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**Trust Issue Relationship between the Consumer and Food Brands:
*the Moderating Role of Personality Traits***

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of
Doctor of Science in Marketing

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ABSTRACT

This study aims at offering a conceptual model that incorporates both the relationships between brand satisfaction, brand trust and brand loyalty and the moderating effects of personality traits, namely, consumer innovativeness, variety-seeking and relationship proneness, on the relationship between brand trust and brand loyalty. Data were collected using a survey of 443 consumers of four product categories (i.e., soft drinks, fruit juices, mineral water and yogurt). Structural equation modeling, specifically, partial least squares (PLS) regression, was used to test the hypotheses. The findings reveal that brand loyalty is the most affected (both directly and indirectly) by satisfaction through the mediation of brand trust across the studied product categories. They also show that variety-seeking negatively moderates the relationship between brand trust and brand loyalty for fruit juices, whereas relationship proneness positively moderates this relationship for yogurt. Moreover, the moderating effects of consumer characteristics are examined. The managerial implications, limitations and suggestions for future research are also discussed.

Keywords Brand loyalty, Trust, Consumer satisfaction, Personality traits, Partial least squares

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GENERAL INTRODUCTION

Background of the study

Indeed, branding has become increasingly important for various types of firms (Keller and Lehmann, 2006)¹. In the last decade, the concept of branding has received a great deal of attention from marketing researchers (e.g., Merrilees *et al.*, 2016²; Saleem and Iglesias, 2016³). Brands facilitate transactions, cultivate strong relationships between firms and their customers (Veloutsou, 2009⁴, 2015⁵) and differentiate a firm's offerings from those of its competitors (Wood, 2000)⁶. The key objective of marketers is not only to satisfy customers (Hess and Story, 2005)⁷, but also to develop and maintain enduring relationships with them (Elbedweihy *et al.*, 2016)⁸. Prior research emphasizes the importance of understanding the nature of the relationship between consumers and their brands (Fournier, 1998)⁹.

In addition, developing strong consumer-brand relationships has recently become one of the primary focuses of academic researchers (Bowden, 2009)¹⁰. The strength of customer-brand relationships plays an important role in predicting brand loyalty (Veloutsou, 2015)¹¹. Although several factors describe consumer-brand relationships (Becerra and Badrinarayanan, 2013)¹², marketing researchers focus on two main factors, namely, brand satisfaction and brand trust (e.g., Veloutsou, 2015¹³; Hegner and Jevons, 2016¹⁴). Indeed, these factors are critical for successful long-term customer relationships

¹ Keller, K.L. and Lehmann, D.R. (2006), "Brands and branding: Research findings and future priorities", *Marketing Science*, Vol. 25, No. 6, pp. 740-759.

² Merrilees, B., Miller, D. and Shao, W. (2016), "Mall brand meaning: an experiential branding perspective", *Journal of Product & Brand Management*, Vol. 25, No. 3, pp. 262-273.

³ Saleem, F.Z. and Iglesias, O. (2016), "Mapping the domain of the fragmented field of internal branding", *Journal of Product & Brand Management*, Vol. 25, No. 1, pp. 43-57.

⁴ Veloutsou, C. (2009), "Brands as relationship facilitators in consumer markets", *Marketing Theory*, Vol. 9, No. 1, pp. 127-130.

⁵ Veloutsou, C. (2015), "Brand evaluation, satisfaction and trust as predictors of brand loyalty: The mediator-moderator effect of brand relationships", *Journal of Consumer Marketing*, Vol. 32, No. 6, pp. 405-421.

⁶ Wood, L. (2000), "Brands and brand equity: Definition and management", *Management Decision*, Vol. 38, No. 9, pp. 662-669.

⁷ Hess, J. and Story, J. (2005), "Trust-based commitment: multidimensional consumer-brand relationships", *Journal of Consumer Marketing*, Vol. 22, No. 6, pp. 313-322.

⁸ Elbedweihy, A.M., Jayawardhena, C., Elsharnouby, M.H. and Elsharnouby, T.H. (2016), "Customer relationship building: The role of brand attractiveness and consumer-brand identification", *Journal of Business Research*, Vol. 69, No. 8, pp. 2901-2910.

⁹ Fournier, S. (1998), "Consumers and their brands: Developing relationship theory in consumer research", *Journal of Consumer Research*, Vol. 24, No. 4, pp. 343-373.

¹⁰ Bowden, J. (2009), "Customer engagement: A framework for assessing customer-brand relationships: The case of the restaurant industry", *Journal of Hospitality Marketing & Management*, Vol. 18, No. 6, pp. 574-596.

¹¹ Veloutsou, C. (2015) *op. cit.*

¹² Becerra, E.P. and Badrinarayanan, V. (2013), "The influence of brand trust and brand identification on brand evangelism", *Journal of Product & Brand Management*, Vol. 22, Nos. 5/6, pp. 371-383.

¹³ Veloutsou, C. (2015) *op. cit.*

¹⁴ Hegner, S.M. and Jevons, C. (2016), "Brand trust: a cross-national validation in Germany, India, and South Africa", *Journal of Product & Brand Management*, Vol. 25, No. 1, pp. 58-68.

(Esch *et al.*, 2006)¹⁵. The strength of the relationship between consumers and brands depends primarily on consumers' levels of satisfaction and trust (Veloutsou, 2015)¹⁶.

Previous studies have highlighted the importance of trust in relationship marketing (e.g., Morgan and Hunt, 1994¹⁷; Selnes, 1998¹⁸), and that it is considered a key issue in establishing thriving customer relationships (Calefato *et al.*, 2015)¹⁹. Hiscock (2001, p. 1)²⁰ indicates that “*the ultimate goal of marketing is to generate an intense bond between the consumer and the brand, and the main ingredient of this bond is trust.*” Numerous studies have argued that brand trust is a key determinant of brand loyalty, while brand satisfaction is an important determinant of both brand trust and brand loyalty (e.g., Lee *et al.*, 2015²¹; Park and Kim, 2016²²); therefore, there may be a relationship between these constructs. However, there is a lack of empirical studies that investigate the relationship between brand satisfaction, brand trust and brand loyalty in the context of food brands.

Several studies in the marketing literature have investigated the impact of personality characteristics on consumer behavior (e.g., Diehl and Terlutter, 2006²³; Barkhi and Wallace, 2007²⁴). Personality traits can help marketers better understand consumer behavior (Alwitt, 1991²⁵; Haugtvedt *et al.*, 1992²⁶; Bloemer *et al.*, 2003²⁷). Although they play a vital role in explaining consumer behavior, no empirical research to date has investigated brand satisfaction, brand trust, brand loyalty and personality traits in

¹⁵ Esch, F.-R., Langner, T., Schmitt, B.H. and Geus, P. (2006), “Are brands forever? How brand knowledge and relationships affect current and future purchases”, *Journal of Product & Brand Management*, Vol. 15, No. 2, pp. 98-105.

¹⁶ Veloutsou, C. (2015) *op. cit.*

¹⁷ Morgan, R.M. and Hunt, S.D. (1994), “The commitment-trust theory of relationship marketing”, *Journal of Marketing*, Vol. 58, No. 3, pp. 20-38.

¹⁸ Selnes, F. (1998), “Antecedents and consequences of trust and satisfaction in buyer-seller relationships”, *European Journal of Marketing*, Vol. 32, No. 3, pp. 305-322.

¹⁹ Calefato, F., Lanubile, F. and Novielli, N. (2015), “The role of social media in affective trust building in customer-supplier relationships”, *Electronic Commerce Research*, Vol. 15, No. 4, pp. 453-482.

²⁰ Hiscock, J. (2001), “Most trusted brands”, *Marketing*, 1 March, pp. 1, 32-33.

²¹ Lee, D., Moon, J., Kim, Y.J. and Yi, M.Y. (2015), “Antecedents and consequences of mobile phone usability: Linking simplicity and interactivity to satisfaction, trust, and brand loyalty”, *Information & Management*, Vol. 52, No. 3, pp. 295-304.

²² Park, H. and Kim, Y.-K. (2016), “Proactive versus reactive apparel brands in sustainability: Influences on brand loyalty”, *Journal of Retailing and Consumer Services*, Vol. 29, pp. 114-122.

²³ Diehl, S. and Terlutter, R. (2006), “Media-based and non media-based factors influencing purchase behavior and differences due to consumers' personality”, *International Advertising and Communication*, pp. 279-300.

²⁴ Barkhi, R. and Wallace, L. (2007), “The impact of personality type on purchasing decisions in virtual stores”, *Information Technology and Management*, Vol. 8, No. 4, pp. 313-330.

²⁵ Alwitt, L.F. (1991), “Consumer personality characteristics can help guide marketing and creative strategies”, *Journal of Direct Marketing*, Vol. 5, No. 3, pp. 39-47.

²⁶ Haugtvedt, C.P., Petty, R.E. and Cacioppo, J.T. (1992), “Need for cognition and advertising: Understanding the role of personality variables in consumer behavior”, *Journal of Consumer Psychology*, Vol. 1, No. 3, pp. 239-260.

²⁷ Bloemer, J., Odekerken-Schröder, G. and Kestens, L. (2003), “The impact of need for social affiliation and consumer relationship proneness on behavioural intentions: an empirical study in a hairdresser's context”, *Journal of Retailing and Consumer Services*, Vol. 10, No. 4, pp. 231-240.

a single model, especially in the context of food brands. In the context of consumer-firm relationships, Adjei and Clark (2010)²⁸ examine the effect of satisfaction on relationship quality (relationship satisfaction, trust and commitment) and the moderating effects of personality traits (consumer innovativeness, variety-seeking and relationship proneness) on the relationship between relationship quality and behavioral loyalty. The authors do not examine the relationship among satisfaction, trust, commitment and loyalty, nor do they examine whether the relationship between trust and loyalty is affected by personality traits. In addition, they use only one component of loyalty, i.e., behavioral loyalty. Therefore, this study attempts to compensate for the deficiencies of previous studies by providing a conceptual framework that combines the mediating effect of brand trust on the relationship between brand satisfaction and brand loyalty and the moderating effects of personality traits—i.e., consumer innovativeness, variety-seeking and relationship proneness—on the relationship between brand trust and brand loyalty in the context of food brands. This study also investigates the moderating effects of consumer characteristics on the relationships proposed in the conceptual model.

The contribution of this study is fourfold. First, it develops and tests a model that investigates the nature of the relationship between satisfaction, trust, loyalty and personality traits; this model is more comprehensive than those used in previous studies. Second, this study is considered the first attempt to examine the moderating effects of consumer innovativeness, variety-seeking and relationship proneness on the relationship between brand trust and brand loyalty. Third, it empirically tests the research model across four product categories: soft drinks, fruit juices, mineral water and yogurt. Finally, this study is the first to examine the moderating effects of consumer characteristics, i.e., gender, age, marital status, education, income, occupation and light/heavy consumers, on the proposed relationships in the context of food brands.

Research questions and objective of the study

The primary objective of this study is to understand the role of trust in the relationship between the consumer and food brands. Therefore, the study's principal question is:

²⁸ Adjei, M.T. and Clark, M.N. (2010), "Relationship marketing in A B2C context: The moderating role of personality traits", *Journal of Retailing and Consumer Services*, Vol. 17, No. 1, pp. 73-79.

What is the role that trust plays in the relationship between the consumer and food brands?

To answer this question, the present study addresses the following sub-questions:

- 1. Does satisfaction have a direct effect on loyalty?*
- 2. Does satisfaction have an indirect effect on loyalty through the mediation of trust?*
- 3. Does consumer innovativeness moderate the relationship between trust and loyalty?*
- 4. Does variety-seeking moderate the relationship between trust and loyalty?*
- 5. Does relationship proneness moderate the relationship between trust and loyalty?*
- 6. Do consumer characteristics (i.e., gender, age, marital status, education, income, occupation and light/heavy consumers) moderate the structural relationships?*

Organization of the study

This study is divided into four chapters. Chapter 1 provides a comprehensive review of the existing literature on the consumer-brand relationship, the role of trust in that relationship and the relationship between trust and other quality variables as well as the moderating role of consumer personality traits. It also covers the different conceptual models related to trust and the nature of the relationship between satisfaction and trust. Chapter 2 provides a review of the literature regarding the following constructs: satisfaction, trust, loyalty, consumer innovativeness, variety-seeking and relationship proneness. Moreover, on the basis of the existing literature, it introduces the research hypotheses and conceptual framework. Chapter 3 describes the method used in this study, including the data collection, measurement scales and measurement model. Chapter 4 presents the structural model and between-group differences as well as the general discussion. Figure 1 describes the structure of the study. The next chapter provides a review of the literature on the important role of trust in the relationship between consumers and their brands and on different trust models in consumer-brand relationships.

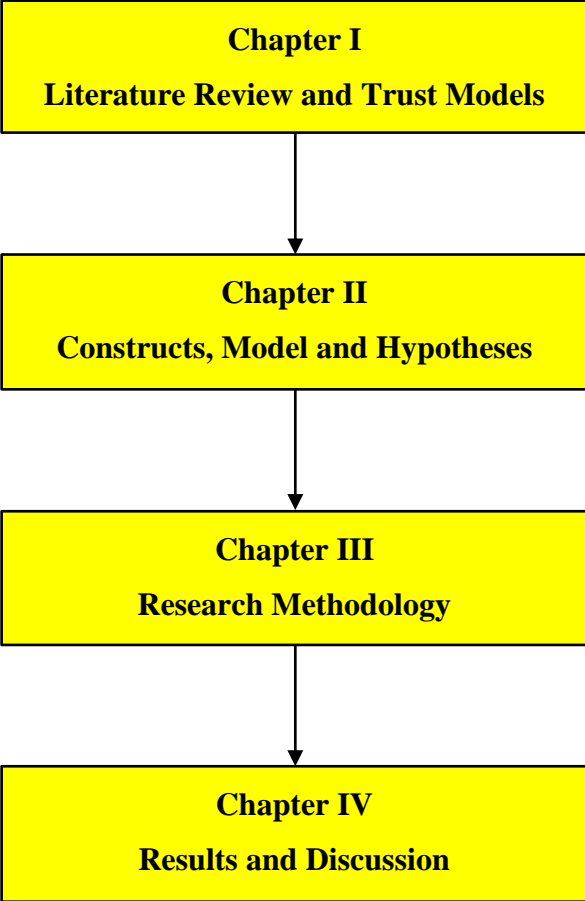


Figure 1. Structure of the study.

CHAPTER I
LITERATURE REVIEW AND TRUST
MODELS

Section 1. Literature Review

Section 2. Trust Models

Introduction

This chapter is divided into two main sections, i.e., literature review (section 1) and trust models (section 2). The first section starts by reviewing the relevant literature on consumer-brand relationship. Subsequently, a discussion of trust in consumer-brand relationship is presented. This is followed by a review of the literature on the relationship between trust and other quality variables. Finally, the moderating role of personality traits is then discussed. The second section includes two subsections: (1) different trust models in consumer-brand relationship, and (2) the relationship between trust and satisfaction.

Section 1. Literature review

1.1 Consumer-brand relationship

Brand loyalty is the goal to which every marketer should move his customers to; this goal could be attainable with a solid brand identity, a persuasive value proposition and sound execution (Hilton, 2006)²⁹. Patterson and O'Malley (2006)³⁰ suggest that the focus on consumer-brand relationships, as close, emotional and committed relationships, is a direct consequence of the usage of the interpersonal relationship metaphor primarily at the basic level of consumers' interaction with brands. Sweeney and Chew (2002)³¹ indicate that the notion of interpersonal relationship metaphor is valid within the domain of consumer services, when consumers can create relationships with service brands. In the domain of pharmacy industry, Saunders and Rod (2012)³² suggest that helpfulness and medical expertise are both key attributes that directly impact on the interaction between the consumer and the brand.

Indeed, the relationship between the consumer and the brand is very complex and there are various constructs that make up that relationship. In this regard, many researchers have tried to understand the nature of consumer-brand relationship. For

²⁹ Hilton, J. (2006), "The customer-brand relationship", *Functional Foods and Nutraceuticals*, p. 44.

³⁰ Patterson, M. and O'Malley, L. (2006), "Brands, consumers and relationships: A review", *Irish Marketing Review*, Vol. 18, Nos. 1/2, pp. 10-20.

³¹ Sweeney, J.C. and Chew, M. (2002), "Understanding consumer-service brand relationships: A case study approach", *Australasian Marketing Journal*, Vol. 10, No. 2, pp. 26-43.

³² Saunders, S. and Rod, M. (2012), "Brand network maps: A multidimensional approach to brand-consumer relationships in the New Zealand pharmacy industry", *International Journal of Pharmaceutical and Healthcare Marketing*, Vol. 6, No. 1, pp. 55-70.

example, Hwang and Kandampully (2012)³³ find that the emotional factors of self-concept connection ($\beta = 0.23, p < 0.01$), emotional attachment ($\beta = 0.446, p < 0.001$) and brand love ($\beta = 0.23, p < 0.01$) enhance younger consumers' brand loyalty. In the context of consumer goods, such constructs as satisfaction, trust, commitment, intimacy and love are particularly important in determining strong consumer-brand relationship (Papista and Dimitriadis, 2012)³⁴.

Several studies in marketing have emphasized the importance of creating, developing and maintaining strong relationships between consumers and their brands. Hess *et al.* (2011, p. 14)³⁵ suggest that “*perceptions of product performance and service quality influence the development of brand reliability and brand fidelity, respectively. Similarly, brand reliability is the primary source of an exchange orientation, while brand fidelity leads to communal brand connections and, ultimately, consumer-brand relationship investment.*” Likewise, Aurier and de Lanauze (2012)³⁶ show that perceived brand quality impacts relationship quality (brand trust and affective commitment), which, in turn, influences attitudinal loyalty. They also show that perceived brand relationship orientation has a positive impact on brand trust and affective commitment, which, in turn, influence attitudinal loyalty.

However, previous research has shown that brand perceptions are different in consumers' minds (Hwang and Kandampully, 2012)³⁷. Bowden (2009)³⁸ observes that the perceptions of relational mediators, such as involvement, calculative commitment, affective commitment and trust, differ across new and repeat purchase customers segments. Ramakrishnan and Ravindran (2012)³⁹ indicate that perceived quality, trustworthy and brand image are the leading features that differentiate private label brand from others.

³³ Hwang, J. and Kandampully, J. (2012), “The role of emotional aspects in younger consumer-brand relationships”, *Journal of Product & Brand Management*, Vol. 21, No. 2, pp. 98-108.

³⁴ Papista, E. and Dimitriadis, S. (2012), “Exploring consumer-brand relationship quality and identification: Qualitative evidence from cosmetics brands”, *Qualitative Market Research: An International Journal*, Vol. 15, No. 1, pp. 33-56.

³⁵ Hess, J., Story, J. and Danes, J. (2011), “A three-stage model of consumer relationship investment”, *Journal of Product & Brand Management*, Vol. 20, No. 1, pp. 14-26.

³⁶ Aurier, P. and de Lanauze, G.S. (2012), “Impacts of perceived brand relationship orientation on attitudinal loyalty: An application to strong brands in the packaged goods sector”, *European Journal of Marketing*, Vol. 46, No. 11, pp. 1602-1627.

³⁷ Hwang, J. and Kandampully, J. (2012) *op. cit.*

³⁸ Bowden, J. (2009) *op. cit.*

³⁹ Ramakrishnan, M. and Ravindran, S. (2012), “A study on the consumer perception towards private label brands with special reference to big Bazaar, Coimbatore, Tamil Nadu”, *Journal of Arts, Science and Commerce*, Vol. 3, No. 3, pp. 79-85.

1.2 Trust in consumer-brand relationship

Brand trust is an important factor in the relationship between the consumer and the brand. It is necessary to develop and maintain in a successful way long-term customer relationships (Song *et al.*, 2012)⁴⁰. Brand trust plays a vital role in developing brand loyalty (Lau and Lee, 1999)⁴¹. Indeed, brand trust is built up on the bases of past constructs. Afzal *et al.* (2010)⁴² show that brand trust increases between 30 percent and 60 percent due to brand characteristics (brand reputation, brand competence and brand predictability). Lau and Lee (1999)⁴³ suggest that brand characteristics, i.e., reputation ($r = 0.85, p < 0.01$), predictability ($r = 0.88, p < 0.01$) and competence ($r = 0.87, p < 0.01$), are relatively more important in their effects on brand trust. Chaudhuri and Holbrook (2001)⁴⁴ also show that different product-category characteristics influence brand trust and brand affect differently. However, Louis and Lombart (2010)⁴⁵ find that personality traits of the Coca-Cola brand influence three major relational consequences (i.e., brand trust, brand attachment and brand commitment).

Brand loyalty is considered the main objective of consumer-brand relationship (Tsai, 2011)⁴⁶, whereas brand trust is a key determinant of brand loyalty (Lee *et al.*, 2007)⁴⁷. Chaudhuri and Holbrook (2001)⁴⁸ propose that brand trust and brand affect are positively related to both purchase loyalty and attitudinal loyalty. Similarly, Song *et al.* (2012)⁴⁹ show a significant path from brand affect to brand trust ($\beta = 0.56, p < 0.01$), and then from brand trust to brand loyalty ($\beta = 0.54, p < 0.01$). Sung *et al.* (2010)⁵⁰ indicate that brand personality influences brand trust and brand affect, which, in turn, increase

⁴⁰ Song, Y., Hur, W.-M. and Kim, M. (2012), "Brand trust and affect in the luxury brand-customer relationship", *Social Behavior and Personality*, Vol. 40, No. 2, pp. 331-338.

⁴¹ Lau, G.H. and Lee, S.H. (1999), "Consumers' trust in a brand and the link to brand loyalty", *Journal of Market Focused Management*, Vol. 4, No. 4, pp. 341-370.

⁴² Afzal, H., Khan, M.A., Rehman, K.U., Ali, I. and Wajahat, S. (2010), "Consumer's trust in the brand: Can it be built through brand reputation, brand competence and brand predictability", *International Business Research*, Vol. 3, No. 1, pp. 43-51.

⁴³ Lau, G.H. and Lee, S.H. (1999) *op. cit.*

⁴⁴ Chaudhuri, A. and Holbrook, M.B. (2001), "The chain of effects from brand trust and brand affect to brand performance: The role of brand loyalty", *Journal of Marketing*, Vol. 65, No. 2, pp. 81-93.

⁴⁵ Louis, D. and Lombart, C. (2010), "Impact of brand personality on three major relational consequences (trust, attachment, and commitment to the brand)", *Journal of Product & Brand Management*, Vol. 19, No. 2, pp. 114-130.

⁴⁶ Tsai, S.-P. (2011), "Strategic relationship management and service brand marketing", *European Journal of Marketing*, Vol. 45, No. 7, pp. 1194-1213.

⁴⁷ Lee, K.-Y., Huang, H.-L. and Hsu, Y.-C. (2007), "Trust, satisfaction and commitment-on loyalty to international retail service brands", *Asia Pacific Management Review*, Vol. 12, No. 3, pp. 161-169.

⁴⁸ Chaudhuri, A. and Holbrook, M.B. (2001) *op. cit.*

⁴⁹ Song, Y., Hur, W.-M. and Kim, M. (2012) *op. cit.*

⁵⁰ Sung, Y., Kim, J. and Jung, J.-H. (2010), "The predictive roles of brand personality on brand trust and brand affect: A study of Korean consumers", *Journal of International Consumer Marketing*, Vol. 22, No. 1, pp. 5-17.

brand loyalty. Moreover, Lee *et al.* (2007)⁵¹ suggest that brand trust, brand satisfaction and commitment are the drivers of brand loyalty. Sahin *et al.* (2011)⁵² find that brand experiences, satisfaction and brand trust have a positive impact on brand loyalty ($\beta = 0.136, p < 0.01$; $\beta = 0.445, p < 0.01$; $\beta = 0.414, p < 0.01$, respectively). Zehir *et al.* (2011)⁵³ suggest that the relationship between brand communication and brand loyalty is mediated by brand trust.

Furthermore, brand trust has been found to be a major determinant of customer commitment (Gurviez and Korchia, 2003)⁵⁴. Delgado-Ballester and Munuera-Alemán (2001, p. 1238)⁵⁵ suggest that “*the key role of brand trust as a variable that generates customer’s commitment, especially in situations of high involvement, in which its effect is stronger in comparison to overall satisfaction.*” Hess and Story (2005)⁵⁶ indicate that satisfaction is an antecedent of both trust and functional connections, while personal connections are the main outcome of trust. However, it is also shown that brand trust contributes to reducing perceived risk (Song *et al.*, 2012)⁵⁷. Elliott and Yannopoulou (2007, p. 988)⁵⁸ note that “*when risk and price levels increase, consumers seek a safe purchase choice regarding functional brands through confidence and dependability, while in the case of symbolic brands, consumers have to trust the brand in order to make a purchase choice.*”

The aforementioned studies show that brand trust is a central construct of consumer-brand relationship, and it is considered a key determinant of brand loyalty. Brand trust plays different roles within the consumer-brand relationship. Moreover, there is no long-term relationship between consumers and their brands without trust.

⁵¹ Lee, K.-Y., Huang, H.-L. and Hsu, Y.-C. (2007) *op. cit.*

⁵² Şahin, A., Zehir, C. and Kitapçı, H. (2011), “The effects of brand experiences, trust and satisfaction on building brand loyalty: an empirical research on global brands”, *Procedia - Social and Behavioral Sciences*, Vol. 24, pp. 1288-1301.

⁵³ Zehir, C., Sahin, A., Kitapçı, H. and Özşahin, M. (2011), “The effects of brand communication and service quality in building brand loyalty through brand trust; the empirical research on global brands”, *Procedia - Social and Behavioral Sciences*, Vol. 24, pp. 1218-1231.

⁵⁴ Gurviez, P. and Korchia, M. (2003), “Test of a consumer-brand relationship model including trust and three consequences”, Paper presented at the 30th International Research Seminar in Marketing, La Londe les Maures, France, 11-13 June.

⁵⁵ Delgado-Ballester, E. and Munuera-Alemán, J.L. (2001), “Brand trust in the context of consumer loyalty”, *European Journal of Marketing*, Vol. 35, No. 11, pp. 1238-1258.

⁵⁶ Hess, J. and Story, J. (2005) *op. cit.*

⁵⁷ Song, Y., Hur, W.-M. and Kim, M. (2012) *op. cit.*

⁵⁸ Elliott, R. and Yannopoulou, N. (2007), “The nature of trust in brands: a psychosocial model”, *European Journal of Marketing*, Vol. 41, No. 9, pp. 988-998.

1.3 Relationship trust and other quality variables

Herrera and Blanco (2011)⁵⁹ suggest that there is a significant effect of trust on satisfaction and, subsequently, on loyalty and buying intention. Belaid and Behi (2011)⁶⁰ find that brand attachment can explain 60 percent of the variation in brand trust, and brand trust leads to brand satisfaction and loyalty. However, Dehdashti *et al.* (2012)⁶¹ show that customer satisfaction explains 69 percent of brand trust, which, in turn, explains 62 percent of customer loyalty. Azize *et al.* (2012)⁶² indicate that brand satisfaction is a mediator variable in the relationship between brand communication and brand trust. More specifically, brand communication explains 21 percent of variation in brand satisfaction, while brand satisfaction explains 51 percent of variation in brand trust. Furthermore, brand trust has a significant impact on brand commitment (Albert *et al.*, 2013)⁶³.

1.4 The moderating role of personality traits

Several studies in the marketing literature have investigated the impact of personality characteristics on consumer behavior (e.g., Diehl and Terlutter, 2006⁶⁴; Barkhi and Wallace, 2007⁶⁵). Personality traits can help marketers better understand consumer behavior (Alwitt, 1991⁶⁶; Haugtvedt *et al.*, 1992⁶⁷; Bloemer *et al.*, 2003⁶⁸).

Recently, the moderating effects of personality traits on consumer relationships have been addressed in several studies. For example, Adjei and Clark (2010)⁶⁹ show that personality traits, namely, consumer innovativeness, variety-seeking and relationship proneness, have moderating effects on the relationship between relationship quality (satisfaction, trust and commitment) and behavioral loyalty. Specifically, consumer

⁵⁹ Herrera, C.F. and Blanco, C.F. (2011), "Consequences of consumer trust in PDO food products: the role of familiarity", *Journal of Product & Brand Management*, Vol. 20, No. 4, pp. 282-296.

⁶⁰ Belaid, S. and Behi, A.T. (2011), "The role of attachment in building consumer-brand relationships: an empirical investigation in the utilitarian consumption context", *Journal of Product & Brand Management*, Vol. 20, No. 1, pp. 37-47.

⁶¹ Dehdashti, Z., Kenari, M.J. and Bakhshizadeh, A. (2012), "The impact of social identity of brand on brand loyalty development", *Management Science Letters*, Vol. 2, No. 4, pp. 1425-1434.

⁶² Azize, Ş., Cemal, Z. and Hakan, K. (2012), "Does brand communication increase brand trust? The empirical research on global mobile phone brands", *Procedia - Social and Behavioral Sciences*, Vol. 58, pp. 1361-1369.

⁶³ Albert, N., Merunka, D. and Valette-Florence, P. (2013), "Brand passion: Antecedents and consequences", *Journal of Business Research*, Vol. 66, No. 7, pp. 904-909.

⁶⁴ Diehl, S. and Terlutter, R. (2006) *op. cit.*

⁶⁵ Barkhi, R. and Wallace, L. (2007) *op. cit.*

⁶⁶ Alwitt, L.F. (1991) *op. cit.*

⁶⁷ Haugtvedt, C.P., Petty, R.E. and Cacioppo, J.T. (1992) *op. cit.*

⁶⁸ Bloemer, J., Odekerken-Schröder, G. and Kestens, L. (2003) *op. cit.*

⁶⁹ Adjei, M.T. and Clark, M.N. (2010) *op. cit.*

innovativeness ($\beta = -0.797$, $t = -2.187$, $p < 0.05$) and variety-seeking ($\beta = -0.760$, $t = -1.951$, $p < 0.05$) negatively interact with relationship quality, while relationship proneness positively interacts with relationship quality ($\beta = 0.498$, $t = 3.001$, $p < 0.001$). Hansen *et al.* (2013)⁷⁰ find that credibility and value have a strong positive effect on customer loyalty for low need for cognitions, whereas this effect is weaker for high need for cognitions. They also find that the effect of satisfaction on loyalty is stronger for high need for cognitions, but is weaker for low need for cognitions. Moreover, the effect of image on customer loyalty is not significant in either low or high need for cognitions. Julien (2010)⁷¹ indicates that the strength of the relationship between satisfaction and loyalty and between trust and loyalty is moderated by two personality traits, i.e., judgment and perception. However, Wang *et al.* (2010)⁷² suggest that the personality trait of neuroticism attenuates the relationship between customer satisfaction and loyalty, whereas the personality trait of extraversion does not have any effect on the satisfaction-loyalty relationship. Homburg and Giering (2001)⁷³ indicate that the impact of customer satisfaction on loyalty is stronger for low variety-seeking, while it is weaker for high variety-seeking. Likewise, Lee (2006)⁷⁴ finds that the relationship between customer satisfaction and customer loyalty and between perceived value and customer loyalty is stronger for low sensation-seekers than high sensation-seekers.

Furthermore, in an online buying context, Ranaweera *et al.* (2008)⁷⁵ suggest that personality characteristics have significant moderating effects on online purchase intentions. More specifically, trust disposition, risk aversion and technology readiness were found to be important moderators for the relationship between web site satisfaction and purchase intentions. Jianlin and Qi (2010)⁷⁶ show that personal innovativeness significantly moderates the relationship between switching costs and e-store loyalty ($\beta = -0.128$, $p < 0.05$), while the relationship between customer satisfaction and e-store

⁷⁰ Hansen, H., Samuelsen, B.M. and Sallis, J.E. (2013), "The moderating effects of need for cognition on drivers of customer loyalty", *European Journal of Marketing*, Vol. 47, No. 8, pp.1157-1176.

⁷¹ Julien, A. (2010), "Segmenter avec la personnalité: Une approche par le MBTI[®]", *Décisions Marketing*, No. 57, pp. 43-51.

⁷² Wang, X., Chen, Y.-H. and Tsai, S.-C. (2010), "Personality traits as moderators of the relationship between customer satisfaction and loyalty", in *2010 7th International Conference on Service Systems and Service Management*, IEEE, pp. 43-66.

⁷³ Homburg, C. and Giering, A. (2001), "Personal characteristics as moderators of the relationship between customer satisfaction and loyalty - An empirical analysis", *Psychology & Marketing*, Vol. 18, No. 1, pp. 43-66.

⁷⁴ Lee, W.-I. (2006), "The impact of customer satisfaction and perceived value on loyalty: The moderating effects of sensation seeking traits", *International Journal of Tourism Sciences*, Vol. 6, No. 1, pp. 65-78.

⁷⁵ Ranaweera, C., Bansal, H. and McDougall, G. (2008), "Web site satisfaction and purchase intentions: Impact of personality characteristics during initial web site visit", *Managing Service Quality*, Vol. 18, No. 4, pp. 329-348.

⁷⁶ Jianlin, W. and Qi, D. (2010), "Moderating effect of personal innovativeness in the model for e-store loyalty", in *2010 International Conference on E-Business and E-Government*, IEEE, pp. 2065-2068.

loyalty is not moderated by personal innovativeness ($\beta = -0.016$, *n.s.*). Fan and Du (2010)⁷⁷ indicate that the effects of the three dimensions of perceived service quality (responsiveness, assurance and reliability) on service quality are moderated differently by three personality traits, namely, extraversion, agreeableness and neuroticism. Moreover, the personality traits of extraversion, agreeableness, neuroticism and conscientiousness have significant moderating effects on the relationship between service quality and customer satisfaction, while the effect of customer satisfaction on word-of-mouth is not moderated by personality traits.

Section 2. Trust models

2.1 Different trust models in consumer-brand relationship

Indeed, several studies have emphasized the importance of trust in building long-term consumer relationships. Trust appears as a fundamental variable in different conceptual models which describe the relationship between customers and their brands. For example, Figure 2 explains the significant path from perceived value to satisfaction, and from satisfaction to brand affect and brand trust. Brand loyalty and brand risk are influenced by

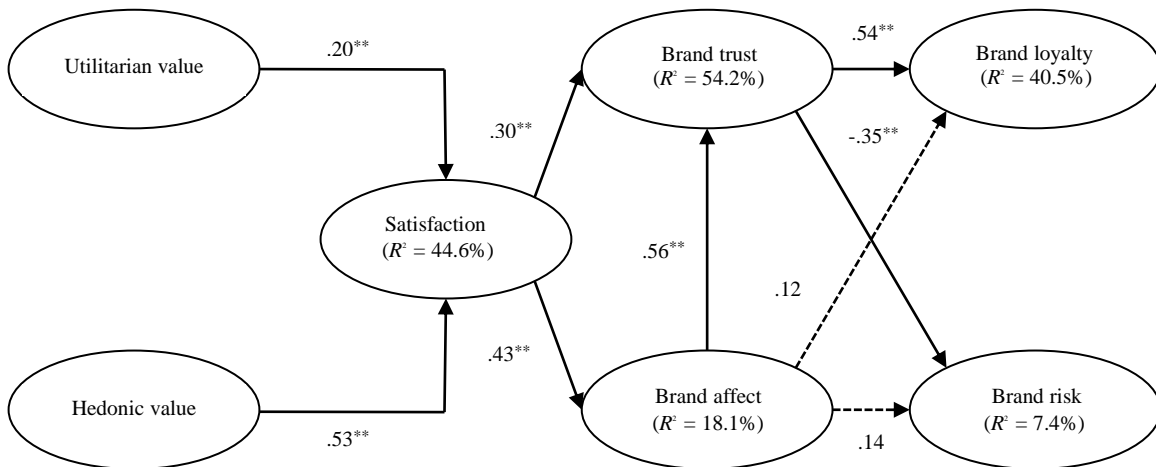


Figure 2. Conceptual model developed by Song *et al.* (2012).

brand trust (Song *et al.*, 2012)⁷⁸. In Figure 3, Lee *et al.* (2007)⁷⁹ propose that the impact of brand trust on brand loyalty, such as advocacy loyalty and repurchase loyalty, is

⁷⁷ Fan, X. and Du, Y. (2010), "How do consumer personality traits affect their perceptions and evaluations of service quality?", in *2010 International Conference on Service Sciences*, IEEE, pp. 148-153.

