Variable: Purchaseintention

Firm credibility → *purchase intention* (simple regression output)

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,542 ^a	,354	,350	1,27432	2,101

a. Predictors: (Constant), Firmcredibility

b. Dependent Variable: Purchaseintention

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	132,981	1	159,181	98,025	,000 ^b
	Residual	319,214	179	1,624		
	Total	452,195	180			

a. Dependent Variable: Purchaseintention

b. Predictors: (Constant), Firmcredibility

Model		Unstandardized Coefficients		Coefficients ^a Standardized Coefficients		95,0% Confidence Interval for B		
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	-,156	,507		-,309	,758	-1,157	,846
	Firmcredibility	,890	,090	,595	9,901	,000	,712	,999

a. Dependent Variable: Purchaseintention

Firm credibility → *customer loyalty* (simple regression output)

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,315 ^a	,099	,094	1,42396	1,973

a. Predictors: (Constant), Firmcredibility

b. Dependent Variable: Customerloyalty

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	40,098	1	40,098	19,776	,000 ^b
	Residual	364,978	180	2,028		
	Total	405,077	181			

a. Dependent Variable: Customerloyalty

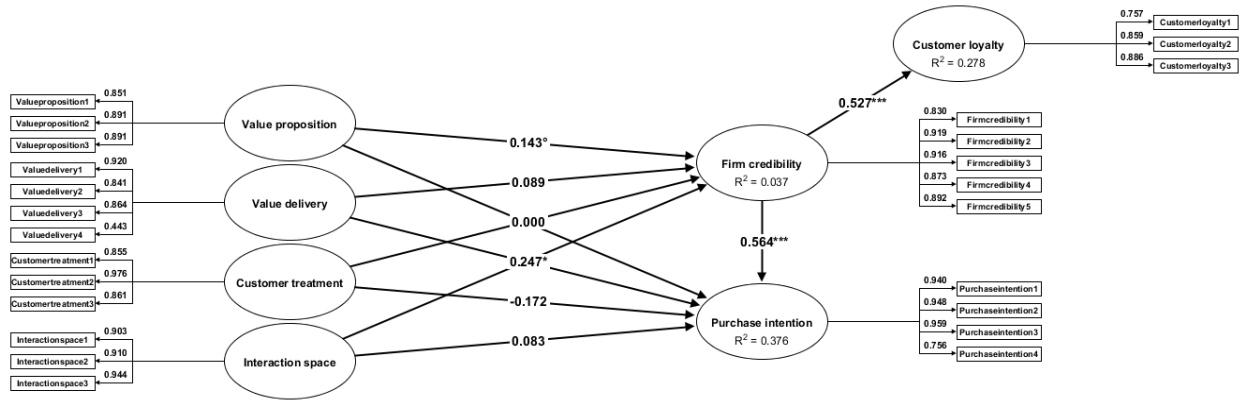
b. Predictors: (Constant), Firmcredibility

Model		Unstandardized Coefficients		Coefficients ^a Standardized Coefficients		95,0% Confidence Interval for B		
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	,409	,567		,721	,472	-,709	1,374
	Firmcredibility	,446	,100	,315	4,447	,000	,248	,744

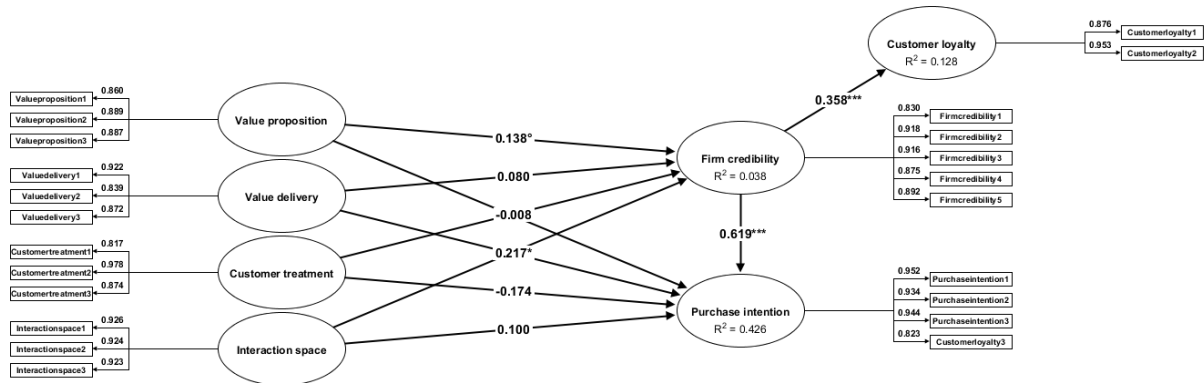
a. Dependent Variable: Customerloyalty

Appendix XI – PLS-SEM: measurement model and assessment

Base model



Final measurement model



Discriminant validity (after deleting Valuedelivery4)

Discriminant Validity: Heterotrait-Monotrait Ratio of Correlations (HTMT)

