



REVIVING RETAILERS

The impact of individualisation and connectivity on retailing

Abstract

This paper analyses the impact of individualisation and connectivity, through self- and functional congruity, on consumer intentions in the retailing industry. An experimental setting is used to measure these constructs. The results show that both self- and functional congruity are significant mediators and that there are differences across genders. Male consumers should be approached via functional and female consumers via self-congruity, implying that retail managers need to change their retail environment to target male and female consumers more accurately.

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1 Introduction

The concept of retailing has changed thoroughly in the past decade and is expected to undergo even more changes in the near future. New trends are emerging in society, such as increased connectivity and individualisation.¹ By 2020, there will be over 5 billion internet users and 80 billion connected devices worldwide.² Next, less than 10% of retail shoppers tried customization options, but 25% to 30% are open for them.³ Hence, retailers should innovate by increasing aspects of connectivity and individualisation in their retail environment. Retailers like Albert Heijn implement some aspects of individualisation and connectivity in their store environment, for instance with contactless payment and personalised discounts. However, their current focus lies on offering more healthy products and improving its intrinsic quality.⁴ Innovating retailers outperform competitors on both online and offline revenues in recent years.⁵ Therefore, a plan of action regarding individualisation and increased connectivity needs awareness among retail managers. When their retail environment and marketing strategy are adjusted according to connectivity and individualisation, their customer satisfaction, revisit and word of mouth intention levels are expected to increase in the future. These factors significantly impact retailer revenues.⁶

The interaction between customer satisfaction, revisit and word of mouth intentions is examined in several industries (Heesup et al., 2017; Kitapci et al., 2014; Beomjoon & Beom-Jin, 2014). These variables are influenced by consumer's evaluation of the retail environment. This involves both functional and personality-related aspects, named functional and self-congruity (Juhee et al., 2015). Bosnjak et al. (2011) show a positive impact of self- and functional congruity on customer satisfaction, revisit and word of mouth intentions in the tourism sector. Bray & Berger (2008) confirm a positive impact of individualisation on consumption behaviour. However, further research in this area is strongly needed, because retail managers should be aware how to attract consumers while taking increasing individualisation and connectivity into account.

This paper examines the impact of connectivity and individualisation, via self- and functional congruity on customer satisfaction, revisit and word of mouth intentions. An online

¹ <https://dupress.deloitte.com/dup-us-en/industry/consumer-products/trends-2020.html>

² <https://www.forbes.com/sites/sarwantsingh/2014/05/12/the-top-10-mega-trends-of-the-decade/#6c0530dba62c>

³ <https://www.forbes.com/sites/baininsights/2013/11/05/having-it-their-way-the-big-opportunity-in-personalized-products/#688889aa16b9>

⁴ M. Van Gerven, personal communication, October 6, 2017

⁵ <https://www.strategyand.pwc.com/reports/only-the-innovative-survive>

⁶ <https://www.forbes.com/sites/kimberlywhitler/2014/07/17/why-word-of-mouth-marketing-is-the-most-important-social-media/#59283ec454a8>

survey-based experiment is used to question retail customers. Respondents are asked to rate their preference on a 7-point Likert-type agreement-disagreement scale, while being confronted with a new personalised or connectivity-based aspect in retail environment. Differences between male and female consumers are included in this paper. Linear regression analysis and independent samples t-tests are used to turn data into results.

This paper contributes to literature by examining self- and functional congruity in a broader context than Sirgy et al. (2000), in which only the effect of self- and functional congruity on retail patronage is examined. Extending this framework with customer satisfaction, revisit and word of mouth intentions is useful because those variables lead to direct profits for retail managers. This paper relates to the framework of Bosnjak et al. (2011), applies it to the retail industry and adds connectivity and individualisation to it. Mägi (2003) underlines this relevance by stating that improvements in store atmosphere have a large impact on retail customer satisfaction. Finally, a gender bias is examined for self- and functional congruity and word of mouth intentions, as suggested by Quester et al. (2000) and Kang et al. (2012). The research question of this paper is:

‘What is the impact of individualisation and connectivity, via self- and functional congruity, on customer satisfaction, revisit and word of mouth intentions?’

The results are useful for retail managers who aim to innovate in their retail environment and enable managers to target the individual consumer more precisely. Implementation of the outcomes of this paper enable individual targeting of consumers. Retail managers can succeed by making a distinction between highlighting personality-related and functional attributes in the retail environment for male and female consumers. Understanding the distinction and interaction of self- and functional congruity for different groups of consumers is highly important for retail managers. Next, this paper shows surprising findings concerning word of mouth intentions of consumers. Correct implementation of the findings of this paper in the retail environment strengthens customer satisfaction, revisit and word of mouth intentions of retail customers. This paper provides ways and innovative ideas in doing so.

The outline of this paper is organised as follows. In the next section the conceptual framework and literature review are presented, which is followed by the methodology and data collection process. Then, the statistical method, data and outcomes are presented. Finally, a conclusion with recommendations and limitations of this paper is discussed.

2 Literature review

This paper focuses on different literature streams in order to understand the influence of individualisation and connectivity, on customer satisfaction, revisit and word of mouth intentions in the retail industry. Firstly, the concepts of retail environment, individualisation and connectivity are discussed. Secondly, the theories of self-congruity and functional congruity are highlighted. Self- and functional congruity are expected to be reliable predictors of consumer intentions. Thirdly, the theories of customer satisfaction, revisit intentions and word of mouth intentions are discussed. Finally, a gender bias is expected for self- and functional and word of mouth intentions. Literature suggests that male and female consumers should be addressed differently. Hypotheses are derived from each of the theories.

2.1. Conceptual Framework

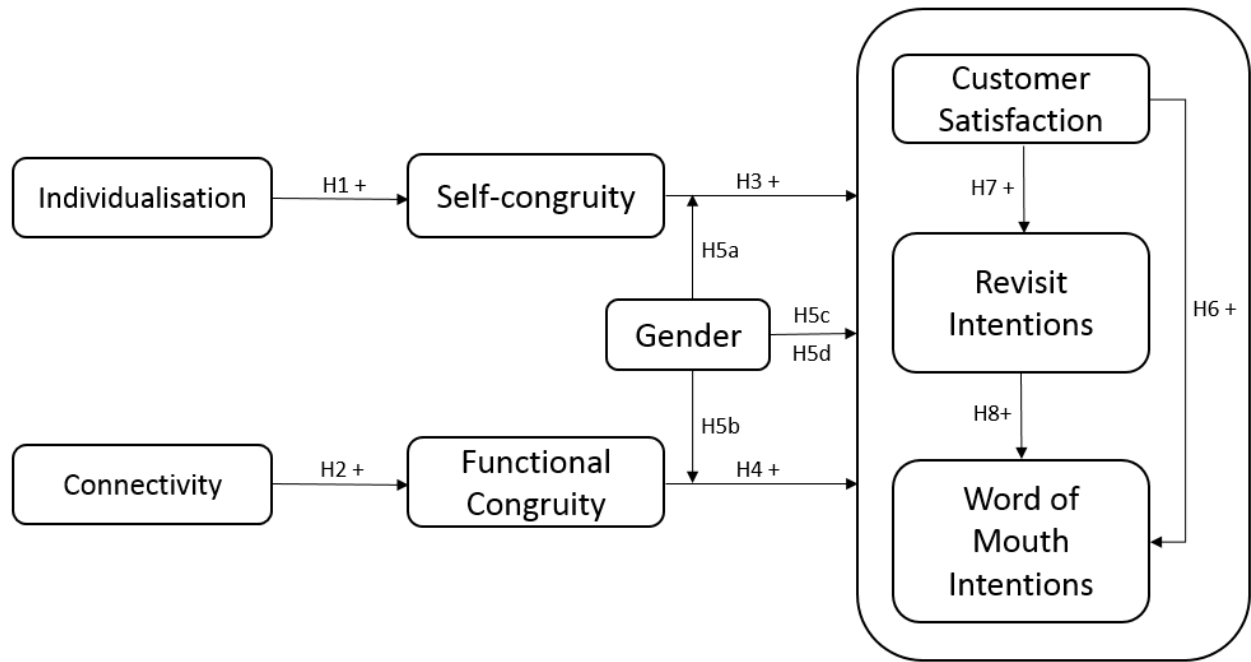


Figure 1. The conceptual framework consists of several variables. First, the treatments based on several forms of individualisation and connectivity in the retail environment, which go through self- and functional congruity in order to have a positive impact on customer satisfaction, revisit and word of mouth intentions. Next, customer satisfaction influences revisit and word of mouth intentions positively. Furthermore, revisit intentions influences word of mouth intentions positively. Finally, a gender bias is expected for self- and functional congruity and word of mouth intentions.

2.2. Retail Environment, Connectivity and Individualisation

Consumers evaluate a retail store based on its retail environment. This knowledge allows retailers to adjust this environment to influence consumer behaviour. To stay ahead of competition, retailers should take connectivity and individualisation into account and adjust their retail environment accordingly. The concept of retail environment is discussed in this section, along with the concepts of connectivity and individualisation.

2.2.1. Retail Environment

A retail environment is described as a blend of informational aspects that consumers turn into impressions of the retail store. The concept of retail environment is divided into several variables. Both based on Sirgy et al. (2000) and real business cases, the following variables of retail environment are used: store atmospherics, price, product, connectivity, service and promotion. They are linked to a specific implementation in the retail environment, which is discussed in the data section.

These aspects of retail environment influence consumer's buying behavior (Swinyard, 1995; Kang et al., 2012). They also have a direct impact on self-congruity (Graeff, 1996; Sirgy et al., 2000; Yu et al., 2013) and functional congruity (Sirgy et al., 1991; Hohenstein et al., 2007; Puccinelli, et al., 2009; Lee & Hyman, 2008) of consumers. This relationship doesn't work the other way around, because retail environmental cues are given in this situation. Furthermore, Baker et al. (2002) show a positive impact of retail environmental cues on revisit intentions, via self- and functional congruity. This relationship is also shown in other papers (Sirohi et al., 1998; Koo, 2007; Kaltcheva & Weitz, 2006).

Concludingly, aspects in the retail environment influence self- and functional congruity of consumers. The survey interventions regarding the aspects in retail environment are based on both connectivity and individualisation. The next paragraph explains the definition of connectivity and individualisation and provides examples of successful implementations of both in the retail environment of multinational companies.