⁷⁸ Song, Y., Hur, W.-M. and Kim, M. (2012) *op. cit.*

⁷⁹ Lee, K.-Y., Huang, H.-L. and Hsu, Y.-C. (2007) *op. cit.*

mediated by brand satisfaction and commitment (continuance commitment and affective commitment). Hess and Story (2005)⁸⁰ introduce a trust-based commitment model, as shown in Figure 4. This model describes the relationships among trust, satisfaction, commitment dimensions and relational outcomes. It explains the direct effect of satisfaction on trust, and the indirect effect of trust and satisfaction on relational outcomes through personal and functional connections. More specifically, personal

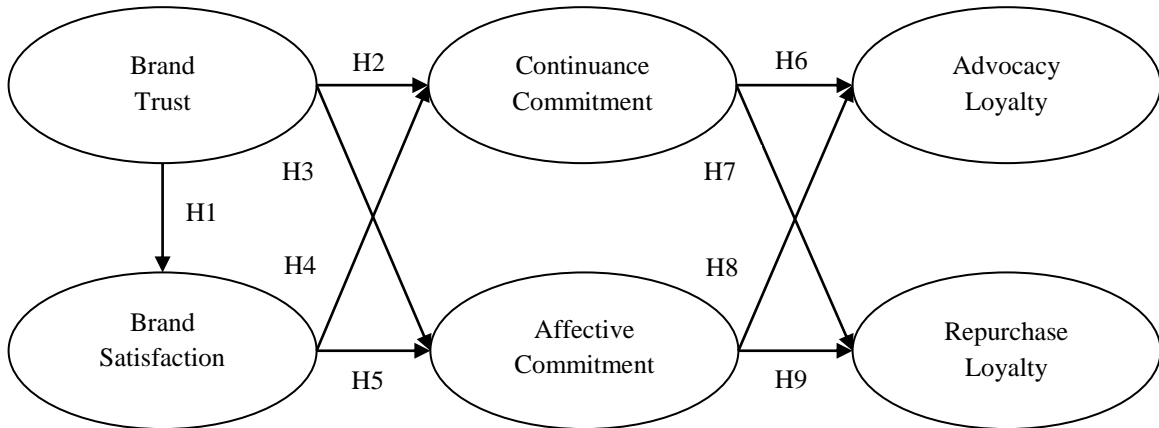


Figure 3. Conceptual model developed by Lee *et al.* (2007).

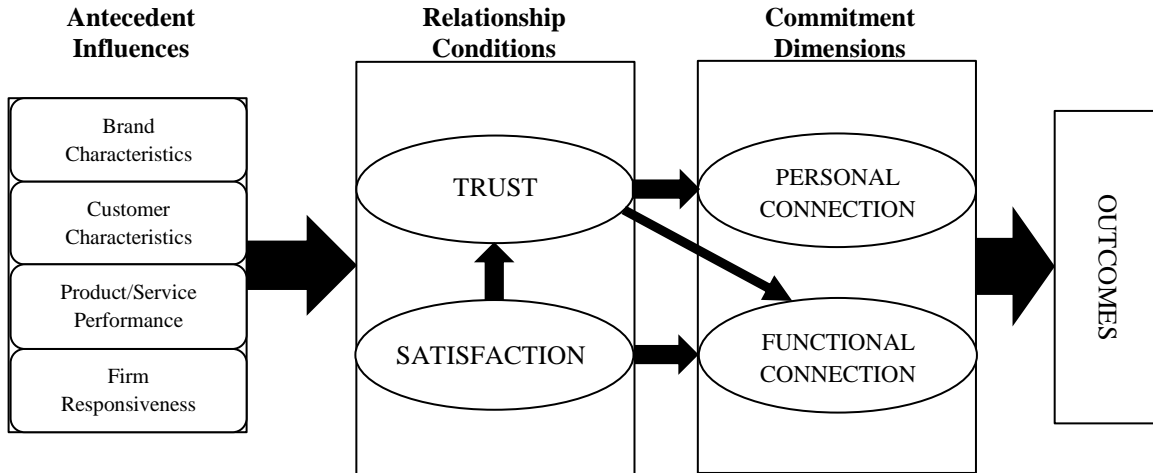


Figure 4. Conceptual model developed by Hess and Story (2005).

connection is influenced by trust, while functional connection is influenced by both trust and satisfaction. Şahin *et al.* (2011)⁸¹ propose a conceptual model that describes the effect of brand experience, brand trust and brand satisfaction on brand loyalty. In this model, satisfaction and brand trust are considered mediating variables between brand experience

⁸⁰ Hess, J. and Story, J. (2005) *op. cit.*

⁸¹ Şahin, A., Zehir, C. and Kitapçı, H. (2011) *op. cit.*

and brand loyalty (see Figure 5). Herrera and Blanco (2011)⁸² propose in their conceptual model that trust has a direct impact on satisfaction and perceived risk, while customer

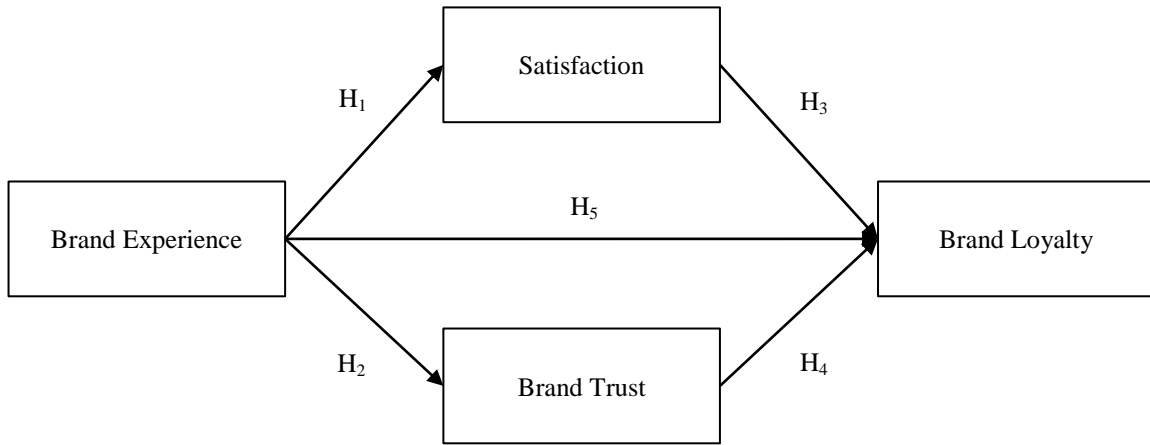


Figure 5. Conceptual model developed by Şahin *et al.* (2011).

satisfaction mediates the impact of trust on loyalty and buying intention. In addition, the relationships among trust, perceived risk, satisfaction, loyalty and buying intention are moderated by familiarity (see Figure 6). A recent study by Belaid and Behi (2011)⁸³ proposes a model that explains the relationship between brand attachment and

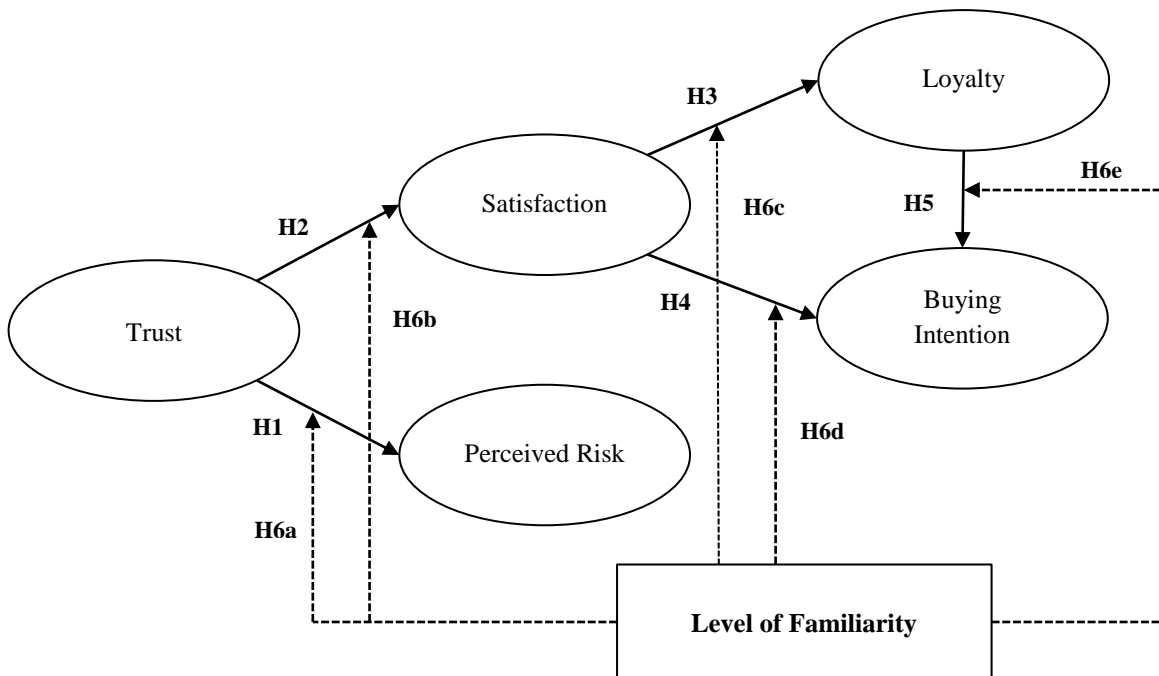


Figure 6. Conceptual model developed by Herrera and Blanco (2011).

⁸² Herrera, C.F. and Blanco, C.F. (2011) *op. cit.*

⁸³ Belaid, S. and Behi, A.T. (2011) *op. cit.*

its outcomes, namely, brand trust, brand satisfaction, brand commitment and loyalty (see Figure 7). This model shows that the relationship between attachment and loyalty is mediated by each of brand trust, brand satisfaction and brand commitment. Moreover, brand trust has a direct effect on brand satisfaction.

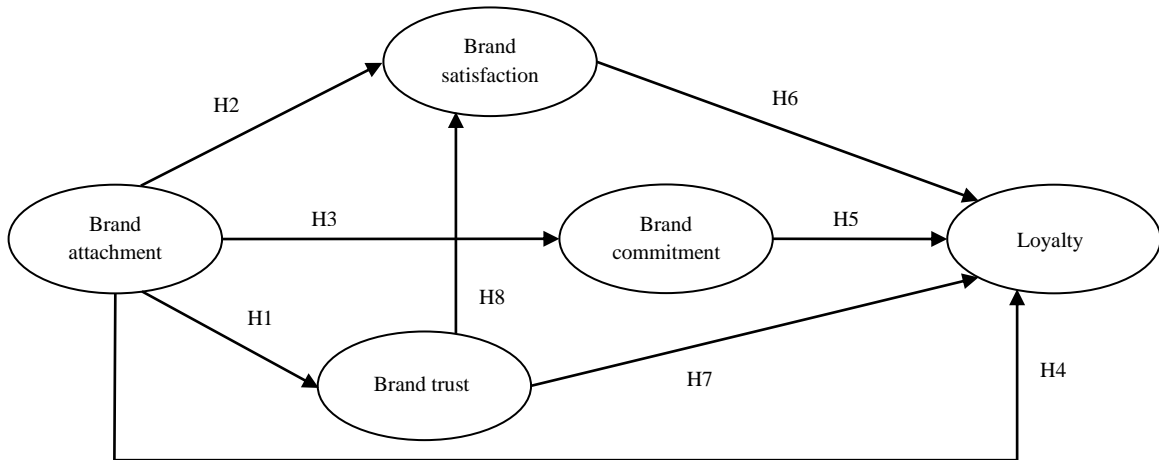


Figure 7. Conceptual model developed by Belaid and Behi (2011).

However, Dehdashti *et al.* (2012)⁸⁴ propose a model that explains the relationship between brand identity and customer loyalty. Specifically, brand identity indirectly influences customer loyalty via perception value, satisfaction and trust (see figure 8). In Figure 9, Azize *et al.* (2012)⁸⁵ consider that brand trust is a dependent variable, whereas satisfaction is a mediator variable between brand communication and brand trust.

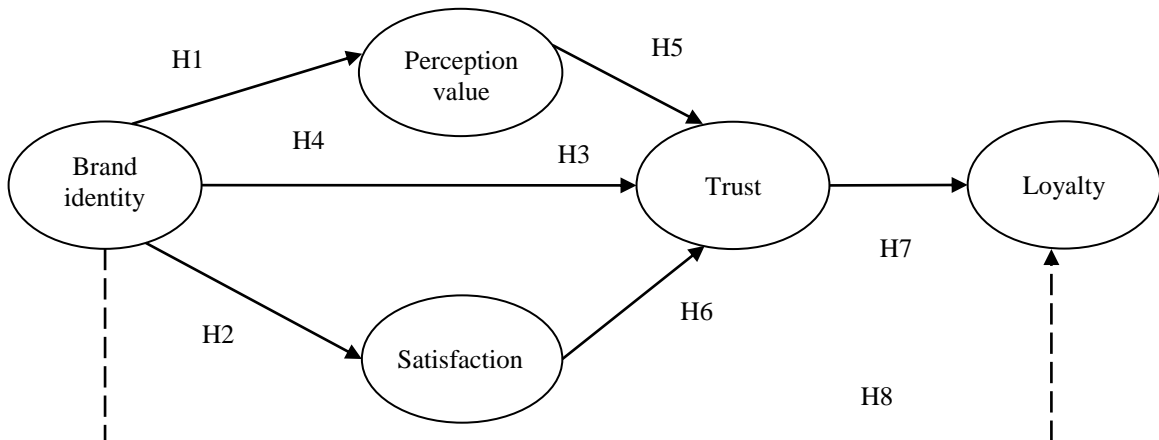


Figure 8. Conceptual model developed by Dehdashti *et al.* (2012).

⁸⁴ Dehdashti, Z., Kenari, M. J. and Bakhshizadeh, A. (2012) *op. cit.*

⁸⁵ Azize, Ş., Cemal, Z. and Hakan, K. (2012) *op. cit.*

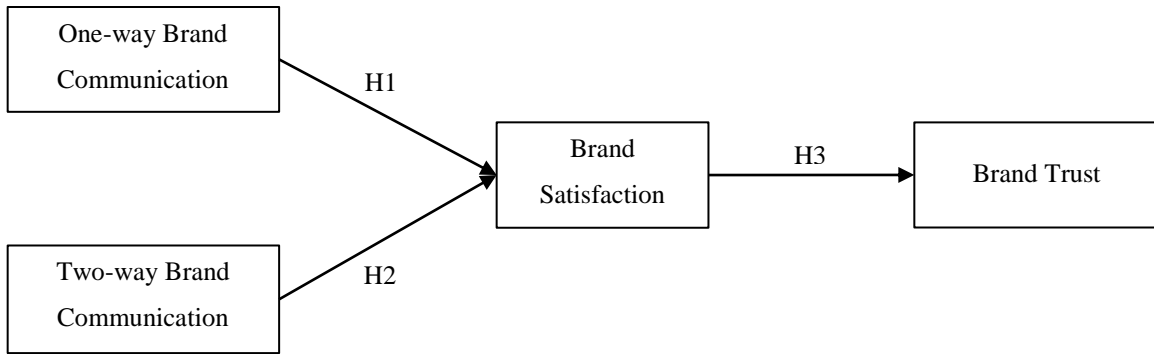


Figure 9. Conceptual model developed by Azize *et al.* (2012).

Delgado-Ballester and Munuera-Alemán (2001)⁸⁶ propose that brand trust is a key variable which mediates the relationship between overall satisfaction and customer commitment. They also propose that the relationships among overall satisfaction, brand trust and customer commitment are moderated by customer involvement. Moreover,

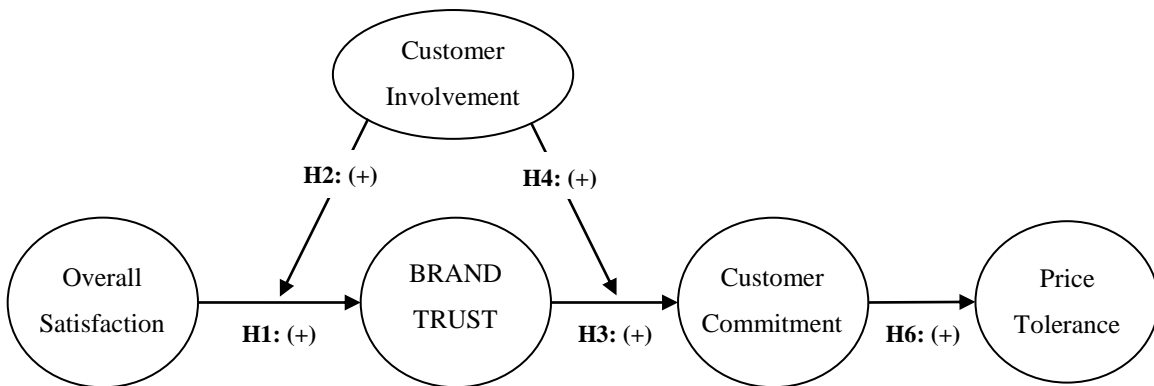


Figure 10. Conceptual model developed by Delgado-Ballester and Munuera-Alemán (2001).

customers' price tolerance is considered an outcome of customer commitment (see Figure 10). Finally, Lau and Lee (1999)⁸⁷ propose that trust is affected by three sets of factors, which are brand characteristics, company characteristics and consumer-brand characteristics (see Figure 11). They also show that trust leads to brand loyalty.

⁸⁶ Delgado-Ballester, E. and Munuera-Alemán, J.L. (2001) *op. cit.*

⁸⁷ Lau, G.H. and Lee, S.H. (1999) *op. cit.*

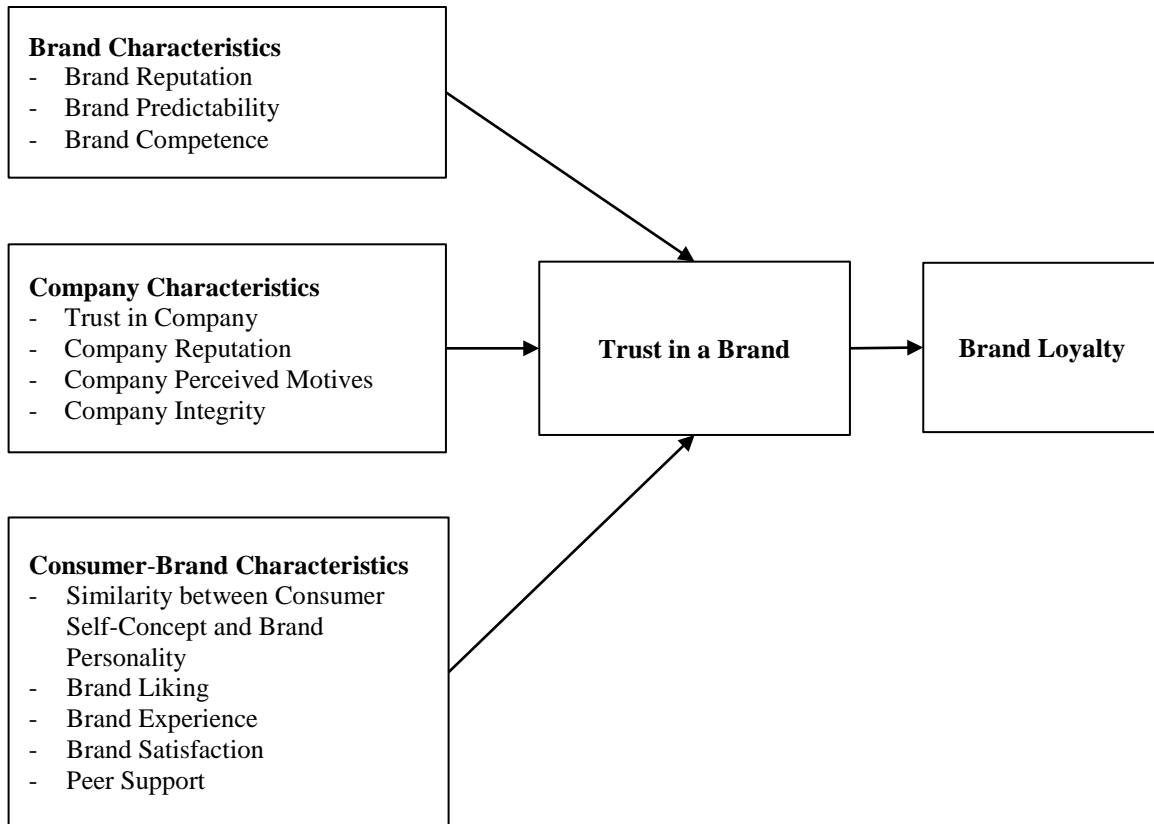


Figure 11. Conceptual model developed by Lau and Lee (1999).

Based on the aforementioned models, it can be noticed that there are two significant factors, namely, trust and satisfaction, that are included in all models. It can also be seen that customer satisfaction is considered either an antecedent or a consequence of trust. This leads to the following question:

Which one is the antecedent?

To answer this question, the nature of the relationship between customer satisfaction and trust is discussed in the next section.

2.2 The relationship between trust and satisfaction

Several studies in the marketing literature focus on the study of the nature of the relationship between satisfaction and trust because of their importance in predicting customer loyalty. These factors play a major role in creating and developing strong long-term customer relationships. There is no long-term relationship between consumers and their companies or brands if one of these two constructs does not exist.

Although most marketing researchers agree that satisfaction and trust are very important to develop a long-term relationship with customers, they differ on how to use them in the conceptual models. Some researchers study consumer satisfaction and trust as independent variables.⁸⁸ Others suggest that trust is an antecedent of consumer satisfaction, while some others consider that consumer satisfaction is an antecedent variable of trust. Therefore, it can be concluded that there are three competing theories about the relationship between consumer satisfaction and trust. First, consumer satisfaction and trust are independent from each other. Second, trust is an antecedent of customer satisfaction. Third, consumer satisfaction is a predictor of trust.

These three cases are explained and discussed in the following subsections.

2.2.1 Satisfaction and trust are independent from each other

Numerous studies have emphasized the important role of consumer satisfaction and trust in building and maintaining strong relationships with customers. Some researchers consider in their conceptual models that satisfaction and trust are independent from each other. For example, the conceptual model of Fullerton (2011)⁸⁹ explains the effects of satisfaction, trust and commitment on advocacy intentions. It can be seen from Figure 12 that satisfaction and trust have positive links toward consumer commitment, but there is

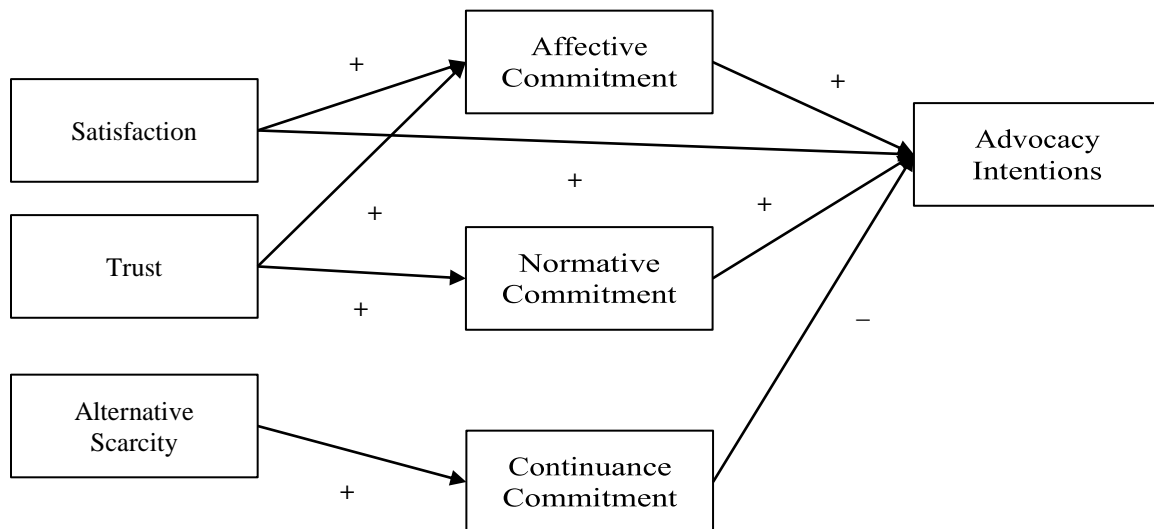


Figure 12. Conceptual model developed by Fullerton (2011).

⁸⁸ No relationship between satisfaction and trust.

⁸⁹ Fullerton, G. (2011), "Creating advocates: The roles of satisfaction, trust and commitment", *Journal of Retailing and Consumer Services*. Vol. 18, No. 1, pp. 92-100.

no link between them, and they are used as exogenous variables. Setó-Pamies (2012)⁹⁰ proposes a customer loyalty model that focuses on the travel agencies sector in New Zealand. She considers service quality and trust as exogenous variables, whereas satisfaction and loyalty are considered endogenous variables. As can be seen from Figure 13, trust is a predictor variable of loyalty, while satisfaction is a mediator variable between service quality and loyalty.

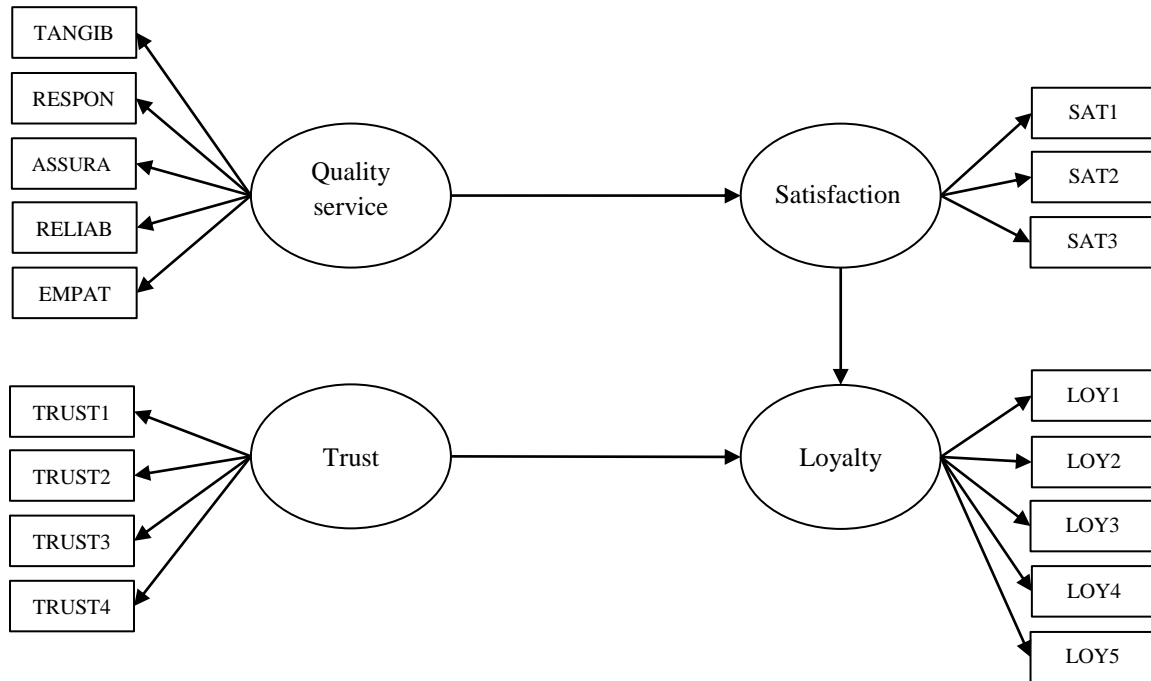


Figure 13. Conceptual model developed by Setó-Pamies (2012).

In addition, other researchers use both satisfaction and trust as mediating variables, without any existing relationship between them. For example, Ou *et al.* (2011)⁹¹ examine the impact of customer loyalty programs on relationship quality, relationship commitment and loyalty. Figure 14 shows that both dimensions of relationship quality, i.e., satisfaction and trust, are independent from each other. It can also be seen that these constructs are considered mediating variables in the relationship between customer loyalty programs, service quality and relationship commitment. Chen

⁹⁰ Setó-Pamies, D. (2012), "Customer loyalty to service providers: examining the role of service quality, customer satisfaction and trust", *Total Quality Management & Business Excellence*, Vol. 23, Nos. 11/12, pp. 1257-1271.

⁹¹ Ou, W.-M., Shih, C.-M., Chen, C.-Y. and Wang, K.-C. (2011), "Relationships among customer loyalty programs, service quality, relationship quality and loyalty: An empirical study", *Chinese Management Studies*, Vol. 5, No. 2, pp. 194-206.

(2010)⁹² investigates the positive effect of green brand image on green satisfaction, green trust and green brand equity. According to his conceptual model, green brand image and green brand equity are independent and dependent variables, respectively, whereas green trust and green satisfaction are mediating variables (see Figure 15).

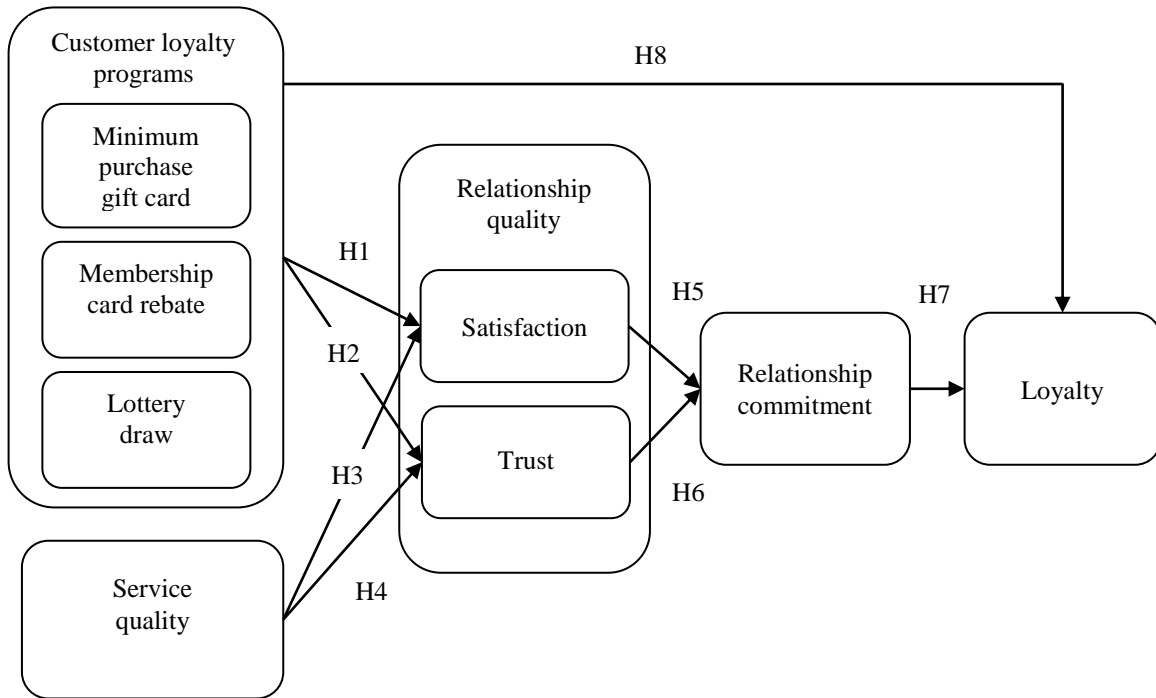


Figure 14. Conceptual model developed by Ou *et al.* (2011).

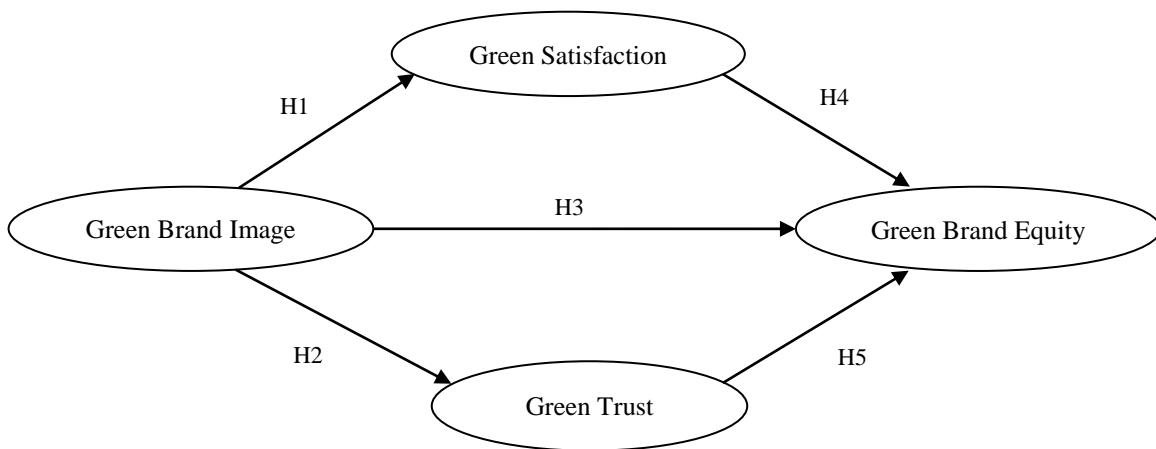


Figure 15. Conceptual model developed by Chen (2010).

⁹² Chen, Y.-S. (2010), "The drivers of green brand equity: Green brand image, green satisfaction, and green trust", *Journal of Business Ethics*, Vol. 93, No. 2, pp. 307-319.

2.2.2 Trust is an antecedent of customer satisfaction

Various studies have underlined the relationship between trust and customer satisfaction. Few of these studies suggest trust as an antecedent of customer satisfaction. For instance, Deng *et al.* (2010)⁹³ propose a customer satisfaction and loyalty model. The model is applied to a population of mobile instant message users in China. It demonstrates the determinants of customer satisfaction and loyalty. Figure 16 shows that trust is an independent variable, and it has a significant effect on both satisfaction and loyalty, while consumer satisfaction plays a mediating role between trust and loyalty. Wu (2013)⁹⁴ proposes a conceptual model that combines major predictor variables of customer

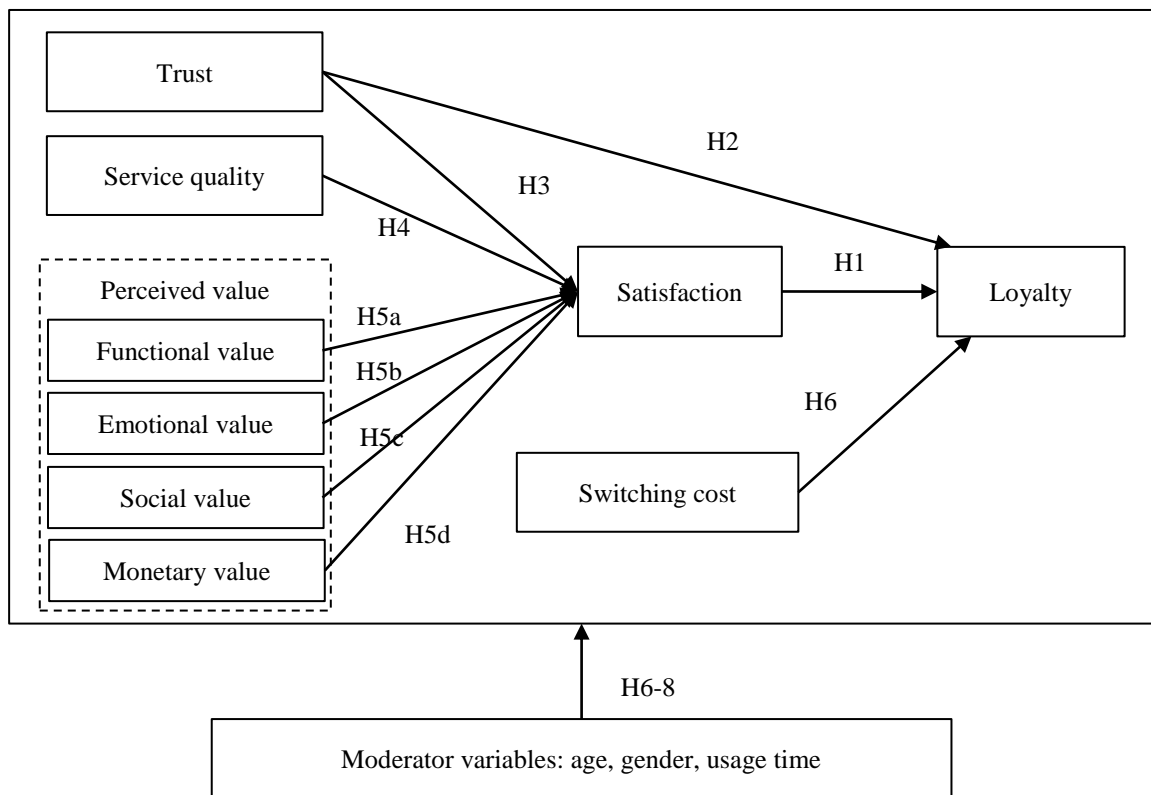


Figure 16. Conceptual model developed by Deng *et al.* (2010).

satisfaction and its link to complaint intentions in online shopping. This model explicitly indicates that trust is an important antecedent of customer satisfaction (see Figure 17).