Construct	Firm credibility	Customer loyalty	Purchase intention	Value proposition	Value delivery	Customer treatment	Interaction space
Firm credibility							
Customer loyalty	0.5416						
Purchase intention	0.6078	0.8774					
Value proposition	0.1647	0.2284	0.1833				
Value delivery	0.1010	0.2275	0.2554	0.5825			
Customer treatment	0.0407	0.0652	0.0699	0.4570	0.7435		
Interaction space	0.0532	0.0739	0.0696	0.3317	0.5172	0.6349	

Significant output of final measurement model assessment

Goodness of model fit (saturated model)

	Value	HI95	HI99
SRMR	0.0534	0.0810	0.1481
d _{ULS}	0.7861	1.8104	6.0567
d _G	0.5722	0.7470	1.1883

Discriminant Validity: Heterotrait-Monotrait Ratio of Correlations (HTMT)

Construct	Firm credibility	Customer loyalty	Purchase intention	Value proposition	Value delivery	Customer treatment	Interaction space
Firm credibility							
Customer loyalty	0.3843						
Purchase intention	0.6615	0.6946					
Value proposition	0.1605	0.2290	0.1650				
Value delivery	0.0988	0.2194	0.2242	0.5846			
Customer treatment	0.0398	0.0582	0.0527	0.4573	0.7439		
Interaction space	0.0544	0.0256	0.0632	0.3337	0.5184	0.6356	

Indicator	Firm credibility	Customer loyalty	Purchase intention	Value proposition	Value delivery	Customer treatment	Interaction space
Valueproposition1				0.7392			
Valueproposition2				0.7905			
Valueproposition3				0.7868			
Valuedelivery1					0.8496		
Valuedelivery2					0.7033		
Valuedelivery3					0.7611		
Customertreatment1						0.6671	
Customertreatment2						0.9570	
Customertreatment3						0.7632	
Interactionspace1							0.8574
Interactionspace2							0.8529
Interactionspace3							0.8514
Firmcredibility1	0.6885						
Firmcredibility2	0.8428						
Firmcredibility3	0.8390						
Firmcredibility4	0.7656						
Firmcredibility5	0.7963						
Purchaseintention1			0.9060				
Purchaseintention2			0.8732				
Purchaseintention3			0.8907				
Customerloyalty1		0.7675					
Customerloyalty2		0.9085					
Customerloyalty3			0.6773				

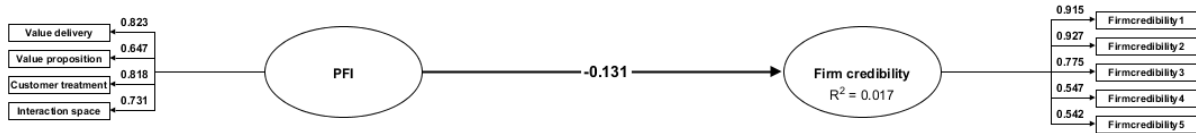
Indicator Multicollinearity

Indicator	Firm credibility	Customer loyalty	Purchase intention	Value proposition	Value delivery	Customer treatment	Interaction space
Valueproposition1				2.0471			
Valueproposition2				2.5128			
Valueproposition3				2.0017			
Valuedelivery1					2.1890		
Valuedelivery2					2.0632		
Valuedelivery3					2.1596		
Customertreatment1						2.6095	
Customertreatment2						3.2492	
Customertreatment3						2.5216	
Interactionspace1							4.5814
Interactionspace2							4.7825
Interactionspace3							2.4342
Firmcredibility1	2.7276						
Firmcredibility2	5.1864						
Firmcredibility3	4.3291						
Firmcredibility4	3.2062						
Firmcredibility5	3.5606						
Purchaseintention1			6.2808				
Purchaseintention2			6.2568				
Purchaseintention3			6.6928				
Customerloyalty1		1.9047					
Customerloyalty2		1.9047					
Customerloyalty3			2.0059				

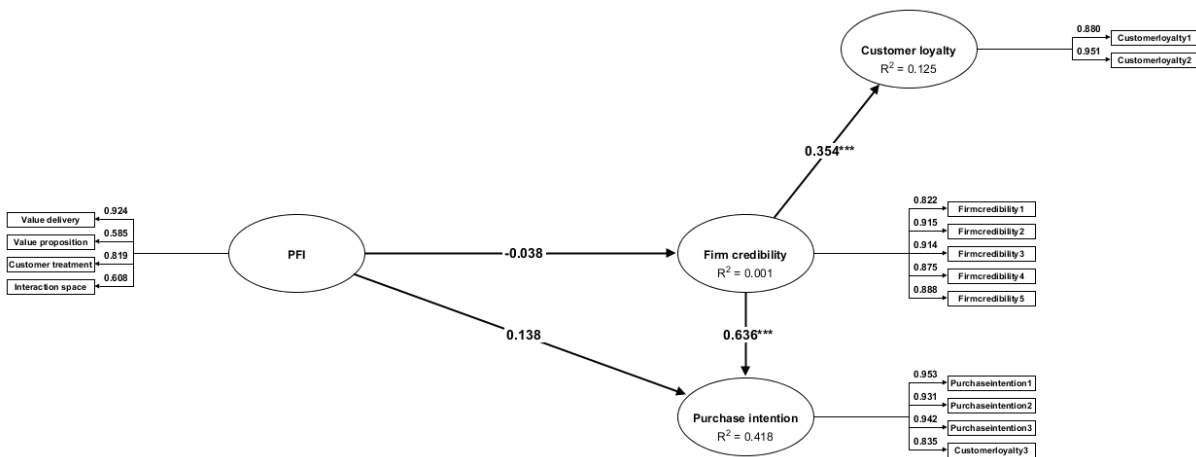
Variance inflation factors (VIF)