2.2.2. *Connectivity & Individualisation*

Global trends are described as combined actions of individuals. Whether global trends endure for a longer time period, depends if changes in individual behaviour are converted into policies. These policies increase relevant actions concerning the trend (Donaghy et al., 2004). Technological advancement is seen as the biggest ongoing global trend, which is divided in this paper in connectivity and individualisation.

Firstly, increasing connectivity is discussed. New media become increasingly familiar and lead to higher adaptation among individuals and groups. They form a critical channel to maintain work and private relations in everyday life. Common households are increasingly using wireless home networks and electronic devices. Also, devices are more and more connected to other devices (Wellman & Haythornthwaite, 2008). An example of how this trend improves a business model is the Pre-order and Pay innovation of Starbucks, which increased the functional related attributes of the brand Starbucks. About 21% of Starbucks transactions are done via the mobile app, with an estimated 11 million users currently for the Starbucks mobile application.⁷ Connectivity-based interventions in retail environment are of utilitarian origin, because they are objective, rational, economic, functional and concrete consumer elements (Williams, 2002). On the other hand, there are no findings in literature which suggest an effect of connectivity on hedonic purchase dimensions. Therefore, connectivity links to functional congruity, not to self-congruity.

Secondly, individualisation is discussed. This concept is explained as the shift of industrial society ways of life by new ones, in which an individual produces his own biography (Beck, 1994). The structuring role that social classes previously had is no longer existing. Individuals are nowadays able to shape their own future (Brannen & Nilsen, 2005). This results in the formation of new consumption patterns, with a focus on consumer desire (Bauman, 2001). Individualisation changes business models, for example the personalisation strategy of Netflix. The website collects data on the consumer's watching behaviour in order to accurately recommend movies or series to the individual consumer. This technique increased the personality-related attributes of the brand Netflix.⁸ Personalised interventions in retail environment are of symbolic origin, because they

⁷ <https://www.digitalturbine.com/blog/starbucks-a-case-study-in-effective-mobile-app-marketing/>

⁸ <https://www.forbes.com/sites/chuckcohn/2015/05/22/strategies-to-offer-personalized-versions-of-your-product-or-service/#47a369f76b1d>

address the individuals' need to find a match between his self-concept and typical user's personality of a brand (Aaker, 1997). The latter paragraphs suggest the following hypotheses:

H1: An addition of a personalised treatment in retail environment has a positive impact on self-congruity.

H2: An addition of a connectivity-based treatment in retail environment has a positive impact on functional congruity.

2.3. Self- and Functional Congruity

Congruity theory is previously applied in social psychology to examine memory and attitude formation (Solomon et al., 1996). The congruity model is originally formulated as an explanation for the change in attitude when a source is connected to a certain attitude object. Statements regarding objects are called associative when it concerns a positive connection and dissociative concerning a denial of a connection. Also, congruity theory explains the evaluation of both the source and the object by an individual's attitude (Shaver, 1987).

There are antecedents of customer satisfaction, which could replace the theory of congruity in this model. Firstly, the theory of stated preference, in which consumers present their preference regarding a choice (Adamowicz et al., 1998). Secondly, the theory of confirmation and disconfirmation, which explains the comparison between experienced quality and the individual's norm or standard. Any perceived inconsistency between the two results in higher or lower satisfaction (Oliver, 1980; Anderson, 1994). Both alternatives don't fit in this model, because they don't measure where satisfaction or dissatisfaction comes from. The theory of congruity shows for instance that customer satisfaction follows from the functional attributes of the brand.

2.3.1. Self-congruity

Self-congruity is used to examine the symbolic meaning of a product. Individuals evaluate products as symbols in order to express characteristics of themselves (Grubb & Stern, 1971). Self-congruity is defined as a comparison between an individual's self-concept and a typical user's personal characteristics concerning a brand (Aaker, 1997). Self-concept is described as a combination of beliefs and attitudes concerning the self (Rosenberg, 1979). This combination of

beliefs entails an individual's perception concerning their own limitations, characteristics, abilities, and personality. There are two forms of self-concept used in this context. Sirgy et al. (2000) define actual self-image congruity as a comparison of an individual's actual self-image and the image of the retail store. They describe ideal self-image congruity as the comparison between an individual's ideal image and the image of the store.

Self-congruity predicts behaviour of consumers (Sirgy et al., 1991). Consumer behaviour entails a search for information, in-store shopping, comparison of price and brand and the use of products. Previous studies have shown that the impact on consumer behaviour is higher when there is a greater match between the consumer's self-concept and the personality of a typical user of a brand. Examples of studies about the consumer's self-concept are found in the automobile (Ericksen, 1997), tourist (Usakli & Baloglu, 2011), sponsorships (Mazodier & Merunka, 2012) and coffee shop industries (Kang et al., 2012).

There is a gap in empirical research when the effects of self-congruity on customer satisfaction, revisit intentions and word of mouth intentions are considered in the retail sector. The study of Bosnjak et al. (2011) shows a positive impact of self-congruity on customer satisfaction, revisit intentions and word of mouth intentions in the tourism industry. Furthermore, Jamal & Goode (2001) find that self-congruity has a positive impact on customer satisfaction in the jewellery industry.

Self-congruity has a positive impact on revisit intentions, which is researched in the retail industry (Das, 2014), luxury brand sector (Liu et al, 2012), car industry (Kressmann, et al., 2006), sponsorships (Mazodier & Merunka, 2012) and the lodging industry (Han & Back, 2008). Furthermore, self-congruity leads to positive word of mouth intentions with regards to sponsorships (Sirgy et al., 2008), tourist destinations (Usakli & Baloglu, 2011) and consumer brands (Sirgy et al., 2016). Therefore, the third hypothesis is constructed as follows:

H3: An increase in self-congruity has a positive impact on customer satisfaction, revisit and word of mouth intentions.

2.3.2. *Functional Congruity*

Functional congruity explains the evaluation between the perceived and desired functional aspects of an individual (Sirgy & Johar, 1999). Functional characteristics are a benchmark to evaluate a brand's real performance (Keller, 2001). They form the heart of a brand, also known as utilitarian aspects. Examples of these aspects are objective, rational, economic, functional and concrete consumer evaluations (Williams, 2002). The goal of the functional aspects is to diminish suffering and enlarge reward regarding a brand (Shavitt, 1992). A higher utilitarian congruence of a consumer's encounter with a brand entails an increasingly positive attitude of the consumer towards the brand (Sirgy et al., 1991).

Functional congruity is a predictor of consumer behaviour and intentions. Previous studies have shown that the impact on consumer intentions is higher when the fit between the individual's belief and ideal utilitarian aspects is higher. Examples of studies are preferences in search for a house (Sirgy et al., 2005), cruising intention (Hung & Petrick, 2011), advertising (Johar & Sirgy, 1991) and label branding (Lee & Hyman, 2008).

Functional congruity influences more aspects of post-purchase behaviour. Hohenstein et al. (2007) show a positive effect of functional congruity on revisit intentions in the automotive industry. This relationship is confirmed by other studies in different industries (Bosnjak et al., 2011; Kressmann et al., 2006; Sirgy et al., 2000). Kim et al. (2011) finds a positive relationship between functional congruity and word of mouth intentions in the restaurant sector, with revisit intentions as a mediating variable. Bosnjak et al. (2011) find a positive relationship between functional congruity and customer satisfaction, revisit intentions and word of mouth intentions in the tourism industry. There is a gap in empirical research when the impact of functional congruity on customer satisfaction, revisit intentions and word of mouth intentions in the retail sector is considered. Therefore, the fourth hypothesis is constructed as follows:

H4: An increase in functional congruity has a positive impact on customer satisfaction, revisit and word of mouth intentions.

2.4. Gender Bias

Literature suggests that there is a gender bias regarding congruity. Quester et al. (2000) and Kang et al. (2012) state that further research should examine the role of gender in self- and functional congruity. Male and female consumers react differently on self- and functional congruity. This is expressed through masculinity and femininity in marketing research. This expression is reached through brand choice (Dolich, 1969). Therefore, shopping behaviour is different for male and female consumers (Dholakia, 1999). Male consumers emphasize effectivity in shopping more than female consumers, they prefer to spend as little time and put in as minimum effort as possible when they shop (Bakewell & Mitchell, 2006). Therefore, it is expected that male consumers are more attracted to utilitarian aspects of a brand, compared to symbolic aspects. On the other hand, female consumers are more involved in shopping and find symbolic aspects more important determinants of shopping compared to male consumers (Gąsiorowska, 2011). To summarize, literature suggests that female consumers have higher levels of customer satisfaction, revisit intentions and word of mouth intentions through self-congruity, whereas male consumers should be addressed via functional congruity. Separating these constructs leads to more specific suggestions for retail managers when it comes to adjustments regarding connectivity and individualisation in their retail environment. Therefore, the fifth hypothesis is constructed as follows:

H5a: An increase in self-congruity has a higher positive impact on customer satisfaction, revisit and word of mouth intentions for female compared to male individuals.

H5b: An increase in functional congruity has a higher positive impact on customer satisfaction, revisit and word of mouth intentions for male compared to female individuals.

Next to the gender bias in congruity, there also appears to be a gender bias in the impact on word of mouth intentions. Female consumers put a greater emphasis on online word of mouth behavior compared to male consumers. Male individuals are more pragmatic, while females are more emotionally involved concerning shopping (Fan & Miao, 2012). Also, there is a bigger impact of group affiliation on word of mouth intentions for female individuals, who are more communal in nature compared to male individuals (Swanson et al., 2003). Doing groceries is viewed as a communal experience, therefore this paper expects a bigger positive impact from

customer satisfaction and revisit intentions on word of mouth intentions for female individuals. This leads to the following hypotheses:

H5c: Customer satisfaction has a bigger positive impact on word of mouth intentions for female individuals compared to male individuals.

H5d: Revisit intentions has a bigger positive impact on word of mouth intentions for female individuals compared to male individuals.

2.5. Consumer Intentions

The direct value for retailers depends upon intentions and actions of consumers. In this paper, consumer intentions are addressed because hypothetical treatments are implemented in this research, which makes it impossible to measure real consumer behavior. Three subgroups of consumer intentions are discussed: customer satisfaction, revisit intentions and word of mouth intentions.