⁹³ Deng, Z., Lu, Y., Wei, K.K. and Zhang, J. (2010), "Understanding customer satisfaction and loyalty: An empirical study of mobile instant messages in China", *International Journal of Information Management*, Vol. 30, No. 4, pp. 289-300.

⁹⁴ Wu, I.-L. (2013), "The antecedents of customer satisfaction and its link to complaint intentions in online shopping: An integration of justice, technology, and trust", *International Journal of Information Management*, Vol. 33, No. 1, pp. 166-176.

San-Martin and López-Catalán (2013)⁹⁵ propose a model that explains the effect of trust, involvement, impulsiveness and innovativeness on satisfaction in the mobile commerce

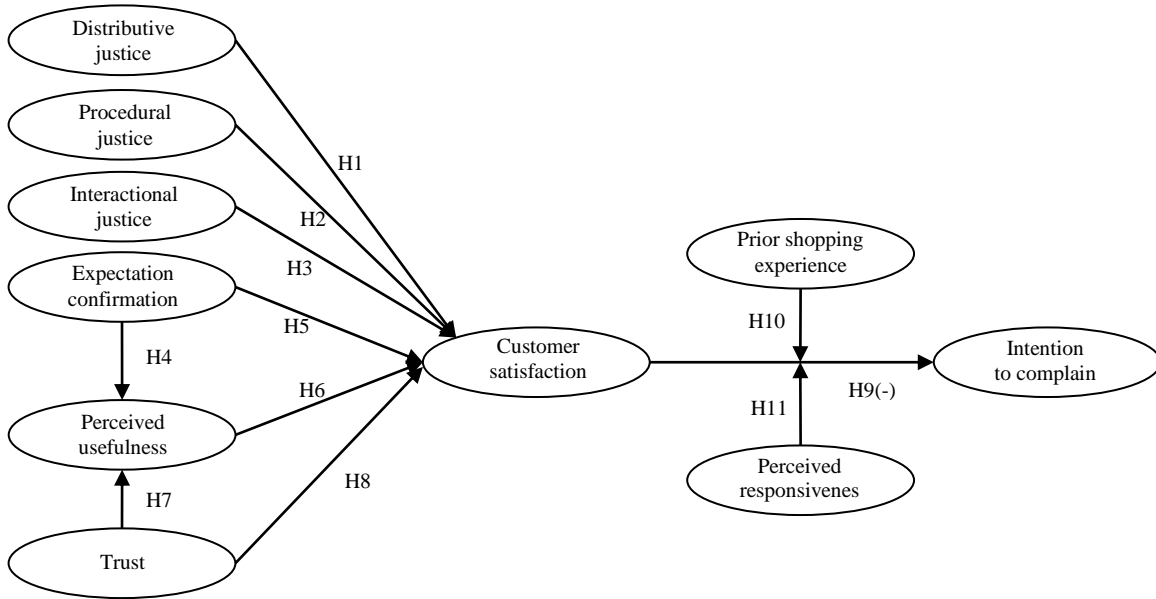


Figure 17. Conceptual model developed by Wu (2013).

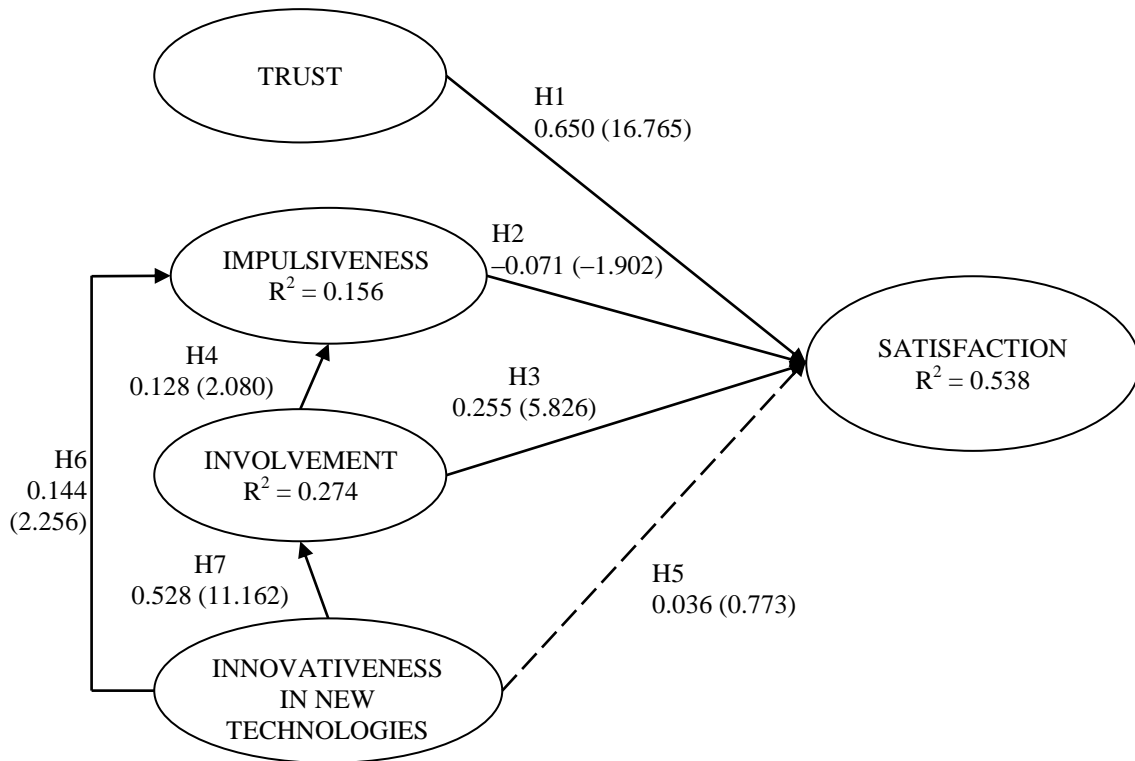


Figure 18. Conceptual model developed by San-Martin and López-Catalán (2013).

⁹⁵ San-Martin, S. and López-Catalán, B. (2013), "How can a mobile vendor get satisfied customers?", *Industrial Management & Data Systems*, Vol. 113, No. 2, pp. 156-170.

context. They consider that the main relational driver of satisfaction among Spanish mobile shoppers is trust. As can be noticed from Figure 18, trust and satisfaction are used as independent and dependent variables, respectively.

2.2.3 Satisfaction is a predictor of trust

Previous studies have empirically demonstrated a significant relationship between customer satisfaction and trust. Several researchers in the marketing literature consider trust as a key outcome of customer satisfaction. For example, Amin *et al.* (2013)⁹⁶ compare the effect of customer satisfaction on image, trust and loyalty between Muslim and non-Muslim customers in the context of the Malaysian Islamic banks industry. They suggest in their conceptual model that customer satisfaction leads to trust (see Figure 19). Moreover, the relationship between customer satisfaction and image is mediated by

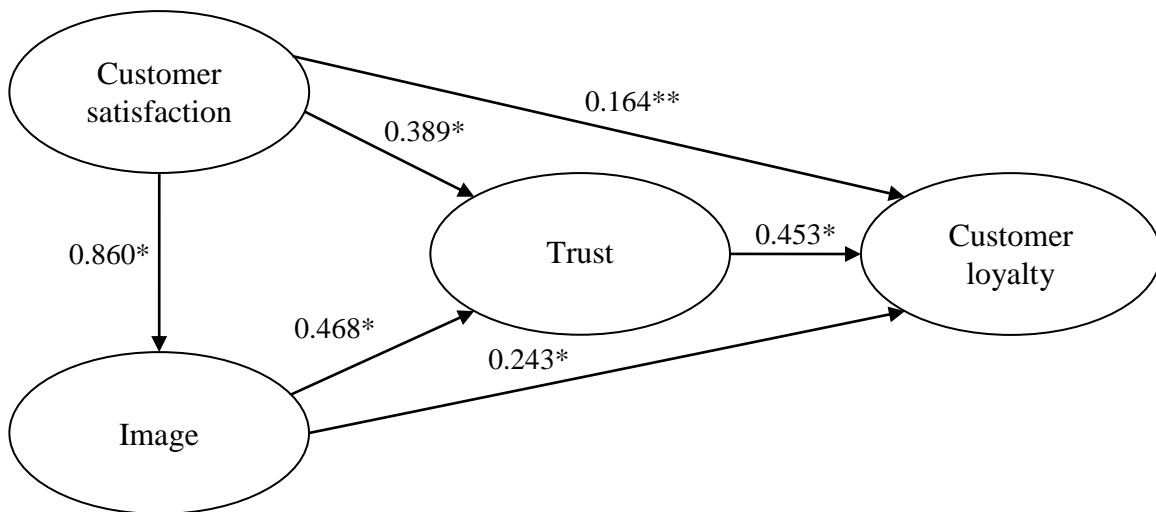


Figure 19. Conceptual model developed by Amin *et al.* (2013).

trust. Chen (2012)⁹⁷ suggests that trust plays a mediating role between satisfaction and loyalty in the e-service context (see Figure 20). According to Horppu *et al.* (2008)⁹⁸, satisfaction at the website level is a driver of website trust (see Figure 21). In the online

⁹⁶ Amin, M., Isa, Z. and Fontaine, R. (2013), "Islamic banks: Contrasting the drivers of customer satisfaction on image, trust, and loyalty of Muslim and non-Muslim customers in Malaysia", *International Journal of Bank Marketing*, Vol. 31, No. 2, pp. 79-97.

⁹⁷ Chen, S.-C. (2012), "The customer satisfaction-loyalty relation in an interactive e-service setting: The mediators", *Journal of Retailing and Consumer Services*, Vol. 19, No. 2, pp. 202-210.

⁹⁸ Horppu, M., Kuivalainen, O., Tarkiainen, A. and Ellonen, H.-K. (2008), "Online satisfaction, trust and loyalty, and the impact of the offline parent brand", *Journal of Product & Brand Management*, Vol. 17, No. 6, pp. 403-413.

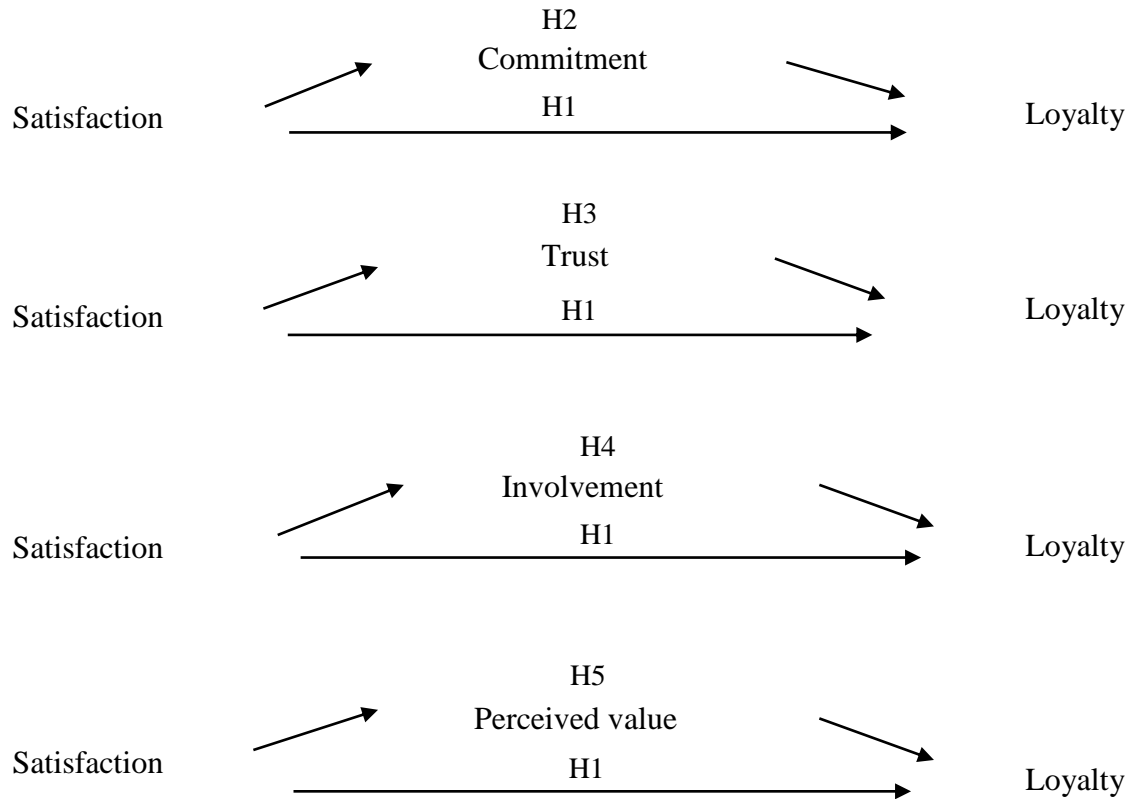


Figure 20. Conceptual model developed by Chen (2012).

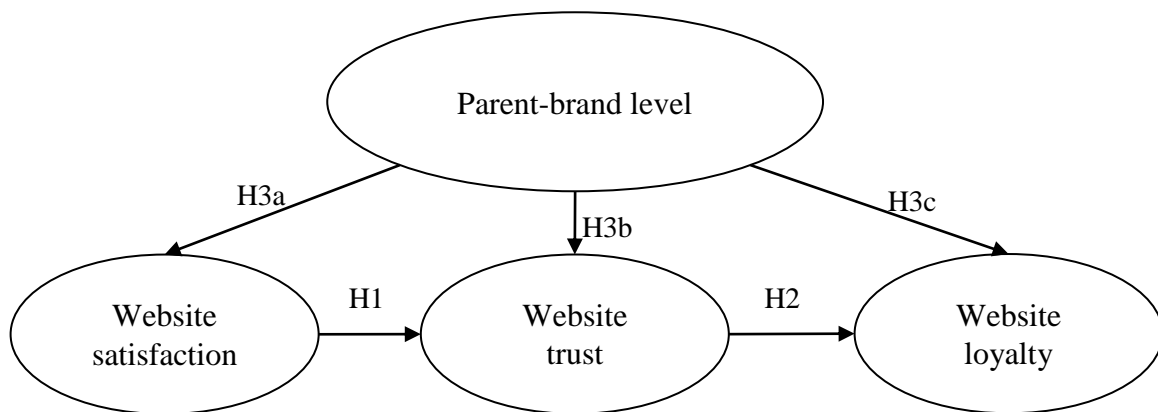
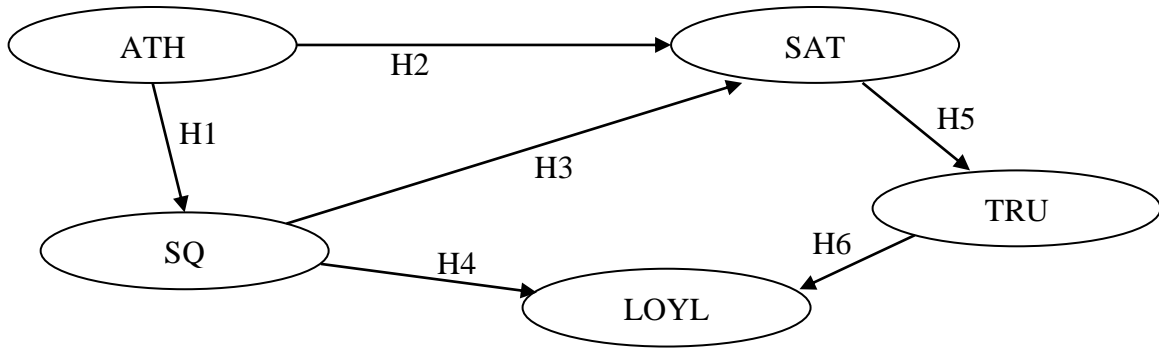


Figure 21. Conceptual model developed by Horppu *et al.* (2008).

Islamic banking context, Butt and Aftab (2013)⁹⁹ propose a model that investigates the relationships among e-service quality, e-satisfaction, e-trust and e-loyalty. It can be seen from Figure 22 that e-trust is the outcome of e-satisfaction, and it mediates the relationship between e-satisfaction and e-loyalty.

⁹⁹ Butt, M.M. and Aftab, M. (2013), "Incorporating attitude towards Halal banking in an integrated service quality, satisfaction, trust and loyalty model in online Islamic banking context", *International Journal of Bank Marketing*, Vol. 31, No. 1, pp. 6-23.



Notes: ATH, attitude towards *Halal* banking; SAT, satisfaction; SQ, service quality; TRU, trust; LOYL, loyalty

Figure 22. Conceptual model developed by Butt and Aftab (2013).

Additionally, the model proposed by Sultan and Wong (2013)¹⁰⁰ shows that satisfaction has a direct influence on trust (see Figure 23). Wilkins *et al.* (2010)¹⁰¹ propose a model that presents the determinants of behavioral loyalty in the hotel context (see Figure 24). This model explains the relationships among service quality, perceived

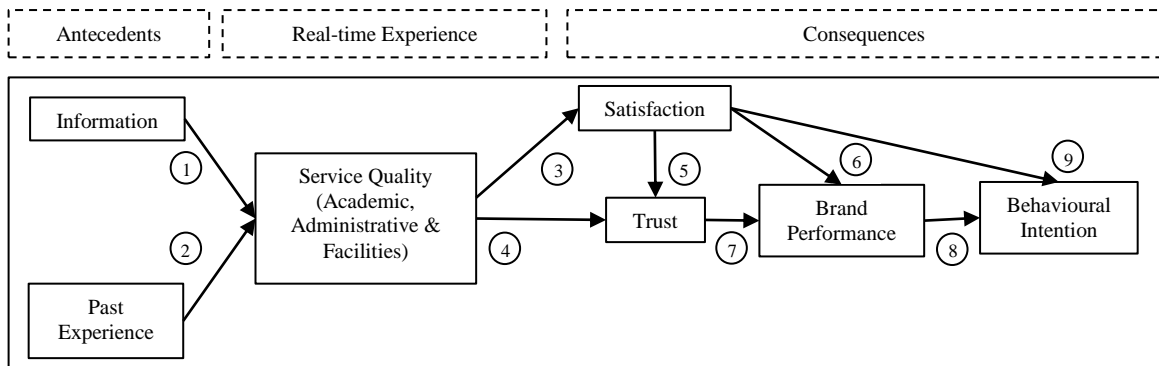


Figure 23. Conceptual model developed by Sultan and Wong (2013).

value, customer satisfaction, brand trust, brand attitude and behavioral loyalty. The authors suggest that customer satisfaction is an antecedent of brand trust. Brand trust and brand attitude act as mediating variables between customer satisfaction and behavioral loyalty. However, in the banking industry context, Aurier and N'Goala (2010)¹⁰² develop a conceptual framework that explains the mediating role of relationship quality in the

¹⁰⁰ Sultan, P. and Wong, H.Y. (2013), "Antecedents and consequences of service quality in a higher education context: A qualitative research approach", *Quality Assurance in Education*, Vol. 21, No. 1, pp. 70-95.

¹⁰¹ Wilkins, H., Merrilees, B. and Herington, C. (2010), "The determinants of loyalty in hotels", *Journal of Hospitality Marketing & Management*, Vol. 19, No. 1, pp. 1-21.

¹⁰² Aurier, P. and N'Goala, G. (2010), "The differing and mediating roles of trust and relationship commitment in service relationship maintenance and development", *Journal of the Academy of Marketing Science*, Vol. 38, No. 3, pp. 303-325.

relationship between service evaluations and patronage behavior. As can be seen from Figure 25, overall satisfaction is a predictor of trust.

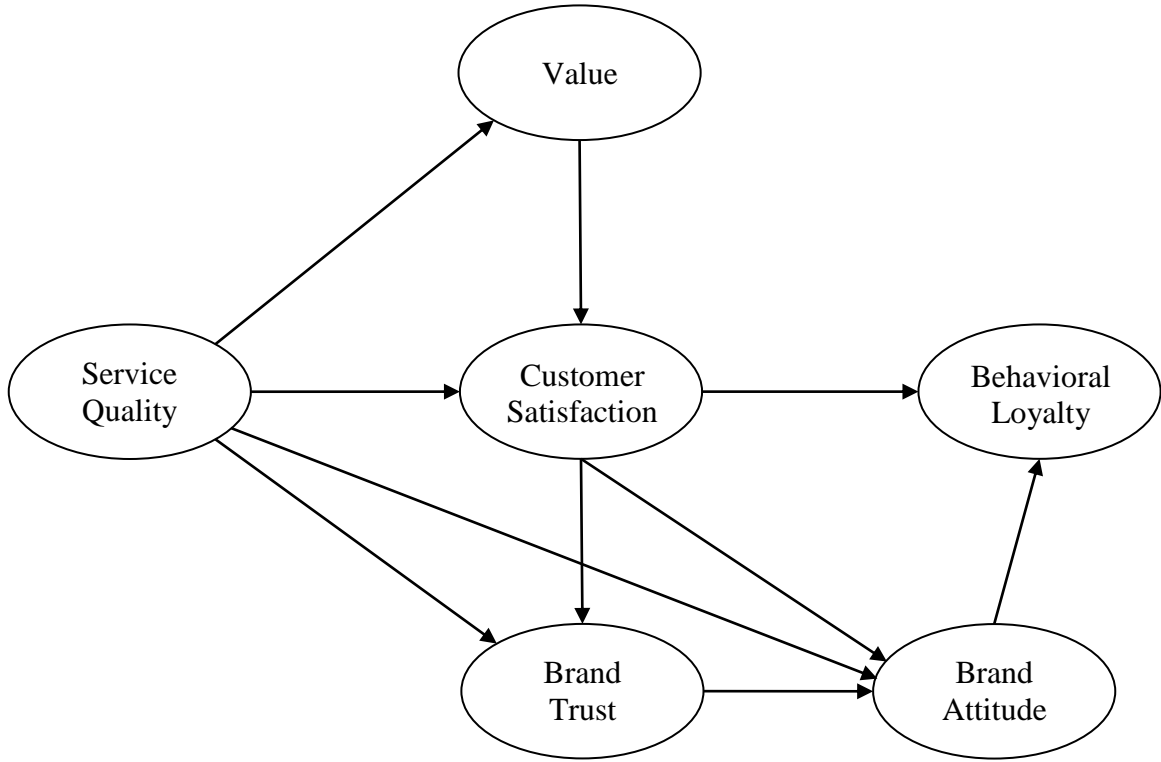


Figure 24. Conceptual model developed by Wilkins *et al.* (2010).

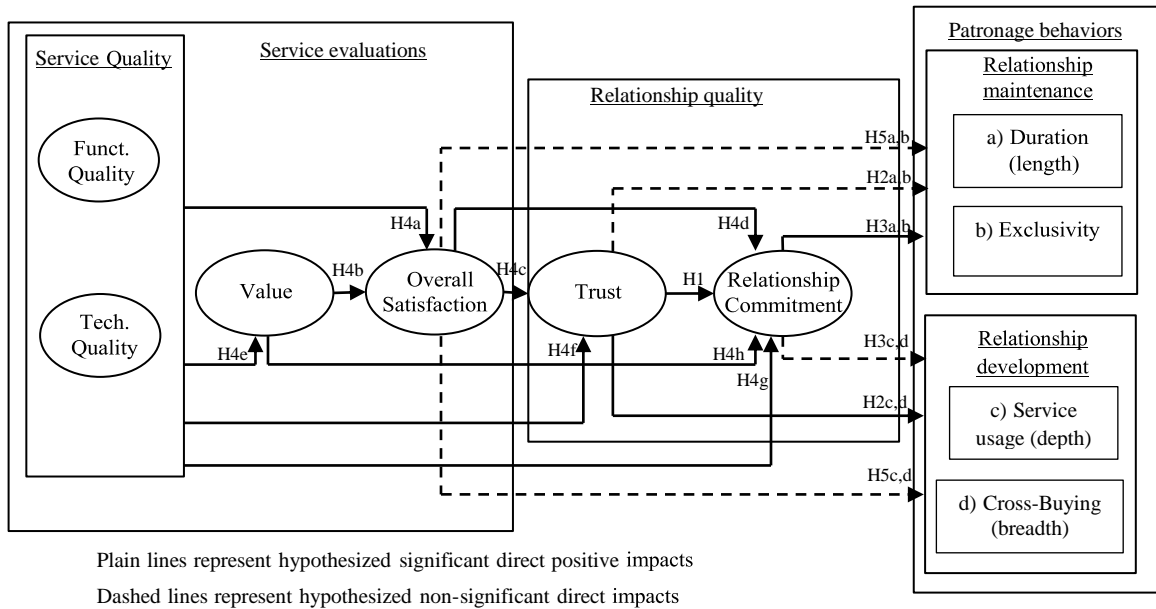


Figure 25. Conceptual model developed by Aurier and N'Goala (2010).

Chen and Chang (2013)¹⁰³ propose a conceptual model that explains the relationships among green perceived quality, green perceived risk, green satisfaction and green trust. This model shows that green satisfaction leads to green trust (see Figure 26).

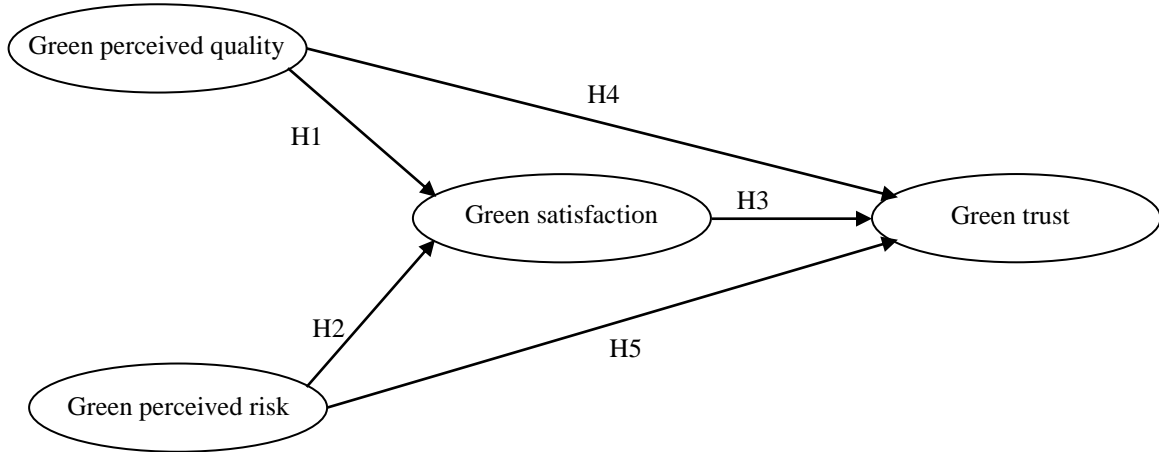


Figure 26. Conceptual model developed by Chen and Chang (2013).

Generally, it can be noticed from figures 19 and 20 that customer satisfaction is considered an independent variable, while trust is a mediating variable. However, Figures 21; 22; 23; 24 and 25 present both customer satisfaction and trust as mediating variables. Conversely, Figure 26 shows that satisfaction is the mediating variable between perceived quality, perceived risk and trust, while trust is a dependent variable.

In addition, some studies in the marketing literature indicate that there is a reciprocal relationship between customer satisfaction and trust. For example, Erciş *et al.* (2012)¹⁰⁴ indicate that trust and satisfaction positively influence each other (see Figure 27). Lin and Zhang (2011)¹⁰⁵ posit that trust in pre-usage phase has an indirect impact on satisfaction through some mediating variables (see Figure 28), while in post-usage phase satisfaction has a positive impact on trust. Moreover, Chiou and Droge (2006)¹⁰⁶ propose a satisfaction-loyalty framework, as shown in Figure 29. This framework shows two

¹⁰³ Chen, Y.-S. and Chang, C.-H. (2013), "Towards green trust: The influences of green perceived quality, green perceived risk, and green satisfaction", *Management Decision*, Vol. 51, No. 1, pp. 63-82.

¹⁰⁴ Erciş, A., Ünal, S., Candan, F.B. and Yıldırım, H. (2012), "The effect of brand satisfaction, trust and brand commitment on loyalty and repurchase intentions", *Procedia - Social and Behavioral Sciences*, Vol. 58, pp. 1395-1404.

¹⁰⁵ Lin, J. and Zhang, G. (2011), "The evolution of consumer trust and satisfaction in mobile electronic commerce", *Communications in Computer and Information Science*, Vol. 238, pp. 158-165.

¹⁰⁶ Chiou, J.-S. and Droge, C. (2006), "Service quality, trust, specific asset investment, and expertise: Direct and indirect effects in a satisfaction-loyalty framework", *Journal of the Academy of Marketing Science*, Vol. 34, No. 4, pp. 613-627.

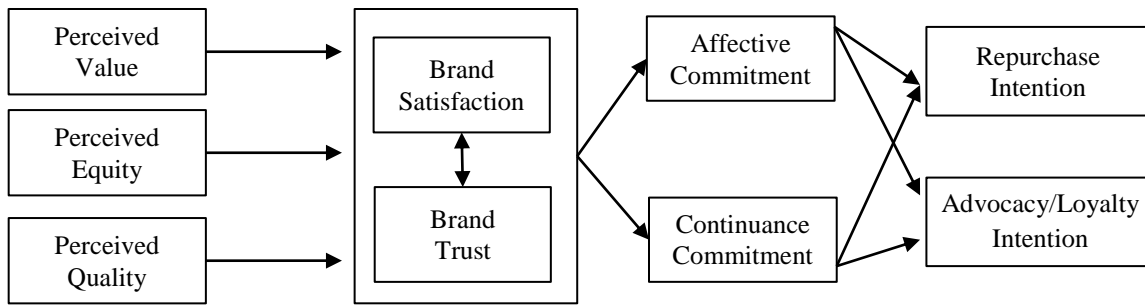


Figure 27. Conceptual model developed by Erciş *et al.* (2012).

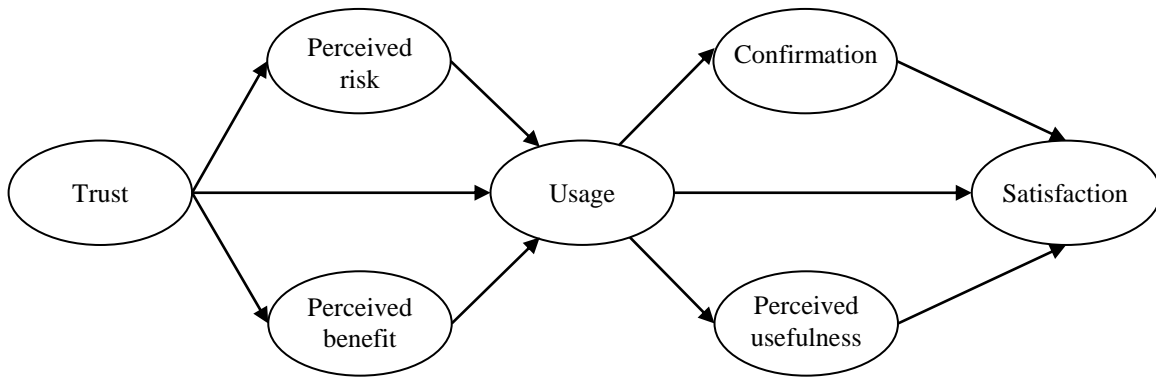
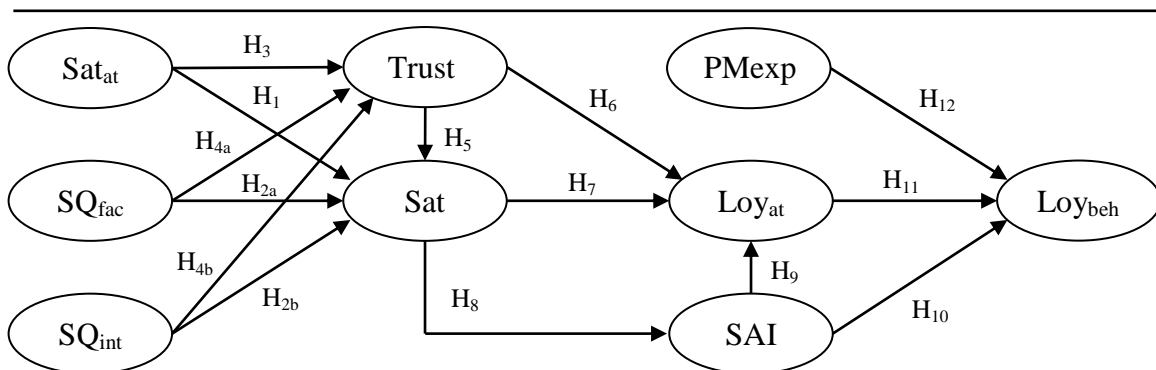


Figure 28. Conceptual model developed by Lin and Zhang (2011).

kinds of satisfaction (attribute satisfaction and overall satisfaction). Attribute satisfaction is modeled as a direct antecedent to trust and overall satisfaction, whereas trust is considered a mediator between attribute satisfaction and overall satisfaction. The authors consider attribute satisfaction as a cognitive construct, and overall satisfaction as an affective construct.



NOTE: Sat_{at} = attribute satisfaction; SQ_{fac} = facility service quality; SQ_{int} = interactive service quality; Sat = overall satisfaction; Trust = perceived trust; PM_{exp} = product-market expertise; Loy_{at} = attitudinal loyalty; SAI = specific asset investment; Loy_{beh} = behavioral loyalty.

Figure 29. Conceptual model developed by Chiou and Droge (2006).

Summary

This chapter provides a literature review on the relationship between consumers and brands, and the importance of trust within that relationship. It reviews the relationship between trust and other quality variables, such as satisfaction and commitment, as well as the moderating role of personality traits. It also reviews different conceptual frameworks that describe trust as a fundamental variable in the relationship between consumers and brands. Moreover, this chapter reviews the nature of the relationship between satisfaction and trust, in three different cases. First, consumer satisfaction and trust are independent from each other; second, trust is a predictor of customer satisfaction; third, consumer satisfaction is an antecedent of trust. The next chapter provides a review of the relevant literature on the principal constructs included in this study, namely, brand satisfaction, brand trust, brand loyalty, consumer innovativeness, variety-seeking and relationship proneness as well as the development of the conceptual model and hypotheses.

CHAPTER II

CONSTRUCTS, MODEL AND HYPOTHESES

Section 1. Research Constructs

Section 2. Model Development and Hypotheses

Introduction

This chapter is categorized into two sections. The first section reviews the literature on six major constructs, namely, brand satisfaction, brand trust, brand loyalty, consumer innovativeness, variety-seeking and relationship proneness. The second one presents the development of the model and hypotheses.

Section 1. Research constructs

1.1 Brand satisfaction

Brand satisfaction is considered a key factor in developing and maintaining brand loyalty (Wu *et al.*, 2012¹⁰⁷; Eskafi *et al.*, 2013¹⁰⁸). It is the comparison between what the consumer needs and expects from the brand and what s/he actually receives from that brand. Consumers are satisfied when their perceptions of products or services meet their expectations (Bloemer and Odekerken-Schroder, 2002¹⁰⁹; Fandos-Roig *et al.*, 2009¹¹⁰).

Previous studies have provided several definitions of customer satisfaction (Kim *et al.*, 2007)¹¹¹. The most widely accepted definition of satisfaction is that of Oliver (1981, p. 27)¹¹², who defines it as “*the summary psychological state resulting when the emotion surrounding disconfirmed expectations is coupled with the consumer’s prior feelings about the consumption experience.*” Accordingly, Oliver (1981)¹¹³ indicates that consumers might experience three situations after trying a specific product or brand: (1) positive disconfirmation, which occurs when consumers consider that what they receive from the product or brand exceeds their expectations; (2) negative disconfirmation, which happens when consumers consider that what they receive from the product or brand falls below their expectations; and (3) confirmation, which occurs when consumers’ expectations match their perceptions. Thus, both positive disconfirmation and

¹⁰⁷ Wu, X., Zhou, H. and Wu, D. (2012), “Commitment, satisfaction, and customer loyalty: a theoretical explanation of the ‘satisfaction trap’”, *The Service Industries Journal*, Vol. 32, No. 11, pp. 1759-1774.

¹⁰⁸ Eskafi, M., hosseini, S.h. and Yazd, A.M. (2013), “The value of telecom subscribers and customer relationship management”, *Business Process Management Journal*, Vol. 19, No. 4, pp. 737-748.

¹⁰⁹ Bloemer, J. and Odekerken-Schröder, G. (2002), “Store satisfaction and store loyalty explained by customer- and store-related factors”, *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, Vol. 15, No. 1, pp. 68-80.

¹¹⁰ Fandos-Roig, J.C., Sánchez-García, J. and Moliner-Tena, M.Á. (2009), “Perceived value and customer loyalty in financial services”, *The Service Industries Journal*, Vol. 29, No. 6, pp. 775-789.

¹¹¹ Kim, W.G., Lee, S. and Lee, H.Y. (2007), “Co-branding and brand loyalty”, *Journal of Quality Assurance in Hospitality & Tourism*, Vol. 8, No. 2, pp. 1-23.