Appendix XII – PLS-SEM: structural model and assessment

Second order construct



Final structural model including second order construct



Significant output of structural model assessment

Effect overview

Effect	Beta	Indirect effects	Total effect	Cohen's f^2
Firm credibility -> Purchase intention	0.6365		0.6365	0.6945
Firm credibility -> Customer loyalty	0.3538		0.3538	0.1431
PFI -> Firm credibility	-0.0376		-0.0376	0.0014
PFI -> Purchase intention	0.1381	-0.0239	0.1142	0.0327
PFI -> Customer loyalty		-0.0133	-0.0133	

Direct Effects Inference

Effect	Original coefficient	Standard bootstrap results					Percentile bootstrap quantiles			
		Mean value	Standard error	t-value	p-value (2-sided)	p-value (1-sided)	0.5%	2.5%	97.5%	99.5%
Firm credibility -> Purchase intention	0.6365	0.6357	0.0554	11.4864	0.0000	0.0000	0.4838	0.5192	0.7365	0.7645
Firm credibility -> Customer loyalty	0.3538	0.3594	0.0680	5.2055	0.0000	0.0000	0.1792	0.2203	0.4833	0.5209
PFI -> Firm credibility	-0.0376	-0.0244	0.0907	-0.4149	0.6783	0.3391	-0.2300	-0.1876	0.1506	0.2012
PFI -> Purchase intention	0.1381	0.1346	0.0923	1.4971	0.1344	0.0672	-0.1910	-0.1087	0.2768	0.3124

Indirect Effects Inference

Effect	Original coefficient	Standard bootstrap results					Percentile bootstrap quantiles			
		Mean value	Standard error	t-value	p-value (2-sided)	p-value (1-sided)	0.5%	2.5%	97.5%	99.5%
PFI -> Purchase intention	-0.0239	-0.0156	0.0583	-0.4104	0.6815	0.3408	-0.1527	-0.1216	0.0982	0.1303
PFI -> Customer loyalty	-0.0133	-0.0084	0.0335	-0.3973	0.6911	0.3456	-0.0908	-0.0725	0.0564	0.0776

Total Effects Inference

Effect	Original coefficient	Standard bootstrap results					Percentile bootstrap quantiles			
		Mean value	Standard error	t-value	p-value (2-sided)	p-value (1-sided)	0.5%	2.5%	97.5%	99.5%
Firm credibility -> Purchase intention	0.6365	0.6357	0.0554	11.4864	0.0000	0.0000	0.4838	0.5192	0.7365	0.7645
Firm credibility -> Customer loyalty	0.3538	0.3594	0.0680	5.2055	0.0000	0.0000	0.1792	0.2203	0.4833	0.5209
PFI -> Firm credibility	-0.0376	-0.0244	0.0907	-0.4149	0.6783	0.3391	-0.2300	-0.1876	0.1506	0.2012
PFI -> Purchase intention	0.1142	0.1190	0.1167	0.9783	0.3280	0.1640	-0.2444	-0.1818	0.2816	0.3192
PFI -> Customer loyalty	-0.0133	-0.0084	0.0335	-0.3973	0.6911	0.3456	-0.0908	-0.0725	0.0564	0.0776

Appendix XIII – Output additional analyses

Output effects of product category involvement and remaining control variables

Regression

AGE

Effects of PFI dimensions solely and age on firm credibility

	Model 1 Control variable: age			Model 2 Main effect and control variable		
	β	<i>SE</i>	<i>p</i>	β	<i>SE</i>	<i>p</i>
1. Age_2635	.046	.238	.556	.038	.242	.630
2. Age_3645	.069	.301	.367	.045	.308	.562
3. Age_4655	.199	.210	.012	.126	.251	.025
4. Age_5665+	.124	.246	.112	.126	.251	.115
5. Value proposition				.125	.072	.150
6. Interaction space				-.079	.071	.395
7. VD & CT*				.033	.093	.741
R ² (Adjusted R ²)	.041	(.019)		.059	(.021)	