3.5.1. Customer Satisfaction

Customer satisfaction influences whether the customer becomes loyal to a brand, which increases future revenues. It is defined as the match between perceived performance and previous expectations concerning a product. When performance is perceived higher than the level of previous expectations, then positive disconfirmation arises, which leads to satisfaction. Lower performance than expectations lead to negative disconfirmation, which leads to dissatisfaction of the individual (Oliver et al., 1997). Recent experiences with a product influence current expectations heavily (LaTour & Peat, 1979). Customer satisfaction consists of perceived quality and perceived value (Fornell et al., 1996). Fornell (1992) describe customer satisfaction as a comprehensive meaning of post purchase assessment (Fornell, 1992).

Customer satisfaction has a potential influence on consumer behavioural intentions and customer revisit intention (Anderson & Fornell, 1994). Increasing customer satisfaction leads to future profitability and higher value of a firm's customer assets (Anderson et al., 1994). Studies about customer satisfaction are conducted in a broad range of areas, like the fast food industry

(Cronin et al., 2000), restaurants (Saad Andaleeb & Conway, 2006), retail banking (Jamal & Naser, 2002) and hotel industry (Barsky, 1992).

Customer satisfaction leads via customer revisit intention to profits. The positive impact of customer satisfaction on revisit intention is confirmed by several papers (Kandampully & Suhartanto, 2000; Gronholdt et al., 2000; Homburg & Giering, 2001; Caruana, 2002; Kim et al., 2004). Customer revisit intention isn't the only variable which is affected by customer satisfaction. Satisfied customers are known to engage in positive word of mouth, therefore word of mouth intention by consumers is also positively influenced by customer satisfaction. This effect is proven by several papers (Anderson, 1998; Söderlund, 1998; Ranaweera & Prabhu, 2003; Babin et al., 2005; Wangenheim & Bayón, 2007). There is a gap in empirical research when the effects of customer satisfaction on revisit intentions and word of mouth intentions are considered in the consumer retail industry. Therefore, the sixth and seventh hypotheses are constructed as follows:

H6: Customer satisfaction has a positive impact on word of mouth intentions.

H7: Customer satisfaction has a positive impact on revisit intentions.

Shankar et al. (2003) suggest that revisit intentions influences satisfaction heavily. This result is consistent with the findings of Oliver (1999), who suggests that loyalty intentions strengthen satisfaction. However, this paper only examines the impact of satisfaction on revisit intentions, because this impact is more widely supported in literature. This two-sided relationship doesn't work for word of mouth intentions and customer satisfaction. According to several studies, there is no proof that word of mouth intentions lead to customer satisfaction (File & Prince, 1992; Babin et al., 2005).

2.5.2. Customer Loyalty & Revisit Intentions

Customer loyalty entails returning customers, who provide the retailer with a perpetual stream of income. Customer loyalty relates to higher profitability (Heskett et al., 1994; Mägi, 2003). Also, maintaining loyal customers is six to seven times cheaper compared to acquiring new customers.⁹ Customer loyalty is described as the weight of the affiliation between an individual's attitudes and repurchase behaviour (Dick & Basu, 1994). Loyalty behaviour indicates that an individual prefers

⁹ <https://www.forbes.com/sites/alexmcclafferty/2015/10/01/customer-satisfaction/#4ce156be2b9e>

a certain amount of value from one entity over another entity (Reichheld & Sasser, 1990). Customer loyalty is defined in two ways. The first way defines loyalty as an attitude. A broad body of feelings influence the overall attachment of an individual to a service or product (Fournier, 1994). This defines the individual's rate of loyalty. The second definition of loyalty is behavioural. Examples of loyalty behaviour include visiting the same supplier over and over again and enlarging the size of this relationship (Yi, 1990). Some papers refer to customer retention as customer loyalty. Customer retention is explained as a business relationship between the individual and the supplier (Gerpott et al., 2001). Gremler & Brown (1996) describe customer retention as the behavioural side of customer loyalty. In this paper, loyalty intentions of consumers are examined and therefore named as the attitudinal form: revisit intentions.

If a consumer has strong revisit intentions, it should be reflected in the firm's future economic returns because it leads to a steady stream of future cash flows. Customers are more likely to continue to purchase from the same supplier when their intention to revisit this supplier is high. As discussed above, loyalty creates increased profit through constant revenues, reduced costs to acquire new customers and less costs to serve current customers, who are already familiar with the offerings of a firm (Reichheld & Sasser, 1990). The result of the expected surplus from loyal customers reflects their individual value to the retail shop. Studies about customer loyalty are conducted in a broad range of areas, like e-commerce (Srinivasan et al., 2002), hotel industry (Kandampully & Suhartanto, 2000), retail banking (Rust & Zahorik, 1993) and mobile commerce (Lin & Wang, 2006).

Bosnjak et al. (2011) show a positive effect of revisit intentions on word of mouth in the tourism industry. This relationship is also shown in the e-banking industry (Casaló et al., 2008), retail industry (Bettencourt, 1997), e-commerce (Reichheld & Schefter, 2000) and automotive industry (Brown et al., 2005). This is interesting because higher revisit intentions lead to increased profits from loyal customers, while word of mouth can also affect future profitability of potential customers. Therefore, it is relevant to add these variables to the framework of this paper. There is no evidence in literature that word of mouth intentions affect revisit intentions. Therefore, the eighth hypothesis is constructed as follows:

H8: Revisit intentions has a positive impact on word of mouth intentions.

2.5.3. *Word of Mouth Intentions*

Word of mouth is the most valuable form of marketing and has a significant impact on retail revenues.¹⁰ Word of mouth is described as informal communication or connection between several individuals, including a non-commercial communicator and a receiver, regarding a brand, service or product (Buttle, 1998). Word of mouth by individuals result from consumption (dis)satisfaction (Oliver, 1980). Dissatisfied individuals perform more word of mouth compared to satisfied individuals (Anderson, 1998). Positive word of mouth entails communicating happy, vivid or new experiences and recommendations to other individuals. Word of mouth is divided into behaviour and intention. Word of mouth behaviour concerns the amount of provided referrals, whereas word of mouth intention measures an individual's likelihood to provide recommendations to others (Wangenheim & Bayón, 2007). In this paper word of mouth intention is used, because consumers are questioned regarding hypothetical changes in retail environment. Therefore, they can only provide intentions to provide referrals.

Word of mouth referral has a major influence on attitudes and behaviours of other individuals (Brown & Reingen, 1987). Already in 1955 researchers stated that word of mouth is seven times more effective than newspaper and magazine advertising, four times more effective compared to personal selling, and twice as effective as radio advertising in pressuring individuals to buy other brands (Katz & Lazarfeld, 1955). A second study finds that word of mouth has nine times a bigger impact compared to advertising when changing negative into positive beliefs (Day, 1971). Murray (1991) suggests that positive word of mouth is the best marketing tool for brands, because personal communication is seen as a reliable source. The paper of Heskett et al. (1997) suggests that satisfied customers are prone to tell five other individuals regarding their experience with customer service. Studies about word of mouth are conducted in a broad range of areas, like the movie (Duan et al., 2008), hotel bookings (Ye et al., 2011), book (Chevalier & Mayzlin, 2006) and automobile industry (Brown et al., 2005).

¹⁰ <https://www.forbes.com/sites/kimberlywhitler/2014/07/17/why-word-of-mouth-marketing-is-the-most-important-social-media/#59283ec454a8>

3 Methods

This study examines the effect of increased self- and functional congruity on customer satisfaction revisit intentions and word of mouth intentions. This study has a quantitative approach. An online survey is used to measure these variables and treatments in the retail environment. An independent samples t-test and linear regression analysis are used to analyse the effect size of the beforementioned variables. The goal of this test is to examine consumer evaluations of treatments in the retail environment, based on connectivity and individualisation.

3.1. *Survey Design*

The respondents are asked to rate 25 questions on a 7-point Likert scale in an online survey. Likert scales are useful to provide a respondent the opportunity to indicate his opinion on a statement. The higher the score, the more he agrees (Zikmund et al., 2013). The seven-point scale reaches the maximum level of measurement reliability (Nunnally, 1978). Extending the scale could provide an issue when giving too many possible choices for respondents. Therefore, measurement quality improves up to a 7 point scale, but beyond information gets lost, because each additional scale point tends to mean less. Also, respondents could be less motivated to take questions seriously if they have to make a choice along a scale with many numbers (Alwin, 1997). The survey is shown in Appendix A.

3.2. *Research Design*

This research collects primary data from 370 respondents using an online questionnaire. The questionnaire contains both questions on the variables and demographic questions. The questions in the survey are derived from Bosnjak et al. (2011), Sirgy et al. (1991) and Maxham & Netemeyer (2002). Respondents are randomly assigned to either the control group without a treatment or one of the six groups including a treatment. Respondents are required to answer the questions, while taking the presence of the treatment into account. An introductory text explains the picture of the treatment clearly to the respondent, for it to be able to imagine the treatment in the retail environment of his or her favourite supermarket. The text and corresponding image are repeated

several times to ensure that respondents continually consider the new information in their choices. As a sampling method, this study uses convenience sampling, which involves a sample that is easily accessible and respondents who are willing to participate in the study (Teddlie & Yu, 2007). A high number of respondents is required because the seven separate groups of respondents need to contain a significant number of respondents to provide reliable outcomes using statistics. Convenience sampling is prone to the non-random sampling bias, meaning that the sample doesn't represent the entire population. However, the technique is optimal when the researcher encounters time limitations (Etikan et al., 2016).

3.3. *Treatments*

Table 1 shows the treatments, which are used in the survey and correspond to either connectivity or individualisation. Treatment two and five are individualisation based treatments, while the remaining ones are linked to connectivity. The treatments are based on both the environmental aspects as discussed in Sirgy et al. (2000) and real business cases, as shown in respectively the first and third column of table 1. Business cases are used to show the current success of the treatment in another industry. Respondents are randomly assigned to one of the treatments, which is repeatedly shown throughout the survey. Images and corresponding texts of the six treatments are shown in Appendix B.

Table 1. The retail environmental aspects with an explanation of the treatments. The corresponding business case is named.