¹¹² Oliver, R.L. (1981), “Measurement and evaluation of satisfaction processes in retail settings”, *Journal of Retailing*, Vol. 57, No. 3, pp. 25-48.

¹¹³ *Ibid.*

confirmation lead to satisfaction, whereas negative disconfirmation leads to dissatisfaction.

1.2 Brand trust

The importance of trust has been proposed by many researchers in the marketing literature (e.g., Yannopoulou *et al.*, 2011¹¹⁴; Kesharwani and Bisht, 2012¹¹⁵; Loureiro *et al.*, 2014¹¹⁶). Although researchers and practitioners have recognized the difficulty of precisely defining the term *trust*, they agree about its importance for customer relationships (Cowles, 1997)¹¹⁷. Chaudhuri and Holbrook (2001, p. 82)¹¹⁸ define brand trust as “*the willingness of the average consumer to rely on the ability of the brand to perform its stated function.*” The authors furthermore indicate in their research that trust can be seen through three facets: reliability, safety and honesty. Brand trust is often regarded as a main determinant of brand loyalty (Gómez and Rubio, 2010)¹¹⁹; it plays an important role in building long-term relationships between consumers and their preferred brands (Bianchi *et al.*, 2014)¹²⁰.

1.3 Brand loyalty

A large number of studies in the consumer-brand relationship literature have addressed brand loyalty (e.g., Ha *et al.*, 2009¹²¹; Nguyen *et al.*, 2011¹²²; Erdoğan and Budeyri-Turan, 2012¹²³; So *et al.*, 2013¹²⁴). Brands attempt to meet customer needs by offering special and specific benefits that might help increase their loyalty (Quester and Lim,

¹¹⁴ Yannopoulou, N., Koronis, E. and Elliott, R. (2011), “Media amplification of a brand crisis and its affect on brand trust”, *Journal of Marketing Management*, Vol. 27, Nos. 5/6, pp. 530-546.

¹¹⁵ Kesharwani, A. and Bisht, S.S. (2012), “The impact of trust and perceived risk on internet banking adoption in India: An extension of technology acceptance model”, *International Journal of Bank Marketing*, Vol. 30, No. 4, pp. 303-322.

¹¹⁶ Loureiro, S.M.C., Miranda, F.J. and Breazeale, M. (2014), “Who needs delight?: The greater impact of value, trust and satisfaction in utilitarian, frequent-use retail”, *Journal of Service Management*, Vol. 25, No. 1, pp. 101-124.

¹¹⁷ Cowles, D.L. (1997), “The role of trust in customer relationships: asking the right questions”, *Management Decision*, Vol. 35, No. 4, pp. 273-282.

¹¹⁸ Chaudhuri, A. and Holbrook, M.B. (2001) *op. cit.*, p. 82.

¹¹⁹ Gómez, M. and Rubio, N. (2010), “Re-thinking the relationship between store brand attitude and store brand loyalty: a simultaneous approach”, *The International Review of Retail, Distribution and Consumer Research*, Vol. 20, No. 5, pp. 515-534.

¹²⁰ Bianchi, C., Drennan, J. and Proud, B. (2014), “Antecedents of consumer brand loyalty in the Australian wine industry”, *Journal of Wine Research*, Vol. 25, No. 2, pp. 91-104.

¹²¹ Ha, H.-Y., Janda, S. and Park, S.-K. (2009), “Role of satisfaction in an integrative model of brand loyalty: Evidence from China and South Korea”, *International Marketing Review*, Vol. 26, No. 2, pp. 198-220.

¹²² Nguyen, T.D., Barrett, N.J. and Miller, K.E. (2011), “Brand loyalty in emerging markets”, *Marketing Intelligence & Planning*, Vol. 29, No. 3, pp. 222-232.

¹²³ Erdoğan, İ. and Budeyri-Turan, I. (2012), “The role of personality congruence, perceived quality and prestige on ready-to-wear brand loyalty”, *Journal of Fashion Marketing and Management*, Vol. 16, No. 4, pp. 399-417.

¹²⁴ So, J.T., Parsons, A.G. and Yap, S.-F. (2013), “Corporate branding, emotional attachment and brand loyalty: the case of luxury fashion branding”, *Journal of Fashion Marketing and Management*, Vol. 17, No. 4, pp. 403-423.

2003)¹²⁵. Brand loyalty has several definitions in the marketing literature. The most common definition is that proposed by Oliver (1999, p. 34)¹²⁶, who defines brand loyalty as “a deeply held commitment to re-buy or re-patronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behavior.” According to Jacoby and Kyner (1973)¹²⁷, brand loyalty is conceptualized and measured through two perspectives, i.e., attitudinal and behavioral loyalty. Behavioral loyalty means the repeated purchase behavior of the same brand, whereas attitudinal loyalty refers to consumers’ intentions to keep purchasing the same brand (Pappu *et al.*, 2005)¹²⁸. These two perspectives have been widely used by many researchers in the marketing literature (e.g., Chaudhuri and Holbrook, 2001¹²⁹). Thus, this study incorporates both attitudinal and behavioral aspects to measure brand loyalty. Furthermore, several studies have considered brand loyalty a fundamental dimension of brand equity (e.g., Gil *et al.*, 2007¹³⁰; Buil *et al.*, 2008¹³¹; Roy and Chau, 2011¹³²; Smutkupt *et al.*, 2012¹³³; Buil *et al.*, 2013¹³⁴; Asamoah, 2014¹³⁵). Loyal customers usually keep purchasing the same brands (Yoo *et al.*, 2000)¹³⁶ and the proportion of switching to competing brands is low (Phau and Cheong, 2009)¹³⁷.

1.4 Consumer innovativeness

Consumer innovativeness is a key topic that has received a great deal of attention from

¹²⁵ Quester, P. and Lim, A.L. (2003), “Production involvement/brand loyalty: Is there a link?”, *Journal of Product & Brand Management*, Vol. 12, No. 1, pp. 22-38.

¹²⁶ Oliver, R.L. (1999), “Whence consumer loyalty?”, *Journal of Marketing*, Vol. 63, No. 4, pp. 33-44.

¹²⁷ Jacoby, J. and Kyner, D.B. (1973), “Brand loyalty vs. repeat purchasing behavior”, *Journal of Marketing Research*, Vol. 10, No. 1, pp. 1-9.

¹²⁸ Pappu, R., Quester, P.G. and Cooksey, R.W. (2005), “Consumer-based brand equity: improving the measurement – empirical evidence”, *Journal of Product & Brand Management*, Vol. 14, No. 3, pp. 143-154.

¹²⁹ Chaudhuri, A. and Holbrook, M.B. (2001) *op. cit.*

¹³⁰ Gil, R.B., Andrés, E.F. and Salinas, E.M. (2007), “Family as a source of consumer-based brand equity”, *Journal of Product & Brand Management*, Vol. 16, No. 3, pp. 188-199.

¹³¹ Buil, I., de Chernatony, L. and Martínez, E. (2008), “A cross-national validation of the consumer-based brand equity scale”, *Journal of Product & Brand Management*, Vol. 17, No. 6, pp. 384-392.

¹³² Roy, R. and Chau, R. (2011), “Consumer-based brand equity and status-seeking motivation for a global versus local brand”, *Asia Pacific Journal of Marketing and Logistics*, Vol. 23, No. 3, pp. 270-284.

¹³³ Smutkupt, P., Krairit, D. and Khang, D.B. (2012), “Mobile marketing and consumer perceptions of brand equity”, *Asia Pacific Journal of Marketing and Logistics*, Vol. 24, No. 4, pp. 539-560.

¹³⁴ Buil, I., Martínez, E. and de Chernatony, L. (2013), “The influence of brand equity on consumer responses”, *Journal of Consumer Marketing*, Vol. 30, No. 1, pp. 62-74.

¹³⁵ Asamoah, E.S. (2014), “Customer based brand equity (CBBE) and the competitive performance of SMEs in Ghana”, *Journal of Small Business and Enterprise Development*, Vol. 21, No. 1, pp. 117-131.

¹³⁶ Yoo, B., Donthu, N. and Lee, S. (2000), “An examination of selected marketing mix elements and brand equity”, *Journal of the Academy of Marketing Science*, Vol. 28, No. 2, pp. 195-211.

¹³⁷ Phau, I. and Cheong, E. (2009), “How young adult consumers evaluate diffusion brands: Effects of brand loyalty and status consumption”, *Journal of International Consumer Marketing*, Vol. 21, No. 2, pp. 109-123.

researchers in the marketing field (e.g., Goldsmith and Newell, 1997¹³⁸; Kahn, 1998¹³⁹; Fowler and Bridges, 2010¹⁴⁰; Hoffmann and Soyez, 2010¹⁴¹; Bartels and Reinders, 2011¹⁴²; Hur *et al.*, 2012¹⁴³). Recent studies have shown that consumer innovativeness is a globally applicable concept (Truong, 2013)¹⁴⁴.

Consumer innovativeness is one of three personality traits considered in this study. Innovativeness is an innate trait in every consumer, but it appears at different levels for each individual (Hirschman, 1980)¹⁴⁵. Some consumers have a high tendency toward innovativeness, whereas others have a lower tendency (Midgley and Dowling, 1978)¹⁴⁶. Consumers who are highly innovators show a high level of adoption of new products (Foxall, 1995¹⁴⁷; Adjei and Clark, 2010¹⁴⁸). The consumer-innovativeness trait might help marketers distinguish innovators from non-innovators (Midgley and Dowling, 1978)¹⁴⁹ and early adopters from late adopters (Xie, 2008)¹⁵⁰.

Most previous studies have focused on investigating two main types of consumer innovativeness, namely, global innovativeness and domain-specific innovativeness (Hirunyawipada and Paswan, 2006¹⁵¹; Chao *et al.*, 2013¹⁵²; Kaushik and Rahman, 2014¹⁵³). Global or innate innovativeness is defined as “*the degree to which an individual makes innovation decisions independently of the communicated experience of others*”

¹³⁸ Goldsmith, R.E. and Newell, S.J. (1997), “Innovativeness and price sensitivity: managerial, theoretical and methodological issues”, *Journal of Product & Brand Management*, Vol. 6, No. 3, pp. 163-174.

¹³⁹ Kahn, B.E. (1998), “Dynamic relationships with customers: High-variety strategies”, *Journal of the Academy of Marketing Science*, Vol. 26, No. 1, pp. 45-53.

¹⁴⁰ Fowler, K. and Bridges, E. (2010), “Consumer innovativeness: Impact on expectations, perceptions, and choice among retail formats”, *Journal of Retailing and Consumer Services*, Vol. 17, No. 6, pp. 492-500.

¹⁴¹ Hoffmann, S. and Soyez, K. (2010), “A cognitive model to predict domain-specific consumer innovativeness”, *Journal of Business Research*, Vol. 63, No. 7, pp. 778-785.

¹⁴² Bartels, J. and Reinders, M.J. (2011), “Consumer innovativeness and its correlates: A propositional inventory for future research”, *Journal of Business Research*, Vol. 64, No. 6, pp. 601-609.

¹⁴³ Hur, W.-M., Yoo, J.-J. and Chung, T.-L. (2012), “The consumption values and consumer innovativeness on convergence products”, *Industrial Management & Data Systems*, Vol. 112, No. 5, pp. 688-706.

¹⁴⁴ Truong, Y. (2013), “A cross-country study of consumer innovativeness and technological service innovation”, *Journal of Retailing and Consumer Services*, Vol. 20, No. 1, pp. 130-137.

¹⁴⁵ Hirschman, E.C. (1980), “Innovativeness, novelty seeking, and consumer creativity”, *Journal of Consumer Research*, Vol. 7, No. 3, pp. 283-295.

¹⁴⁶ Midgley, D.F. and Dowling, G.R. (1978), “Innovativeness: The concept and its measurement”, *Journal of Consumer Research*, Vol. 4, No. 4, pp. 229-242.

¹⁴⁷ Foxall, G.R. (1995), “Cognitive styles of consumer initiators”, *Technovation*, Vol. 15, No. 5, pp. 269-288.

¹⁴⁸ Adjei, M.T. and Clark, M.N. (2010) *op. cit.*

¹⁴⁹ Midgley, D.F. and Dowling, G.R. (1978) *op. cit.*

¹⁵⁰ Xie, Y.H. (2008), “Consumer innovativeness and consumer acceptance of brand extensions”, *Journal of Product & Brand Management*, Vol. 17, No. 4, pp. 235-243.

¹⁵¹ Hirunyawipada, T. and Paswan, A.K. (2006), “Consumer innovativeness and perceived risk: implications for high technology product adoption”, *Journal of Consumer Marketing*, Vol. 23, No. 4, pp. 182-198.

¹⁵² Chao, C.-W., Reid, M. and Mavondo, F. (2013), “Global consumer innovativeness and consumer electronic product adoption”, *Asia Pacific Journal of Marketing and Logistics*, Vol. 25, No. 4, pp. 614-630.

¹⁵³ Kaushik, A.K. and Rahman, Z. (2014), “Perspectives and dimensions of consumer innovativeness: A literature review and future agenda”, *Journal of International Consumer Marketing*, Vol. 26, No. 3, pp. 239-263.

(Midgley and Dowling, 1978, p. 235)¹⁵⁴, while domain-specific innovativeness is defined as “the predisposition to learn about and adopt new products in a specific domain” (Goldsmith and Hofacker, 1991, p. 219)¹⁵⁵.

Goldsmith *et al.* (1995)¹⁵⁶ find that the relationship between domain-specific innovativeness and adoption of new products is much stronger than the one between global innovativeness and adoption of new products. This is consistent with the results of Chao *et al.* (2012)¹⁵⁷, who find a positive relationship between domain-specific innovativeness and adoption of new products, and no relationship between innate innovativeness and adoption of new products. Goldsmith and Hofacker (1991)¹⁵⁸ report that researchers interested in consumer innovativeness may have not paid much attention to measure global innovativeness within a specific product category. Park *et al.* (2010)¹⁵⁹ indicate that global innovativeness is independent of any specific domain or specific product. This concept does not go along with the goal of the current study which aims to examine consumer innovativeness in food product domain.

However, Kim *et al.* (2012b)¹⁶⁰ indicate that domain-specific innovativeness is shown to be a better measurement of consumer innovativeness than global innovativeness within a specific product domain. In a new food product context, McCarthy *et al.* (1999)¹⁶¹ support using Domain Specific Innovativeness scale as the appropriate scale to measure consumer innovativeness. Briefly, researchers have recognized that global innovativeness failed to explain consumer innovativeness, and thus they support using domain-specific innovativeness (Kaushik and Rahman, 2014)¹⁶².

In general, consumer innovativeness is a personality trait (Hirschman, 1980)¹⁶³;

¹⁵⁴ Midgley, D.F. and Dowling, G.R. (1978) *op. cit.*, p. 235.

¹⁵⁵ Goldsmith, R.E. and Hofacker, C.F. (1991), “Measuring consumer innovativeness”, *Journal of the Academy of Marketing Science*, Vol. 19, No. 3, pp. 209-221.

¹⁵⁶ Goldsmith, R.E., Freiden, J.B. and Eastman, J.K. (1995), “The generality/specificity issue in consumer innovativeness research”, *Technovation*, Vol. 15, No. 10, pp. 601-612.

¹⁵⁷ Chao, C.-W., Reid, M. and Mavondo, F.T. (2012), “Consumer innovativeness influence on really new product adoption”, *Australasian Marketing Journal*, Vol. 20, No. 3, pp. 211-217.

¹⁵⁸ Goldsmith, R.E. and Hofacker, C.F. (1991) *op. cit.*

¹⁵⁹ Park, J.E., Yu, J. and Zhou, J.X. (2010), “Consumer innovativeness and shopping styles”, *Journal of Consumer Marketing*, Vol. 27, No. 5, pp. 437-446.

¹⁶⁰ Kim, W., Di Benedetto, C.A. and Hunt, J.M. (2012b), “Consumer innovativeness and consideration set as antecedents of the consumer decision process for highly globalized new products: a three-country empirical study”, *Journal of Global Scholars of Marketing Science*, Vol. 22, No. 1, pp. 1-23.

¹⁶¹ McCarthy, M., O’Sullivan, C. and O’Reilly, S. (1999), “Pre-identification of first buyers of a new food product”, *British Food Journal*, Vol. 101, No. 11, pp. 842-856.

¹⁶² Kaushik, A.K. and Rahman, Z. (2014) *op. cit.*

¹⁶³ Hirschman, E.C. (1980) *op. cit.*

Xie, 2008¹⁶⁴; Aldás-Manzano *et al.*, 2009a¹⁶⁵, b¹⁶⁶) in which consumers desire to adopt new products and/or brands.

1.5 Variety-seeking

The concept of variety-seeking has been widely investigated in the marketing research (e.g., Kahn, 1998¹⁶⁷; Baumann *et al.*, 2011¹⁶⁸; Michaelidou, 2012¹⁶⁹; Kwun *et al.*, 2013¹⁷⁰; Tuu and Olsen, 2013¹⁷¹; Desai and Trivedi, 2014¹⁷²), particularly within the domain of consumer goods, especially supermarket goods (Kahn, 1995)¹⁷³. The marketing literature has recently affirmed the important role that variety-seeking plays in explaining consumer behavior (Hoyer and Ridgway, 1984)¹⁷⁴, and variety-seeking is considered a key determinant of exploratory purchase behavior (Van Trijp *et al.*, 1996)¹⁷⁵. According to Hoyer and Ridgway (1984)¹⁷⁶ and Bigné *et al.* (2009)¹⁷⁷, variety-seeking is conceptualized as the desire either to try new products or new brands or to switch between familiar products or brands.

Furthermore, consumers with a high level of variety-seeking are more engaged in switching among available brands than consumers with a low variety do (Hoyer and Ridgway, 1984)¹⁷⁸. Switching behavior might help consumers experience new and different brands to break the routine of consuming familiar brands and get some arousal

¹⁶⁴ Xie, Y.H. (2008) *op. cit.*

¹⁶⁵ Aldás-Manzano, J., Lassala-Navarré, C., Ruiz-Mafé, C. and Sanz-Blas, S. (2009a), "The role of consumer innovativeness and perceived risk in online banking usage", *International Journal of Bank Marketing*, Vol. 27, No. 1, pp. 53-75.

¹⁶⁶ Aldás-Manzano, J., Ruiz-Mafé, C. and Sanz-Blas, S. (2009b), "Exploring individual personality factors as drivers of M-shopping acceptance", *Industrial Management & Data Systems*, Vol. 109, No. 6, pp. 739-757.

¹⁶⁷ Kahn, B.E. (1998) *op. cit.*

¹⁶⁸ Baumann, C., Elliott, G. and Hamin, H. (2011), "Modelling customer loyalty in financial services: A hybrid of formative and reflective constructs", *International Journal of Bank Marketing*, Vol. 29, No. 3, pp. 247-267.

¹⁶⁹ Michaelidou, N. (2012), "A typology of consumers' variety-seeking disposition based on inherent needs", *Journal of Marketing Management*, Vol. 28, Nos. 5/6, pp. 676-694.

¹⁷⁰ Kwun, D.J.-W., Hwang, J.H. and Kim, T.-H. (2013), "Eating-out motivations and variety-seeking behavior: An exploratory approach on loyalty behavior", *Journal of Hospitality Marketing & Management*, Vol. 22, No. 3, pp. 289-312.

¹⁷¹ Tuu, H.H. and Olsen, S.O. (2013), "Consideration set size, variety seeking and the satisfaction-repurchase loyalty relationship at a product category level", *Asia Pacific Journal of Marketing and Logistics*, Vol. 25, No. 4, pp. 590-613.

¹⁷² Desai, K.K. and Trivedi, M. (2014), "Do consumer perceptions matter in measuring choice variety and variety seeking?", *Journal of Business Research*, Vol. 67, No. 1, pp. 2786-2792.

¹⁷³ Kahn, B.E. (1995), "Consumer variety-seeking among goods and services", *Journal of Retailing and Consumer Services*, Vol. 2, No. 3, pp. 139-148.

¹⁷⁴ Hoyer, W.D. and Ridgway, N.M. (1984), "Variety seeking as an explanation for exploratory purchase behavior: A theoretical model", *Advances in Consumer Research*, Vol. 11, No. 1, pp. 114-119.

¹⁷⁵ Van Trijp, H.C.M., Hoyer, W.D. and Inman, J.J. (1996), "Why switch? Product category-level explanations for true variety-seeking behavior", *Journal of Marketing Research*, Vol. 33, No. 3, pp. 281-292.

¹⁷⁶ Hoyer, W.D. and Ridgway, N.M. (1984) *op. cit.*

¹⁷⁷ Bigné, J.E., Sánchez, I. and Andreu, L. (2009), "The role of variety seeking in short and long run revisit intentions in holiday destinations", *International Journal of Culture, Tourism and Hospitality Research*, Vol. 3, No. 2, pp. 103-115.

¹⁷⁸ Hoyer, W.D. and Ridgway, N.M. (1984) *op. cit.*

or novelty (Roehm and Roehm, 2004)¹⁷⁹. Although variety-seeking consumers are satisfied with their current brands, they tend to experience others only to get some novelty or decrease the level of boredom (Meixner and Knoll, 2012)¹⁸⁰. Legohérel *et al.* (2012)¹⁸¹ indicate that customers may switch to new brands if they have a high level of variety-seeking. Woratschek and Horbel (2006)¹⁸² report that, although variety-seekers are not loyal customers, they contribute to improving an organization's reputation through positive word-of-mouth.

Many marketing studies have been conducted to clarify the nature of variety-seeking behavior. Bigné *et al.* (2009)¹⁸³ report that variety-seeking has been considered by many researchers an individual trait. McAlister and Pessemier (1982)¹⁸⁴ distinguish two types of variety-seeking. First, direct variety-seeking behavior is an internal desire that motivates individuals to seek change or novelty. Second, derived variety-seeking behavior is the outcome of individuals' exposure to external motivations, such as promotions. On a similar line, Van Trijp *et al.* (1996)¹⁸⁵ affirm that true variety-seeking (intrinsically motivated) is totally separated from derived varied behavior (extrinsically motivated). Homburg and Giering (2001)¹⁸⁶ indicate that variety-seeking is a phenomenon of intrinsic motivation, which means that consumers who are variety-seekers switch from one brand to another following intrinsic motivations (a desire for variety). Moreover, intrinsic variety-seeking is a psychological characteristic (Berné *et al.*, 2001)¹⁸⁷.

Many studies on consumer behavior have focused on the behavioral side of variety-seeking instead of the psychological side. To fill this research gap, this study focuses on variety-seeking behavior as a consumer personality trait in the food product

¹⁷⁹ Roehm, Jr. H.A. and Roehm, M.L. (2004), "Variety-seeking and time of day: why leader brands hope young adults shop in the afternoon, but follower brands hope for morning", *Marketing Letters*, Vol. 15, No. 4, pp. 213-221.

¹⁸⁰ Meixner, O. and Knoll, V. (2012), "An expanded model of variety-seeking behaviour in food product choices", *British Food Journal*, Vol. 114, No. 11, pp. 1571-1586.

¹⁸¹ Legohérel, P., Daucé, B. and Hsu, C.H.C. (2012), "Divergence in variety seeking: An exploratory study among international travelers in Asia", *Journal of Global Marketing*, Vol. 25, No. 4, pp. 213-225.

¹⁸² Woratschek, H. and Horbel, C. (2006), "Are variety-seekers bad customers? An analysis of the role of recommendations in the service profit chain", *Journal of Relationship Marketing*, Vol. 4, Nos. 3/4, pp. 43-57.

¹⁸³ Bigné, J.E., Sánchez, I. and Andreu, L. (2009) *op. cit.*

¹⁸⁴ McAlister, L. and Pessemier, E. (1982), "Variety seeking behavior: An interdisciplinary review", *Journal of Consumer Research*, Vol. 9, No. 3, pp. 311-322.

¹⁸⁵ Van Trijp, H.C.M., Hoyer, W.D. and Inman, J.J. (1996) *op. cit.*

¹⁸⁶ Homburg, C. and Giering, A. (2001) *op. cit.*

¹⁸⁷ Berné, C., Múgica, J.M. and Yagüe, M.J. (2001), "The effect of variety-seeking on customer retention in services", *Journal of Retailing and Consumer Services*, Vol. 8, No. 6, pp. 335-345.

domain. This view is consistent with Homburg and Giering (2001)¹⁸⁸ and Adjei and Clark's (2010)¹⁸⁹ studies, which focus on studying the psychological side of variety-seeking behavior and treating it as a personality trait.

However, Adjei and Clark (2010, p. 76)¹⁹⁰ use in their research the expression “*Consumer novelty/variety seeking*” to indicate that novelty-seeking is referred to as variety-seeking, meaning that consumers with a high degree of product variety usually seek for new information about different things just to get some novelty. Variety-seeking might motivate consumers to spend more time in an online community where they are exposed to varied information about brands (Hung *et al.*, 2011)¹⁹¹. Consumers who are novelty-seekers desire to get information about new products or brands using different sources without the need to try them (Manning *et al.*, 1995)¹⁹². Baumgartner and Steenkamp (1996)¹⁹³ indicate that when consumers who are information-seekers go shopping, they are interested in looking for information depending on marketing communication tools, such as promotion and advertising; they also enjoy talking to people about their experiences with products and brands. Variety-seekers seek out variety and/or novelty in order to have an optimal level of stimulation which may help avoid boredom (Ha and Jang, 2013)¹⁹⁴. Within this context, this study considers novelty-seeking as the appropriate aspect to express variety-seeking (Hirschman, 1980¹⁹⁵; Jang and Feng, 2007¹⁹⁶; Assaker *et al.*, 2011¹⁹⁷).

1.6 Relationship proneness

Relationship proneness is a consumer's tendency to engage in a long-term relationship

¹⁸⁸ Homburg, C. and Giering, A. (2001) *op. cit.*

¹⁸⁹ Adjei, M.T. and Clark, M.N. (2010) *op. cit.*

¹⁹⁰ *Ibid.*, p. 76.

¹⁹¹ Hung, K., Li, S.Y. and Tse, D.K. (2011), “Interpersonal trust and platform credibility in a Chinese multibrand online community”, *Journal of Advertising*, Vol. 40, No. 3, pp. 99-112.

¹⁹² Manning, K.C., Bearden, W.O. and Madden, T.J. (1995), “Consumer innovativeness and the adoption process”, *Journal of Consumer Psychology*, Vol. 4, No. 4, pp. 329-345.

¹⁹³ Baumgartner, H. and Steenkamp, J.-B.E.M. (1996), “Exploratory consumer buying behavior: Conceptualization and measurement”, *International Journal of Research in Marketing*, Vol. 13, No. 2, pp. 121-137.

¹⁹⁴ Ha, J. and Jang, S. (2013), “Determinants of diners' variety seeking intentions”, *Journal of Services Marketing*, Vol. 27, No. 2, pp. 155-165.

¹⁹⁵ Hirschman, E.C. (1980) *op. cit.*

¹⁹⁶ Jang, S. and Feng, R. (2007), “Temporal destination revisit intention: The effects of novelty seeking and satisfaction”, *Tourism Management*, Vol. 28, No. 2, pp. 580-590.

¹⁹⁷ Assaker, G., Vinzi, V.E. and O'Connor, P. (2011), “Examining the effect of novelty seeking, satisfaction, and destination image on tourists' return pattern: A two factor, non-linear latent growth model”, *Tourism Management*, Vol. 32, No. 4, pp. 890-901.

with a particular brand (De Wulf *et al.*, 2001)¹⁹⁸. Consumer relationship proneness, according to Odekerken-Schröder *et al.* (2003)¹⁹⁹, is considered a personality trait. Relationship-prone consumers are usually interested in maintaining and improving a deep relationship with a specific product or brand (De Wulf *et al.*, 2001)²⁰⁰. Most relationship-prone consumers are proactive when they feel that the brand makes an effort to develop a long-term relationship (Bloemer and Odekerken-Schröder, 2002)²⁰¹. According to Adjei and Clark (2010)²⁰², relationship-prone consumers do not want their relationships with firms or brands to be ordinary, but instead seek to make them much stronger by increasing their purchasing levels. Additionally, Bloemer *et al.* (2003)²⁰³ indicate that consumer relationship proneness, as a personality trait, has frequently been investigated in the product category domain. Similarly, this study investigates the effect of consumer relationship proneness in the food product domain.

Section 2. Model development and hypotheses

2.1 Conceptual framework

Several studies in the marketing literature have shown the important role of customer satisfaction, trust and loyalty in creating, developing and maintaining long-term relationships with customers (e.g., Hollebeek, 2011²⁰⁴; Coelho and Henseler, 2012²⁰⁵; Kaur and Soch, 2013²⁰⁶; Hallouz and Benhabib, 2015²⁰⁷). The relationship among satisfaction, trust and customer loyalty has frequently been addressed by many researchers (e.g., Huang and Chiu, 2006²⁰⁸; Zhang and Bloemer, 2008²⁰⁹; Chiou and Pan,

¹⁹⁸ De Wulf, K., Odekerken-Schröder, G. and Iacobucci, D. (2001), "Investments in consumer relationships: A cross-country and cross-industry exploration", *Journal of Marketing*, Vol. 65, No. 4, pp. 33-50.

¹⁹⁹ Odekerken-Schröder, G., De Wulf, K. and Schumacher, P. (2003), "Strengthening outcomes of retailer-consumer relationships: The dual impact of relationship marketing tactics and consumer personality", *Journal of Business Research*, Vol. 56, No. 3, pp. 177-190.

²⁰⁰ De Wulf, K., Odekerken-Schröder, G. and Iacobucci, D. (2001) *op. cit.*

²⁰¹ Bloemer, J. and Odekerken-Schröder, G. (2002) *op. cit.*

²⁰² Adjei, M.T. and Clark, M.N. (2010) *op. cit.*

²⁰³ Bloemer, J., Odekerken-Schröder, G. and Kestens, L. (2003) *op. cit.*

²⁰⁴ Hollebeek, L.D. (2011), "Demystifying customer brand engagement: Exploring the loyalty nexus", *Journal of Marketing Management*, Vol. 27, Nos. 7/8, pp. 785-807.

²⁰⁵ Coelho, P.S. and Henseler, J. (2012), "Creating customer loyalty through service customization", *European Journal of Marketing*, Vol. 46, Nos. 3/4, pp. 331-356.

²⁰⁶ Kaur, H. and Soch, H. (2013), "Mediating roles of commitment and corporate image in the formation of customer loyalty", *Journal of Indian Business Research*, Vol. 5, No. 1, pp. 33-51.

²⁰⁷ Hallouz, W. and Benhabib, A. (2015), "Evaluating banking service quality, financial benefits and social bonding and their impact on customer loyalty", *Les Cahiers du MECAS*, No. 11, pp. 5-20.

²⁰⁸ Huang, H.-H. and Chiu, C.-K. (2006), "Exploring customer satisfaction, trust and destination loyalty in tourism", *Journal of American Academy of Business, Cambridge*, Vol. 10, No. 1, pp. 156-159.

²⁰⁹ Zhang, J. and Bloemer, J.M.M. (2008), "The impact of value congruence on consumer-service brand relationships", *Journal of Service Research*, Vol. 11, No. 2, pp. 161-178.

2009²¹⁰). Previous empirical studies have demonstrated a significant relationship among customer satisfaction, trust and loyalty (e.g., Flavián *et al.*, 2006²¹¹; Chang, 2013²¹²). Satisfaction and trust are considered key determinants of loyalty (Jin *et al.*, 2008²¹³; Moliner, 2009²¹⁴; Aldas-Manzano *et al.*, 2011²¹⁵; Jacob *et al.*, 2013²¹⁶; Trif, 2013²¹⁷). Numerous studies have been conducted on the relationship between satisfaction and trust and their direct and indirect impact on customer loyalty (e.g., Ribbink *et al.*, 2004²¹⁸; Loureiro and González, 2008²¹⁹). They have shown that both customer satisfaction and trust have a positive and significant effect on loyalty.

Marketing literature review recognizes that the nature of the direct relationship between customer satisfaction and loyalty is still unclear. Some researchers argue that customer satisfaction has no direct impact on customer loyalty. For example, Omar *et al.* (2013)²²⁰ find that customer satisfaction does not affect store loyalty directly ($\beta = 0.04$, $t = 0.69$, $p < 0.01$). In a similar study in mobile telecommunication sector, Tarus and Rabach (2013)²²¹ suggest that the direct effect of satisfaction on customer loyalty is not significant ($\beta = 0.083$, $p > 0.05$). Janita and Miranda (2013)²²² propose that customer satisfaction does not directly influence customer loyalty ($\beta = 0.074$, *n.s.*) in the context of B2B e-marketplaces. Águila-Obra *et al.* (2013)²²³ find a positive relationship between

²¹⁰ Chiou, J.-S. and Pan, L.-Y. (2009), "Antecedents of internet retailing loyalty: Differences between heavy versus light shoppers", *Journal of Business and Psychology*, Vol. 24, No. 3, pp. 327-339.

²¹¹ Flavián, C., Guinaliú, M. and Gurrea, R. (2006), "The role played by perceived usability, satisfaction and consumer trust on website loyalty", *Information & Management*, Vol. 43, pp. 1-14.

²¹² Chang, K.-C. (2013), "How reputation creates loyalty in the restaurant sector", *International Journal of Contemporary Hospitality Management*, Vol. 25, No. 4, pp. 536-557.

²¹³ Jin, B., Park, J.Y. and Kim, J. (2008), "Cross-cultural examination of the relationships among firm reputation, e-satisfaction, e-trust, and e-loyalty", *International Marketing Review*, Vol. 25, No. 3, pp. 324-337.

²¹⁴ Moliner, M.A. (2009), "Loyalty, perceived value and relationship quality in healthcare services", *Journal of Service Management*, Vol. 20, No. 1, pp. 76-97.

²¹⁵ Aldas-Manzano, J., Ruiz-Mafe, C., Sanz-Blas, S. and Lassala-Navarré, C. (2011), "Internet banking loyalty: evaluating the role of trust, satisfaction, perceived risk and frequency of use", *The Service Industries Journal*, Vol. 31, No. 7, pp. 1165-1190.

²¹⁶ Jacob, F., Kleipaß, U. and Pohl, A. (2013), "Nature and role of customer satisfaction in the solution business", *European Management Journal*, Vol. 32, No. 3, pp. 487-498.

²¹⁷ Trif, S.-M. (2013), "The influence of overall satisfaction and trust on customer loyalty", *Management & Marketing*, Vol. 8, No. 1, pp. 109-128.

²¹⁸ Ribbink, D., van Riel, A.C.R., Liljander, V. and Streukens, S. (2004), "Comfort your online customer: quality, trust, and loyalty on the internet", *Managing Service Quality*, Vol. 14, No. 6, pp. 446-456.

²¹⁹ Loureiro, S.M.C. and González, F.J.M. (2008), "The importance of quality, satisfaction, trust, and image in relation to rural tourist loyalty", *Journal of Travel & Tourism Marketing*, Vol. 25, No. 2, pp. 117-136.

²²⁰ Omar, N.A., Wel, C.A.C., Aziz, N.A. and Alam, S.S. (2013), "Investigating the structural relationship between loyalty programme service quality, satisfaction and loyalty for retail loyalty programmes: evidence from Malaysia", *Measuring Business Excellence*, Vol. 17, No. 1, pp. 33-50.

²²¹ Tarus, D.K. and Rabach, N. (2013), "Determinants of customer loyalty in Kenya: does corporate image play a moderating role?", *The TQM Journal*, Vol. 25, No. 5, pp. 473-491.

²²² Janita, M.S. and Miranda, F.J. (2013), "The antecedents of client loyalty in business-to-business (B2B) electronic marketplaces", *Industrial Marketing Management*, Vol. 42, No. 5, pp. 814-823.

²²³ Águila-Obra, A.R.D., Padilla-Meléndez, A. and Al-dweeri, R.M.O.O. (2013), "The influence of electronic service quality on loyalty in postal services: the mediating role of satisfaction", *Total Quality Management & Business Excellence*, Vol. 24, Nos. 9/10, pp. 1111-1123.

customer satisfaction and behavioral loyalty, but they find no relationship between customer satisfaction and attitudinal loyalty.