*n = 182, p < .05, *Value delivery and Customer treatment*

Effects of PFI in total and age on firm credibility

	Model 1 Control variable: age			Model 2 Main effect and control variable		
	β	<i>SE</i>	<i>p</i>	β	<i>SE</i>	<i>p</i>
1. Age_2635	.046	.238	.556	.053	.239	.502
2. Age_3645	.069	.301	.367	.064	.303	.404
3. Age_4655	.199	.210	.012	.193	.211	.016
4. Age_5665+	.124	.246	.112	.133	.249	.092
5. PFI in total				.059	.080	.441
R ² (Adjusted R ²)	.041	(.019)		.044	(.017)	

n = 182, p < .05

Effects of PFI dimensions solely and age on purchase intention

	Model 1 Control variable: age			Model 2 Main effect and control variable		
	β	<i>SE</i>	<i>p</i>	β	<i>SE</i>	<i>p</i>
1. Age_2635	-.025	.352	.744	-.015	.356	.852
2. Age_3645	.135	.461	.076	.114	.465	.136
3. Age_4655	.186	.311	.018	.164	.312	.037
4. Age_5665+	.174	.364	.025	.194	.369	.014

5. Value proposition			,097	,106	,257
6. Interaction space			-,008	,105	,933
7. VD & CT*			,110	,137	,268
R² (Adjusted R²)	.064	(.042)	.093	(.056)	

*n = 182, p < .0, *Value delivery and Customer treatment*

Effects of PFI in total and age on purchase intention

	Model 1 Control variable: age			Model 2 Main effect and control variable		
	β	<i>SE</i>	<i>p</i>	β	<i>SE</i>	<i>p</i>
1. Age_2635	-,025	,352	,744	-,006	,351	,938
2. Age_3645	,135	,461	,076	,124	,457	,098
3. Age_4655	,186	,311	,018	,171	,309	,028
4. Age_5665+	,174	,364	,025	,200	,364	,010
5. PFI in total				,163	,117	,029
R² (Adjusted R²)	.064	(.042)		.089	(.063)	

n = 182, p < .05

Effects of firm credibility and age on purchase intention

	Model 1 Control variable: age			Model 2 Main effect and control variable		
	β	<i>SE</i>	<i>p</i>	β	<i>SE</i>	<i>p</i>
1. Age_2635	-,025	,352	,744	-,052	,288	,414
2. Age_3645	,135	,461	,076	,100	,377	,106
3. Age_4655	,186	,311	,018	,072	,258	,265
4. Age_5665+	,174	,364	,025	,103	,299	,106
5. Firm credibility				,573	,091	,000
R² (Adjusted R²)	.0379	(.361)		.064	(.042)	

n = 182, p < .05

Effects of firm credibility and age on customer loyalty

	Model 1 Control variable: age			Model 2 Main effect and control variable		
	β	<i>SE</i>	<i>p</i>	β	<i>SE</i>	<i>p</i>
1. Age_2635	,038	,328	,613	,026	,316	,725
2. Age_3645	,212	,415	,005	,193	,401	,008
3. Age_4655	,194	,289	,012	,140	,283	,064
4. Age_5665+	,239	,339	,002	,205	,328	,006
5. Firm credibility				,274	,100	,000

R ² (Adjusted R ²)	.093	(.073)	.166	(.142)
<i>n</i> = 182, <i>p</i> < .05				

EDUCATION

Effects of PFI dimensions solely and education on firm credibility

	Model 1 Control variable: education			Model 2 Main effect and control variable		
	<i>β</i>	<i>SE</i>	<i>p</i>	<i>β</i>	<i>SE</i>	<i>p</i>
1. Education_middel	-,019	,373	,806	-,022	,375	,778
2. Education_mbo	,106	,218	,195	,086	,220	,300
3. Education_hbo	,125	,180	,131	,106	,184	,208
4. Value proposition				,120	,072	,170
5. Interaction space				-,080	,071	,389
6. VD & CT*				,035	,093	,730
R ² (Adjusted R ²)	.019	(.002)		.036	(.002)	
<i>n</i> = 182, <i>p</i> < .05, *Value delivery and Customer treatment						

Effects of PFI in total and education on firm credibility

	Model 1 Control variable: education			Model 2 Main effect and control variable		
	<i>β</i>	<i>SE</i>	<i>p</i>	<i>β</i>	<i>SE</i>	<i>p</i>
1. Education_middel	-,019	,373	,806	-,014	,375	,855
2. Education_mbo	,106	,218	,195	,101	,219	,222
3. Education_hbo	,125	,180	,131	,129	,181	,121
4. PFI in total				,057	,079	,453
R ² (Adjusted R ²)	.019	(.002)		.022	(.000)	
<i>n</i> = 182, <i>p</i> < .05						

Effects of PFI dimensions solely and education on purchase intention

	Model 1 Control variable: education			Model 2 Main effect and control variable		
	<i>β</i>	<i>SE</i>	<i>p</i>	<i>β</i>	<i>SE</i>	<i>p</i>
1. Education_middel	,182	,544	,016	,194	,542	,010
2. Education_mbo	,215	,317	,008	,192	,318	,017
3. Education_hbo	,239	,264	,003	,244	,267	,003
4. Value proposition				,083	,104	,322
5. Interaction space				,019	,103	,832
6. VD & CT*				,113	,136	,247
R ² (Adjusted R ²)	.075	(.059)		.107	(.076)	
<i>n</i> = 182, <i>p</i> < .0, *Value delivery and Customer treatment						