<i>Environmental aspect</i>	<i>Treatment</i>	<i>Business case</i>
<i>Store atmospherics</i>	Scan or press product price tag to see detailed product information on a screen.	<i>Starbucks</i>
<i>Product</i>	A personalised dinner suggestion is shown if you scan your loyalty card.	<i>Netflix</i>
<i>Connectivity</i>	Mobile payment option.	<i>Wal-Mart</i>
<i>Service</i>	Pre-order and pay groceries, pick them up when you arrive at the supermarket.	<i>Starbucks</i>
<i>Promotion</i>	A personalised product offer or discount is shown when you enter the retail store and scan your loyalty card.	<i>McDonalds</i>
<i>Price</i>	(Two-)weekly product subscription.	<i>Gillette</i>

3.4. Statistics

3.4.1. Independent Samples t-test

This test is used to test the first and second hypothesis. The independent samples t-test is a good fit for these hypotheses, because the independent variable is a categorical variable and the dependent variable concerns an interval variable (Janssens et al., 2008). Furthermore, the sample consists of independent sub-samples for which the difference in means are measured. Differences in means of groups with a new aspect in retail environment are compared to the control group to answer the first and second hypothesis. An independent samples t-test is commonly used in retail store evaluation research (Dubé & Morin, 2001; Henriksen et al., 2004; Liu et al. 2007). This research tests for two assumptions of the independent samples t-test. First, both distributions should be normal and second, they have common variances. This test has the following notation:

$$t = \frac{\bar{y}_1 - \bar{y}_2}{s} \sqrt{\frac{n_1 n_2}{n_1 + n_2}}$$

Where \bar{y} denotes the mean for each sample, s denotes the standard deviation and n the amount of observations (Rasch et al., 2011).

The test for common variances has the following notation:

$$\sigma_1^2 = \sigma_2^2$$

Where σ_x^2 denotes the variance of each sample (Snedecor & Cochran, 1989).

3.4.2. Linear Regression Analysis

Linear regression analysis is used to test hypotheses three to eight. Linear regression analysis is commonly used to determine the effects of both self- and functional congruity on consumer behavior (Sirgy et al., 1991; Sirgy & Johar, 1999; Ibrahim & Najjar, 2007). Also, Linear regression analysis is a good method for analyzing the effects between customer satisfaction, revisit intentions and word of mouth intentions (Bloemer & De Ruyter, 1998; Gronholdt et al., 2000; Anderson & Srinivasan, 2003). Linear regression analysis is a good fit for this framework because for each hypothesis both the dependent and the independent variables are interval-scaled. Logistic linear regression is also used in studies with self- and functional congruity, but then in the situation where the dependent variable is a categorical one (Janssens et al., 2008). Linear regression analysis is performed in three steps. First, the assumptions of linear regression analysis are checked. Secondly, the meaningfulness of the model is checked at the significance of the ANOVA table. Thirdly, the coefficients are interpreted, which are obtained for the independent variables. The notation of linear regression analysis is as follows:

$$Y_i = \beta_0 + \beta_1 X_{i1} + \beta_2 X_{i2} + \dots + \beta_p X_{ip} + \varepsilon_i$$

Where Y_i is the dependent variable, β_0 stands for the constant term, β_i denotes the coefficient of the first independent variable (X_{i1}) and ε_i is the error term. i stands for the observation and p denotes the number of independent variables (Rawlings et al., 2001).

4 Data

This chapter reviews the collected data in this paper. Firstly, the descriptive statistics of the data are discussed. Secondly, the measurement definition of the variables is outlined.

4.1. Descriptive Statistics

For this research, 429 responses are collected of which 370 responses are complete and used for data analysis. An error occurred using Qualtrics on one specific day, which provided almost all useless responses. The remaining useless responses are due to a lack of incentive for filling in the survey. Respondents are randomly divided into six treatment groups or in the control group. There are 191 male and 179 female respondents, 84% of the respondents is between 18 and 24 years old.

The variables are measured using multi-item scales. These constructs are examined on reliability using Cronbach's Alpha scores. A satisfactory score denotes a high reliability of the measure, which means that the variable measures what it requires to measure (Tavakol & Dennick, 2011). After removing one question from the revisit intentions construct, all constructs passed the minimum level recommended by Janssens et al. (2008) of 0.6. This question had a major negative effect on the Cronbach's Alpha in this category. Therefore, all categories have sufficient measurement reliability in this paper.

Table 2. Cronbach's Alpha of each variable of the control group

<i>Variable</i>	<i>Cronbach's Alpha</i>
<i>Self-congruity</i>	0.602
<i>Functional congruity</i>	0.776
<i>Satisfaction</i>	0.845
<i>Revisit intentions</i>	0.604*
<i>Word of mouth intentions</i>	0.873

* Item 4 is deleted from this variable due to a major negative effect on the Cronbach's Alpha.

4.2. *Definition of Variables*

For all variables, it is indicated how they are measured. These findings lead to the conductance of the questionnaire, which is shown in Appendix A.

4.2.1. *Self-congruity*

Self-congruity describes the extent to which a consumers' actual and ideal self-concept equal the brand personality of the aspect of retail environment. Therefore, subjects reflect the brand, its typical user and beliefs of other individuals about the aspect in retail environment to themselves. This results in a possible match in how they see themselves and the aspect in retail environment (Bosnjak et al., 2011). There are two forms of self-concept in this paper. Sirgy et al. (2000) define actual self-image congruity as the possible match between a consumer's actual self-image and the image of a store, while the ideal self-image congruity is defined as the possible match between a consumer's ideal image and image of a store. The measurement of Bosnjak et al. (2011) is used to measure both forms of self-congruity, where subjects are asked to take a moment and think of three characteristics of the typical visitor of their favourite supermarket before answering the questions. Bosnjak et al. (2011) provide a sufficient Cronbach's Alpha for self-congruity in their research and state that the measurement instruments for self-congruity are well grounded in previous literature. Self-congruity is measured as an interval variable, using four items as a measurement. Subjects are asked to rate each question on a Likert scale from 1 (strongly disagree) to 7 (strongly agree).

4.2.2. *Functional Congruity*

The concept of functional congruity is defined as the possible match in the perceived and desired functional aspects of a brand (Sirgy & Johar, 1999). Functional aspects are used to evaluate the actual performance of a brand, also known as utilitarian aspects (Keller, 2001). The utilitarian aspects are described as objective, rational, economic, functional and concrete purchase characteristics (Williams, 2002). These characteristics reflect perceived aspects, for instance quality, reliability, convenience, and customer service (Johar and Sirgy, 1991; Mangleburg et al.,

1998). Sirgy et al. (1991) measure functional congruity using a multi-attitude model, which is named the belief-importance model:

$$\sum_{i=1}^n B_i I_i$$

In this formula, B is the strength of belief of attribute i and I is the weight of importance of attribute i (Sheth & Talarzyk, 1972). A higher outcome of this measurement provides a higher score for functional congruity. Functional congruity is measured on a 7 point Likert scale, in a way that respondents evaluate each utilitarian aspect regarding their desired level of the functional characteristics. The Belief scale ranges from 1 (strongly disagree) to 7 (strongly agree), whereas the Importance scale ranges from 1 (very unimportant) to 7 (very important). Functional congruity is calculated by taking the Belief outcome times the Importance outcome for each respondent (Sirgy et al., 1991). This variable is measured as an interval variable, using four constructs for both the Belief and Importance measurement. The authors provide several sources for their statement that this measurement instrument is well grounded in previous literature. They also state a high reliability coefficient for these indicators, which indicates high internal consistency among the constructs.

4.2.3. Customer Satisfaction

Customer satisfaction is defined as the result of comparing the perceived performance and currently held expectations about the product. Therefore, subjects are asked about their retail experience, while evaluating the aspect of retail environment. This results in (dis)confirmation of previous expectations, which leads to a level of customer satisfaction. Questions about customer satisfaction are based on the paper of Bosnjak et al. (2011). The researchers state sufficient Cronbach's Alpha for the measurement instrument of customer satisfaction and revisit intentions. This variable is measured as an interval variable, using six items as a measurement. Furthermore, the authors provides previous academic literature on which they base this measurement. Customer satisfaction is measured on a 7 point Likert scale from 1 (strongly disagree) to 7 (strongly agree).

3.2.4. Revisit Intentions

The concept of revisit intentions is defined as the connection between a consumer's relative belief and revisit intentions (Dick & Basu, 1994). Revisit intentions result from individual's expectation that the value received from one entity is greater than from another entity (Reichheld & Sasser, 1990). Revisit intentions are measured in a several studies by both behavioural intention and expectation, defined as both interest and likelihood (Triandis, 1979; Anderson, 1983). This variable is measured as an interval variable, using three items as a measurement. Questions about revisit intentions are based on the paper of Bosnjak et al. (2011), and measured on a Likert scale from 1 (Strongly disagree) to 7 (strongly agree).

3.2.5. Word of Mouth Intentions

Word of mouth is defined as informal communication among several individuals, with a non-commercial communicator and a receiver. Communication is regarding a brand, product, organization, or service (Buttle, 1998). Word of mouth communication by individuals results from consumption (dis)satisfaction (Oliver, 1980). Word of mouth intentions measures an individual's likelihood to recommend to other individuals (Wangenheim & Bayón, 2007). Questions about this variable are based on the paper of Maxham and Netemeyer (2002), and are measured on a Likert scale from 1 (Strongly disagree) to 7 (strongly agree). The researchers state sufficient Cronbach's Alpha for the measurement instrument of word of mouth intentions. This variable is measured as an interval variable, using three items as a measurement. The average of all items is taken to determine the score per respondent for each variable.

5 Results

This section presents the results of the linear regression analysis and independent samples t-tests. The coefficients of the variables are interpreted and discussed. Furthermore, results are compared with previous research in the field of retail marketing.