However, other researchers argue that satisfaction has a significant direct impact on customer loyalty (e.g., Callarisa-Fiol *et al.*, 2009²²⁴; Chang *et al.*, 2009²²⁵; Kuo *et al.*, 2013²²⁶; Peña *et al.*, 2013²²⁷; Poujol *et al.*, 2013²²⁸), but with a weak influence. For instance, Kumar *et al.* (2013a)²²⁹ develop empirical generalizations to better understand the relationship between customer satisfaction and customer loyalty, as measured by two dimensions (attitudinal and behavioral loyalty). The authors report that customer satisfaction can explain around 8 percent of the variation in customer loyalty, which means that the effect of satisfaction on customer loyalty is very weak, and that customer satisfaction, by itself, is not sufficient to explain loyalty in a significant way. Satisfaction was also found by Baumann *et al.* (2012)²³⁰ to have a weak effect on loyalty ($\beta = 0.214$, $p < 0.001$). Narteh (2013)²³¹ finds that satisfaction significantly affects loyalty ($\beta = 0.289$, $p < 0.05$). Cambra-Fierro *et al.* (2013)²³² propose that customer satisfaction significantly influences both attitudinal and behavioral loyalty at different levels. More importantly, satisfaction has a weak influence on behavioral loyalty ($\beta = 0.241$, $p < 0.001$) and an intermediate effect on attitudinal loyalty ($\beta = 0.538$, $p < 0.001$), as well. Li and Petrick (2010)²³³ also find a weak effect of customer satisfaction on brand loyalty, as measured by attitudinal loyalty ($\beta = 0.244$, $p < 0.001$).

²²⁴ Callarisa-Fiol, L.J., Bigne-Alcañiz, E., Moliner-Tena, M.A. and Garca, J.S. (2009), "Customer loyalty in clusters: Perceived value and satisfaction as antecedents", *Journal of Business-to-Business Marketing*, Vol. 16, No. 3, pp. 276-316.

²²⁵ Chang, H.H., Wang, Y.-H. and Yang, W.-Y. (2009), "The impact of e-service quality, customer satisfaction and loyalty on e-marketing: Moderating effect of perceived value", *Total Quality Management & Business Excellence*, Vol. 20, No. 4, pp. 423-443.

²²⁶ Kuo, N.-T., Chang, K.-C., Cheng, Y.-S. and Lai, C.-H. (2013), "How service quality affects customer loyalty in the travel agency: The effects of customer satisfaction, service recovery, and perceived value", *Asia Pacific Journal of Tourism Research*, Vol. 18, No. 7, pp. 803-822.

²²⁷ Peña, A.I.P., Jamilena, D.M.F. and Molina, M.Á.R. (2013), "Antecedents of loyalty toward rural hospitality enterprises: The moderating effect of the customer's previous experience", *International Journal of Hospitality Management*, Vol. 34, pp. 127-137.

²²⁸ Poujol, J.F., Siadou-martin, B., Vidal, D. and Pellat, G. (2013), "The impact of salespeople's relational behaviors and organizational fairness on customer loyalty: An empirical study in B-to-B relationships", *Journal of Retailing and Consumer Services*, Vol. 20, pp. 429-438.

²²⁹ Kumar, V., Pozza, I.D. and Ganesh, J. (2013a), "Revisiting the satisfaction-loyalty relationship: Empirical generalizations and directions for future research", *Journal of Retailing*, Vol. 89, No. 3, pp. 246-262.

²³⁰ Baumann, C., Elliott, G. and Burton, S. (2012), "Modeling customer satisfaction and loyalty: survey data versus data mining", *Journal of Services Marketing*, Vol. 26, No. 3, pp. 148-157.

²³¹ Narteh, B. (2013), "Determinants of students' loyalty in the Ghanaian banking industry", *The TQM Journal*, Vol. 25, No. 2, pp. 153-169.

²³² Cambra-Fierro, J., Berbel-Pineda, J.M., Ruiz-Benítez, R. and Vázquez-Carrasco, R. (2013), "Analysis of the moderating role of the gender variable in service recovery processes", *Journal of Retailing and Consumer Services*, Vol. 20, pp. 408-418.

²³³ Li, X. and Petrick, J.F. (2010), "Towards an integrative model of loyalty formation: The role of quality and value", *Leisure Sciences: An Interdisciplinary Journal*, Vol. 32, No. 3, pp. 201-221.

Furthermore, Yuksel *et al.* (2010)²³⁴ investigate the direct effect of customer satisfaction on three loyalty dimensions, namely, conative, affective and cognitive loyalty. The results show that customer satisfaction significantly influences both conative loyalty and affective loyalty by path estimates of 0.23 and 0.24, respectively. However, satisfaction does not have a significant effect on cognitive loyalty by path estimates of 0.01 ($t = 0.01, p > 0.05$). Similarly, Gounaris *et al.* (2007)²³⁵ investigate the relationship between customer satisfaction and two dimensions of brand loyalty, i.e., premium loyalty and inertia loyalty. The findings show that satisfaction has a significant direct impact on premium loyalty ($\beta = 0.25, p < 0.001$), while the relationship between customer satisfaction and inertia loyalty is not significant.

However, very few studies have suggested a strong positive link between satisfaction and customer loyalty. For example, Seiler *et al.* (2013)²³⁶ find a strong and positive direct effect of customer satisfaction on customer loyalty in a high-involvement context. Nam *et al.* (2011)²³⁷ show a strong positive association between customer satisfaction and brand loyalty. In the context of full-service restaurants, Jin *et al.* (2012)²³⁸ suggest that customer satisfaction generates a strong direct effect on customer loyalty ($\beta = 0.68, t = 10.97, p < 0.01$).

Indeed, the nature of the relationship between satisfaction and trust is a controversial issue in the literature. Some researchers suggest that there is no relationship between satisfaction and trust (e.g., Chen, 2010²³⁹; Fullerton, 2011²⁴⁰; Ou *et al.*, 2011²⁴¹; Setó-Pamies, 2012²⁴²). Others suggest that trust is an antecedent of consumer satisfaction (e.g., Deng *et al.*, 2010²⁴³; San-Martin and López-Catalán, 2013²⁴⁴; Wu, 2013²⁴⁵), whereas some others suggest that trust is a key outcome of consumer satisfaction (e.g.,

²³⁴ Yuksel, A., Yuksel, F. and Bilim, Y. (2010), "Destination attachment: Effects on customer satisfaction and cognitive, affective and conative loyalty", *Tourism Management*, Vol. 31, pp. 274-284.

²³⁵ Gounaris, S.P., Tzempelikos, N.A. and Chatzipanagiotou, K. (2007), "The relationships of customer-perceived value, satisfaction, loyalty and behavioral intentions", *Journal of Relationship Marketing*, Vol. 6, No. 1, pp. 63-87.

²³⁶ Seiler, V., Rudolf, M. and Krume, T. (2013), "The influence of socio-demographic variables on customer satisfaction and loyalty in the private banking industry", *International Journal of Bank Marketing*, Vol. 31, No. 4, pp. 235-258.

²³⁷ Nam, J., Ekinci, Y. and Whyatt, G. (2011), "Brand equity, brand loyalty and consumer satisfaction", *Annals of Tourism Research*, Vol. 38, No. 3, pp. 1009-1030.

²³⁸ Jin, N., Lee, S. and Huffman, L. (2012), "Impact of restaurant experience on brand image and customer loyalty: Moderating role of dining motivation", *Journal of Travel & Tourism Marketing*, Vol. 29, No. 6, pp. 532-551.

²³⁹ Chen, Y.-S. (2010) *op. cit.*

²⁴⁰ Fullerton, G. (2011) *op. cit.*

²⁴¹ Ou, W.-M., Shih, C.-M., Chen, C.-Y. and Wang, K.-C. (2011) *op. cit.*

²⁴² Setó-Pamies, D. (2012) *op. cit.*

²⁴³ Deng, Z., Lu, Y., Wei, K.K. and Zhang, J. (2010) *op. cit.*

²⁴⁴ San-Martin, S. and López-Catalán, B. (2013) *op. cit.*

²⁴⁵ Wu, I.-L. (2013) *op. cit.*

Horppu *et al.*, 2008²⁴⁶; Aurier and N'Goala, 2010²⁴⁷; Wilkins *et al.*, 2010²⁴⁸; Chen, 2012²⁴⁹; Amin *et al.*, 2013²⁵⁰; Butt and Aftab, 2013²⁵¹; Chen and Chang, 2013²⁵²; Sultan and Wong, 2013²⁵³). Generally, because most researchers see satisfaction as an antecedent of trust, this study also considers satisfaction as a predictor of trust.

Most previous studies in the marketing literature have empirically demonstrated a strong positive relationship between customer satisfaction and trust (e.g., Kantsperger and Kunz, 2010²⁵⁴; Chu *et al.*, 2012²⁵⁵; Zhao and Huddleston, 2012²⁵⁶), and between trust and customer loyalty (e.g., Kumar *et al.*, 2013b²⁵⁷; Martínez and del Bosque, 2013²⁵⁸). Kassim and Abdullah (2010)²⁵⁹ and Yap *et al.* (2012)²⁶⁰ find that customer satisfaction has a positive influence on trust. According to Liang and Wang (2007)²⁶¹ and Benachenhou et Benhabib (2012)²⁶², customer satisfaction is a better predictor of trust. However, for a business-to-business (B2B) context, Ramaseshan *et al.* (2013)²⁶³ find that trust has the strongest positive impact on customer loyalty by path estimates of 0.903 ($t = 18.15$, $p < 0.01$). This result is consistent with the findings of Phan and Ghantous (2013)²⁶⁴, who suggest that brand trust is the strongest predictor of customer loyalty (path coefficient = 0.766, $p < 0.05$). Additionally, the positive relationship between brand trust

²⁴⁶ Horppu, M., Kuivalainen, O., Tarkiainen, A. and Ellonen, H.-K. (2008) *op. cit.*

²⁴⁷ Aurier, P. and N'Goala, G. (2010) *op. cit.*

²⁴⁸ Wilkins, H., Merrilees, B. and Herington, C. (2010) *op. cit.*

²⁴⁹ Chen, S.-C. (2012) *op. cit.*

²⁵⁰ Amin, M., Isa, Z. and Fontaine, R. (2013) *op. cit.*

²⁵¹ Butt, M.M. and Aftab, M. (2013) *op. cit.*

²⁵² Chen, Y.-S. and Chang, C.-H. (2013) *op. cit.*

²⁵³ Sultan, P. and Wong, H.Y. (2013) *op. cit.*

²⁵⁴ Kantsperger, R. and Kunz, W.H. (2010), "Consumer trust in service companies: a multiple mediating analysis", *Managing Service Quality*, Vol. 20, No. 1, pp. 4-25.

²⁵⁵ Chu, P.-Y., Lee, G.-Y. and Chao, Y. (2012), "Service quality, customer satisfaction, customer trust, and loyalty in an e-banking context", *Social Behavior and Personality*, Vol. 40, No. 8, pp. 1271-1284.

²⁵⁶ Zhao, J. and Huddleston, P. (2012), "Antecedents of specialty food store loyalty", *The International Review of Retail, Distribution and Consumer Research*, Vol. 22, No. 2, pp. 171-187.

²⁵⁷ Kumar, R.S., Dash, S. and Purwar, P.C. (2013b), "The nature and antecedents of brand equity and its dimensions", *Marketing Intelligence & Planning*, Vol. 31, No. 2, pp. 141-159.

²⁵⁸ Martínez, P. and del Bosque, I.R. (2013), "CSR and customer loyalty: The roles of trust, customer identification with the company and satisfaction", *International Journal of Hospitality Management*, Vol. 35, pp. 89-99.

²⁵⁹ Kassim, N. and Abdullah, N.A. (2010), "The effect of perceived service quality dimensions on customer satisfaction, trust, and loyalty in e-commerce settings: A cross cultural analysis", *Asia Pacific Journal of Marketing and Logistics*, Vol. 22, No. 3, pp. 351-371.

²⁶⁰ Yap, B.W., Ramayah, T. and Shahidan, W.N.W. (2012), "Satisfaction and trust on customer loyalty: a PLS approach", *Business Strategy Series*, Vol. 13, No. 4, pp. 154-167.

²⁶¹ Liang, C.-J. and Wang, W.-H. (2007), "The behavioral sequence of information education services industry in Taiwan: relationship bonding tactics, relationship quality and behavioral loyalty", *Measuring Business Excellence*, Vol. 11, No. 2, pp. 62-74.

²⁶² Benachenhou, S.M. et Benhabib, A. (2012), "Test et validation d'un modèle théorique de fidélité à la marque par le biais de la méthode des équations structurelles", *Les Cahiers du MECAS*, No. 8, pp. 85-98.

²⁶³ Ramaseshan, B., Rabbane, F.K. and Hui, L.T.H. (2013), "Effects of customer equity drivers on customer loyalty in B2B context", *Journal of Business & Industrial Marketing*, Vol. 28, No. 4, pp. 335-346.

²⁶⁴ Phan, K.N. and Ghantous, N. (2013), "Managing brand associations to drive customers' trust and loyalty in Vietnamese banking", *International Journal of Bank Marketing*, Vol. 31, No. 6, pp. 456-480.

and brand loyalty ($\beta = 0.86, p < 0.001$) is supported by Laroche *et al.* (2012)²⁶⁵.

Based on the above reviews, customer satisfaction is an important factor but may not be sufficient to generate loyalty (Narteh, 2013)²⁶⁶. According to Castañeda (2011)²⁶⁷ and Kumar *et al.* (2013a)²⁶⁸, while customer satisfaction significantly influences loyalty, models that include other quality variables, such as mediating and moderating variables, may better explain the satisfaction-loyalty relationship than models which only include satisfaction. In other words, satisfaction does not always affect customer loyalty directly, but often works via mediating variables, such as trust (Choi and La, 2013²⁶⁹; Kumar *et al.*, 2013a²⁷⁰).

Several researchers in the marketing literature have focused on the study of the mediating effect of trust on the relationship between satisfaction and customer loyalty. They indicate that, on one hand, trust has a total mediating effect on the relationship between satisfaction and loyalty and, on the other hand, it has a partial mediating effect on the relationship between satisfaction and loyalty. For example, Yieh *et al.* (2007)²⁷¹ indicate that the relationship between customer satisfaction and loyalty is partially mediated by trust. Specifically, customer satisfaction has a positive effect on trust ($\beta = 0.20, p < 0.001$), which, in turn, has a significant positive effect on loyalty ($\beta = 0.21, p < 0.001$). Satisfaction significantly affects customer loyalty ($\beta = 0.16, p < 0.001$). In the tourism context, Chen and Phou (2013)²⁷² suggest that satisfaction has a direct and an indirect effect on loyalty via trust.

Furthermore, Rojas-Méndez *et al.* (2009)²⁷³ find that the relationship between satisfaction and loyalty is totally mediated by trust and commitment. More specifically, satisfaction has a significant direct effect on trust, and trust indirectly influences loyalty

²⁶⁵ Laroche, M., Habibi, M.R., Richard, M.-O. and Sankaranarayanan, R. (2012), "The effects of social media based brand communities on brand community markers, value creation practices, brand trust and brand loyalty", *Computers in Human Behavior*, Vol. 28, pp. 1755-1767.

²⁶⁶ Narteh, B. (2013) *op. cit.*

²⁶⁷ Castañeda, J.A. (2011), "Relationship between customer satisfaction and loyalty on the internet", *Journal of Business and Psychology*, Vol. 26, pp. 371-383.

²⁶⁸ Kumar, V., Pozza, I.D. and Ganesh, J. (2013a) *op. cit.*

²⁶⁹ Choi, B. and La, S. (2013), "The impact of corporate social responsibility (CSR) and customer trust on the restoration of loyalty after service failure and recovery", *Journal of Services Marketing*, Vol. 27, No. 3, pp. 223-233.

²⁷⁰ Kumar, V., Pozza, I.D. and Ganesh, J. (2013a) *op. cit.*

²⁷¹ Yieh, K., Chiao, Y.-C. and Chiu, Y.-K. (2007), "Understanding the antecedents to customer loyalty by applying structural equation modeling", *Total Quality Management & Business Excellence*, Vol. 18, No. 3, pp. 267-284.

²⁷² Chen, C.-F. and Phou, S. (2013), "A closer look at destination: Image, personality, relationship and loyalty", *Tourism Management*, Vol. 36, pp. 269-278.

²⁷³ Rojas-Méndez, J.I., Vasquez-Parraga, A.Z., Kara, A. and Cerda-Urrutia, A. (2009), "Determinants of student loyalty in higher education: A tested relationship approach in Latin America", *Latin American Business Review*, Vol. 10, No. 1, pp. 21-39.

via commitment. However, satisfaction does not directly influence loyalty. Shin *et al.* (2013)²⁷⁴ suggest that customer trust and customer commitment have a full mediating effect (Standardized estimate = 0.510, $p = 0.006$) on the relationship between customer satisfaction and customer loyalty, as measured by repurchase intention. In addition, the indirect effect of customer satisfaction on loyalty through trust is stronger than the direct effect (Caceres and Paparoidamis, 2007)²⁷⁵. Wetsch (2006)²⁷⁶ proposes that loyalty intention is influenced indirectly by satisfaction via trust. In a low involvement retail context, i.e., fast-food independent stores, Bove and Mitzifiris (2007)²⁷⁷ find that customer satisfaction has a positive impact on trust and both satisfaction and trust have direct impact on store attitudinal loyalty, while the impact of satisfaction on store behavioral loyalty is mediated by trust and commitment.

He *et al.* (2012)²⁷⁸ investigate two models to test the effect of brand identity and identification on brand loyalty in two different sectors (skincare and mobile phone brands). The results in the case of skincare brands show that customer satisfaction positively impacts trust ($\beta = 0.40$, $p < 0.001$), and trust positively impacts brand loyalty ($\beta = 0.78$, $p < 0.001$), while in the case of mobile phone brands, customer satisfaction positively impacts trust ($\beta = 0.27$, $p < 0.01$), and trust positively impacts brand loyalty ($\beta = 0.68$, $p < 0.001$). Meanwhile, the indirect effect of customer satisfaction on brand loyalty via trust in the first model ($\beta = 0.31$, $p < 0.001$) is much stronger than that in the second model ($\beta = 0.18$, $p < 0.01$). Similarly, Choi and La (2013)²⁷⁹ propose three models to test the mediation effect of trust on the relationship between satisfaction and loyalty. As a result, model 1 indicates that satisfaction has a significant positive effect on trust ($\beta = 0.805$, $p < 0.01$), and trust, in turn, has a significant positive effect on loyalty ($\beta = 0.912$, $p < 0.01$). Model 2 shows that satisfaction significantly impacts customer loyalty ($\beta = 0.711$, $p < 0.01$). Model 3 reveals that after including trust as a mediating variable

²⁷⁴ Shin, J.I., Chung, K.H., Oh, J.S. and Lee, C.W. (2013), "The effect of site quality on repurchase intention in internet shopping through mediating variables: The case of university students in South Korea", *International Journal of Information Management*, Vol. 33, No. 3, pp. 453-463.

²⁷⁵ Caceres, R.C. and Paparoidamis, N.G. (2007), "Service quality, relationship satisfaction, trust, commitment and business-to-business loyalty", *European Journal of Marketing*, Vol. 41, Nos. 7/8, pp. 836-867.

²⁷⁶ Wetsch, L.R. (2006), "Trust, satisfaction and loyalty in customer relationship management", *Journal of Relationship Marketing*, Vol. 4, Nos. 3/4, pp. 29-42.

²⁷⁷ Bove, L. and Mitzifiris, B. (2007), "Personality traits and the process of store loyalty in a transactional prone context", *Journal of Services Marketing*, Vol. 21, No. 7, pp. 507-519.

²⁷⁸ He, H., Li, Y. and Harris, L. (2012), "Social identity perspective on brand loyalty", *Journal of Business Research*, Vol. 65, pp. 648-657.

²⁷⁹ Choi, B. and La, S. (2013) *op. cit.*

into the model, the direct relationship between satisfaction and loyalty becomes insignificant ($\beta = -0.090$, *n.s.*), which indicates that the relationship between satisfaction and customer loyalty is completely mediated by trust. Hence, the results confirm the important role of trust in explaining the relationship between satisfaction and loyalty.

The aforementioned studies show mixed results about the relationship between satisfaction, trust and loyalty. Some studies have indicated that trust completely mediates the relationship between satisfaction and loyalty, whereas others have suggested that trust partially mediates the relationship between satisfaction and loyalty. Meanwhile, Castañeda (2011)²⁸⁰ investigates the link among satisfaction, trust and loyalty in two different models in an online context. The first model represents trust as a full mediator between satisfaction and loyalty, whereas the second represents it as a partial mediator of this relationship. The findings demonstrate that the model that explains the partial mediating effect of trust is the appropriate one to understand the complex nature of the relationship between satisfaction, trust and loyalty. To this end, this research studies the partial mediating effect of trust on the relationship between satisfaction and loyalty. Hence, it is hypothesized that

H1. Satisfaction has a direct positive influence on loyalty.

H2. Satisfaction has an indirect positive influence on loyalty through trust.

Recent marketing literature has shown that the relationship between trust and loyalty is affected by moderating variables such as gender (Sanchez-Franco *et al.*, 2009)²⁸¹, perceived risk (Aldas-Manzano *et al.*, 2011)²⁸² and involvement (Castañeda, 2011)²⁸³. Indeed, consumer personality is considered one of the most important variables in the marketing literature because of its fundamental role in explaining and understanding consumer behavior. A review of the consumer-brand relationship literature shows that the personality traits of consumer innovativeness, variety-seeking (Gounaris and Stathakopoulos, 2004²⁸⁴; Ramirez and Goldsmith, 2009²⁸⁵) and relationship

²⁸⁰ Castañeda, J.A. (2011) *op. cit.*

²⁸¹ Sanchez-Franco, M.J., Ramos, A.F.V. and Velicia, F.A.M. (2009), "The moderating effect of gender on relationship quality and loyalty toward Internet service providers", *Information & Management*, Vol. 46, pp. 196-202.

²⁸² Aldas-Manzano, J., Ruiz-Mafe, C., Sanz-Blas, S. and Lassala-Navarré, C. (2011) *op. cit.*

²⁸³ Castañeda, J.A. (2011) *op. cit.*

²⁸⁴ Gounaris, S. and Stathakopoulos, V. (2004), "Antecedents and consequences of brand loyalty: An empirical study", *Journal of Brand Management*, Vol. 11, No. 4, pp. 283-306.

²⁸⁵ Ramirez, E. and Goldsmith, R.E. (2009), "Some antecedents of price sensitivity", *Journal of Marketing Theory and Practice*, Vol. 17, No. 3, pp. 199-213.

proneness have the greatest influence on consumer relationships. Several studies have examined the direct relationship between personality traits and relationship variables such as satisfaction, trust, commitment and loyalty (e.g., Odekerken-Schröder *et al.*, 2003²⁸⁶; Vázquez-Carrasco and Foxall, 2006²⁸⁷; Parish and Holloway, 2010²⁸⁸). However, no study has investigated the moderating effects of personality traits on the relationship between brand trust and brand loyalty. Few studies have examined the moderating effect of consumer personality on both the relationship between perceived relationship investment and relationship quality (satisfaction, trust and commitment) (e.g., De Wulf *et al.*, 2001²⁸⁹) and the relationship among satisfaction, image, value, credibility and loyalty (e.g., Homburg and Giering, 2001²⁹⁰; Hansen *et al.*, 2013²⁹¹). In addition, Adjei and Clark (2010)²⁹² find that the link between relationship quality (i.e., satisfaction, trust and commitment) and behavioral loyalty is moderated by personality traits. More specifically, both consumer innovativeness and variety-seeking negatively interact with relationship quality. Conversely, relationship proneness has been found to have a positive influence on the link between relationship quality and behavioral loyalty. Based on previous evidence, the effect of brand trust on brand loyalty is expected to be moderated by consumer innovativeness, variety-seeking and relationship proneness (see Figure 30), which leads to the following three hypotheses:

- H3.** Consumer innovativeness has a negative moderating effect on the relationship between brand trust and brand loyalty.
- H4.** Variety-seeking has a negative moderating effect on the relationship between brand trust and brand loyalty.
- H5.** Relationship proneness has a positive moderating effect on the relationship between brand trust and brand loyalty.

The proposed conceptual framework is summarized in Figure 30. The model suggests that customer satisfaction has a positive impact on brand trust and, ultimately on

²⁸⁶ Odekerken-Schröder, G., De Wulf, K. and Schumacher, P. (2003) *op. cit.*

²⁸⁷ Vázquez-Carrasco, R. and Foxall, G.R. (2006), "Influence of personality traits on satisfaction, perception of relational benefits, and loyalty in a personal service context", *Journal of Retailing and Consumer Services*, Vol. 13, No. 3, pp. 205-219.

²⁸⁸ Parish, J.T. and Holloway, B.B. (2010), "Consumer relationship proneness: a reexamination and extension across service exchanges", *Journal of Services Marketing*, Vol. 24, No. 1, pp. 61-73.

²⁸⁹ De Wulf, K., Odekerken-Schröder, G. and Iacobucci, D. (2001) *op. cit.*

²⁹⁰ Homburg, C. and Giering, A. (2001) *op. cit.*

²⁹¹ Hansen, H., Samuelsen, B.M. and Sallis, J.E. (2013) *op. cit.*

²⁹² Adjei, M.T. and Clark, M.N. (2010) *op. cit.*

loyalty. Furthermore, the model proposes that personality traits, namely, consumer innovativeness, variety-seeking and relationship proneness, moderate the impact of brand trust on loyalty.

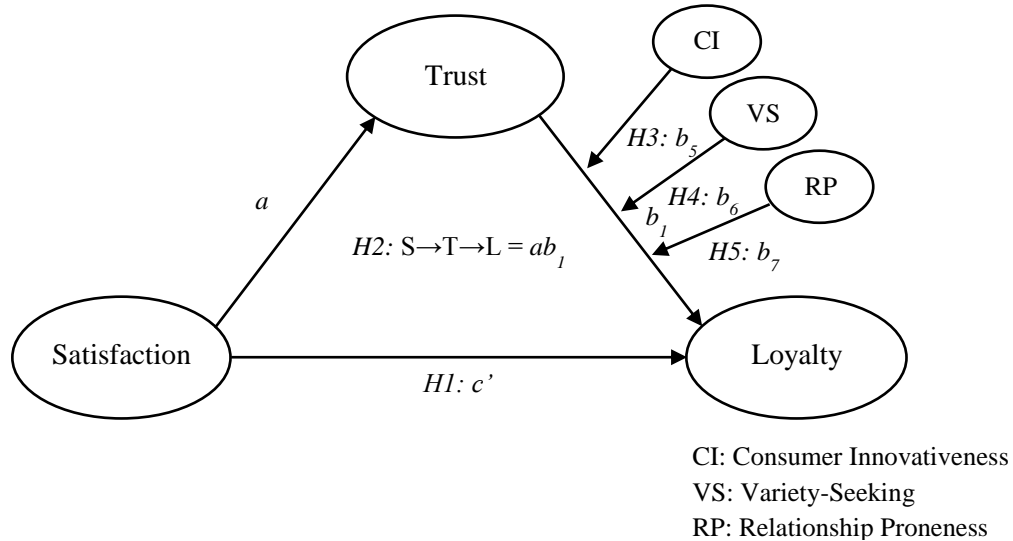


Figure 30. Conceptual framework.

Summary

This chapter provides a review of the extant literature relating to brand satisfaction, brand trust, brand loyalty, consumer innovativeness, variety-seeking and relationship proneness. It also discusses the relationships among these constructs. It is hypothesized that satisfaction has a direct and indirect impact on loyalty via trust, whereas consumer innovativeness, variety-seeking and relationship proneness moderate the relationship between trust and loyalty. The data collection, measurement of the constructs and measurement model are presented in the next chapter.

CHAPTER III
RESEARCH METHODOLOGY

Section 1. Data Collection and Measurement

Section 2. Data Analysis Method

Introduction

This chapter includes two major sections. The first section presents the description of the sample, data collection and measurement of the constructs, whereas the second one gives an extended discussion of structural equation modeling (SEM) and its two main approaches, namely, covariance-based SEM (CB-SEM) and partial least squares SEM (PLS-SEM), followed by the development of the measurement model.

Section 1. Data collection and measurement

1.1 Sample and data collection

The data used in this study were collected through a self-administered questionnaire between November 2014 and March 2015 in Tlemcen, a city of 950,000 inhabitants in the northwestern region of Algeria. The sampling frame of the study included all consumers over 15 years old. The participants were real consumers (not students) who reported their consumption experience within four product categories, i.e., soft drinks, fruit juices, mineral water and yogurt. These four categories were chosen because they are frequently purchased and familiar to most consumers. Although soft drinks, fruit juices, mineral water and yogurt seem to belong to similar product categories, they are competitors at a higher level. Companies use several different brands for each category; within each category, brands compete heavily (Olsen *et al.*, 2013)²⁹³ because their choice criteria, preferences and consumer profiles are different. Therefore, examining the model across these four product categories is important. However, these four categories (i.e., soft drinks, fruit juices, mineral water and yogurt) can be represented by several brands in the market for consumer goods (Narayana and Markin, 1975)²⁹⁴. Thus, a short survey was conducted in November 2014 to determine the common brands that consumers most often considered buying.²⁹⁵ The questionnaire included two sections. The first section contained two items repeated for each of the four product categories (see Appendix A).

²⁹³ Olsen, S., Tudoran, A., Brunsø, K. and Verbeke, W. (2013), "Extending the prevalent consumer loyalty modelling: the role of habit strength", *European Journal of Marketing*, Vol. 47, Nos. 1/2, pp. 303-323.

²⁹⁴ Narayana, C.L. and Markin, R.J. (1975), "Consumer behavior and product performance: An alternative consideration", *Journal of Marketing*, Vol. 39, No. 4, pp. 1-6.

²⁹⁵ Frequently purchased brands were chosen for this study because personality traits might not be very relevant to situations featuring higher levels of impulse buying. Kollat and Willett (1967) indicate that products (brands) with high purchase frequencies tend to have a relatively low percentage of impulse purchases.

These items were adapted from Narayana and Markin (1975)²⁹⁶ to measure the awareness set and the evoked set (see Table 1).²⁹⁷ Therefore, a sample of 50 participants was asked to list (1) the names of all brands of which they were aware and (2) the names of brands that they considered buying. The second part of the questionnaire comprised demographic questions. In this sample, 54 percent of the participants were male, 14 percent were younger than 19 years old, 36 percent were between 20 and 29 years old, 28 percent were between 30 and 39 years old, 18 percent were between 40 and 49 years old, and 4 percent were over 50 years old. Approximately 62 percent of the participants were single, and 66 percent had a bachelor's degree or higher. Most participants (58 percent) had a low income level.

Table 1. Construct measurement.

| Construct | Measurement item | Source |
|---------------|--|----------------------------|
| Awareness set | List the names of all brands that you are aware of | Narayana and Markin (1975) |
| Evoked set | List the names of brands that you consider buying | Narayana and Markin (1975) |

In addition, Table 2 shows the results of the minimum and the maximum number of brands in the awareness set and the evoked set for each of the four product categories. As can be seen, the number of brands (e.g., soft drinks) of which consumers were aware ranged from 3 to 12 (average 6.56). Similarly, the number of brands that consumers considered buying ranged from 1 to 6 (average 2.68). Table 2 also shows the results related to the remaining product categories, namely, fruit juices, mineral water and yogurt. Furthermore, mineral water and yogurt had a maximum number of 3 brands in the evoked set, while soft drinks and fruit juices had a maximum number of 6. However, as shown in Appendix B, only 4 percent of all participants reported 6 brands in their evoked set, whereas 96 percent reported no more than 4 brands. Hence, with the exception of the 4 percent, the maximum number of brands in the evoked set for each of the four product

²⁹⁶ Narayana, C.L. and Markin, R.J. (1975) *op. cit.*

²⁹⁷ The awareness set is a set of brands available on the market of which the consumer is aware; this set includes both the brands that the consumer would consider buying, usually called a consideration set or evoked set, and those that the consumer would not consider buying (Roberts and Lattin, 1991; Brown and Wildt, 1992). According to Roberts and Lattin (1991) and Brown and Wildt (1992), the purchase decision depends on the brands included in the evoked set.

categories did not exceed 4. Wilkie and Farris (1975)²⁹⁸ indicate that, for some product categories, the average size of the evoked set could be only two or three brands. Accordingly, this study adopted the three top brands included in the evoked set for each product category. Table 3 shows that Coca-Cola, Pepsi and 7up are the most preferred brands on the soft drink market. Similarly, the most preferred brands of fruit juices,²⁹⁹ mineral water and yogurt are presented in Table 3, as well.

Table 2. Number of brands included in each set.

| | Set | Minimum | Maximum | Average |
|---------------|---------------|---------|---------|---------|
| Soft drinks | Awareness set | 3 | 12 | 6.56 |
| | Evoked set | 1 | 6 | 2.68 |
| Fruit juices | Awareness set | 1 | 8 | 3.80 |
| | Evoked set | 1 | 6 | 2.04 |
| Mineral water | Awareness set | 1 | 7 | 4.00 |
| | Evoked set | 1 | 3 | 1.92 |
| Yogurt | Awareness set | 1 | 5 | 2.18 |
| | Evoked set | 1 | 3 | 1.60 |

The final questionnaire was categorized into three major sections. The first section began with a short introduction to the purpose of the study. The participants were asked to complete the questionnaire, were promised that it would take no longer than 15 minutes of their time and were thanked for their participation. Details about the authors were also provided. The second section included 27 items related to the six research constructs, namely, satisfaction, trust, loyalty, consumer innovativeness, variety-seeking and relationship proneness. Participants were asked to first rank the three brands mentioned in each product category in order of preference. Next, they were asked to answer the same 27 items for each of the four product categories using a 5-point Likert-type scale ranging from “strongly agree” to “strongly disagree.” The final section

²⁹⁸ Wilkie, W.L. and Farris, P.W. (1975), “Comparison advertising: Problems and potential”, *Journal of Marketing*, Vol. 39, No. 4, pp. 7-15.

²⁹⁹ As mentioned above, this study selected the three top brands in the evoked set for each of the four product categories. In the case of fruit juices, Ramy (66 percent), Ifruit (30 percent), Rouiba (18 percent) and N’gaous (18 percent) were the most frequently listed brands in the evoked set (see Appendix C, Table 1). As can be seen, Ramy had the highest percentage of frequency followed by Ifruit, while both Rouiba and N’gaous had the same percentage. Thus, a cross-tabulation was made between the evoked set and the quantity of fruit juices consumed per day to select one of the two brands, i.e., Rouiba and N’gaous (see Appendix C, Table 2). Concerning Rouiba, 14 percent (of 18 percent) of the participants drank between 2 glasses and 1 L of fruit juices. Regarding N’gaous, however, 10 percent (of 18 percent) of the participants drank 1 glass or less of fruit juices. Therefore, Rouiba seems to be the appropriate brand to select in this case.

assessed demographic information, such as gender, age, marital status, education, income, occupation and light/heavy consumers (see Appendix D). The demographic questions were provided at the end of the questionnaire to ensure that participants completed the other questions before they were asked private or personal questions (Rowley, 2014)³⁰⁰. Before distributing the questionnaires, a pretest was conducted with 30 participants in December 2014 to test and revise the questionnaire, improve the scale items and reduce item ambiguity (Podsakoff *et al.*, 2003)³⁰¹. Following the pretest, two questions were added, and the wording of certain items was improved. When the questionnaire was finalized, potential participants were approached and informed that the purpose of the survey was to understand their attitudes and behavior toward soft drink, fruit juice, mineral water and yogurt brands. Those who agreed to participate were asked to rank the three brands mentioned in the questionnaire for each product category from 1 to 3 according to their preferences and then to answer the questions with respect to their first-ranked brand. To minimize common method bias concerns, the participants were told that their responses would be kept anonymous, assured that there were no right or wrong answers and encouraged to answer the questions accurately (Podsakoff *et al.*, 2003)³⁰². In addition, a small gift was promised to each participant following completion of the questionnaire, thus motivating them to respond and improving the response rate. Five hundred and thirty-seven questionnaires were distributed to participants by random selection during the period between January and March 2015. Of this random sample, 443 valid questionnaires were collected; 94 questionnaires were dropped because of missing important data, resulting in a response rate of 82.49 percent. As suggested by Hair *et al.* (2010)³⁰³, the minimum sample size required for structural equation modeling (SEM) is 200; thus, the sample size used in this study was satisfactory. The original version of the questionnaire was prepared in English, translated into Arabic and French, and back-translated into English (see Appendix D). Table 4 shows that 51 percent of the participants were males and 54.2 percent were single. Approximately 63.8 percent were under 35 years of age, whereas 16.9 percent were over 45 years old. The majority of the

³⁰⁰ Rowley, J. (2014), "Designing and using research questionnaires", *Management Research Review*, Vol. 37, No. 3, pp. 308-330.

³⁰¹ Podsakoff, P.M., MacKenzie, S.B., Lee, J.-Y. and Podsakoff, N.P. (2003), "Common method biases in behavioral research: a critical review of the literature and recommended remedies", *Journal of Applied Psychology*, Vol. 88, No. 5, pp. 879-903.

³⁰² *Ibid.*

³⁰³ Hair, J.F., Black, W.C., Babin, B.J. and Anderson, R.E. (2010), *Multivariate Data Analysis*, 7th ed., Pearson Prentice-Hall, Upper Saddle River, NJ.