Effects of PFI in total and education on purchase intention

	Model 1 Control variable: education			Model 2 Main effect and control variable		
	β	<i>SE</i>	<i>p</i>	β	<i>SE</i>	<i>p</i>
1. Education_middel	,182	,544	,016	,197	,538	,009
2. Education_mbo	,215	,317	,008	,198	,314	,013
3. Education_hbo	,239	,264	,003	,252	,261	,002
4. PFI in total				,177	,114	,016
R ² (Adjusted R ²)	.075	(.059)		.105	(.085)	

n = 182, *p* < .05

Effects of firm credibility and education on purchase intention

	Model 1 Control variable: education			Model 2 Main effect and control variable		
	β	<i>SE</i>	<i>p</i>	β	<i>SE</i>	<i>p</i>
1. Education_middel	,182	,544	,000	,193	,437	,002
2. Education_mbo	,215	,317	,016	,153	,256	,018
3. Education_hbo	,239	,264	,008	,168	,213	,010
4. Firm credibility				,580	,088	,000
R ² (Adjusted R ²)	.0379	(.361)		.405	(.391)	

n = 182, *p* < .05

Effects of firm credibility and education on customer loyalty

	Model 1 Control variable: education			Model 2 Main effect and control variable		
	β	<i>SE</i>	<i>p</i>	β	<i>SE</i>	<i>p</i>
1. Education_middel	,111	,510	,139	,116	,489	,106
2. Education_mbo	,301	,298	,000	,271	,287	,000
3. Education_hbo	,203	,247	,012	,168	,238	,030
4. Firm credibility				,285	,099	,000
R ² (Adjusted R ²)	.083	(.068)		.163	(.144)	

n = 182, *p* < .05

GENDER

Effects of PFI dimensions solely and gender on firm credibility

	Model 1 Control variable: gender			Model 2 Main effect and control variable		
	β	<i>SE</i>	<i>p</i>	β	<i>SE</i>	<i>p</i>
1. Gender_man	-.121	.164	.103	-,127	,165	,091
2. Value proposition				,130	,071	,130
3. Interaction space				-,121	,070	,182
4. VD & CT*				,051	,092	,612
R ² (Adjusted R ²)	.015	(.009)		.040	(.018)	

n = 182, *p* < .05, *Value delivery and Customer treatment

Effects of PFI in total and gender on firm credibility

	Model 1 Control variable: gender			Model 2 Main effect and control variable		
	β	<i>SE</i>	<i>p</i>	β	<i>SE</i>	<i>p</i>
1. Gender_man	-.121	.164	.103	-,115	.165	.124
2. PFI in total				.049	.078	.516
R ² (Adjusted R ²)	.015	(.009)		.017	(.006)	

n = 182, *p* < .05

Effects of PFI dimensions solely and gender on purchase intention

	Model 1 Control variable: gender			Model 2 Main effect and control variable		
	β	<i>SE</i>	<i>p</i>	β	<i>SE</i>	<i>p</i>
1. Gender_man	-.084	.247	.260	-,072	,249	,336
2. Value proposition				,098	,106	,252
3. Interaction space				-,053	,105	,561
4. VD & CT*				,137	,139	,172
R ² (Adjusted R ²)	.007	(.002)		.040	(.019)	

n = 182, *p* < .0, *Value delivery and Customer treatment

Effects of PFI in total and gender on purchase intention

	Model 1			Model 2		
	Control variable: gender			Main effect and control variable		
	β	<i>SE</i>	<i>p</i>	β	<i>SE</i>	<i>p</i>
1. Gender_man	-.084	.247	.260	-.064	.247	.391
2. PFI in total				.156	.117	.038
R ² (Adjusted R ²)	.007	(.002)		.031	(.020)	

n = 182, *p* < .05

Effects of firm credibility and gender on purchase intention

	Model 1			Model 2		
	Control variable: gender			Main effect and control variable		
	β	<i>SE</i>	<i>p</i>	β	<i>SE</i>	<i>p</i>
1. Gender_man	-.084	.247	.260	-.010	.202	.871
2. Firm credibility				.594	.091	.000
R ² (Adjusted R ²)	.007	(.002)		.354	(.347)	

n = 182, *p* < .05

Effects of firm credibility and gender on customer loyalty

	Model 1			Model 2		
	Control variable: gender			Main effect and control variable		
	β	<i>SE</i>	<i>p</i>	β	<i>SE</i>	<i>p</i>
1. Gender_man	.021	.234	.774	.060	.224	.398
2. Firm credibility		.585		.322	.101	.000
R ² (Adjusted R ²)	.000	(-.005)		.103	(.093)	

n = 182, *p* < .05

TRAVEL COMPANION

Effects of PFI dimensions solely and travel companion on firm credibility

	Model 1 Control variable: travel companion			Model 2 Main effect and control variable		
	β	<i>SE</i>	<i>p</i>	β	<i>SE</i>	<i>p</i>
1. Tcompanion_alleen	-,228	,376	,545	-,042	,376	,564
2. Tcompanion_partner	-,002	,187	,990	-,003	,188	,972
3. Tcompanion_vriend	-,761	,189	,000	-,323	,190	,000
4. Tcompanion_anders	,475	,399	,235	,080	,401	,279
5. Value proposition				,144	,068	,080
6. Interaction space				-,047	,067	,588
7. VD & CT*				-,017	,089	,860
R² (Adjusted R²)	.118	(.098)		.136	(.101)	