5.1. Interpretation of the Results

Table 3 presents the estimated correlation among the variables. The largest correlation coefficient is 0.661 regarding customer satisfaction and word of mouth intentions. This shows that consumers, who are satisfied with the environment of a retail store are also willing to provide word of mouth to others about the store in approximately 66% of the time. Next, customer satisfaction correlates for 0.579 with revisit intentions. Finally, revisit intentions correlate for 0.548 with word of mouth intentions. Furthermore, the correlation coefficients of self-congruity with other variables provide relatively low values, while functional congruity correlates higher with the other variables. For instance, consumers who experience high utilitarian value from the environment of a retail store, are satisfied with the store in approximately 60% of the time. The values in table 3 are all significant, however this does not indicate a problem. The values do not signify multicollinearity, because the variance inflation factor (VIF) scores of these variables are between 1 and 2 (Janssens et al., 2008).

Table 3. The estimated correlation among the variables using the full sample of respondents

<i>Self-congruity</i>	1	0.325*	0.410*	0.373*	0.357*
<i>Functional Congruity</i>		1	0.571*	0.604*	0.478*
<i>Customer Satisfaction</i>			1	0.579*	0.661*
<i>Revisit Intentions</i>				1	0.548*
<i>Word of Mouth Intentions</i>					1

* denotes a significant correlation at the 0.01 level

Figure 2 shows differences in self-congruity and functional congruity regarding male and female individuals. The results of the independent samples t-test partly underline the prediction for this topic, given in the literature review. Male individuals report on average a value of 3.516 for self-congruity, whereas female individuals report 3.788. For functional congruity, male individuals report on average a score of 5.524, whereas female individuals report on average 5.495. 191 male and 179 female individuals are used in this test. This paper finds a significant higher score for female individuals regarding self-congruity compared to male individuals, whereas male individuals don't have a significantly higher score regarding functional congruity.

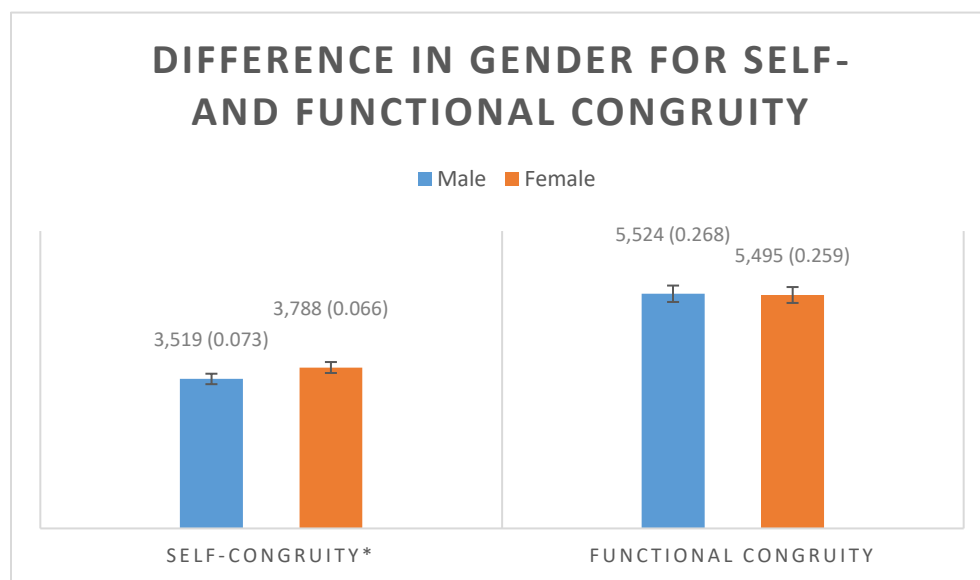


Figure 2. Difference in gender for self- and functional congruity. The Y axis denotes the score of all male or female respondents, while the X axis displays whether this is for self- or functional congruity. Means are given on top of each bar with their standard error between brackets. Self-congruity is marked with an asterisk because there is a significantly higher value for female individuals compared to male individuals at the 0.05 level.

Figure 3 reports the first and second hypotheses, describing whether an increase in personalised and connectivity-based suggestions entails a positive impact on self- and functional congruity. Provided means are compared to the control group. The results of the independent samples t-test provide one significant result, which is treatment group five for functional congruity. Scanning the product tag for more information leads to significant lower functional congruity for retail consumers compared to the situation without this connectivity-based suggestion. This treatment provides a mean value which is 1.535 points lower compared to the control group, with a standard

error of 1.179. Other treatments provide no significant difference with the control group for both self- and functional congruity.

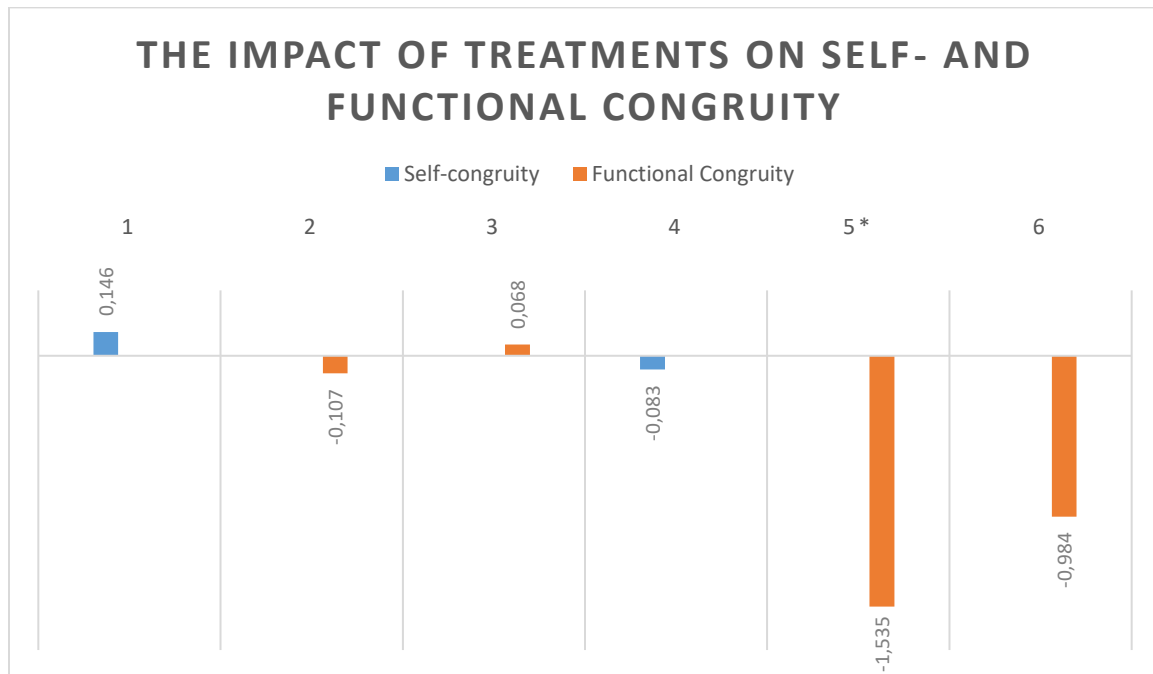


Figure 3. The impact of treatments on self- and functional congruity. The Y axis denotes the difference in score between the control group and each treatment for self- and functional congruity, while the X axis displays the treatments. The treatments are (1) Personalised dinner suggestion, (2) Mobile payment option, (3) Pre-order and pay, (4) Personalised product offer, (5) Scan product tag for more information and (6) Subscription option. Treatment five is marked with an asterisk because there is a significantly lower value for this treatment compared to the control group at the 0.05 level.

Table 4 reports hypotheses three and four, describing whether an increase in self- and functional congruity has a positive impact on customer satisfaction, revisit and word of mouth intentions. All outcomes for self- and functional congruity have a significant positive impact on the dependent variables. The table shows that functional congruity has bigger coefficients compared to self-congruity. When the functional congruity of a consumer increases with one unit, its customer satisfaction, revisit intentions and word of mouth intentions increase with 0.489, 0.540 and 0.404 units respectively. When the self-congruity of a consumer increases with one unit, its customer satisfaction, revisit and word of mouth intentions increase with 0.251, 0.197 and 0.225 units respectively.

Table 4. Standardized coefficients of the linear regression analysis. The standard error of the parameters is given between brackets. Furthermore, values for the 95% confidence interval and p-values are given.

		<i>Customer Satisfaction</i>	<i>Revisit Intentions</i>	<i>Word of Mouth Intentions</i>
	<i>Constant</i>	1.983(0.186)	1.960(0.197)	2.167(0.252)
	<i>Coefficient</i>	0.251(0.040)*	0.197(0.042)*	0.225(0.054)*
<i>Self-congruity</i>	<i>95% Confidence Interval</i>	0.153 / 0.310	0.112 / 0.279	0.153 / 0.366
	<i>P-value</i>	0.000	0.000	0.000
	<i>Coefficient</i>	0.489(0.005)*	0.540(0.006)*	0.404(0.007)*
<i>Functional congruity</i>	<i>95% Confidence Interval</i>	0.478 / 0.500	0.528 / 0.551	0.389 / 0.419
	<i>P-value</i>	0.000	0.000	0.000

*Denotes a significant value of 0.01.

Table 5 reports hypotheses 5a and 5b, describing whether an increase in self-congruity for female individuals and functional congruity for male individuals have a higher positive impact on customer satisfaction, revisit and word of mouth intentions compared to the opposite sex. The independent variable is given on the left side, while on the right side the constant with the standardized coefficients standard errors, 95% confidence intervals and p-values of the impact of each independent variable on the dependent variables is provided. The results of the regression analysis provide mostly significant results on the 0.01 significance level. The impact of self-congruity on revisit and word of mouth intentions for female individuals provides a significant value of below 0.05 and 0.10 respectively. For self-congruity, male individuals provide a higher coefficient for each of the dependent variables compared to female individuals. For functional congruity, coefficients for both male and female individuals are nearly equal, only the impact on word of mouth intentions is rather high for female (0.441) compared to male individuals (0.385).

Table 5. Standardized coefficients of the linear regression analysis. The standard error of the parameters is given between brackets. Furthermore, values for the 95% confidence interval and p-values are given.