Table 3. List of the three brands selected in each product category.

| | Brand | Percentage (N = 50) |
|---------------|-----------|---------------------|
| Soft drinks | Coca-Cola | 58 |
| | Pepsi | 50 |
| | L'exquise | 42 |
| Fruit juices | Ramy | 66 |
| | Ifruit | 30 |
| | Rouiba | 18 |
| Mineral water | Mansourah | 74 |
| | Ifri | 52 |
| | Saida | 30 |
| Yogurt | Soummam | 84 |
| | Danone | 58 |
| | Trefle | 10 |

overall sample (71.6 percent) held at least a bachelor's degree. Furthermore, 60.7 percent had a monthly individual income of 18,000 DA or less. Of the participants, 37.2 percent were employees, 31.8 percent were students, and 31 percent for the rest. Almost two-thirds of the participants (62.1 percent) indicated that they drink 1 glass or less of soft drinks per day, 54 percent stated that they drink between 2 glasses and 1 L of fruit juices per day, 43.1 percent indicated that they drink more than 1 L of mineral water per day, and finally 53.3 percent of the participants stated that they eat 1 cup or less of yogurt per day (see Table 4 for more details).

Table 4. Demographic characteristics of the sample.

| Characteristic | Category | Percentage (N = 443) |
|----------------|-------------|----------------------|
| Gender | Female | 49.0 |
| | Male | 51.0 |
| Age | 15-25 | 37.2 |
| | 26-35 | 26.6 |
| | 36-45 | 19.2 |
| | 46-55 | 11.7 |
| | 56-65 | 4.7 |
| | 66 or above | 0.5 |
| Marital status | Single | 54.2 |
| | Married | 43.6 |
| | Other | 2.3 |

| | | |
|---------------------|------------------------------------|------|
| Education | Primary | 3.6 |
| | Middle | 9.3 |
| | Secondary | 14.7 |
| | University | 71.6 |
| | Other | 0.9 |
| Monthly income (DA) | 18,000 or below | 60.7 |
| | 18,001-30,000 | 15.3 |
| | 30,001-40,000 | 9.0 |
| | 40,001-50,000 | 4.5 |
| | 50,001-60,000 | 4.1 |
| | 60,001 or above | 6.3 |
| Occupation | Farmer | 0.5 |
| | Craftsman, trader and entrepreneur | 5.6 |
| | Executive | 0.9 |
| | Middle executive | 1.4 |
| | Employee | 37.2 |
| | Worker | 5.4 |
| | Student | 31.8 |
| | Retired | 2.7 |
| | Without professional activity | 11.5 |
| | Other | 2.9 |

On average, how many glasses/cups do you consume per day?

| | Soft drinks | Fruit juices | Mineral water | Yogurt |
|--------------------------------|-------------|-----------------|------------------|--------|
| 1 glass/cup or less | 62.1 | 39.5 | 12.2 | 53.3 |
| Between 2 glasses/cups and 1 L | 35.2 | 54.0 | 44.7 | 42.9 |
| More than 1 L | 2.7 | 6.5 | 43.1 | 3.8 |

1.2 Measurement scales

1.2.1 Likert-type scales

Questionnaires using rating scales are useful tools for marketing researchers to collect data regarding respondents' attitudes and beliefs (Desselle, 2005³⁰⁴; Weijters *et al.*, 2010³⁰⁵; Beckstead, 2014³⁰⁶). Although researchers have used various rating scale

³⁰⁴ Desselle, S.P. (2005), "Construction, implementation, and analysis of summated rating attitude scales", *American Journal of Pharmaceutical Education*, Vol. 69, No. 5, pp. 1-11.

³⁰⁵ Weijters, B., Cabooter, E. and Schillewaert, N. (2010), "The effect of rating scale format on response styles: The number of response categories and response category labels", *International Journal of Research in Marketing*, Vol. 27, No. 3, pp. 236-247.

³⁰⁶ Beckstead, J.W. (2014), "On measurements and their quality. Paper 4: Verbal anchors and the number of response options in rating scales", *International Journal of Nursing Studies*, Vol. 51, No. 5, pp. 807-814.

formats, Likert-type scale is the most commonly used scale, especially in measuring responses (Jamieson, 2004³⁰⁷; Allen and Seaman, 2007³⁰⁸; Göb *et al.*, 2007³⁰⁹; Camparo, 2013³¹⁰).

Researchers do not agree about a specific number of response categories for Likert-type rating scales, which means that this issue is still controversial in the literature. Dawes (2008)³¹¹ finds that 5-point and 7-point Likert scales produce slightly higher mean scores than the 10-point scale, while the mean score for each of 5-point and 7-point scales was found to be the same. Leung (2011)³¹² compares between 4-, 5-, 6-, and 11-point Likert scales in terms of mean, standard deviation and reliability. Results show no differences between the four scales. The author suggests using scales with a large number of response options, such as 11-point scales. This is consistent with the findings of Beal and Dawson (2007)³¹³, who propose that Likert-type scales may work better with a larger number of response categories, such as 7-point or 9-point scales. Moreover, Preston and Colman (2000)³¹⁴ suggest that scales with 7 points, 9 points and 10 points may be more appropriate for the respondents to entirely express their feelings. Garratt *et al.* (2011)³¹⁵ find that 5-point scales produce better data quality than 10-point scales. Parker *et al.* (2013)³¹⁶ indicate that the reliability changes when the number of scale categories changes.

Numerous researchers have reported that both 5-point and 7-point scales are the most widely used scales in survey research (e.g., Colman *et al.*, 1997³¹⁷; Harzing *et al.*,

³⁰⁷ Jamieson, S. (2004), "Likert scales: how to (ab)use them", *Medical Education*, Vol. 38, No. 12, pp. 1217-1218.

³⁰⁸ Allen, I.E. and Seaman, C.A. (2007), "Likert scales and data analyses", *Quality Progress*, Vol. 40, No. 7, pp. 64-65.

³⁰⁹ Göb, R., McCollin, C. and Ramalhoto, M.F. (2007), "Ordinal methodology in the analysis of Likert scales", *Quality & Quantity*, Vol. 41, No. 5, pp. 601-626.

³¹⁰ Camparo, J. (2013), "A geometrical approach to the ordinal data of Likert scaling and attitude measurements: The density matrix in psychology", *Journal of Mathematical Psychology*, Vol. 57, Nos. 1/2, pp. 29-42.

³¹¹ Dawes, J. (2008), "Do data characteristics change according to the number of scale points used? An experiment using 5-point, 7-point and 10-point scales", *International Journal of Market Research*, Vol. 50, No. 1, pp. 61-77.

³¹² Leung, S.-O. (2011), "A comparison of psychometric properties and normality in 4-, 5-, 6-, and 11-point Likert scales", *Journal of Social Service Research*, Vol. 37, No. 4, pp. 412-421.

³¹³ Beal, D.J. and Dawson, J.F. (2007), "On the use of Likert-type scales in multilevel data: Influence on aggregate variables", *Organizational Research Methods*, Vol. 10, No. 4, pp. 657-672.

³¹⁴ Preston, C.C. and Colman, A.M. (2000), "Optimal number of response categories in rating scales: reliability, validity, discriminating power, and respondent preferences", *Acta Psychologica*, Vol. 104, No. 1, pp. 1-15.

³¹⁵ Garratt, A.M., Helgeland, J. and Gulbrandsen, P. (2011), "Five-point scales outperform 10-point scales in a randomized comparison of item scaling for the Patient Experiences Questionnaire", *Journal of Clinical Epidemiology*, Vol. 64, No. 2, pp. 200-207.

³¹⁶ Parker, R.I., Vannest, K.J. and Davis, J.L. (2013), "Reliability of multi-category rating scales", *Journal of School Psychology*, Vol. 51, No. 2, pp. 217-229.

³¹⁷ Colman, A.M., Norris, C.E. and Preston, C.C. (1997), "Comparing rating scales of different lengths: Equivalence of scores from 5-point and 7-point scales", *Psychological Reports*, Vol. 80, No. 2, pp. 355-362.

2009³¹⁸; Hartley, 2014³¹⁹). However, few studies have compared these two formats, i.e., 5-point and 7-point scales. For instance, Shishido *et al.* (2009)³²⁰ suggest that changing the number of response categories from 5-point scales to 7-point scales makes the results more acceptable. In terms of reliability and variability, Rhodes *et al.* (2010)³²¹ find that 7-point Likert-type scales perform better than 5-point scales among students. According to Weijters *et al.* (2010)³²², researchers who use student samples should use 7-point rating scales, whereas those who use general samples should use 5-point rating scales, because “students might be different from the population as a whole” (Harzing *et al.*, 2009, p. 422)³²³. To this end, a 5-point Likert scale was selected because a general sample was used in this study.

Furthermore, most researchers and practitioners in the marketing literature have frequently used the 5-point Likert scale to measure the attitudes of respondents (e.g., Wright, 2001³²⁴; Mysen *et al.*, 2011³²⁵; Bakti and Sumaedi, 2013³²⁶; Fandos-Roig *et al.*, 2013³²⁷; Ladhari and Leclerc, 2013³²⁸; Chang *et al.*, 2014³²⁹; Fatima and Razzaque, 2014³³⁰; Huang *et al.*, 2014³³¹; Lam and Shankar, 2014³³²; Moliner-Velazquez *et al.*,

³¹⁸ Harzing, A.-W., Balduenza, J., Barner-Rasmussen, W., Barzantny, C., Canabal, A., Davila, A., Espejo, A., Ferreira, R., Giroud, A., Koester, K., Liang, Y.-K., Mockaitis, A., Morley, M.J., Myloni, B., Odusanya, J.O.T., O’Sullivan, S.L., Palaniappan, A.K., Prochno, P., Choudhury, S.R., Saka-Helmhout, A., Siengthai, S., Viswat, L., Soydas, A.U. and Zander, L. (2009), “Rating versus ranking: What is the best way to reduce response and language bias in cross-national research?”, *International Business Review*, Vol. 18, No. 4, pp. 417-432.

³¹⁹ Hartley, J. (2014), “Some thoughts on Likert-type scales”, *International Journal of Clinical and Health Psychology*, Vol. 14, No. 1, pp. 83-86.

³²⁰ Shishido, K., Iwai, N. and Yasuda, T. (2009), “Designing response categories of agreement scales for cross-national surveys in East Asia: The approach of the Japanese general social surveys”, *International Journal of Japanese Sociology*, Vol. 18, No. 1, pp. 97-111.

³²¹ Rhodes, R.E., Matheson, D.H. and Mark, R. (2010), “Evaluation of social cognitive scaling response options in the physical activity domain”, *Measurement in Physical Education and Exercise Science*, Vol. 14, No. 3, pp. 137-150.

³²² Weijters, B., Cabooter, E. and Schillewaert, N. (2010) *op. cit.*

³²³ Harzing, A.-W., Balduenza, J., Barner-Rasmussen, W., Barzantny, C., Canabal, A., Davila, A., Espejo, A., Ferreira, R., Giroud, A., Koester, K., Liang, Y.-K., Mockaitis, A., Morley, M.J., Myloni, B., Odusanya, J.O.T., O’Sullivan, S.L., Palaniappan, A.K., Prochno, P., Choudhury, S.R., Saka-Helmhout, A., Siengthai, S., Viswat, L., Soydas, A.U. and Zander, L. (2009) *op. cit.*, p. 422.

³²⁴ Wright, L.T. (2001), “Intercontinental comparisons in marketing strategy”, *International Marketing Review*, Vol. 18, No. 3, pp. 344-354.

³²⁵ Mysen, T., Svensson, G. and Payan, J.M. (2011), “Causes and outcomes of satisfaction in business relationships”, *Marketing Intelligence & Planning*, Vol. 29, No. 2, pp. 123-140.

³²⁶ Bakti, I.G.M.Y. and Sumaedi, S. (2013), “An analysis of library customer loyalty: The role of service quality and customer satisfaction, a case study in Indonesia”, *Library Management*, Vol. 34, Nos. 6/7, pp. 397-414.

³²⁷ Fandos-Roig, J.C., Estrada-Guillén, M., Forgas-Coll, S. and Palau-Saumell, R. (2013), “Social value in retail banking”, *International Journal of Bank Marketing*, Vol. 31, No. 5, pp. 348-367.

³²⁸ Ladhari, R. and Leclerc, A. (2013), “Building loyalty with online financial services customers: Is there a gender difference?”, *Journal of Retailing and Consumer Services*, Vol. 20, No. 6, pp. 560-569.

³²⁹ Chang, S.-C., Chou, P.-Y. and Lo, W.-C. (2014), “Evaluation of satisfaction and repurchase intention in online food group-buying, using Taiwan as an example”, *British Food Journal*, Vol. 116, No. 1, pp. 44-61.

³³⁰ Fatima, J.K. and Razzaque, M.A. (2014), “Service quality and satisfaction in the banking sector”, *International Journal of Quality & Reliability Management*, Vol. 31, No. 4, pp. 367-379.

³³¹ Huang, C.-C., Fang, S.-C., Huang, S.-M., Chang, S.-C. and Fang, S.-R. (2014), “The impact of relational bonds on brand loyalty: the mediating effect of brand relationship quality”, *Managing Service Quality*, Vol. 24, No. 2, pp. 184-204.

³³² Lam, S.Y. and Shankar, V. (2014), “Asymmetries in the effects of drivers of brand loyalty between early and late adopters and across technology generations”, *Journal of Interactive Marketing*, Vol. 28, No. 1, pp. 26-42.

2014³³³; Sarkar and Sreejesh, 2014³³⁴; Xie and Chen, 2014³³⁵). The 5-point traditional Likert scale presents the following response options: strongly disagree, disagree, neither disagree nor agree, agree and strongly agree (Kulas and Stachowski, 2009)³³⁶.

Several studies have been conducted on the effect of the arrangements of rating scales on the quality of the resulting data. For example, Chan (1991)³³⁷ finds that the position of scale labels on Likert-type scales has an influence on subjects' responses. Salzberger and Koller (2013)³³⁸ investigate the influence of the direction of a disagree-agree response scale on response data using confirmatory factor analysis. They find that the disagree-agree format performs better than the agree-disagree format when the respondents pay more attention to their responses. On the contrary, Albanese *et al.* (1997)³³⁹ investigate the effect of the direction of response scale on the performance of Likert scales using three scale formats (5 points, 6 points and 7 points). They find that Likert-type scales with agreement on the left side and disagreement on the right side make ratings more positive and decrease the variance proportion. Betts and Hartley (2012)³⁴⁰ find that Likert-type scales with different arrangements of verbal and numeric anchors can lead to different findings. More specifically, Likert scales with positive wording or high rating on the left side can produce higher mean scores than the others. Likewise, Hartley and Betts (2010)³⁴¹ compare four different linear scales of Likert type. They were arranged, on the one hand, from 0 to 10 and from 10 to 0, and on the other hand, from clear to unclear and from unclear to clear. The results show that using scales with positive numerical values and verbal labels on the left side give significantly higher

³³³ Moliner-Velazquez, B., Fuentes-Blasco, M. and Gil-Saura, I. (2014), "Value antecedents in relationship between tourism companies", *Journal of Business & Industrial Marketing*, Vol. 29, No. 3, pp. 215-226.

³³⁴ Sarkar, A. and Sreejesh, S. (2014), "Examination of the roles played by brand love and jealousy in shaping customer engagement", *Journal of Product & Brand Management*, Vol. 23, No. 1, pp. 24-32.

³³⁵ Xie, L.K. and Chen, C.-C. (2014), "Hotel loyalty programs: how valuable is valuable enough?", *International Journal of Contemporary Hospitality Management*, Vol. 26, No. 1, pp. 107-129.

³³⁶ Kulas, J.T. and Stachowski, A.A. (2009), "Middle category endorsement in odd-numbered Likert response scales: Associated item characteristics, cognitive demands, and preferred meanings", *Journal of Research in Personality*, Vol. 43, No. 3, pp. 489-493.

³³⁷ Chan, J.C. (1991), "Response-order effects in Likert-type scales", *Educational and Psychological Measurement*, Vol. 51, No. 3, pp. 531-540.

³³⁸ Salzberger, T. and Koller, M. (2013), "Towards a new paradigm of measurement in marketing", *Journal of Business Research*, Vol. 66, No. 9, pp. 1307-1317.

³³⁹ Albanese, M., Prucha, C., Barnet, J.H. and Gjerde, C.L. (1997), "The effect of right or left placement of the positive response on Likert-type scales used by medical students for rating instruction", *Academic Medicine*, Vol. 72, No.7, pp. 627-630.

³⁴⁰ Betts, L. and Hartley, J. (2012), "The effects of changes in the order of verbal labels and numerical values on children's scores on attitude and rating scales", *British Educational Research Journal*, Vol. 38, No. 2, pp. 319-331.

³⁴¹ Hartley, J. and Betts, L.R. (2010), "Four layouts and a finding: the effects of changes in the order of the verbal labels and numerical values on Likert-type scales", *International Journal of Social Research Methodology*, Vol. 13, No. 1, pp. 17-27.

ratings than the other scales. Finally, Amoo and Friedman (2001)³⁴² compare two types of rating scales using a sample of American students. The findings show that the difference in the direction of numerical values on rating scales leads to different results. Specifically, rating scales including numbers arranged from +4 to -4 give more positive evaluations than scales arranged from 9 to 1.

Based on the above studies, this study uses a 5-point Likert-type scale with agreement and positive numerical values on the left side and disagreement and negative numerical values on the right side to measure respondents' attitudes (see Figure 31).

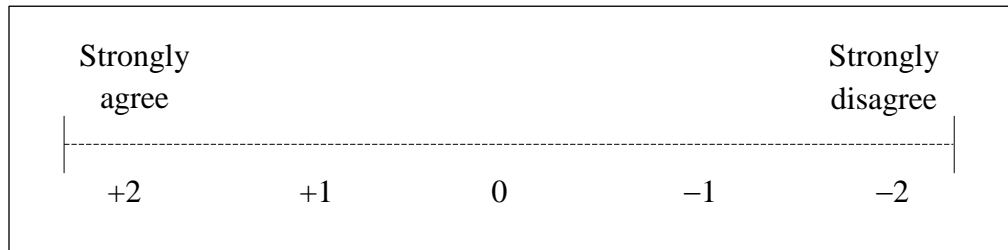


Figure 31. The 5-point traditional Likert scale.

However, some researchers have argued that the problem of Likert scales is loss of information, and they have proposed new measurement methods as alternatives. For example, Hodge and Gillespie (2003)³⁴³ propose that phrase completions are a better measurement approach than Likert scales. On a similar line, Hodge and Gillespie (2007)³⁴⁴ suggest that phrase completion scales may perform better than Likert scales in some situations. Harzing *et al.* (2009)³⁴⁵ propose the ranking approach as an alternative to the traditional Likert-scale approach. According to Albaum (1997)³⁴⁶, the two-stage Likert scale was found to be a better way to measure data than the one-stage format. Furthermore, the issue of middle response option was also discussed by Kulas *et al.* (2008)³⁴⁷.

³⁴² Amoo, T. and Friedman, H.H. (2001), "Do numeric values influence subjects' responses to rating scales?", *Journal of International Marketing and Marketing Research*, Vol. 26, pp. 41-46.

³⁴³ Hodge, D.R. and Gillespie, D. (2003), "Phrase completions: An alternative to Likert scales", *Social Work Research*, Vol. 27, No. 1, pp. 45-55.

³⁴⁴ Hodge, D.R. and Gillespie, D.F. (2007), "Phrase completion scales: A better measurement approach than Likert scales?", *Journal of Social Service Research*, Vol. 33, No. 4, pp. 1-12.

³⁴⁵ Harzing, A.-W., Balduenza, J., Barner-Rasmussen, W., Barzantny, C., Canabal, A., Davila, A., Espejo, A., Ferreira, R., Giroud, A., Koester, K., Liang, Y.-K., Mockaitis, A., Morley, M.J., Myloni, B., Odusanya, J.O.T., O'Sullivan, S.L., Palaniappan, A.K., Prochno, P., Choudhury, S.R., Saka-Helmhout, A., Siengthai, S., Viswat, L., Soydas, A.U. and Zander, L. (2009) *op. cit.*

³⁴⁶ Albaum, G. (1997), "The Likert scale revisited: An alternate version", *Journal of the Market Research Society*, Vol. 39, No. 2, pp. 331-348.

³⁴⁷ Kulas, J.T., Stachowski, A.A. and Haynes, B.A. (2008), "Middle response functioning in Likert-responses to personality items", *Journal of Business and Psychology*, Vol. 22, No. 3, pp. 251-259.

Although there are many problems that may arise when using Likert-type scales, these are still the most widely used in marketing research (e.g., Basso *et al.*, 2014³⁴⁸; Das, 2014³⁴⁹; Jani and Han, 2014³⁵⁰; Krystallis and Chrysochou, 2014³⁵¹; Orel and Kara, 2014³⁵²; Sahagun and Vasquez-Parraga, 2014³⁵³; Zhang *et al.*, 2014³⁵⁴).

1.2.2 Construct measures

The satisfaction construct was measured using four items adapted from Kuikka and Laukkanen (2012)³⁵⁵. Four items were adapted from previous studies (e.g., Chaudhuri and Holbrook, 2001³⁵⁶; Matzler *et al.*, 2008³⁵⁷; Ruparelia *et al.*, 2010³⁵⁸; He *et al.*, 2012³⁵⁹; Kuikka and Laukkanen, 2012³⁶⁰; Becerra and Badrinarayanan, 2013³⁶¹) to measure the trust construct. To measure the brand loyalty construct, a four-item scale was adapted from Chaudhuri and Holbrook (2001)³⁶². A five-item scale was adapted from Goldsmith and Hofacker (1991)³⁶³ to measure consumer innovativeness; this scale has been widely utilized in previous studies (e.g., Aldás-Manzano *et al.*, 2009a³⁶⁴; Adjei and Clark, 2010³⁶⁵; Kim *et al.*, 2011³⁶⁶; Fort-Rioche and Ackermann, 2013³⁶⁷). The variety-

³⁴⁸ Basso, K., dos Santos, C.P. and Gonçalves, M.A. (2014), "The impact of flattery: The role of negative remarks", *Journal of Retailing and Consumer Services*, Vol. 21, No. 2, pp. 185-191.

³⁴⁹ Das, G. (2014), "Impacts of retail brand personality and self-congruity on store loyalty: The moderating role of gender", *Journal of Retailing and Consumer Services*, Vol. 21, No. 2, pp. 130-138.

³⁵⁰ Jani, D. and Han, H. (2014), "Personality, satisfaction, image, ambience, and loyalty: Testing their relationships in the hotel industry", *International Journal of Hospitality Management*, Vol. 37, pp. 11-20.

³⁵¹ Krystallis, A. and Chrysochou, P. (2014), "The effects of service brand dimensions on brand loyalty", *Journal of Retailing and Consumer Services*, Vol. 21, No. 2, pp. 139-147.

³⁵² Orel, F.D. and Kara, A. (2014), "Supermarket self-checkout service quality, customer satisfaction, and loyalty: Empirical evidence from an emerging market", *Journal of Retailing and Consumer Services*, Vol. 21, No. 2, pp. 118-129.

³⁵³ Sahagun, M.A. and Vasquez-Parraga, A.Z. (2014), "Can fast-food consumers be loyal customers, if so how? Theory, method and findings", *Journal of Retailing and Consumer Services*, Vol. 21, No. 2, pp. 168-174.

³⁵⁴ Zhang, S.S., van Doorn, J. and Leeftang, P.S.H. (2014), "Does the importance of value, brand and relationship equity for customer loyalty differ between Eastern and Western cultures?", *International Business Review*, Vol. 23, No. 1, pp. 284-292.

³⁵⁵ Kuikka, A. and Laukkanen, T. (2012), "Brand loyalty and the role of hedonic value", *Journal of Product & Brand Management*, Vol. 21, No. 7, pp. 529-537.

³⁵⁶ Chaudhuri, A. and Holbrook, M.B. (2001) *op. cit.*

³⁵⁷ Matzler, K., Grabner-Kräuter, S. and Bidmon, S. (2008), "Risk aversion and brand loyalty: the mediating role of brand trust and brand affect", *Journal of Product & Brand Management*, Vol. 17, No. 3, pp. 154-162.

³⁵⁸ Ruparelia, N., White, L. and Hughes, K. (2010), "Drivers of brand trust in internet retailing", *Journal of Product & Brand Management*, Vol. 19, No. 4, pp. 250-260.

³⁵⁹ He, H., Li, Y. and Harris, L. (2012) *op. cit.*

³⁶⁰ Kuikka, A. and Laukkanen, T. (2012) *op. cit.*

³⁶¹ Becerra, E.P. and Badrinarayanan, V. (2013) *op. cit.*

³⁶² Chaudhuri, A. and Holbrook, M.B. (2001) *op. cit.*

³⁶³ Goldsmith, R.E. and Hofacker, C.F. (1991) *op. cit.*

³⁶⁴ Aldás-Manzano, J., Lassala-Navarré, C., Ruiz-Mafé, C. and Sanz-Blas, S. (2009a) *op. cit.*

³⁶⁵ Adjei, M.T. and Clark, M.N. (2010) *op. cit.*

³⁶⁶ Kim, W., Di Benedetto, C.A. and Lancioni, R.A. (2011), "The effects of country and gender differences on consumer innovativeness and decision processes in a highly globalized high-tech product market", *Asia Pacific Journal of Marketing and Logistics*, Vol. 23, No. 5, pp. 714-744.

³⁶⁷ Fort-Rioche, L. and Ackermann, C.-L. (2013), "Consumer innovativeness, perceived innovation and attitude towards "neo-retro"-product design", *European Journal of Innovation Management*, Vol. 16, No. 4, pp. 495-516.

seeking construct was measured using seven items adapted from Manning *et al.* (1995)³⁶⁸ and Adjei and Clark (2010)³⁶⁹. The relationship proneness construct was measured using three items adapted from De Wulf *et al.* (2001)³⁷⁰, Bloemer and Odekerken-Schröder (2006)³⁷¹, Parish and Holloway (2010)³⁷² and Kim *et al.* (2012a)³⁷³ (see Table 5). All the items were measured using a 5-point Likert-type scale ranging from “+2” (strongly agree) to “-2” (strongly disagree).

Table 5. Construct measurement.

| Construct | Measurement item | Source |
|-------------------------|--|-------------------------------|
| Brand satisfaction | I am pleased with this brand | Kuikka and Laukkanen (2012) |
| | I am happy with this brand | |
| | I am contented with this brand | |
| | Overall, I am satisfied with this brand | |
| Brand trust | I trust this brand | Chaudhuri and Holbrook (2001) |
| | I rely on this brand | |
| | This is an honest brand | |
| | This brand is safe | |
| Brand loyalty | I am committed to this brand | Chaudhuri and Holbrook (2001) |
| | I would be willing to pay a higher price for this brand over other brands | |
| | I will buy this brand the next time I buy [product name] | |
| | I intend to keep purchasing this brand | |
| Consumer innovativeness | In general, I am among the first in my circle of friends to buy a new brand of [product name] when it appears | Goldsmith and Hofacker (1991) |
| | If I heard that a new brand of [product name] was available in the store, I would be interested enough to buy it | |
| | | |

³⁶⁸ Manning, K.C., Bearden, W.O. and Madden, T.J. (1995) *op. cit.*

³⁶⁹ Adjei, M.T. and Clark, M.N. (2010) *op. cit.*

³⁷⁰ De Wulf, K., Odekerken-Schröder, G. and Iacobucci, D. (2001) *op. cit.*

³⁷¹ Bloemer, J. and Odekerken-Schröder, G. (2006), “The role of employee relationship proneness in creating employee loyalty”, *International Journal of Bank Marketing*, Vol. 24, No. 4, pp. 252-264.

³⁷² Parish, J.T. and Holloway, B.B. (2010) *op. cit.*

³⁷³ Kim, H.-Y., Kang, J.-Y.M. and Johnson, K.K.P. (2012a), “Effect of consumer relationship proneness on perceived loyalty program attributes and resistance to change”, *International Journal of Retail & Distribution Management*, Vol. 40, No. 5, pp. 376-387.

| | | |
|------------------------|--|---|
| | I will buy a new brand of [product name], even if I have not heard/tried it yet | |
| | In general, I am the first in my circle of friends to know the brands of the latest [product name] | |
| | I like to buy new brands of [product name] before other people do | |
| Variety-seeking | I take advantage of the first available opportunity to find out about new and different brands | Manning <i>et al.</i> (1995) and Adjei and Clark (2010) |
| | I like to go to places where I will be exposed to information about new brands | |
| | When I go shopping, I find myself spending a lot of time checking out new brands | |
| | I am continually seeking new brands | |
| | I frequently look for new brands | |
| | I like magazines that introduce new brands | |
| | I seek out situations in which I will be exposed to new and different sources of brand information | |
| Relationship proneness | Generally, I am someone who likes to be a regular customer of a brand | De Wulf <i>et al.</i> (2001) |
| | Generally, I am someone who wants to be a steady customer of the same brand | |
| | Generally, I am someone who is willing to “to go the extra mile” to buy the same brand | |

Note: Items are ordered on a 5-point Likert scale from “strongly agree” to “strongly disagree.”

Section 2. Data analysis method

2.1 Partial least squares structural equation modeling (PLS-SEM)

Structural equation modeling (SEM) has become one of the most commonly used methods in marketing research (Baumgartner and Homburg, 1996³⁷⁴; Steenkamp and

³⁷⁴ Baumgartner, H. and Homburg, C. (1996), “Applications of structural equation modeling in marketing and consumer research: A review”, *International Journal of Research in Marketing*, Vol. 13, No. 2, pp. 139-161.

Baumgartner, 2000³⁷⁵; Babin *et al.*, 2008³⁷⁶; Chin *et al.*, 2008³⁷⁷; Hair *et al.*, 2011³⁷⁸; Martínez-López *et al.*, 2013³⁷⁹; Koubaa *et al.*, 2014³⁸⁰), particularly for estimating causal models and proposed hypotheses (Ringle *et al.*, 2013)³⁸¹. Researchers have distinguished between two major types of SEM: covariance-based SEM (CB-SEM), developed by Jöreskog (1978)³⁸², and partial least squares SEM (PLS-SEM), developed by Wold (1974³⁸³, 1980³⁸⁴). Indeed, although CB-SEM and PLS-SEM are different methods and offer different advantages, they are considered complementary statistical methods (Hair *et al.*, 2012a³⁸⁵; Sarstedt *et al.*, 2014a³⁸⁶). According to Hair *et al.* (2012a, p. 312)³⁸⁷, CB-SEM is “a confirmatory approach that focuses on the model’s theoretically established relationships and aims at minimizing the difference between the model-implied covariance matrix and the sample covariance matrix.” In contrast to CB-SEM, PLS-SEM is viewed as “a prediction-oriented variance-based approach that focuses on endogenous target constructs in the model and aims at maximizing their explained variance (i.e., their R^2 value)” (Hair *et al.*, 2012a, p. 312)³⁸⁸.

Although CB-SEM is considered a common traditional approach to estimate empirical research models, the PLS-SEM approach’s popularity has recently increased in many disciplines, including (international) marketing (Henseler *et al.*, 2009³⁸⁹; Reinartz

³⁷⁵ Steenkamp, J.-B.E.M. and Baumgartner, H. (2000), “On the use of structural equation models for marketing modeling”, *International Journal of Research in Marketing*, Vol. 17, No. 2, pp. 195-202.

³⁷⁶ Babin, B.J., Hair, J.F. and Boles, J.S. (2008), “Publishing research in marketing journals using structural equation modeling”, *Journal of Marketing Theory and Practice*, Vol. 16, No. 4, pp. 279-285.

³⁷⁷ Chin, W.W., Peterson, R.A. and Brown, S.P. (2008), “Structural equation modeling in marketing: Some practical reminders”, *Journal of Marketing Theory and Practice*, Vol. 16, No. 4, pp. 287-298.

³⁷⁸ Hair, J.F., Ringle, C.M. and Sarstedt, M. (2011), “PLS-SEM: Indeed a silver bullet”, *Journal of Marketing Theory and Practice*, Vol. 19, No. 2, pp. 139-151.

³⁷⁹ Martínez-López, F.J., Gázquez-Abad, J.C. and Sousa, C.M.P. (2013), “Structural equation modeling in marketing and business research: Critical issues and practical recommendations”, *European Journal of Marketing*, Vol. 47, Nos. 1/2, pp. 115-152.

³⁸⁰ Koubaa, Y., Tabbane, R.S. and Jallouli, R.C. (2014), “On the use of structural equation modeling in marketing image research”, *Asia Pacific Journal of Marketing and Logistics*, Vol. 26, No. 2, pp. 315-338.

³⁸¹ Ringle, C.M., Sarstedt, M., Schlittgen, R. and Taylor, C.R. (2013), “PLS path modeling and evolutionary segmentation”, *Journal of Business Research*, Vol. 66, No. 9, pp. 1318-1324.

³⁸² Jöreskog, K.G. (1978), “Structural analysis of covariance and correlation matrices”, *Psychometrika*, Vol. 43, No. 4, pp. 443-477.

³⁸³ Wold, H. (1974), “Causal flows with latent variables: Partings of ways in the light of NIPALS modelling”, *European Economic Review*, Vol. 5, No. 1, pp. 67-86.

³⁸⁴ Wold, H. (1980), “Model construction and evaluation when theoretical knowledge is scarce: Theory and application of partial least squares”, in Kmenta, J. and Ramsey, J.B. (Eds.), *Evaluation of Econometric Models*, Academic Press, New York, NY.

³⁸⁵ Hair, J.F., Ringle, C.M., and Sarstedt, M. (2012a), “Partial least squares: The better approach to structural equation modeling?”, *Long Range Planning*, Vol. 45, Nos. 5/6, pp. 312-319.

³⁸⁶ Sarstedt, M., Ringle, C.M. and Hair, J.F. (2014a), “PLS-SEM: Looking back and moving forward”, *Long Range Planning*, Vol. 47, No. 3, pp. 132-137.

³⁸⁷ Hair, J.F., Ringle, C.M., and Sarstedt, M. (2012a) *op. cit.*, p. 312.

³⁸⁸ *Ibid.*, p. 312.

³⁸⁹ Henseler, J., Ringle, C.M. and Sinkovics, R.R. (2009), “The use of partial least squares path modeling in international marketing”, *Advances in International Marketing*, Vol. 20, pp. 277-319.

et al., 2009³⁹⁰; Hair *et al.*, 2012c³⁹¹), operations management (Peng and Lai, 2012)³⁹², group and organization research (Sosik *et al.*, 2009)³⁹³, family business research (Sarstedt *et al.*, 2014b)³⁹⁴, accounting (Lee *et al.*, 2011)³⁹⁵, new technology (Henseler *et al.*, 2016)³⁹⁶, strategic human resource management (Becker *et al.*, 2012)³⁹⁷, information systems (Chin *et al.*, 2003³⁹⁸; Ringle *et al.*, 2012³⁹⁹), strategic management (Hulland, 1999⁴⁰⁰; Hair *et al.*, 2012b⁴⁰¹), public relations research (Ingenhoff and Buhmann, 2016)⁴⁰², tourism (do Valle and Assaker, 2015)⁴⁰³ and psychiatric research (Riou *et al.*, 2015)⁴⁰⁴.

Table 6. Rules of thumb for selecting CB-SEM or PLS-SEM.

Research goals

- If the goal is predicting key target constructs or identifying key “driver” constructs, select PLS-SEM.
- If the goal is theory testing, theory confirmation, or comparison of alternative theories, select CB-SEM.
- If the research is exploratory or an extension of an existing structural theory, select PLS-SEM.

Measurement model specification

- If formative constructs are part of the structural model, select PLS-SEM.