*n = 182, p < .05, *Value delivery and Customer treatment*

Effects of PFI in total and travel companion on firm credibility

	Model 1 Control variable: travel companion			Model 2 Main effect and control variable		
	β	<i>SE</i>	<i>p</i>	β	<i>SE</i>	<i>p</i>
1. Tcompanion_alleen	-,044	,376	,545	-,046	,377	,531
2. Tcompanion_partner	-,001	,187	,990	,005	,188	,952
3. Tcompanion_vriend	-,325	,189	,000	-,323	,189	,000
4. Tcompanion_anders	,087	,399	,235	,082	,402	,268
5. PFI in total				,051	,075	,477
R² (Adjusted R²)	.118	(.098)		.121	(.096)	

n = 182, p < .05

Effects of PFI dimensions solely and travel companion on purchase intention

	Model 1 Control variable: travel companion			Model 2 Main effect and control variable		
	β	<i>SE</i>	<i>p</i>	β	<i>SE</i>	<i>p</i>
1. Tcompanion_alleen	-,028	,569	,710	-,032	,565	,664
2. Tcompanion_partner	,044	,283	,593	,058	,283	,481
3. Tcompanion_vriend	-,296	,286	,000	-,291	,286	,000
4. Tcompanion_anders	,032	,604	,666	,012	,602	,866
5. Value proposition				,114	,102	,168
6. Interaction space				,020	,102	,824
7. VD & CT*				,081	,135	,405

R² (Adjusted R²) .102 (.082) .134 (.099)

n = 182, *p* < .0, *Value delivery and Customer treatment

Effects of PFI in total and travel companion on purchase intention

	Model 1 Control variable: travel companion			Model 2 Main effect and control variable		
	β	<i>SE</i>	<i>p</i>	β	<i>SE</i>	<i>p</i>
1. Tcompanion_alleen	-.028	,569	,710	-.034	,562	,647
2. Tcompanion_partner	,044	,283	,593	,062	,281	,447
3. Tcompanion_vriend	-.296	,286	,000	-.291	,283	,000
4. Tcompanion_anders	,032	,604	,666	,013	,600	,855
5. PFI in total				,169	,113	,019
R ² (Adjusted R ²)	.102	(.082)		.130	(.105)	

n = 182, *p* < .05

Effects of firm credibility and travel companion on purchase intention

	Model 1 Control variable: travel companion			Model 2 Main effect and control variable		
	β	<i>SE</i>	<i>p</i>	β	<i>SE</i>	<i>p</i>
1. Tcompanion_alleen	-.028	.569	.710	-.003	.478	.956
2. Tcompanion_partner	.044	.283	.593	.043	.238	.528
3. Tcompanion_vriend	-.296	.286	.000	-.118	.251	.101
4. Tcompanion_anders	.032	.604	.666	-.016	.509	.791
5. Firm credibility				.553	.095	.000
R ² (Adjusted R ²)	.102	(.082)		.372	(.354)	

n = 182, *p* < .05

Effects of firm credibility and travel companion on customer loyalty

	Model 1 Control variable: travel companion			Model 2 Main effect and control variable		
	β	<i>SE</i>	<i>p</i>	β	<i>SE</i>	<i>p</i>
1. Tcompanion_alleen	,052	,544	,484	,064	,529	,383
2. Tcompanion_partner	,000	,270	,997	,001	,263	,994
3. Tcompanion_vriend	-.238	,273	,004	-.156	,277	,063
4. Tcompanion_anders	,113	,578	,132	,091	,564	,214
5. Firm credibility				,252	,106	,001
R ² (Adjusted R ²)	.082	(.061)		.137	(.113)	

n = 182, *p* < .05

PRODUCT CATEGORY INVOLVEMENT

Effects of PFI dimensions solely and product category involvement on firm credibility

	Model 1 Control variable: product category involvement			Model 2 Main effect and control variable		
	β	<i>SE</i>	<i>p</i>	β	<i>SE</i>	<i>p</i>
1.Product category involvement	.123	.075	.097	.090	.080	.251
2. Value proposition				.113	.073	.204
3. Interaction space				-.096	.070	.286
4. VD & CT*				.034	.093	.735
R ² (Adjusted R ²)	.015	(.010)		.031	(.009)	

n = 182, *p* < .05, *Value delivery and Customer treatment

Effects of PFI in total and product category involvement on firm credibility

	Model 1 Control variable: product category involvement			Model 2 Main effect and control variable		
	β	<i>SE</i>	<i>p</i>	β	<i>SE</i>	<i>p</i>
1.Product category involvement	.123	.075	.097	.115	.078	.137
2. PFI in total				.032	.081	.679
R ² (Adjusted R ²)	.015	(.010)		.016	(.005)	

n = 182, *p* < .05

Effects of PFI dimensions solely and product category involvement on purchase intention