<i>Gender</i>		<i>Customer Satisfaction</i>	<i>Revisit intentions</i>	<i>Word of mouth intentions</i>	
<i>Male</i>	<i>Constant</i>	2.000(0.246)	2.014(0.239)	1.959(0.345)	
<i>Female</i>		1.955(0.278)	1.909(0.330)	2.531(0.373)	
<i>Self-congruity</i>	<i>Coefficient</i>	0.286(0.053)*	0.249(0.052)*	0.273(0.075)*	
	<i>Male</i>	<i>95% Confidence Interval</i>	0.149 / 0.359	0.121 / 0.326	0.165 / 0.461
	<i>P-value</i>	0.000	0.000	0.000	
	<i>Coefficient</i>	0.223(0.062)*	0.149(0.072)**	0.133(0.081)***	
	<i>Female</i>	<i>95% Confidence Interval</i>	0.096 / 0.343	0.027 / 0.310	-0.004 / 0.317
	<i>P-value</i>	0.001	0.020	0.055	
<i>Functional congruity</i>	<i>Coefficient</i>	0.478(0.008)*	0.542(0.007)*	0.385(0.011)*	
	<i>Male</i>	<i>95% Confidence Interval</i>	0.463 / 0.493	0.528 / 0.557	0.365 / 0.406
	<i>P-value</i>	0.000	0.000	0.000	
	<i>Coefficient</i>	0.493(0.008)*	0.534(0.009)*	0.441(0.010)*	
	<i>Female</i>	<i>95% Confidence Interval</i>	0.478 / 0.508	0.515 / 0.552	0.421 / 0.462
	<i>P-value</i>	0.000	0.000	0.000	

*Denotes a significant value of 0.01, **Denotes a significant value of 0.05, ***Denotes a significant value of 0.10.

Table 4 and 5 state that the coefficients of functional congruity are higher than those of self-congruity. Therefore, it would be useful to know what aspects of functional congruity have the highest appeal to consumers. Figure 4 presents the results of an independent samples t-test for aspects of functional congruity for each treatment. Functional congruity is divided into four different measurement items. Values are compared to the lowest value in each treatment. For instance, for treatment six, convenience and reliability rate significantly higher compared to the score of a high quality experience, while customer service doesn't. Overall, the results indicate

that both convenience and reliability rate significantly higher compared to the score of a high quality experience, which contained the lowest score for each treatment. Customer service only provides a significantly higher value for treatment three. The figure concludes that convenience and reliability provide the highest positive impact on a consumers' score of functional congruity in a retail environment.

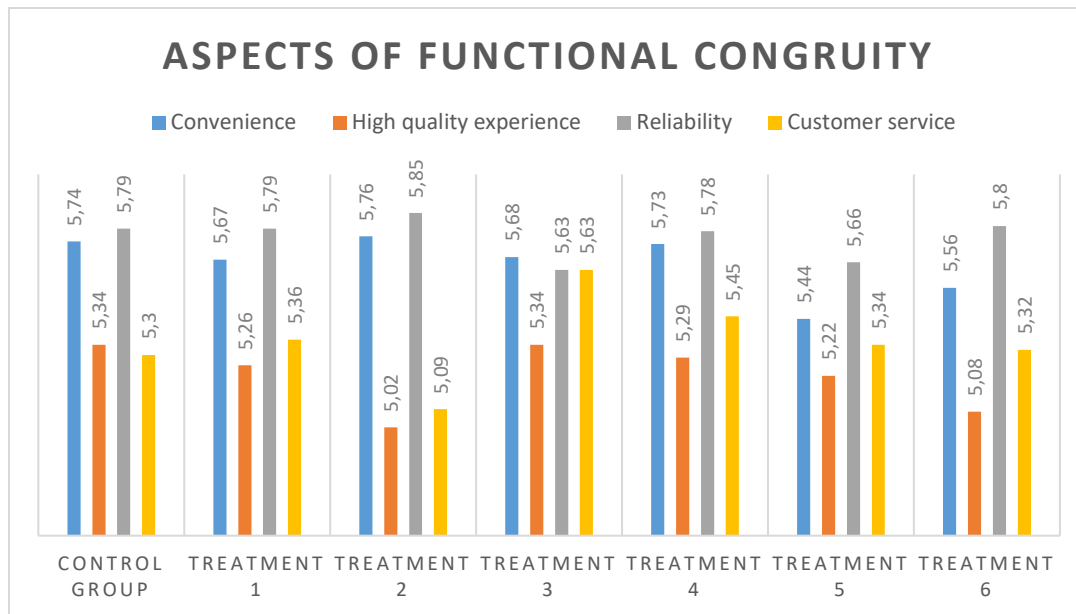


Figure 4. The impact of individual aspects of functional congruity. The Y axis denotes the score of the individual aspects on functional congruity, while the X axis displays the treatments and the control group. Overall, convenience and reliability rate significantly higher compared to the lowest aspect in each treatment at the 0.05 level.

Table 6 reports hypotheses six, seven and eight, describing whether customer satisfaction has a positive impact on revisit and word of mouth intentions. Also, whether revisit intentions has a positive impact on word of mouth intentions. The independent variable is given on the left side, while on the right side the constant with the standardized coefficients, standard errors, 95% confidence intervals and p-values of the impact of the independent variables on each dependent variable are provided. Regression analysis shows that customer satisfaction has a significant positive impact on both revisit and word of mouth intentions. When the customer satisfaction of a consumer is increased with one unit, his revisit intentions increase with 0.579 units, while this is 0.518 units for word of mouth intentions. Furthermore, when revisit intentions of a consumer increase with one unit, its word of mouth intentions increase significantly with 0.248 units.

Table 6. Standardized coefficients of the linear regression analysis. The standard error of the parameters is given between brackets. Furthermore, values for the 95% confidence interval and p-values are given.

		<i>Revisit Intentions</i>	<i>Word of Mouth Intentions</i>
<i>Constant</i>		1.973(0.219)	0.593(0.250)
<i>Coefficient</i>		0.579(0.046)*	0.518(0.058)*
<i>Customer Satisfaction</i>	<i>95% Confidence Interval</i>	0.533 / 0.712	0.405 / 0.632
	<i>P-value</i>	0.000	0.000
<i>Coefficient</i>		-	0.248(0.054)*
<i>Revisit Intentions</i>	<i>95% Confidence Interval</i>	-	0.183 / 0.395
	<i>P-value</i>	-	0.000

*Denotes a significant value of 0.01.

Table 7 reports hypotheses 5c and 5d, describing whether customer satisfaction and revisit intentions have a bigger positive impact on word of mouth intentions for male or female individuals. The independent variable is given on the left side, while on the right side the constant with the standardized coefficients, standard errors, 95% confidence intervals and p-values of the impact of each independent variable on the dependent variables are provided. While literature suggests that female individuals should provide a higher impact on word of mouth intentions, the regression analysis reports the opposite. Customer satisfaction has a positive impact on word of mouth intentions for both male and female individuals. However, this impact is bigger for male individuals (0.555) than female individuals (0.477) when their customer satisfaction increases with one unit. For revisit intentions, the effect is according to the predictions from literature. The impact on word of mouth intentions is higher for female individuals (0.296) compared to male individuals (0.216) when their revisit intentions level increases with one unit. Concluding, male individuals have a higher positive impact on word of mouth intentions when their customer satisfaction increases with one unit, whereas female individuals have a higher positive impact when their revisit intention levels increases with one unit.

Table 7. Standardized coefficients of the linear regression analysis. The standard error of the parameters is given between brackets. Furthermore, values for the 95% confidence interval and p-values are given.

<i>Gender</i>		<i>Word of Mouth Intentions</i>	
<i>Customer Satisfaction</i>	<i>Male</i>	<i>Constant</i>	0.231(0.371)
	<i>Female</i>		0.963(0.329)
		<i>Coefficient</i>	0.555(0.081)*
	<i>Male</i>	<i>95% Confidence Interval</i>	0.396 / 0.715
		<i>P-value</i>	0.000
	<i>Female</i>	<i>Coefficient</i>	0.477(0.081)*
<i>Revisit intentions</i>		<i>95% Confidence Interval</i>	0.361 / 0.682
		<i>P-value</i>	0.000
		<i>Coefficient</i>	0.216(0.080)*
	<i>Male</i>	<i>95% Confidence Interval</i>	0.118 / 0.433
		<i>P-value</i>	0.001
	<i>Female</i>	<i>Coefficient</i>	0.296(0.071)*
		<i>95% Confidence Interval</i>	0.170 / 0.451
		<i>P-value</i>	0.000

*Denotes a significant value of 0.01.

5.2. Discussion of the Results

The results indicate that an addition in personalised treatments has no positive impact on self-congruity and an addition in connectivity-based treatments has no positive impact on functional congruity in the retail environment. While empirical literature is lacking in this area, Bray & Berger (2008) state that individualisation has a positive impact on consumption behaviour. Also, Constantinides (2004) states that retailers should increase their connectivity to highlight functional characteristics in their retail environment. While the findings of this paper contradict the previous statements, they contribute to the paper of Sirgy et al. (2000), which describes the impact of place, price, promotional and product cues in retail environment on self- and functional congruity. Next, the results contribute to the paper of Grzeskowiak et al. (2016), which analyses the impact of retail

store aspects on satisfaction, through self-concept. The authors state that their results contribute to the hierarchical theory of shopping motivation by linking retail experiences of consumers with values as customer satisfaction, as proposed by Wagner (2007).

Furthermore, the results show that an increase in self- and functional congruity has a positive impact on customer satisfaction, revisit and word of mouth intentions. This impact is bigger for functional congruity. These results are in line with the results of Bosnjak et al. (2011), who find a positive impact of self-congruity with a path coefficient of 0.28 and functional congruity with a path coefficient of 0.29 on satisfaction, revisit and word of mouth intentions in the travel industry. The results of this paper contribute to the paper of Ibrahim and Najjar (2008), which argues that self-congruity has a positive impact with a coefficient of 0.144 on customer satisfaction in the retail industry. The findings of this paper underline this result and stress the importance of adding functional congruity to this framework.

Next, this paper finds that customer satisfaction has a positive impact on revisit and word of mouth intentions. This is in line with the findings of Ibrahim and Najjar (2008), who analyse this impact in the retail industry. They find the same significant positive impact with a coefficient of 0.409. This result is also found by Cronin and Taylor (1992) with a coefficient of 0.550 in the service industry. The results of this paper also indicate a positive impact of customer satisfaction on revisit intentions. This is in line with the findings of Bettencourt (1997), which provide a positive coefficient of 0.173 for the impact of customer satisfaction on customer loyalty in the retail industry. On the other hand, Arnett et al. (2003) find contrary results to the ones of this paper. The authors state a negative impact (coefficient of -0.02) of satisfaction on word of mouth intentions.