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- ³⁹⁰ Reinartz, W., Haenlein, M. and Henseler, J. (2009), “An empirical comparison of the efficacy of covariance-based and variance-based SEM”, *International Journal of Research in Marketing*, Vol. 26, No. 4, pp. 332-344.
- ³⁹¹ Hair, J.F., Sarstedt, M., Ringle, C.M. and Mena, J.A. (2012c), “An assessment of the use of partial least squares structural equation modeling in marketing research”, *Journal of the Academy of Marketing Science*, Vol. 40, No. 3, pp. 414-433.
- ³⁹² Peng, D.X. and Lai, F. (2012), “Using partial least squares in operations management research: A practical guideline and summary of past research”, *Journal of Operations Management*, Vol. 30, No. 6, pp. 467-480.
- ³⁹³ Sosik, J.J., Kahai, S.S. and Piovosio, M.J. (2009), “Silver bullet or voodoo statistics? A primer for using the partial least squares data analytic technique in group and organization research”, *Group & Organization Management*, Vol. 34, No. 1, pp. 5-36.
- ³⁹⁴ Sarstedt, M., Ringle, C.M., Smith, D., Reams, R. and Hair, J.F. (2014b), “Partial least squares structural equation modeling (PLS-SEM): A useful tool for family business researchers”, *Journal of Family Business Strategy*, Vol. 5, No. 1, pp. 105-115.
- ³⁹⁵ Lee, L., Petter, S., Fayard, D. and Robinson, S. (2011), “On the use of partial least squares path modeling in accounting research”, *International Journal of Accounting Information Systems*, Vol. 12, No. 4, pp. 305-328.
- ³⁹⁶ Henseler, J., Hubona, G. and Ray, P.A. (2016), “Using PLS path modeling in new technology research: Updated guidelines”, *Industrial Management & Data Systems*, Vol. 116, No. 1, pp. 2-20.
- ³⁹⁷ Becker, J.-M., Klein, K. and Wetzels, M. (2012), “Hierarchical latent variable models in PLS-SEM: Guidelines for using reflective-formative type models”, *Long Range Planning*, Vol. 45, Nos. 5/6, pp. 359-394.
- ³⁹⁸ Chin, W.W., Marcolin, B.L. and Newsted, P.R. (2003), “A partial least squares latent variable modeling approach for measuring interaction effects: Results from a Monte Carlo simulation study and an electronic-mail emotion/adoption study”, *Information Systems Research*, Vol. 14, No. 2, pp. 189-217.
- ³⁹⁹ Ringle, C.M., Sarstedt, M. and Straub, D.W. (2012), “A critical look at the use of PLS-SEM in MIS quarterly”, *MIS Quarterly*, Vol. 36, No. 1, pp. iii-xiv.
- ⁴⁰⁰ Hulland, J. (1999), “Use of partial least squares (PLS) in strategic management research: A review of four recent studies”, *Strategic Management Journal*, Vol. 20, No. 2, pp. 195-204.
- ⁴⁰¹ Hair, J.F., Sarstedt, M., Pieper, T.M. and Ringle, C.M. (2012b), “The use of partial least squares structural equation modeling in strategic management research: A review of past practices and recommendations for future applications”, *Long Range Planning*, Vol. 45, Nos. 5/6, pp. 320-340.
- ⁴⁰² Ingenhoff, D. and Buhmann, A. (2016), “Advancing PR measurement and evaluation: Demonstrating the properties and assessment of variance-based structural equation models using an example study on corporate reputation”, *Public Relations Review*, Vol. 42, No. 3, pp. 418-431.
- ⁴⁰³ do Valle, P.O. and Assaker, G. (2015), “Using partial least squares structural equation modeling in tourism research: A review of past research and recommendations for future applications”, *Journal of Travel Research*, forthcoming.
- ⁴⁰⁴ Riou, J., Guyon, H. and Falissard, B. (2015), “An introduction to the partial least squares approach to structural equation modelling: A method for exploratory psychiatric research”, *International Journal of Methods in Psychiatric Research*, Vol. 25, No. 3, pp. 220-231.

Note that formative measures can also be used with CB-SEM but to do so requires accounting for relatively complex and limiting specification rules.

- If error terms require additional specification, such as covariation, select CB-SEM.

Structural model

- If the structural model is complex (many constructs and many indicators), select PLS-SEM.
- If the model is nonrecursive, select CB-SEM.

Data characteristics and algorithm

- If your data meet the CB-SEM assumptions exactly, for example, with respect to the minimum sample size and the distributional assumptions, select CB-SEM; otherwise, PLS-SEM is a good approximation of CB-SEM results.
- *Sample size considerations:*
 - If the sample size is relatively low, select PLS-SEM. With large data sets, CB-SEM and PLS-SEM results are similar, provided that a large number of indicator variables are used to measure the latent constructs (consistency at large).
 - PLS-SEM minimum sample size should be equal to the larger of the following: (1) ten times the largest number of formative indicators used to measure one construct or (2) ten times the largest number of structural paths directed at a particular latent construct in the structural model.
- If the data are to some extent nonnormal, use PLS-SEM; otherwise, under normal data conditions, CB-SEM and PLS-SEM results are highly similar, with CB-SEM providing slightly more precise model estimates.
- If CB-SEM requirements cannot be met (e.g., model specification, identification, nonconvergence, data distributional assumptions), use PLS-SEM as a good approximation of CB-SEM results.
- CB-SEM and PLS-SEM results should be similar. If not, check the model specification to ensure that CB-SEM was appropriately applied. If not, PLS-SEM results are a good approximation of CB-SEM results.

Model evaluation

- If you need to use latent variable scores in subsequent analyses, PLS-SEM is the best approach.
- If your research requires a global goodness-of-fit criterion, then CB-SEM is the preferred approach.
- If you need to test for measurement model invariance, use CB-SEM.

Note: Table 6 is adapted from Hair *et al.* (2011).

Most researchers and practitioners are more familiar with CB-SEM than with PLS-SEM, which means that they must justify their choice of PLS-SEM over CB-SEM (Chin, 2010)⁴⁰⁵. Hair *et al.* (2011)⁴⁰⁶ indicate that researchers must choose between CB-SEM and PLS-SEM depending on the objectives of their studies. Therefore, this study

⁴⁰⁵ Chin, W.W. (2010), "How to write up and report PLS analyses", in Esposito, V.V., Chin, W.W., Henseler, J. and Wang, H. (Eds.), *Handbook of Partial Least Squares: Concepts, Methods and Applications*, Springer, Berlin, pp. 655-690.

⁴⁰⁶ Hair, J.F., Ringle, C.M. and Sarstedt, M. (2011) *op. cit.*

focuses on the choice of PLS-SEM over CB-SEM for the following reasons. First, the data in this study do not follow normal distributions. Skewness and kurtosis values fell outside the recommended range of -1 to $+1$ (Hair *et al.*, 2014a)⁴⁰⁷. PLS-SEM is a distribution-free assumption (Reinartz *et al.*, 2009⁴⁰⁸; Hair *et al.*, 2012b⁴⁰⁹; Peng and Lai, 2012⁴¹⁰; Hair *et al.*, 2014b⁴¹¹), whereas CB-SEM is not. Second, PLS-SEM performs better with complex models (Chin *et al.*, 2008⁴¹²; Lee *et al.*, 2011⁴¹³), which include latent constructs with large numbers of indicators and complex relationships, than CB-SEM. Third, PLS-SEM has the ability to estimate interaction effects, also called moderating effects, between latent variables (Chin *et al.*, 2003⁴¹⁴; Henseler and Chin, 2010⁴¹⁵; Henseler and Fassott, 2010⁴¹⁶). Fourth, PLS-SEM allows marketing researchers and practitioners to conduct multi-group comparisons to estimate their conceptual models in different situations, such as cultures or countries (Hensler *et al.*, 2009⁴¹⁷; Eberl, 2010⁴¹⁸; Henseler, 2012⁴¹⁹). This study conducts a multi-group analysis using demographic characteristics, such as gender, age, marital status, education, income, occupation and light/heavy consumers. Fifth, PLS-SEM is the preferred approach for research objectives to predict endogenous latent variables (Sosik *et al.*, 2009⁴²⁰; Chin and Dibbern, 2010⁴²¹; Hair *et al.*, 2011⁴²²), which is in line with this study's objective. Finally, PLS-SEM has received a great deal of attention from marketing researchers in

⁴⁰⁷ Hair, J.F., Hult, G.T.M., Ringle, C.M. and Sarstedt, M. (2014a), "A primer on partial least squares structural equation modeling (PLS-SEM)", Sage, Thousand Oaks, CA.

⁴⁰⁸ Reinartz, W., Haenlein, M. and Henseler, J. (2009) *op. cit.*

⁴⁰⁹ Hair, J.F., Sarstedt, M., Pieper, T.M. and Ringle, C.M. (2012b) *op. cit.*

⁴¹⁰ Peng, D.X. and Lai, F. (2012) *op. cit.*

⁴¹¹ Hair, J.F., Sarstedt, M., Hopkins, L. and Kuppelwieser, V.G. (2014b), "Partial least squares structural equation modeling (PLS-SEM)", *European Business Review*, Vol. 26, No. 2, pp. 106-121.

⁴¹² Chin, W.W., Peterson, R.A. and Brown, S.P. (2008) *op. cit.*

⁴¹³ Lee, L., Petter, S., Fayard, D. and Robinson, S. (2011) *op. cit.*

⁴¹⁴ Chin, W.W., Marcolin, B.L. and Newsted, P.R. (2003) *op. cit.*

⁴¹⁵ Henseler, J. and Chin, W.W. (2010), "A comparison of approaches for the analysis of interaction effects between latent variables using partial least squares path modeling", *Structural Equation Modeling*, Vol. 17, No. 1, pp. 82-109.

⁴¹⁶ Henseler, J. and Fassott, G. (2010), "Testing moderating effects in PLS path models: An illustration of available procedures", in Vinzi, V.E., Chin, W.W., Henseler, J. and Wang, H. (Eds.), *Handbook of Partial Least Squares: Concepts, Methods and Applications*, Springer, Berlin, pp. 713-735.

⁴¹⁷ Henseler, J., Ringle, C.M. and Sinkovics, R.R. (2009) *op. cit.*

⁴¹⁸ Eberl, M. (2010), "An application of PLS in multi-group analysis: The need for differentiated corporate-level marketing in the mobile communications industry", in Vinzi, V.E., Chin, W.W., Henseler, J. and Wang, H. (Eds.), *Handbook of Partial Least Squares: Concepts, Methods and Applications*, Springer, Berlin, pp. 487-514.

⁴¹⁹ Henseler, J. (2012), "PLS-MGA: A non-parametric approach to partial least squares-based multi-group analysis", in Gaul, W.A., Geyer-Schulz, A., Schmidt-Thieme, L. and Kunze, J. (Eds.), *Challenges at the Interface of Data Analysis, Computer Science, and Optimization*, Springer, Berlin, pp. 495-501.

⁴²⁰ Sosik, J.J., Kahai, S.S. and Piovoso, M.J. (2009) *op. cit.*

⁴²¹ Chin, W.W. and Dibbern, J. (2010), "An introduction to a permutation based procedure for multi-group PLS analysis: Results of tests of differences on simulated data and a cross cultural analysis of the sourcing of information system services between Germany and the USA", in Esposito, V.V., Chin, W.W., Henseler, J. and Wang, H. (Eds.), *Handbook of Partial Least Squares: Concepts, Methods and Applications*, Springer, Berlin, pp. 171-193.

⁴²² Hair, J.F., Ringle, C.M. and Sarstedt, M. (2011) *op. cit.*

recent years (e.g., Izogo, 2015⁴²³; Lopes and da Silva, 2015⁴²⁴; Rezaei, 2015⁴²⁵; Wilden and Gudergan, 2015⁴²⁶). Based on this review, PLS-SEM seems to be the appropriate approach for this research. Table 6 provides a summary of some of the main differences between CB-SEM and PLS-SEM. SmartPLS software (Ringle *et al.*, 2005)⁴²⁷ was used in this study to assess the measurement and structural models (Anderson and Gerbing, 1988⁴²⁸; Hulland, 1999⁴²⁹) as well as between-group differences in the structural model (Chin and Dibbern, 2010)⁴³⁰.

Table 7. Rules of thumb for model evaluation.

Reflective Measurement Models

- Internal consistency reliability: Composite reliability should be higher than 0.70 (in exploratory research, 0.60 to 0.70 is considered acceptable).
- Indicator reliability: Indicator loadings should be higher than 0.70.
- Convergent validity: The average variance extracted (AVE) should be higher than 0.50.
- Discriminant validity:
 - The AVE of each latent construct should higher than the construct’s highest squared correlation with any other latent construct (Fornell–Larcker criterion).
 - An indicator’s loadings should be higher than all of its cross loadings.

Formative Measurement Models

- Examine each indicator’s weight (relative importance) and loading (absolute importance) and use bootstrapping to assess their significance. The minimum number of bootstrap samples is 5,000, and the number of cases should be equal to the number of observations in the original sample. Critical *t*-values for a two-tailed test are 1.65 (significance level = 10 percent), 1.96 (significance level = 5 percent), and 2.58 (significance level = 1 percent).
 - When all the indicator weights are significant, there is empirical support to keep all the indicators.
 - If both the weight and loading are nonsignificant, there is no empirical support to retain the
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⁴²³ Izogo, E.E. (2015), “Determinants of attitudinal loyalty in Nigerian telecom service sector: Does commitment play a mediating role?”, *Journal of Retailing and Consumer Services*, Vol. 23, pp. 107-117.

⁴²⁴ Lopes, E.L. and da Silva, M.A. (2015), “The effect of justice in the history of loyalty: A study in failure recovery in the retail context”, *Journal of Retailing and Consumer Services*, Vol. 24, pp. 110-120.

⁴²⁵ Rezaei, S. (2015), “Segmenting consumer decision-making styles (CDMS) toward marketing practice: A partial least squares (PLS) path modeling approach”, *Journal of Retailing and Consumer Services*, Vol. 22, pp. 1-15.

⁴²⁶ Wilden, R. and Gudergan, S.P. (2015), “The impact of dynamic capabilities on operational marketing and technological capabilities: Investigating the role of environmental turbulence”, *Journal of the Academy of Marketing Science*, Vol. 43, No. 2, pp. 181-199.

⁴²⁷ Ringle, C.M., Wende, S. and Will, A. (2005), “SmartPLS 2.0 (Beta)”, Germany: University of Hamburg, available at: <https://www.smartpls.com>

⁴²⁸ Anderson, J.C. and Gerbing, D.W. (1988), “Structural equation modeling in practice: A review and recommended two-step approach”, *Psychological Bulletin*, Vol. 103, No. 3, pp. 411-423.

⁴²⁹ Hulland, J. (1999) *op. cit.*

⁴³⁰ Chin, W.W. and Dibbern, J. (2010) *op. cit.*

indicator and its theoretical relevance should be questioned.

- Multicollinearity: Each indicator's variance inflation factor (VIF) value should be less than 5.
- Indicator weights should be examined to determine if they are affected by (observed or unobserved) heterogeneity, which results in significantly different group-specific coefficients. If theory supports the existence of alternative groups of data, carry out PLS-SEM multigroup or moderator analyses. If no theory or information is available about the underlying groups of data, an assessment of unobserved heterogeneity's existence must be conducted by means of the finite mixture PLS (FIMIX-PLS) method.
- When many indicators are used to measure a formative construct, with some being nonsignificant, establish two or more distinct constructs, provided there is theoretical support for this step.

Structural Model

- R^2 values of 0.75, 0.50, or 0.25 for endogenous latent variables in the structural model can be described as substantial, moderate, or weak, respectively.
- Use bootstrapping to assess the path coefficients' significance. The minimum number of bootstrap samples is 5,000, and the number of cases should be equal to the number of observations in the original sample. Critical t -values for a two-tailed test are 1.65 (significance level = 10 percent), 1.96 (significance level = 5 percent), and 2.58 (significance level = 1 percent).
- Predictive relevance: Use blindfolding to obtain cross-validated redundancy measures for each construct. Make sure the number of valid observations is not a multiple integer number of the omission distance d . Choose values of d between 5 and 10.
Resulting Q^2 values of larger than zero indicate that the exogenous constructs have predictive relevance for the endogenous construct under consideration.
- Heterogeneity: If theory supports the existence of alternative groups of data, carry out PLS-SEM multigroup or moderator analyses. If no theory or information about the underlying groups of data is available, an assessment of unobserved heterogeneity's existence must be conducted by means of the FIMIX-PLS method, which is available in the SmartPLS software package.

Note: Table 7 is adapted from Hair *et al.* (2011).

2.2 Measurement model

This study examined the reliability and validity of the measurement model (Chin, 2010⁴³¹; Hair *et al.*, 2011⁴³²). According to Hair *et al.* (2011)⁴³³, reliability and validity can be evaluated using four common criteria: individual item reliability, construct reliability, convergent validity and discriminant validity. First, individual reflective item reliability was evaluated by assessing the item loadings of the constructs. As a rule of

⁴³¹ Chin, W.W. (2010) *op. cit.*

⁴³² Hair, J.F., Ringle, C.M. and Sarstedt, M. (2011) *op. cit.*

⁴³³ *Ibid.*

thumb, item loadings should be greater than the recommended threshold of 0.7 (see Table 7). In Table 8, most of the items exhibit loadings higher than 0.7; some exhibit loadings between 0.44 and 0.7. While this may appear problematic, Chin (2010)⁴³⁴ indicates that items with loadings of 0.5 or 0.6 can be acceptable under certain circumstances. Although Hulland (1999)⁴³⁵ reports that items with loadings of less than 0.4 should be removed from the scales, in this study, all the items exhibit loadings higher than 0.4 (see Table 8). Second, composite reliability (CR) was used to evaluate construct reliability. CRs for satisfaction, trust, loyalty, consumer innovativeness, variety-seeking and relationship proneness exceeded the minimum threshold of 0.7. Third, the average variance extracted (AVE) proposed by Fornell and Larcker (1981)⁴³⁶ was used to assess convergent validity. The AVE for all constructs exceeded the minimum threshold of 0.5. Finally, assessing discriminant validity is a common practical tool in marketing (e.g., Dwivedi, 2015⁴³⁷; Tournois, 2015⁴³⁸). The aim of discriminant validity is “*to test whether a construct is truly distinct from other constructs*” (Xiong *et al.*, 2015, p. 65)⁴³⁹. Previous studies have focused primarily on the use of two traditional approaches—i.e., the Fornell-Larcker criterion and the examination of cross-loadings—to evaluate discriminant validity (e.g., Henseler *et al.*, 2009⁴⁴⁰; Hair *et al.*, 2011⁴⁴¹).

In a Monte Carlo simulation study, Henseler *et al.* (2015)⁴⁴² find that the Fornell-Larcker criterion and the examination of cross-loadings cannot help researchers detect their measures’ lack of discriminant validity. Therefore, the authors propose a new approach, the heterotrait-monotrait (HTMT) ratio of correlations, to detect a lack of discriminant validity. Furthermore, the authors compare the HTMT criteria to the Fornell-Larcker criterion and the examination of cross-loadings in marketing. Their results indicate that the HTMT criteria are superior to the traditional approaches in terms of

⁴³⁴ Chin, W.W. (2010) *op. cit.*

⁴³⁵ Hulland, J. (1999) *op. cit.*

⁴³⁶ Fornell, C. and Larcker, D.F. (1981), “Evaluating structural equation models with unobservable variables and measurement error”, *Journal of Marketing Research*, Vol. 18, No. 1, pp. 39-50.

⁴³⁷ Dwivedi, A. (2015), “A higher-order model of consumer brand engagement and its impact on loyalty intentions”, *Journal of Retailing and Consumer Services*, Vol. 24, pp. 100-109.

⁴³⁸ Tournois, L. (2015), “Does the value manufacturers (brands) create translate into enhanced reputation? A multi-sector examination of the value–satisfaction–loyalty–reputation chain”, *Journal of Retailing and Consumer Services*, Vol. 26, pp. 83-96.

⁴³⁹ Xiong, B., Skitmore, M. and Xia, B. (2015), “A critical review of structural equation modeling applications in construction research”, *Automation in Construction*, Vol. 49, pp. 59-70.

⁴⁴⁰ Henseler, J., Ringle, C.M. and Sinkovics, R.R. (2009) *op. cit.*

⁴⁴¹ Hair, J.F., Ringle, C.M. and Sarstedt, M. (2011) *op. cit.*

⁴⁴² Henseler, J., Ringle, C.M. and Sarstedt, M. (2015), “A new criterion for assessing discriminant validity in variance-based structural equation modeling”, *Journal of the Academy of Marketing Science*, Vol. 43, No. 1, pp. 115-135.

detecting a lack of discriminant validity. Consequently, the authors strongly recommend the use of HTMT criteria to assess discriminant validity in PLS-SEM. This suggestion is consistent with the work of Voorhees *et al.* (2015)⁴⁴³, who also recommend using the HTMT technique with the maximum threshold of 0.85 to evaluate discriminant validity.

⁴⁴³ Voorhees, C.M., Brady, M.K., Calantone, R. and Ramirez, E. (2015), "Discriminant validity testing in marketing: An analysis, causes for concern, and proposed remedies", *Journal of the Academy of Marketing Science*, Vol. 44, No. 1, pp. 119-134.

Table 8. Measurement model.

| a. Individual item reliability-individual item loadings ^a , construct reliability and convergent validity coefficients | | | | | | | | | | | | | |
|---|-------------|-------|-------|--------------|-------|-------|---------------|-------|-------|--------|-------|-------|--|
| Latent dimension | Soft drinks | | | Fruit juices | | | Mineral water | | | Yogurt | | | |
| | Load | CR | AVE | Load | CR | AVE | Load | CR | AVE | Load | CR | AVE | |
| Satisfaction | | 0.896 | 0.683 | | 0.930 | 0.769 | | 0.945 | 0.811 | | 0.938 | 0.792 | |
| S1 | 0.851 | | | 0.889 | | | 0.891 | | | 0.857 | | | |
| S2 | 0.859 | | | 0.871 | | | 0.921 | | | 0.883 | | | |
| S3 | 0.849 | | | 0.895 | | | 0.883 | | | 0.913 | | | |
| S4 | 0.743 | | | 0.851 | | | 0.907 | | | 0.907 | | | |
| Trust | | 0.923 | 0.750 | | 0.929 | 0.766 | | 0.958 | 0.852 | | 0.951 | 0.830 | |
| T1 | 0.860 | | | 0.803 | | | 0.921 | | | 0.921 | | | |
| T2 | 0.847 | | | 0.905 | | | 0.949 | | | 0.925 | | | |
| T3 | 0.893 | | | 0.906 | | | 0.931 | | | 0.878 | | | |
| T4 | 0.864 | | | 0.882 | | | 0.891 | | | 0.920 | | | |
| Loyalty | | 0.854 | 0.595 | | 0.884 | 0.657 | | 0.897 | 0.686 | | 0.882 | 0.652 | |
| L1 | 0.786 | | | 0.732 | | | 0.756 | | | 0.848 | | | |
| L2 | 0.742 | | | 0.873 | | | 0.887 | | | 0.800 | | | |
| L3 | 0.761 | | | 0.838 | | | 0.887 | | | 0.741 | | | |
| L4 | 0.796 | | | 0.793 | | | 0.775 | | | 0.838 | | | |
| Consumer innovativeness | | 0.846 | 0.533 | | 0.862 | 0.570 | | 0.879 | 0.653 | | 0.894 | 0.630 | |
| CI1 | 0.835 | | | 0.585 | | | 0.915 | | | 0.891 | | | |
| CI2 | 0.589 | | | 0.923 | | | 0.894 | | | 0.880 | | | |
| CI3 | 0.507 | | | 0.846 | | | IR | | | 0.660 | | | |
| CI4 | 0.880 | | | 0.863 | | | 0.838 | | | 0.675 | | | |
| CI5 | 0.768 | | | 0.444 | | | 0.523 | | | 0.832 | | | |
| Variety-seeking | | 0.921 | 0.627 | | 0.920 | 0.623 | | 0.933 | 0.666 | | 0.929 | 0.653 | |
| VS1 | 0.765 | | | 0.765 | | | 0.717 | | | 0.775 | | | |
| VS2 | 0.771 | | | 0.744 | | | 0.797 | | | 0.803 | | | |
| VS3 | 0.860 | | | 0.804 | | | 0.836 | | | 0.817 | | | |
| VS4 | 0.748 | | | 0.809 | | | 0.853 | | | 0.796 | | | |
| VS5 | 0.801 | | | 0.778 | | | 0.838 | | | 0.813 | | | |

| | | | | | | | | | | |
|------------------------|-------|-------|-------|--|-------|-------|-------|-------|-------|-------|
| VS6 | 0.763 | | 0.826 | | 0.842 | | 0.845 | | | |
| VS7 | 0.826 | | 0.795 | | 0.821 | | 0.804 | | | |
| Relationship proneness | | 0.893 | 0.736 | | 0.907 | 0.766 | 0.924 | 0.803 | 0.906 | 0.763 |
| RP1 | 0.853 | | | | 0.908 | | 0.857 | | 0.781 | |
| RP2 | 0.904 | | | | 0.821 | | 0.903 | | 0.927 | |
| RP3 | 0.813 | | | | 0.895 | | 0.927 | | 0.906 | |

b. Discriminant validity coefficients

| | Construct | Mean | SD | CA | S | T | L | CI | VS | RP |
|--------------|-------------------------|--------|-------|-------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|----|
| Soft drinks | Satisfaction | 1.102 | 0.063 | 0.845 | | | | | | |
| | Trust | 0.680 | 0.033 | 0.889 | 0.776 [0.717;0.828] | | | | | |
| | Loyalty | 0.600 | 0.215 | 0.774 | 0.706 [0.639;0.768] | 0.743 [0.683;0.801] | | | | |
| | Consumer innovativeness | -0.604 | 0.096 | 0.822 | 0.116 [0.025;0.207] | 0.106 [0.012;0.197] | 0.207 [0.108;0.302] | | | |
| | Variety-seeking | -0.554 | 0.069 | 0.902 | 0.146 [0.058;0.231] | 0.141 [0.052;0.225] | 0.201 [0.107;0.294] | 0.709 [0.649;0.769] | | |
| | Relationship proneness | 0.247 | 0.068 | 0.819 | 0.428 [0.335;0.514] | 0.502 [0.419;0.582] | 0.568 [0.483;0.651] | 0.115 [0.018;0.206] | 0.291 [0.201;0.380] | |
| Fruit juices | Satisfaction | 1.287 | 0.070 | 0.900 | | | | | | |
| | Trust | 1.185 | 0.059 | 0.900 | 0.712 [0.642;0.779] | | | | | |
| | Loyalty | 0.860 | 0.223 | 0.825 | 0.816 [0.768;0.861] | 0.791 [0.737;0.844] | | | | |
| | Consumer innovativeness | -0.500 | 0.066 | 0.838 | 0.091 [0.072;0.177] | 0.081 [0.064;0.173] | 0.166 [0.121;0.253] | | | |
| | Variety-seeking | -0.083 | 0.037 | 0.899 | 0.127 [0.071;0.223] | 0.090 [0.057;0.177] | 0.229 [0.144;0.321] | 0.739 [0.681;0.794] | | |

| | | | | | | | | | |
|---------------|-------------------------|--------|-------|-------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| | Relationship proneness | 0.440 | 0.102 | 0.846 | 0.465 [0.382;0.545] | 0.525 [0.445;0.603] | 0.699 [0.626;0.768] | 0.249 [0.176;0.341] | 0.251 [0.155;0.346] |
| Mineral water | Satisfaction | 1.192 | 0.062 | 0.922 | | | | | |
| | Trust | 1.115 | 0.079 | 0.942 | 0.774 [0.708;0.832] | | | | |
| | Loyalty | 0.972 | 0.295 | 0.846 | 0.825 [0.775;0.872] | 0.705 [0.628;0.776] | | | |
| | Consumer innovativeness | -0.616 | 0.027 | 0.856 | 0.099 [0.059;0.173] | 0.098 [0.060;0.174] | 0.165 [0.120;0.239] | | |
| | Variety-seeking | -0.591 | 0.025 | 0.920 | 0.052 [0.048;0.133] | 0.067 [0.046;0.156] | 0.146 [0.097;0.232] | 0.798 [0.744;0.848] | |
| | Relationship proneness | 0.437 | 0.121 | 0.876 | 0.619 [0.553;0.682] | 0.530 [0.448;0.609] | 0.780 [0.723;0.830] | 0.314 [0.228;0.397] | 0.280 [0.190;0.369] |
| Yogurt | Satisfaction | 1.165 | 0.072 | 0.912 | | | | | |
| | Trust | 1.067 | 0.055 | 0.932 | 0.837 [0.788;0.882] | | | | |
| | Loyalty | 0.762 | 0.249 | 0.821 | 0.773 [0.723;0.823] | 0.770 [0.705;0.832] | | | |
| | Consumer innovativeness | -0.390 | 0.051 | 0.857 | 0.109 [0.055;0.198] | 0.141 [0.072;0.224] | 0.180 [0.124;0.268] | | |
| | Variety-seeking | 0.066 | 0.036 | 0.913 | 0.069 [0.060;0.162] | 0.098 [0.066;0.182] | 0.159 [0.096;0.252] | 0.722 [0.660;0.779] | |
| | Relationship proneness | 0.583 | 0.134 | 0.842 | 0.538 [0.457;0.617] | 0.521 [0.439;0.604] | 0.713 [0.641;0.784] | 0.205 [0.167;0.288] | 0.283 [0.197;0.369] |

Note 1: Load: Loading; CR: Composite Reliability; AVE: Average Variance Extracted; SD: Standard Deviation; CA: Cronbach's Alpha; IR: Item Removed.

^a All loadings are significant at $p < 0.001$ (based on $t(4999)$, two-tailed test).

Note 2: For adequate discriminant validity, the values between the square brackets should be different from 1, according to the HTMT (heterotrait-monotrait ratio of correlations)_{inference}, and the values marked in bold should be lower than 0.85 and 0.90, according to the HTMT_{.85} and HTMT_{.90}, respectively.

Henseler *et al.* (2015)⁴⁴⁴ indicate that there are two ways to evaluate discriminant validity using the HTMT criteria. First, HTMT is used as a criterion by means of HTMT_{.85} and HTMT_{.90}. Second, HTMT is used as a statistical test by means of HTMT_{inference}. Accordingly, the HTMT criterion and HTMT_{inference} were used in this study to examine discriminant validity. As shown in Table 8, the values between the square brackets are different from 1, according to HTMT_{inference}, and the values marked in bold are lower than 0.85 and 0.90, according to HTMT_{.85} and HTMT_{.90}, respectively. As a result, discriminant validity is established for the four models in this research, according to HTMT_{.85}, HTMT_{.90} and HTMT_{inference}.

Summary

This chapter provides an overview of the research method. It describes the sample, data collection and measurement scales. It also describes the two main approaches of structural equation modeling (covariance-based SEM and partial least squares SEM), followed by the assessment of the measurement model. The results and discussion are presented in the next chapter.

⁴⁴⁴ Henseler, J., Ringle, C.M. and Sarstedt, M. (2015) *op. cit.*

CHAPTER IV
RESULTS AND DISCUSSION

Section 1. Results

Section 2. Discussion

Introduction

This chapter includes two major sections. The first section presents the results of the structural model and multi-group analysis, whereas the second one gives a general discussion of the findings.

Section 1. Results

1.1 Structural model

After assessing the measurement model, the evaluation of the structural model should be the next step. Therefore, the variance explained (R^2), path coefficient, effect size (f^2) and predictive relevance (Q^2) were used to evaluate the structural model (see Table 7). R^2 is a measure of a model's overall predictive power (Hair *et al.*, 2014a)⁴⁴⁵, described as weak (0.25), moderate (0.50) and substantial (0.75). A bootstrapping procedure (5000 samples) was applied in this study to estimate, using t -values, the significance of the path coefficients. According to Cohen (1988)⁴⁴⁶, the difference between the variance explained for the main effects model and for the interaction effects model can be used to determine the strength of moderating effects ($f^2 = [R^2 \text{ (Interaction effects model)} - R^2 \text{ (Main effects model)}] / [1 - R^2 \text{ (Interaction effects model)}]$). Additionally, effect sizes of 0.02, 0.15 and 0.35 are small, medium and large, respectively (Cohen, 1988)⁴⁴⁷. The redundancy (Q^2), however, is “*an indicator of the model's predictive relevance*” (Hair *et al.*, 2014a, p. 178)⁴⁴⁸. Q^2 values higher than zero show that the endogenous constructs seem to have satisfactory predictive relevance. In a recent study, Tenenhaus *et al.* (2005)⁴⁴⁹ propose a new criterion for PLS, namely, goodness-of-fit (GoF), to assess how well the data fits the research model. GoF is calculated as the geometric mean of the average communality (measurement model) and the average R^2 value (structural model), as described in Table 9. When GoF values are equal to 0.1, 0.25 and 0.36, they are

⁴⁴⁵ Hair, J.F., Hult, G.T.M., Ringle, C.M. and Sarstedt, M. (2014a) *op. cit.*

⁴⁴⁶ Cohen, J. (1988), “Statistical power analysis for the behavioral sciences (2nd ed.)”, Hillsdale, New Jersey: Lawrence Erlbaum Associates.

⁴⁴⁷ *Ibid.*

⁴⁴⁸ Hair, J.F., Hult, G.T.M., Ringle, C.M. and Sarstedt, M. (2014a) *op. cit.*, p. 178.

⁴⁴⁹ Tenenhaus, M., Vinzi, V.E., Chatelin, Y.-M. and Lauro, C. (2005), “PLS path modeling”, *Computational Statistics & Data Analysis*, Vol. 48, No. 1, pp. 159-205.

considered small, medium and large, respectively (Wetzels *et al.*, 2009)⁴⁵⁰.

Table 9. Structural model.

| | Relationship | Model 1 | Model 2 | Model 3 |
|---------------|---------------------------------------|----------|----------------------|----------------------|
| Soft drinks | <i>Direct effect</i> | | | |
| | H1: $S \rightarrow L = c'$ | 0.278*** | 0.246*** | 0.243*** |
| | $S \rightarrow T = a$ | 0.680*** | 0.680*** | 0.680*** |
| | $T \rightarrow L = b_1$ | 0.442*** | 0.356*** | 0.358*** |
| | $CI \rightarrow L = b_2^a$ | | 0.150*** | 0.159*** |
| | $VS \rightarrow L = b_3^a$ | | -0.040 ^{ns} | -0.046 ^{ns} |
| | $RP \rightarrow L = b_4^a$ | | 0.203*** | 0.205*** |
| | <i>Interaction effect</i> | | | |
| | H3: $CI \times T \rightarrow L = b_5$ | | | -0.054 ^{ns} |
| | H4: $VS \times T \rightarrow L = b_6$ | | | 0.031 ^{ns} |
| | H5: $RP \times T \rightarrow L = b_7$ | | | 0.025 ^{ns} |
| | R^2 | | | |
| | L | 0.439 | 0.489 | 0.492 |
| | T | 0.462 | 0.462 | 0.462 |
| | Average R^2 | | | 0.477 |
| | Average communality | | | 0.429 |
| | GoF ^b | | | 0.452 |
| Fruit juices | <i>Direct effect</i> | | | |
| | H1: $S \rightarrow L = c'$ | 0.459*** | 0.395*** | 0.378*** |
| | $S \rightarrow T = a$ | 0.642*** | 0.642*** | 0.642*** |
| | $T \rightarrow L = b_1$ | 0.387*** | 0.298*** | 0.312*** |
| | $CI \rightarrow L = b_2^a$ | | -0.013 ^{ns} | -0.006 ^{ns} |
| | $VS \rightarrow L = b_3^a$ | | 0.079* | 0.095** |
| | $RP \rightarrow L = b_4^a$ | | 0.272*** | 0.266*** |
| | <i>Interaction effect</i> | | | |
| | H3: $CI \times T \rightarrow L = b_5$ | | | 0.030 ^{ns} |
| | H4: $VS \times T \rightarrow L = b_6$ | | | -0.110** |
| | H5: $RP \times T \rightarrow L = b_7$ | | | 0.029 ^{ns} |
| | R^2 | | | |
| | L | 0.588 | 0.656 | 0.664 |
| | T | 0.412 | 0.412 | 0.412 |
| | Average R^2 | | | 0.538 |
| | Average communality | | | 0.487 |
| | GoF ^b | | | 0.512 |
| Mineral water | <i>Direct effect</i> | | | |
| | H1: $S \rightarrow L = c'$ | 0.578*** | 0.417*** | 0.422*** |
| | $S \rightarrow T = a$ | 0.722*** | 0.722*** | 0.722*** |
| | $T \rightarrow L = b_1$ | 0.212*** | 0.148** | 0.155** |
| | $CI \rightarrow L = b_2^a$ | | -0.007 ^{ns} | -0.024 ^{ns} |
| | $VS \rightarrow L = b_3^a$ | | 0.017 ^{ns} | 0.026 ^{ns} |

⁴⁵⁰ Wetzels, M., Oederkerken-Schröder, G. and van Oppen, C. (2009), "Using PLS path modeling for assessing hierarchical construct models: Guidelines and empirical illustration", *MIS Quarterly*, Vol. 33, No. 1, pp. 177-195.

| | | | | |
|--------|---------------------------|----------|----------------------|----------------------|
| | RP → L = b_4^a | | 0.370*** | 0.370*** |
| | <i>Interaction effect</i> | | | |
| | H3: CI x T → L = b_5 | | | 0.098* |
| | H4: VS x T → L = b_6 | | | -0.066 ^{ns} |
| | H5: RP x T → L = b_7 | | | -0.011 ^{ns} |
| | <i>R²</i> | | | |
| | L | 0.556 | 0.648 | 0.653 |
| | T | 0.522 | 0.522 | 0.522 |
| | Average R ² | | | 0.587 |
| | Average communality | | | 0.569 |
| | GoF ^b | | | 0.578 |
| Yogurt | <i>Direct effect</i> | | | |
| | H1: S → L = c' | 0.369*** | 0.277*** | 0.293*** |
| | S → T = a | 0.773*** | 0.773*** | 0.773*** |
| | T → L = b_1 | 0.392*** | 0.316*** | 0.330*** |
| | CI → L = b_2^a | | 0.032 ^{ns} | 0.053 ^{ns} |
| | VS → L = b_3^a | | -0.001 ^{ns} | -0.011 ^{ns} |
| | RP → L = b_4^a | | 0.312*** | 0.319*** |
| | <i>Interaction effect</i> | | | |
| | H3: CI x T → L = b_5 | | | -0.010 ^{ns} |
| | H4: VS x T → L = b_6 | | | 0.012 ^{ns} |
| | H5: RP x T → L = b_7 | | | 0.087* |
| | <i>R²</i> | | | |
| | L | 0.514 | 0.591 | 0.601 |
| | T | 0.597 | 0.597 | 0.597 |
| | Average R ² | | | 0.599 |
| | Average communality | | | 0.512 |
| | GoF ^b | | | 0.554 |

Note: S: atisfaction; T: rust; L: oyalty; CI: Consumer Innovativeness; VS: Variety-Seeking; RP: Relationship Proneness.