	Model 1 Control variable: product category involvement			Model 2 Main effect and control variable		
	β	<i>SE</i>	<i>p</i>	β	<i>SE</i>	<i>p</i>
1.Product category involvement	.048	.113	.522	-.012	.119	.876
2. Value proposition				.106	.110	.232
3. Interaction space				-.042	.105	.646
4. VD & CT*				.136	.140	.178
R ² (Adjusted R ²)	.002	(-.003)		.046	(.014)	

n = 182, *p* < .0, *Value delivery and Customer treatment

Effects of PFI in total and product category involvement on purchase intention

	Model 1 Control variable: product category involvement			Model 2 Main effect and control variable		
	β	<i>SE</i>	<i>p</i>	β	<i>SE</i>	<i>p</i>
1.Product category involvement	.048	.113	.522	.005	.116	.952
2. PFI in total				.163	.121	.035
R ² (Adjusted R ²)	.002	(-.003)		.027	(.016)	

n = 182, *p* < .05

Effects of firm credibility and product category involvement on purchase intention

	Model 1 Control variable: product category involvement			Model 2 Main effect and control variable		
	β	<i>SE</i>	<i>p</i>	β	<i>SE</i>	<i>p</i>
1.Product category involvement	.048	.113	.522	-.026	.092	.672
2. Firm credibility				.598	.091	.000
R ² (Adjusted R ²)	.002	(-.003)		.355	(.347)	

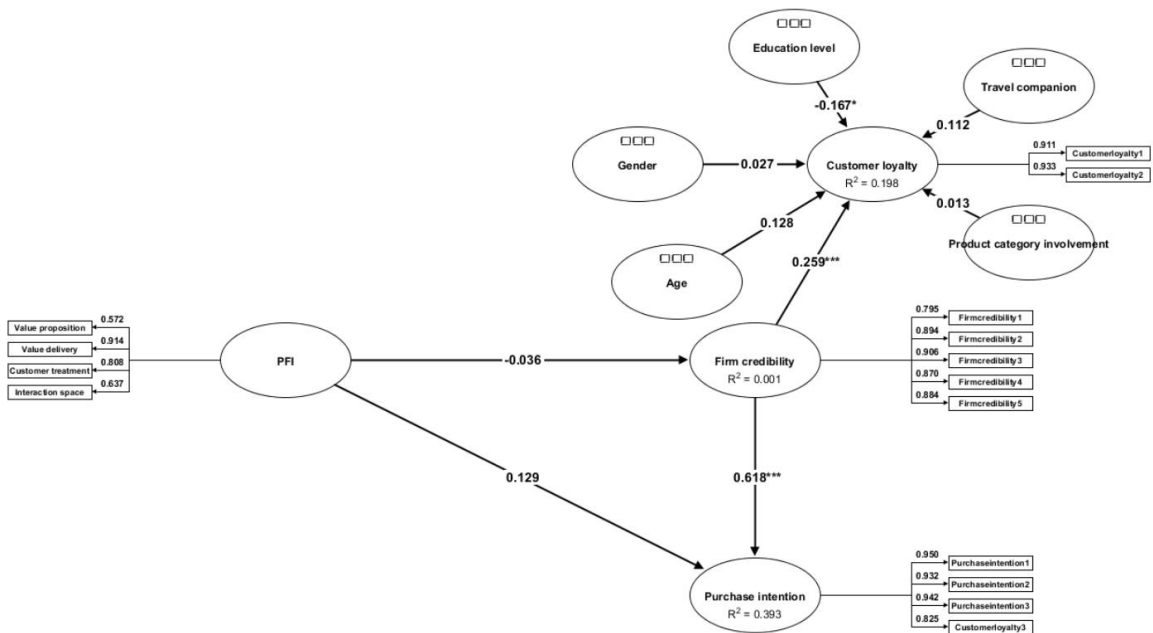
n = 182, *p* < .05

Effects of firm credibility and product category involvement on customer loyalty

	Model 1 Control variable: product category involvement			Model 2 Main effect and control variable		
	β	<i>SE</i>	<i>p</i>	β	<i>SE</i>	<i>p</i>
1.Product category involvement	.031	.107	.663	-.006	-.090	.928
2. Firm credibility				.315	.101	.000
R ² (Adjusted R ²)	.001	(-.004)		.099	(.089)	

n = 182, *p* < .05

PLS-SEM



Output effects PFI back-up scale on firm credibility and purchase intention

Regression

	<i>Simple Regression Model 1 Main effect</i>			<i>Simple Regression Model 1 Main effect</i>		
	β	SE	p	β	SE	p
1. PFI back-up scale*	.380	.076	.000			
2. PFI back-up scale**				.356	.116	.000
R ² (Adjusted R ²)	.144	(.139)		.126	(.122)	