Finally, this paper finds a gender bias in several tests. Female individuals report higher values of self-congruity compared to male individuals, while for functional congruity there is no significant difference. These findings contribute to the papers of Quester et al. (2000) and Kang et al. (2012), suggesting that further research should examine the role of gender in self- and functional congruity. Next, customer satisfaction has a bigger positive impact on word of mouth intentions for male individuals, while the impact of revisit intentions on word of mouth intentions is bigger for female individuals. Literature on the gender bias finds contrary results to this paper. Fan and Miao (2012) find a higher approval of word of mouth for female individuals with a significant

coefficient of 0.758 compared to that of male individuals of 0.650 in the retail industry. The paper of Brown et al. (2005) states no significant impact of gender on word of mouth intentions ($p > 0.10$) in the retail industry, which can possibly be explained by a difference in sample group. The median age of their respondent is 50, while most of the respondents in this paper are between 18 and 24 years old.

6 Managerial Implications

The results indicate that personalised and connectivity-based treatments have no positive impact on self- and functional congruity. Furthermore, the results show that an increase in self- and functional congruity has a positive impact on customer satisfaction, revisit and word of mouth intentions. Next, this paper finds a positive impact of customer satisfaction on revisit and word of mouth intentions and that of revisit intentions on word of mouth intentions. Finally, this paper finds a gender bias in several tests. These findings have the following implications for retail managers.

Firstly, retail managers should support and strengthen functional congruity to increase satisfaction and word of mouth intentions with a focus on male consumers. The highest measured impact in this paper is that of customer satisfaction on word of mouth intentions for male consumers. Surprisingly, this impact is higher for male individuals compared to female individuals. Retail managers should highlight functional characteristics in their retail environment for male consumers, because functional congruity provides higher coefficients compared to self-congruity. Whilst the coefficients provide hardly any difference in gender, retail managers should still focus on male individuals because of the size of their impact on satisfaction and word of mouth intentions. This focus on male individuals should go along with a focus on factors that increase functional congruity.

To improve these factors, retail managers should increase and highlight the convenience and reliability of their retail store. Higher store convenience is achieved by being available for consumers, for instance by having store locations closely to consumers. (Sirgy et al., 1991). Higher store reliability is achieved by retail managers when keeping promises, offering an efficient retail experience and ensuring that their merchandise is always available for consumers. An efficient retail experience enables consumers to easily find the products they search for and that they don't spend more time than desired in the retail store (Dabholkar et al., 1996).

Secondly, retail managers should enable possibilities for male consumers to share their positive retail experience with others. An example of this is by providing extra discounts for consumers who choose to share their positive experience with the retail environment on social

media. Male individuals are more active on social media than female individuals and are better at influencing other consumer's purchase decisions (Riegner, 2007). Also, online recommendations can directly impact sales of a retail store (Gopinath et al., 2014).

Finally, retail managers shouldn't focus on implementing personalized and connectivity-based aspects in their retail environment yet. The findings of this paper show no significant impact for five of the treatments and one negative impact for a connectivity-based treatment. However, retail managers should not ignore research on these trends in retail environment, considering that other research methods could provide different outcomes.

7 Limitations

In this section, limitations of the current research are discussed. Possible implementations for further research are named next, to provide researchers with inspiration for further research in the area of retail marketing.

Firstly, the marketing tests are conducted with an online survey, which may lead to less reliable results compared to field research. This approach is used to ensure a large amount of respondents for data analysis. Further research should use real in-store tests, in a way that the consumer is able to use the new treatment in the retail environment and make a better evaluation of its impact on his satisfaction, revisit and word of mouth levels. The technologies supporting the innovations already exist, the next step would be to implement them in the retail environment to test its effect in real life. Correspondingly, respondents evaluate one treatment, which means that they evaluate their retail environment including one environmental change. This change could be too small to provide significant differences in their evaluations. Further research should examine the impact of implementing several treatments in the retail environment of a respondent, which may lead to more significant results regarding the treatments.

Secondly, intentions are measured in this research. Intentions are translated into a likelihood to revisit the store or to provide word of mouth. This paper measures intentions instead of real behaviour, because existing questionnaires provide good ground for measuring intentions, and because behaviour is hard to measure in an online survey. A good next step in research would be to measure behaviour instead of intentions. Conclusions based on measured behaviour are stronger validations compared to measured intentions.

Thirdly, this research mostly focuses on Dutch supermarkets and consumers, for it appeared easier to reach a large amount of respondents in the area of Rotterdam. Therefore the results of this paper apply mainly to Rotterdam-based supermarkets. To know whether effects are different for other cultures or geographic areas, researchers could replicate this research design in other cultures or countries. Some countries are more open to innovations than others. For instance, countries like Switzerland, United Kingdom and Sweden are more innovative countries than the

Netherlands (Dutta et al., 2015). In this sense, consumers in these countries could be more open to innovative technologies in their retail environment.

Furthermore, the paper uses a limited methodology. It would be interesting to examine whether there is a difference between different groups of consumers, not just for gender. This paper examines the gender difference because of suggestions in previous papers. However, consumer intentions could also differ between race, age, nationality or lifestyle. These factors aren't taken into account, because they were not mentioned in previous questionnaires concerning this topic. Nonetheless, these factors could have a major impact on the results and managerial implications.

Finally, the measurement instruments designed to capture the variables were well grounded in several papers. However, they were taken from different papers. This approach provided reliable variables and internal validity of the research, however it would be logical to obtain a questionnaire from one single paper. Ongoing research should investigate the construct validity of this questionnaire in retail marketing research and refine the measures accordingly. One complete questionnaire for retail marketing research would be a good next step, in order to conduct research easier. This will also enable researchers to compare findings in different papers more easily across different countries.

8 Conclusion

This paper analyses the impact of individualisation and connectivity-based treatments in retail environment on customer satisfaction, revisit intentions and word of mouth intentions, via either self- or functional congruity. 370 respondents participated in this study, who were randomly assigned to different groups, each showing one treatment. Linear regression analysis and independent samples t-tests are used to transform the data into results.

The results indicate that an addition in personalised treatments has no positive impact on self-congruity and an addition in connectivity-based treatments has no positive impact on functional congruity in the retail environment. Furthermore, the results show that an increase in self- and functional congruity has a positive impact on customer satisfaction, revisit and word of mouth intentions. This impact is bigger for functional congruity. Next, this paper finds that customer satisfaction has a positive impact on revisit and word of mouth intentions. Another positive impact is that of customer satisfaction on revisit intentions. Finally, this paper finds a gender bias in several tests. Female individuals report higher values of self-congruity compared to male individuals, while for functional congruity there is no significant difference. Also, customer satisfaction has a bigger positive impact on word of mouth intentions for male individuals, while the impact of revisit intentions on word of mouth intentions is bigger for female individuals.

Retail managers should support and strengthen customer satisfaction to increase word of mouth intentions with a focus on male consumers. This should be done by highlighting functional congruity of male consumers. This focus on male individuals should go along with a focus on factors that increase functional congruity. To improve these factors, retail managers should increase and highlight the convenience and reliability of their retail store. Furthermore, retail managers should enable possibilities for male consumers to share their positive retail experience with others.

This means that the research question can be answered, by concluding that individualisation and connectivity have no significant impact on customer satisfaction, revisit and word of mouth intentions, via self- and functional congruity. Retail managers shouldn't focus on implementing personalised and connectivity-based aspects in their retail environment yet. Future

research should examine the effect of these treatments on consumer intentions in a real retail setting. Researchers should also examine the impact of implementing several treatments per respondent. In this way, not only intentions but also real consumer behaviour can be examined, which provides more reliable findings. Finally, future research should also broaden its focus on other countries and cultures and aim to develop one general measurement instrument for retail marketing.

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Appendix

Appendix A: Survey

Respondents got one of the seven versions. The following survey is one of the versions with a personalised treatment. The control group received the survey without a treatment.

Dear respondent,

Thank you for participating in this survey, this will take approximately 3 minutes of your time. Please read all the instructions carefully. There are no right or wrong answers. When answering a question, simply think about how you feel at that moment and report your honest opinion.

The answers will only be used for academic purpose and will be processed anonymously. Please click next to proceed.

Kind regards,

Michael Schenk

----- Next page -----

Can you name the supermarket you visit most?

...

How often do you visit this supermarket?

- Each day
- Several times a week
- Once a week
- Less than once a week

Imagine that your favourite supermarket introduces a new feature in its store environment. This is a unique feature, which isn't introduced in other supermarkets in the area. Please read the following sentence and look at the picture carefully before you continue.

Imagine you're walking through the supermarket. You want to be surprised with a special product combination combining both the products you usually buy and new or complementary products. Your favourite supermarket introduces the following new feature:

A personalised product offer appears on a screen if you scan your loyalty card. This offer is partly based on your previous shopping behavior and partly on complementary or new products.



Before answering the following questions, please think of the typical visitor of your favourite supermarket. Think of at least three characteristics that describe this person. From now on, supermarket X refers to your favourite supermarket.

Please rate the following statements on a scale from agree to disagree. The visitor of supermarket X reflects the kind of person I am.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither disagree nor agree
- Somewhat agree
- Agree
- Strongly agree

People who visit supermarket X are very different from me.

- Strongly disagree – strongly agree

I admire and look up to people who visit supermarket X.

- Strongly disagree – strongly agree

I don't admire or look up to the image of people who use supermarket X

- Strongly disagree – strongly agree

- ----- Next page -----

Imagine you're walking through the supermarket. You want to be surprised with a special product combination combining both the products you usually buy and new or complementary products. Your favourite supermarket introduces the following new feature:

A personalised product offer appears on a screen if you scan your loyalty card. This offer is partly based on your previous shopping behavior and partly on complementary or new products.



Please rate the following statements on a scale from disagree to agree and provide your opinion upon their importance.

Supermarket X is convenient.

- Strongly disagree – strongly agree

Supermarket X offers a high-quality experience.

- Strongly disagree – strongly agree

Supermarket X is reliable.

- Strongly disagree – strongly agree

Supermarket X scores well on customer service.

- Strongly disagree – strongly agree

How important is supermarket store convenience for you?

- Very unimportant
- Unimportant
- Somewhat unimportant
- No opinion
- Somewhat important
- Important
- Very important

How important is a high quality experience in a supermarket for you?

- Very unimportant – very important

How important is reliability of a supermarket for you?

- Very unimportant – very important

How important is customer service of a supermarket for you?

- Very unimportant – very important

----- Next page -----

Imagine you're walking through the supermarket. You want to be surprised with a special product combination combining both the products you usually buy and new or complementary products. Your favourite supermarket introduces the following new feature:

A personalised product offer appears on a screen if you scan your loyalty card. This offer is partly based on your previous shopping behavior and partly on complementary or new products.



Please rate the following statements on a scale from disagree to agree.

I enjoy seeing supermarket X.

- Strongly disagree – strongly agree

I have bad feelings about supermarket X.

- Strongly disagree – strongly agree

Visiting supermarket X meets all my expectations.

- Strongly disagree – strongly agree

Supermarket X enhances the quality of my life.

- Strongly disagree – strongly agree

I see myself as a fan of supermarket X.

- Strongly disagree – strongly agree

Supermarket X is excellent overall.

- Strongly disagree – strongly agree

----- Next page -----

Imagine you're walking through the supermarket. You want to be surprised with a special product combination combining both the products you usually buy and new or complementary products. Your favourite supermarket introduces the following new feature:

A personalised product offer appears on a screen if you scan your loyalty card. This offer is partly based on your previous shopping behavior and partly on complementary or new products.



Please rate the following statements on a scale from disagree to agree.

The shop is an interesting location to return to spend a quality retail experience.

- Strongly disagree – strongly agree

I am interested in returning to the shop even if the cost of visiting this shop is a little higher than my alternative options.

- Strongly disagree – strongly agree

It is likely that I will not return to the shop on any near future visit.

- Strongly disagree – strongly agree

It is likely that I would shop at this retail store in the future

- Strongly disagree – strongly agree

----- Next page -----

Imagine you're walking through the supermarket. You want to be surprised with a special product combination combining both the products you usually buy and new or complementary products. Your favourite supermarket introduces the following new feature:

A personalised product offer appears on a screen if you scan your loyalty card. This offer is partly based on your previous shopping behavior and partly on complementary or new products.



I am likely to spread positive word of mouth about supermarket X.

- Strongly disagree – strongly agree

I would recommend supermarket X to my friends.

- Strongly disagree – strongly agree

If my friends were looking for a supermarket, I would let them try supermarket X.

- Strongly disagree – strongly agree

----- Next page -----

Finally, please answer some general questions.

What is your age?

- Under 12 years old
- 12-17 years old
- 18-24 years old
- 25-34 years old
- 35-44 years old
- 45-54 years old
- 55-64 years old
- 75 years or older

What is your gender?

Male/Female

We thank you for your time spent taking this survey.

Your response has been recorded.

Appendix B: Texts and Images of the Treatments.

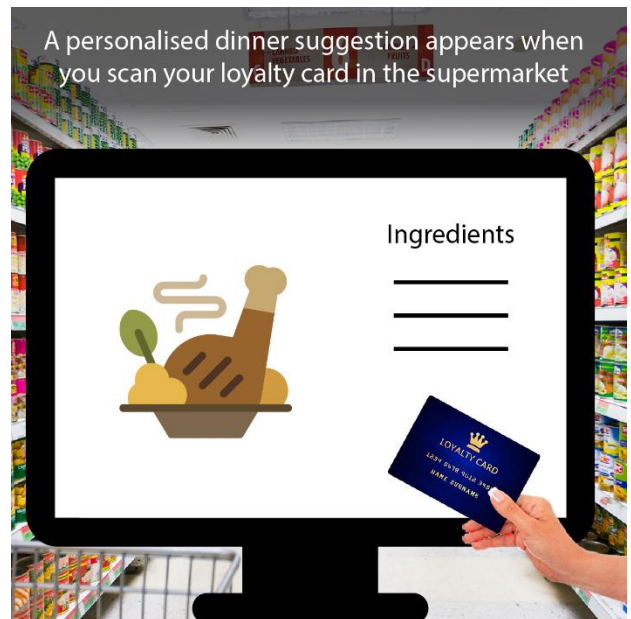
The following images correspond to the six treatments, which are used for the survey. Along with the images, a text is provided to inform the respondent about the treatment.

Treatment 1: The personalised dinner suggestion.

This is a personalised treatment.

Imagine a situation in which you go to the supermarket for groceries. You wander through the supermarket, still guessing what you will eat for dinner. You have already eaten your favourite dish a couple of times that week, therefore, you are searching for something new. The new feature includes the following:

When you enter the supermarket and scan your loyalty card, a personalised dinner suggestion appears. This suggestion is partly based on your previous shopping behaviour. Each time you scan, another suggestion appears.

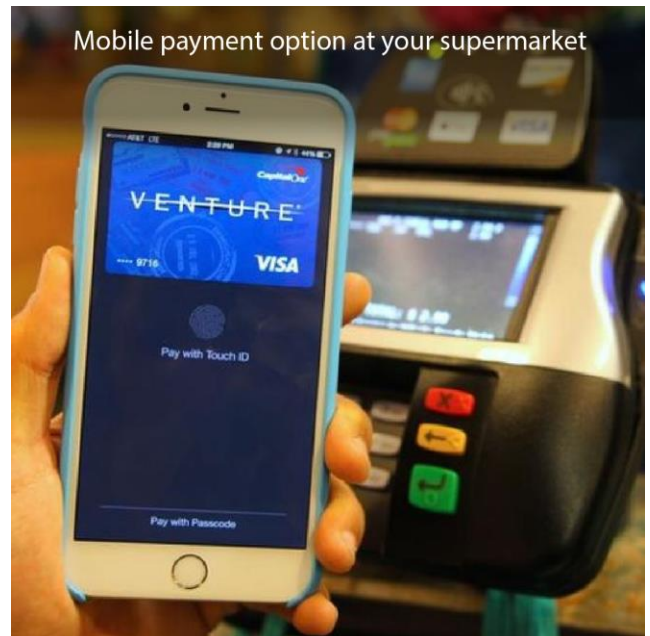


Treatment 2: The mobile payment option

This is a connectivity-based treatment.

Imagine that you collected all your groceries and walk towards the checkout counter. You quickly check your bank account balance on your mobile phone, when you notice that a new feature which is introduced in your favourite supermarket.

Mobile payment is introduced. You can still pay with traditional payment methods, but also with your mobile phone.

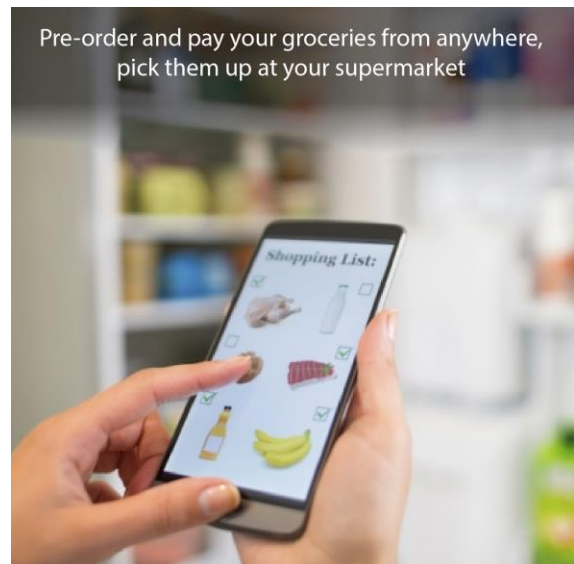


Treatment 3: Pre-order and pay

This is a connectivity-based treatment.

Imagine you're having a long day at work or school and have plans in the evening. This gives you little time left for doing groceries and cooking, but you don't want to order fast food. Your favourite supermarket introduced the following feature:

You can pre-order and pay your groceries via your mobile phone or computer and pick them up at your supermarket at a chosen time.



Treatment 4: The personalised product offer

This is a personalised treatment.

Imagine you're walking through the supermarket. You want to be surprised with a special product combination combining both the products you usually buy and new or complementary products. Your favourite supermarket introduces the following new feature:

A personalised product offer appears on a screen if you scan your loyalty card. This offer is partly based on your previous shopping behaviour and partly on complementary or new products.

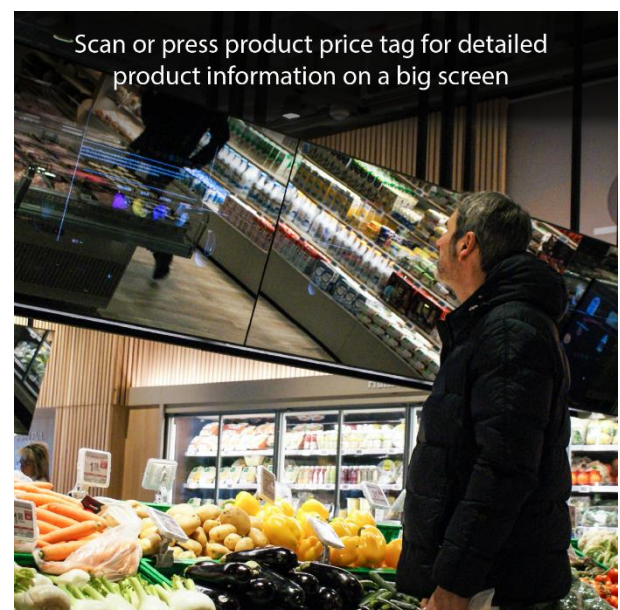


Treatment 5: Scan product tag for more information

This is a connectivity-based treatment.

Imagine walking through the supermarket. You hesitate between buying two products in the same category. Therefore, you want to have detailed information on both products. Imagine that your favourite supermarket introduces the following new feature:

When you want to have more information on a product, you can scan or press the price tag of the product. Detailed information about that product will then appear on a screen overhead.



Treatment 6: Subscription option

This is a connectivity-based treatment.

Imagine that when you visit the supermarket, you buy the same kind of products very often. It would be convenient if your supermarket knew this and could help you with it. Therefore, your favourite supermarket introduces the following new feature:

If you buy the same products each one on two weeks, you can subscribe at the website of your supermarket for these products and receive them each one or two weeks at home.