*n = 182, p < .00, *Dependent variable: firm credibility, **Dependent variable: purchase intention*

PLS-SEM

R-Squared

Construct	Coefficient of determination (R ²)	Adjusted R ²
Firm credibility	0.1557	0.1509
Purchase intention	0.4036	0.3967
Customer loyalty	0.1237	0.1187

Direct effect	Coefficient	t-value	p-value (two tailed)	Cohen's f ²	Effect size
PFI → FC	.395	6.088	.000	.185	moderate
PFI → PI	.139	2.057	.040	.028	weak
FC → PI	.567	8.665	.000	.456	strong
FC → CL	.352	5.499	.000	.141	moderate

Indirect effect	Coefficient	t-value	p-value (two tailed)	Cohen's f ²	Effect size
PFI → FC	.224	5.155	.000	-	-
→ PI					
PFI → FC	.139	3.912	.000	-	-
→ CL					

Total effect	Coefficient	t-value	p-value (two tailed)	Cohen's f ²	Effect size
PFI → PI	.362	5.484	.000	-	-
PFI → CL	.139	3.912	.000	-	-

Influence of control variables

AGE

Effects of PFI back-up scale and age on firm credibility

	Model 1 Control variable: age			Model 2 Main effect and control variable		
	β	<i>SE</i>	<i>p</i>	β	<i>SE</i>	<i>p</i>
1. Age_2635	.046	.238	.556	.059	.222	.416
2. Age_3645	.069	.301	.367	.023	.283	.750
3. Age_4655	.199	.210	.012	.150	.197	.044
4. Age_5665+	.124	.246	.112	.110	.229	.131
5. PFI back-up scale				.364	.077	.000
R ² (Adjusted R ²)	.041	(.019)		.169	(.145)	

n = 182, *p* < .05

Effects of PFI back-up scale and age on purchase intention

	Model 1 Control variable: age			Model 2 Main effect and control variable		
	β	<i>SE</i>	<i>p</i>	β	<i>SE</i>	<i>p</i>
1. Age_2635	-,025	,352	,744	-,013	,333	,857
2. Age_3645	,135	,461	,076	,102	,438	,157
3. Age_4655	,186	,311	,018	,142	,296	,057
4. Age_5665+	,174	,364	,025	,161	,344	,028
5. PFI back-up scale				,328	,116	,000
R ² (Adjusted R ²)	.064	(.042)		.168	(.144)	

n = 182, *p* < .05

EDUCATION

Effects of PFI back-up scale and education on firm credibility

	Model 1 Control variable: education			Model 2 Main effect and control variable		
	β	<i>SE</i>	<i>p</i>	β	<i>SE</i>	<i>p</i>
1. Education_middel	-,019	,373	,806	-,019	,347	,795
2. Education_mbo	,106	,218	,195	,052	,204	,502
3. Education_hbo	,125	,180	,131	,084	,169	,280
4. PFI back-up scale				,373	,077	,000
R ² (Adjusted R ²)	.019	(.002)		.155	(.136)	

n = 182, *p* < .05

Effects of PFI back-up scale and education on purchase intention

	Model 1 Control variable: education			Model 2 Main effect and control variable		
	β	<i>SE</i>	<i>p</i>	β	<i>SE</i>	<i>p</i>
1. Education_middel	,182	,544	,016	,182	,512	,011
2. Education_mbo	,215	,317	,008	,164	,301	,030
3. Education_hbo	,239	,264	,003	,205	,249	,007
4. PFI back-up scale				,337	,115	,000
R ² (Adjusted R ²)	.075	(.059)		.186	(.167)	

n = 182, *p* < .05

TRAVEL COMPANION

Effects of PFI back-up scale and travel companion on firm credibility

	Model 1 Control variable: travel companion			Model 2 Main effect and control variable		
	β	<i>SE</i>	<i>p</i>	β	<i>SE</i>	<i>p</i>
1. Tcompanion_alleen	-,044	,376	,545	-,046	,351	,503
2. Tcompanion_partner	-,001	,187	,990	,016	,175	,831
3. Tcompanion_vriend	-,325	,189	,000	-,283	,177	,000
4. Tcompanion_anders	,087	,399	,235	,063	,374	,355
5. PFI back-up scale				,344	,074	,000
R ² (Adjusted R ²)	.118	(.098)		.234	(.212)	

n = 182, *p* < .05

Effects of PFI back-up scale and travel companion on purchase intention

	Model 1 Control variable: travel companion			Model 2 Main effect and control variable		
	β	<i>SE</i>	<i>p</i>	β	<i>SE</i>	<i>p</i>
1. Tcompanion_alleen	-,028	,569	,710	-,031	,536	,662
2. Tcompanion_partner	,044	,283	,593	,057	,267	,462
3. Tcompanion_vriend	-,296	,286	,000	-,260	,271	,001
4. Tcompanion_anders	,032	,604	,666	,008	,570	,911
5. PFI back-up scale				,328	,113	,000
R ² (Adjusted R ²)	.102	(.082)		.208	(.185)	

n = 182, *p* < .05