^a Relationships not hypothesised.

^b $GoF = \sqrt{Communality * R^2}$.

*** $p < 0.001$.

** $p < 0.01$.

* $p < 0.05$.

^{ns} not significant (based on $t(4999)$, one-tailed test).

Several marketing studies examine mediation and moderation effects (e.g., Hasan *et al.*, 2014⁴⁵¹; Jain *et al.*, 2014⁴⁵²) – two of the most popular topics in the PLS-SEM context (Hair *et al.*, 2014a)⁴⁵³. Indeed, a mediator is a variable that explains the relationship between an independent variable and a dependent variable, whereas a

⁴⁵¹ Hasan, S.F.E., Lings, I., Neale, L. and Mortimer, G. (2014), “The role of customer gratitude in making relationship marketing investments successful”, *Journal of Retailing and Consumer Services*, Vol. 21, No. 5, pp. 788-796.

⁴⁵² Jain, M., Khalil, S., Johnston, W.J. and Cheng, J.M.-S. (2014), “The performance implications of power-trust relationship: The moderating role of commitment in the supplier-retailer relationship”, Vol. 43, No. 2, pp. 312-321.

⁴⁵³ Hair, J.F., Hult, G.T.M., Ringle, C.M. and Sarstedt, M. (2014a) *op. cit.*

moderator is a variable that influences the direction and/or strength of the relationship between these variables (Baron and Kenny, 1986⁴⁵⁴; Fairchild and McQuillin, 2010⁴⁵⁵). Accordingly, this research considers trust a mediator of the relationship between satisfaction and loyalty, while consumer innovativeness, variety-seeking and relationship proneness are considered moderators of the relationship between trust and loyalty.

To test the mediating effects, this research implemented the bootstrapping procedure and determined whether the indirect effect of satisfaction on loyalty via trust is significant. In this case, the indirect effect of satisfaction on loyalty can be considered the product of a and b or ab , as presented in Figure 32 (Preacher and Hayes, 2004⁴⁵⁶, 2008⁴⁵⁷). The variance accounted for (VAF = Indirect effect (ab)/Indirect effect (ab) + Direct effect (c')) was calculated to assess the size of the mediating effect (Hair *et al.*, 2014a)⁴⁵⁸. According to Hair *et al.* (2014a)⁴⁵⁹, VAF values < 20 percent, 20 percent < VAF < 80 percent and VAF > 80 percent correspond to no mediation, partial mediation and full mediation, respectively. As for the moderating effects, product indicator approach was implemented in this study (Chin *et al.*, 2003⁴⁶⁰; Henseler and Chin, 2010⁴⁶¹; Henseler and Fassott, 2010⁴⁶²). Chin *et al.* (2003, p. 211)⁴⁶³ propose that “*In formulating and testing for interaction effects using PLS, one needs to follow a hierarchical process similar to that used in multiple regression in which one compares the results of two models (i.e., one with and one without the interaction construct).*” In that sense, this study followed a hierarchical process to test the moderating effects of consumer innovativeness, variety-seeking and relationship proneness. As mentioned in Table 9, model 1 represents the main effects without the moderating variables. Model 2 represents the main effects with the moderating variables as control variables. Model 3 represents both the main and moderating effects.

⁴⁵⁴ Baron, R.M. and Kenny, D.A. (1986), “The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations”, *Journal of Personality and Social Psychology*, Vol. 51, No. 6, pp. 1173-1182.

⁴⁵⁵ Fairchild, A.J. and McQuillin, S.D. (2010), “Evaluating mediation and moderation effects in school psychology: A presentation of methods and review of current practice”, *Journal of School Psychology*, Vol. 48, No. 1, pp. 53-84.

⁴⁵⁶ Preacher, K.J. and Hayes, A.F. (2004), “SPSS and SAS procedures for estimating indirect effects in simple mediation models”, *Behavior Research Methods, Instruments, & Computers*, Vol. 36, No. 4, pp. 717-731.

⁴⁵⁷ Preacher, K.J. and Hayes, A.F. (2008), “Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models”, *Behavioral Research Methods*, Vol. 40, No. 3, pp. 879-891.

⁴⁵⁸ Hair, J.F., Hult, G.T.M., Ringle, C.M. and Sarstedt, M. (2014a) *op. cit.*

⁴⁵⁹ *Ibid.*

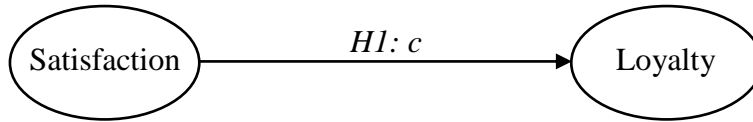
⁴⁶⁰ Chin, W.W., Marcolin, B.L. and Newsted, P.R. (2003) *op. cit.*

⁴⁶¹ Henseler, J. and Chin, W.W. (2010) *op. cit.*

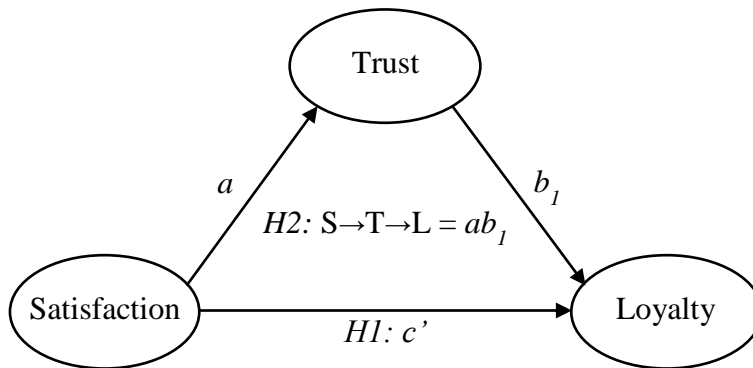
⁴⁶² Henseler, J. and Fassott, G. (2010) *op. cit.*

⁴⁶³ Chin, W.W., Marcolin, B.L. and Newsted, P.R. (2003) *op. cit.*, p. 211.

Model A. Total effect



Model B. Mediating effect



Model C. Mediating and moderating effects

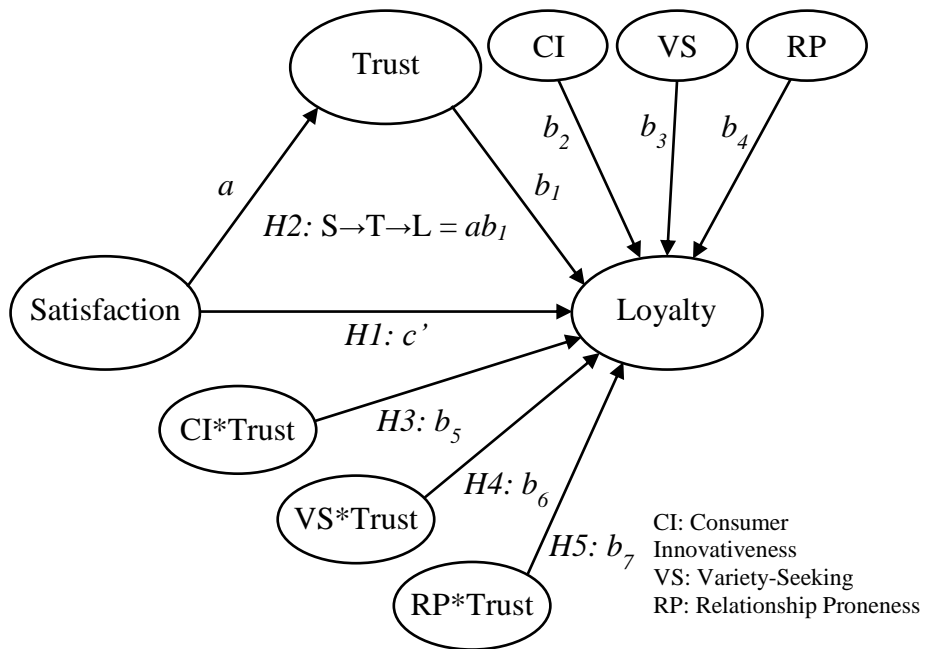


Figure 32. Structural model.

1.1.1 Soft drinks

Table 9 presents the estimates of the path coefficients and the explained variances (R^2) of the structural model. Model 1 shows that satisfaction explains 46.2 percent of the variance in trust, whereas both satisfaction and trust explain 43.9 percent of the variance in loyalty. R^2 values of 0.462 and 0.439 can be seen as weak-moderate. The results of this study indicate that satisfaction ($c' = 0.278$, $t = 5.039$, $p < 0.001$) and trust ($b_1 = 0.442$, $t = 8.332$, $p < 0.001$) have a significant effect on loyalty; thus *H1* is supported. In addition, satisfaction significantly impacts trust ($a = 0.680$, $t = 21.904$, $p < 0.001$). The effect of trust on loyalty seems to be greater than the effect of satisfaction on loyalty. As the level of satisfaction and trust increases, customers are likely to be loyal to soft drink brands. Therefore, these factors play an important role in enhancing and developing loyalty. The Q^2 values show that the endogenous constructs of the main effects model ($Q^2_{\text{trust}} = 0.342 > 0$; $Q^2_{\text{loyalty}} = 0.252 > 0$) and the interaction effects model ($Q^2_{\text{trust}} = 0.342 > 0$; $Q^2_{\text{loyalty}} = 0.280 > 0$) have acceptable predictive relevance (see Table 10). According to the results in Table 9, the GoF value of 0.452 indicates a good fit of the full model, i.e., interaction effects model, to the research data. Model 2 includes the moderating variables as independent variables, which leads to increasing the R^2 value of loyalty from 0.439 to 0.489. The path coefficients between satisfaction and loyalty and between trust and loyalty are $c' = 0.246$ ($t = 4.408$, $p < 0.001$) and $b_1 = 0.356$ ($t = 6.812$, $p < 0.001$), respectively, whereas the path coefficient between satisfaction and trust is $a = 0.680$ ($t = 22.723$, $p < 0.001$). Moreover, consumer innovativeness ($b_2 = 0.150$, $t = 3.539$, $p < 0.001$) and relationship proneness ($b_4 = 0.203$, $t = 5.184$, $p < 0.001$) significantly impact loyalty, while the effect of variety-seeking on loyalty is not significant ($b_3 = -0.040$, $t = 0.973$, *n.s.*). However, these relationships were not hypothesized in this study. In addition, this study demonstrates the mediating effect of trust on the relationship between satisfaction and loyalty. Therefore, to evaluate the mediating effect of trust, Table 11 shows that the indirect effect of satisfaction on loyalty via trust is significant ($ab_1 = 0.242$, $t = 6.322$, $p < 0.001$). The direct effect of satisfaction on loyalty, without including trust as a mediator, is statistically significant ($c = 0.488$, $t = 11.617$, $p < 0.001$). Subsequently, when trust is included as a mediating variable, the direct effect of satisfaction on loyalty decreases but remains significant ($c' = 0.246$, $t = 4.408$, $p < 0.001$). The VAF, however, has a value of

0.495, which indicates partial mediation. Thus, it can be concluded that trust has a partial mediating effect on the relationship between satisfaction and loyalty, which supports *H2*. This conclusion suggests that high consumer satisfaction leads to greater trust and that high trust leads to high customer loyalty. These results emphasize the important role of trust in explaining the nature of the relationship between satisfaction and loyalty. Model 3 tests the moderating effects of consumer innovativeness, variety-seeking and relationship proneness on the relationship between trust and loyalty. The R^2 value for loyalty is 0.492. The results show that the moderating effects of consumer innovativeness ($b_5 = -0.054$, $t = 1.121$, *n.s.*), variety-seeking ($b_6 = 0.031$, $t = 0.552$, *n.s.*) and relationship proneness ($b_7 = 0.025$, $t = 0.352$, *n.s.*) on the relationship between trust and loyalty are not significant. Thus, *H3*, *H4*, and *H5* are not supported. These results suggest that trust, regardless of the three personality traits, can play a vital role in explaining the nature of the relationship between satisfaction and loyalty. Therefore, enhancing customer satisfaction leads to enhancing trust, which leads to improving customer loyalty.

Table 10. Predictive relevance index (Q^2).

| | Model | The redundancy (Q^2) | |
|---------------|------------------------------|--------------------------|---------|
| | | Trust | Loyalty |
| Soft drinks | 1. Main effects model | 0.342 | 0.252 |
| | 2. Interaction effects model | 0.342 | 0.280 |
| Fruit juices | 1. Main effects model | 0.312 | 0.383 |
| | 2. Interaction effects model | 0.312 | 0.427 |
| Mineral water | 1. Main effects model | 0.442 | 0.378 |
| | 2. Interaction effects model | 0.442 | 0.440 |
| Yogurt | 1. Main effects model | 0.492 | 0.332 |
| | 2. Interaction effects model | 0.492 | 0.379 |

1.1.2 Fruit juices

As seen in Table 9, model 1 shows that trust and loyalty present R^2 values of 0.412 and 0.588, respectively, which suggests that satisfaction can explain 41.2 percent of the variance in trust, while both satisfaction and trust can explain 58.8 percent of the variance in loyalty. R^2 values of 0.412 and 0.588 are considered weak-moderate and moderate-substantial, respectively. Satisfaction was found to have a significant positive effect on trust ($a = 0.642$, $t = 15.833$, $p < 0.001$) and loyalty ($c' = 0.459$, $t = 9.896$, $p < 0.001$),

supporting *H1*. This result reveals that consumers with a higher level of satisfaction show higher levels of trust and loyalty to fruit juice brands. Trust has a significant positive effect on loyalty ($b_1 = 0.387, t = 8.676, p < 0.001$), suggesting that a higher level of trust leads to a higher level of customer loyalty. Customer satisfaction has a stronger influence on customer loyalty than trust does. Thus, it seems that satisfaction and trust are key factors that influence customer loyalty. The Q^2 values show that the endogenous constructs of the main effects model ($Q^2_{\text{trust}} = 0.312 > 0; Q^2_{\text{loyalty}} = 0.383 > 0$) and the interaction effects model ($Q^2_{\text{trust}} = 0.312 > 0; Q^2_{\text{loyalty}} = 0.427 > 0$) have acceptable predictive relevance (see Table 10). To evaluate the GoF of the structural model, the GoF value of 0.512 indicates a good model fit with the research data (see Table 9). Model 2 includes the moderating variables as independent variables, which leads to increasing the R^2 value of loyalty from 0.588 to 0.656. The results show that there is a positive and significant relationship between satisfaction and loyalty ($c' = 0.395, t = 9.604, p < 0.001$), and between trust and loyalty ($b_1 = 0.298, t = 6.648, p < 0.001$). Satisfaction was also found to have a positive impact on trust ($a = 0.642, t = 16.893, p < 0.001$). Moreover, variety-seeking ($b_3 = 0.079, t = 2.184, p < 0.05$) and relationship proneness ($b_4 = 0.272, t = 7.195, p < 0.001$) significantly impact loyalty, whereas the relationship between consumer innovativeness and loyalty is not significant ($b_2 = -0.013, t = 0.360, n.s.$). These relationships, however, were not hypothesized in this study. *H2* predicts that the relationship between satisfaction and loyalty is mediated by trust. As shown in Table 11, satisfaction has a significant indirect effect on loyalty via trust ($ab_1 = 0.191, t = 5.908, p < 0.001$), and the VAF has a value of 0.325. These results indicate that trust has a significant partial mediating effect on the relationship between satisfaction and loyalty. Hence, *H2* is supported. In other words, consumers who are satisfied have a certain level of trust that increases their loyalty to fruit juice brands. Model 3 tests the moderating effects of consumer innovativeness, variety-seeking and relationship proneness. The R^2 value of loyalty slightly increased from 0.656 to 0.664 after introducing the moderating variables. Therefore, the moderating effect size presents a value of 0.024, which is considered small (see Table 12). The results show that variety-seeking has a negative moderating effect on the relationship between trust and loyalty, with a path coefficient of $-0.110 (t = 3.016, p < 0.01)$. More specifically, the influence of trust on loyalty decreases

when variety-seeking increases. A possible explanation for this result is that consumers with a low level of variety-seeking tend to remain and develop long-term relationships with the same brands (familiar brands). In contrast, consumer innovativeness ($b_5 = 0.030$, $t = 0.864$, *n.s.*) and relationship proneness ($b_7 = 0.029$, $t = 1.024$, *n.s.*) have no moderating effects on the relationship between trust and loyalty, which means that consumer innovativeness and relationship proneness are not moderators of the relationship between trust and loyalty. These results thus show that *H4* is supported, whereas *H3* and *H5* are not supported.

Table 11. Mediating effects.

| | | Trust | | | VAF ^a |
|---------------|------------------------|---------------|-----------------|--------------|------------------|
| | | Direct effect | Indirect effect | Total effect | |
| Soft drinks | Satisfaction → Loyalty | 0.246*** | 0.242*** | 0.488*** | 49.59% |
| Fruit juices | Satisfaction → Loyalty | 0.395*** | 0.191*** | 0.587*** | 32.59% |
| Mineral water | Satisfaction → Loyalty | 0.417*** | 0.107** | 0.523*** | 20.42% |
| Yogurt | Satisfaction → Loyalty | 0.277*** | 0.244*** | 0.521*** | 46.83% |

Note: VAF: Variance accounted for.

^a VAF = Indirect effect / Indirect effect + Direct effect (Hair *et al.*, 2014a).

VAF < 20% (no mediation), 20% < VAF < 80% (partial mediation), and VAF > 80% (full mediation).

*** $p < 0.001$.

** $p < 0.01$.

1.1.3 Mineral water

As can be seen from the results in Table 9, model 1 indicates that 55.6 percent of the variance in loyalty was explained by trust and satisfaction, and 52.2 percent of the variance of trust was explained by satisfaction. R^2 values of 0.556 and 0.522 are both moderate-substantial. In addition, there is a positive relationship between satisfaction and loyalty ($c' = 0.578$, $t = 10.289$, $p < 0.001$) and between trust and loyalty ($b_1 = 0.212$, $t = 3.579$, $p < 0.001$). Satisfaction influences trust significantly ($a = 0.722$, $t = 20.161$, $p < 0.001$). Therefore, *H1* is supported. The results show that satisfaction is the most important predictor of customer loyalty. The Q^2 values show that the endogenous constructs of the main effects model ($Q^2_{\text{trust}} = 0.442 > 0$; $Q^2_{\text{loyalty}} = 0.378 > 0$) and the interaction effects model ($Q^2_{\text{trust}} = 0.442 > 0$; $Q^2_{\text{loyalty}} = 0.440 > 0$) have acceptable predictive relevance (see Table 10). As presented in Table 9, the GoF has a value of 0.578, which is greater than 0.36 (large). This indicates that the research model fits the data well. Model 2 includes the moderating variables as independent variables, which

leads to increasing the R^2 value of loyalty from 0.556 to 0.648. Satisfaction has a significant positive influence on loyalty ($c' = 0.417, t = 7.759, p < 0.001$). Trust has a significant impact on loyalty ($b_1 = 0.148, t = 2.968, p < 0.01$). The relationship between satisfaction and trust is also significant ($a = 0.722, t = 19.534, p < 0.001$). Furthermore, relationship proneness is positively and significantly related to loyalty ($b_4 = 0.370, t = 8.085, p < 0.001$), whereas consumer innovativeness ($b_2 = -0.007, t = 0.187, n.s.$) and variety-seeking ($b_3 = 0.017, t = 0.411, n.s.$) show no significant impact on loyalty, though these relationships were not hypothesized in this research. Table 11 presents the results of direct, indirect and total effects of satisfaction on loyalty through trust. Regarding hypothesis $H2$, satisfaction was found to have a significant indirect effect on loyalty through trust ($ab_1 = 0.107, t = 2.808, p < 0.01$). Table 11 also shows that the VAF has a value of 0.204, indicating partial mediation. That is, trust partially mediates the relationship between satisfaction and loyalty, supporting $H2$. Model 3 examines whether consumer innovativeness, variety-seeking and relationship proneness moderate the influence of trust on loyalty. The R^2 value of loyalty slightly increased from 0.648 to 0.653 after the introduction of moderating variables. Accordingly, no significant effect size was found (f^2 of 0.014 is less than the minimum threshold of 0.02) for the moderating effects (see Table 12). Finally, results indicate that consumer innovativeness ($b_5 = 0.098, t = 1.763, p < 0.05$) has a positive and significant moderating effect on the relationship between trust and loyalty. This result, however, is not in line with the proposed hypothesis. Hair *et al.* (2011)⁴⁶⁴ indicate that paths that are insignificant or do not show the same signs as the considered hypothesis must be rejected. Therefore, $H3$ is not supported. Variety-seeking ($b_6 = -0.066, t = 1.173, n.s.$) and relationship proneness ($b_7 = -0.011, t = 0.309, n.s.$) have no moderating effects on the relationship between trust and loyalty. Hence, $H4$ and $H5$ are not supported.

Table 12. Effect size (f^2).

| | Hypothesis | Interaction effect | β -coefficient | Cohen's f^{2a} | Effect size |
|---------------|------------|--------------------|----------------------|------------------|-------------|
| Fruit juices | H4 | VS x T | -0.110** | 0.024 | Small |
| Mineral water | H3 | CI x T | 0.098* | 0.014 | <i>n.s.</i> |
| Yogurt | H5 | RP x T | 0.087* | 0.025 | Small |

Note: T: trust; CI: Consumer Innovativeness; VS: Variety-Seeking; RP: Relationship Proneness.

^a $f^2 = [R^2(\text{Interaction effects model}) - R^2(\text{Main effects model})] / [1 - R^2(\text{Interaction effects model})]$ (Cohen,

⁴⁶⁴ Hair, J.F., Ringle, C.M. and Sarstedt, M. (2011) *op. cit.*

1988).

** $p < 0.01$.

* $p < 0.05$.

n.s.: not significant.

1.1.4 Yogurt

R^2 values and path coefficients are presented in Table 9. Model 1 shows that satisfaction and trust explain 51.4 percent of the variance in loyalty, whereas satisfaction explains 59.7 percent of the variance in trust. R^2 values of 0.514 and 0.597 are described as moderate-substantial. The path coefficients show that both satisfaction ($c' = 0.369$, $t = 7.116$, $p < 0.001$) and trust ($b_1 = 0.392$, $t = 6.336$, $p < 0.001$) have a significant positive impact on loyalty, supporting *H1*. These results show that satisfaction and trust are the most important predictors of loyalty. Among the two predictors of customer loyalty, trust seems to have the greatest impact on loyalty. Satisfaction, however, positively and significantly impacts trust ($a = 0.773$, $t = 26.430$, $p < 0.001$), suggesting that consumers who have a higher level of satisfaction are more likely to have a higher level of trust. The Q^2 values show that the endogenous constructs of the main effects model ($Q^2_{\text{trust}} = 0.492 > 0$; $Q^2_{\text{loyalty}} = 0.332 > 0$) and the interaction effects model ($Q^2_{\text{trust}} = 0.492 > 0$; $Q^2_{\text{loyalty}} = 0.379 > 0$) have acceptable predictive relevance (see Table 10). From the results shown in Table 9, the GoF value of 0.554 indicates a good model fit. Model 2 includes the moderating variables as independent variables; this leads to increasing the R^2 value of loyalty from 0.514 to 0.591. The results of path coefficients show that satisfaction has a positive impact on trust ($a = 0.773$, $t = 26.951$, $p < 0.001$), which, in turn, has a positive impact on loyalty ($b_1 = 0.316$, $t = 4.808$, $p < 0.001$). Satisfaction has a positive influence on loyalty ($c' = 0.277$, $t = 5.219$, $p < 0.001$). Moreover, consumer innovativeness ($b_2 = 0.032$, $t = 0.835$, *n.s.*) and variety-seeking ($b_3 = -0.001$, $t = 0.021$, *n.s.*) have no significant impact on loyalty, whereas relationship proneness positively and significantly impacts loyalty ($b_4 = 0.312$, $t = 7.379$, $p < 0.001$). These relationships were not hypothesized in this study. Table 11 presents the results of the mediating effect of trust on the relationship between satisfaction and loyalty. The results show that the indirect effect of satisfaction on loyalty via trust is significant ($ab_1 = 0.244$, $t = 4.938$, $p < 0.001$). The VAF presents a value of 0.468, which suggests that the effect of satisfaction on loyalty is partially mediated by trust, thus supporting *H2*. Model 3 tests the moderating effects of

consumer innovativeness, variety-seeking and relationship proneness on the relationship between trust and loyalty. After adding the moderating variables, the R^2 value of loyalty increased from 0.591 to 0.601. Therefore, the difference between R^2 values provides an effect size f^2 of 0.025, which is considered a small effect size (see Table 12). The results show that relationship proneness significantly moderates the relationship between trust and loyalty ($b_7 = 0.087$, $t = 1.945$, $p < 0.05$) in a way that supports $H5$. This means that the positive relationship between trust and loyalty increases when the level of relationship proneness increases. There is no significant moderating effects of consumer innovativeness ($b_5 = -0.010$, $t = 0.240$, *n.s.*) and variety-seeking ($b_6 = 0.012$, $t = 0.256$, *n.s.*) on the relationship between trust and loyalty. Thus, $H3$ and $H4$ are not supported.

1.2 Between-group differences

Numerous studies have focused on the application of multi-group analysis in marketing (e.g., Eberl, 2010⁴⁶⁵; Henseler, 2012⁴⁶⁶). Indeed, multi-group analysis allows researchers to test whether the differences in structural paths between subgroups are significant (Hair *et al.*, 2014a)⁴⁶⁷. In the context of PLS, various approaches have been proposed to assess between-group differences in path coefficients, for example, the parametric approach (Keil *et al.*, 2000)⁴⁶⁸, the permutation-based approach (Chin and Dibbern, 2010)⁴⁶⁹, Henseler's PLS multi-group analysis (Henseler, 2007)⁴⁷⁰ and the nonparametric confidence set approach (Sarstedt *et al.*, 2011)⁴⁷¹. In the case of non-normal data, the permutation-based approach is preferable for assessing the significance of group differences in the structural model (Chin and Dibbern, 2010)⁴⁷². Moreover, as noted above, the data in this study are not normally distributed. Therefore, the permutation test appears to be the appropriate test for this research to examine whether the differences in path coefficients between groups are significant.

The analysis of differences in path coefficients among subgroups has become an

⁴⁶⁵ Eberl, M. (2010) *op. cit.*

⁴⁶⁶ Henseler, J. (2012) *op. cit.*

⁴⁶⁷ Hair, J.F., Hult, G.T.M., Ringle, C.M. and Sarstedt, M. (2014a) *op. cit.*

⁴⁶⁸ Keil, M., Saarinen, T., Tan, B.C.Y., Tuunainen, V., Wassenaar, A. and Wei, K.-K. (2000), "A cross-cultural study on escalation of commitment behavior in software projects", *MIS Quarterly*, Vol. 24, No. 2, pp. 299-325.

⁴⁶⁹ Chin, W.W. and Dibbern, J. (2010) *op. cit.*

⁴⁷⁰ Henseler, J. (2007), "A new and simple approach to multi-group analysis in partial least squares path modeling", in *PLS'07: The 5th International Symposium on PLS and Related Methods*, Ås, Norway, September 5-7, pp. 104-107.

⁴⁷¹ Sarstedt, M., Henseler, J. and Ringle, C.M. (2011), "Multigroup analysis in partial least squares (PLS) path modeling: Alternative methods and empirical results", *Advances in International Marketing*, Vol. 22, pp. 195-218.

⁴⁷² Chin, W.W. and Dibbern, J. (2010) *op. cit.*

important issue in marketing (Eberl, 2010)⁴⁷³. Models with the moderating effects of customer characteristics, such as gender, age, marital status, education, income and area of residence, can help researchers better understand the relationships between customer loyalty and its antecedents (Qayyum *et al.*, 2013)⁴⁷⁴. Indeed, several researchers have investigated the moderating role of consumer characteristics. For example, Qayyum *et al.* (2013)⁴⁷⁵ test the moderating effects of customer demographics (i.e., gender, age, marital status, education, income and area of residence) on the relationships between customer loyalty and its antecedents (i.e., satisfaction, perceived service quality, perceived value, trust, perceived switching costs and corporate image) in the mobile phone industry. The results indicate that only income and area of residence exert moderating effects on the relationships between loyalty and the antecedents. Specifically, these relationships are weaker for lower-income and rural customers. Sharma *et al.* (2012)⁴⁷⁶ find that the impact of customer satisfaction and perceived value on behavioral intentions is significantly higher for male and older customers, while the impact of service quality on perceived value and satisfaction is significantly higher for female and younger customers. In a recent study, Ndubisi (2006)⁴⁷⁷ finds that as the level of trust increases, female customers exhibit a significantly higher level of loyalty than male customers. Sanchez-Franco *et al.* (2009)⁴⁷⁸ suggest that the strength of the relationship between trust and commitment on one side and commitment and loyalty on the other is significantly stronger among women than men, whereas the strength of the relationship between satisfaction and commitment and between trust and loyalty is significantly stronger among men than women. Moreover, Forgas-Coll *et al.* (2013)⁴⁷⁹, in an online context, find that the relationship between satisfaction and trust and between trust and loyalty is significantly moderated by education. More specifically, the effect of satisfaction on trust and the effect of trust on loyalty are stronger for university-educated people than for non-university-educated people. No moderation effect of gender was found on the previous relationships. In the

⁴⁷³ Eberl, M. (2010) *op. cit.*

⁴⁷⁴ Qayyum, A., Khang, D.B. and Krairit, D. (2013), "An analysis of the antecedents of loyalty and the moderating role of customer demographics in an emerging mobile phone industry", *International Journal of Emerging Markets*, Vol. 8, No. 4, pp. 373-391.

⁴⁷⁵ *Ibid.*

⁴⁷⁶ Sharma, P., Chen, I.S.N. and Luk, S.T.K. (2012), "Gender and age as moderators in the service evaluation process", *Journal of Services Marketing*, Vol. 26, No. 2, pp. 102-114.

⁴⁷⁷ Ndubisi, N.O. (2006), "Effect of gender on customer loyalty: A relationship marketing approach", *Marketing Intelligence & Planning*, Vol. 24, No. 1, pp. 48-61.

⁴⁷⁸ Sanchez-Franco, M.J., Ramos, A.F.V. and Velicia, F.A.M. (2009) *op. cit.*

⁴⁷⁹ Forgas-Coll, S., Palau-Saumell, R., Sánchez-García, J. and Fandos-Roig, J.C. (2013), "Airline website loyalty formation and the moderating effects of gender and education", *Service Business*, Vol. 7, No. 2, pp. 255-274.

information technology context, Lin and Ding (2009)⁴⁸⁰ show that the effect of satisfaction on loyalty is significantly higher for less-educated customers than for highly educated customers, whereas the effect of trust on loyalty is significantly higher for highly educated customers than for less-educated customers. Finally, Chiou and Pan (2009)⁴⁸¹ find that the link between trust and satisfaction with respect to an Internet retailer is significantly greater for heavy shoppers than for light shoppers, a finding that is similar to the result obtained in an update study by Sur (2015)⁴⁸².

In the context of food brands, however, no study has tested the moderating effects of consumer characteristics on the relationships between customer loyalty and its antecedents. For this reason, a multi-group analysis was conducted in this study to test the moderating effects of gender, age, marital status, education, income, occupation and light/heavy consumers on all of the relationships presented in the four models related to the four product categories.⁴⁸³ The analysis was conducted using the permutation approach. The sample was split into two subgroups for gender (female and male), marital status (married and unmarried), education (university and non-university). For age, the sample was split into younger (i.e., ≤ 35 years) and older (i.e., > 35 years) consumers. Concerning income, the sample was divided into lower (i.e., $\leq 18,000$ DA) and higher (i.e., $> 18,000$ DA) income. For occupation, the sample was divided into employed (i.e., farmer, craftsman, trader, entrepreneur, executive, middle executive, employee, worker and other) and unemployed (i.e., student, retired and without professional activity). Regarding the quantity consumed, the sample was split into light and heavy consumers. In the case of soft drinks, fruit juices and yogurt, light consumers drink 1 glass/cup or less per day, while heavy consumers drink 2 glasses/cups or more per day. However, the definition of light and heavy consumers is changed in the case of mineral water. Clearly, light consumers are those consumers who drink 1 L or less of mineral water per day, whereas heavy consumers are those who drink more than 1 L per day. This is due to the minimum quantity consumed per day, which is definitely higher for mineral water than

⁴⁸⁰ Lin, C.-P. and Ding, C.G. (2009), "Comparing the main effects and moderating effects of education among three models in IT service: A quantitative approach", *Quality & Quantity*, Vol. 43, No. 4, pp. 617-633.

⁴⁸¹ Chiou, J.-S. and Pan, L.-Y. (2009) *op. cit.*

⁴⁸² Sur, S. (2015), "The role of online trust and satisfaction in building loyalty towards online retailers: Differences between heavy and light shopper groups", in Zhang, Z., Shen, Z.M., Zhang, J. and Zhang, R. (Eds.), *Proceedings of 4th International Conference on Logistics, Informatics and Service Science*, Springer, Berlin, pp. 489- 494.

⁴⁸³ Note: This study did not assess measurement invariance to ensure that the construct measures are equivalent across groups (Hair *et al.*, 2014a).

soft drinks, fruit juices and yogurt (see Table 4). The results of the multi-group analysis are presented in Appendix E. Table 13 summarizes the results of the path coefficients that vary significantly among groups. In the model related to soft drinks, there are significant variations in path coefficients among age groups. More specifically, the direct effect of satisfaction on trust and the direct effect of trust on loyalty are found to be greater among older consumers than younger consumers. This is compatible with the results of Patterson (2007)⁴⁸⁴, who finds that older consumers tend to be more loyal than younger consumers. A possible explanation for this might be that older consumers have a higher propensity for developing a long-term relationship with a certain brand, whereas younger consumers tend to have short-term relationships (Lambert-Pandraud and Laurent, 2010)⁴⁸⁵. Regarding the model related to yogurt, satisfaction has a greater influence on trust among males and light consumers compared with females and heavy consumers. Hence, males and light consumers who are satisfied show greater trust to yogurt brands than others. Additionally, Table 13 shows that there are significant differences between significant and nonsignificant and between nonsignificant and nonsignificant (see also Schloderer *et al.*, 2014⁴⁸⁶). In contrast, Gelman and Stern (2006, p. 328)⁴⁸⁷ indicate that “*the difference between “significant” and “not significant” is not itself statistically significant.*” Accordingly, this study considers that the difference between significant and nonsignificant and between nonsignificant and nonsignificant is not itself statistically significant.

Table 13. Significant differences in the group-specific results.

| Soft drinks | | | | | |
|--------------------|---------------------|-----------------------------------|--|--------|------|
| Relationship | Global (N = 443) | Group 1 | Group 2 | diff | Sig. |
| Age | | Younger (n ₁ = 283) | Older consumers (n ₂ = 160) | | |
| S → T | 0.680*** | 0.636*** | 0.764*** | 0.128* | Yes |
| T → L | 0.358*** | 0.288*** | 0.520*** | 0.231* | Yes |
| Occupation | | Unemployed (n ₂ = 204) | Employed (n ₁ = 239) | | |
| VS x T → L | 0.031 ^{ns} | 0.130 ^{ns} | -0.066 ^{ns} | 0.196* | Yes |
| Light and | | Light consumers (n ₁ = | Heavy consumers (n ₂ = | | |

⁴⁸⁴ Patterson, P.G. (2007), “Demographic correlates of loyalty in a service context”, *Journal of Services Marketing*, Vol. 21, No. 2, pp. 112-121.

⁴⁸⁵ Lambert-Pandraud, R. and Laurent, G. (2010), “Why do older consumers buy older brands? The role of attachment and declining innovativeness”, *Journal of Marketing*, Vol. 74, No. 5, pp. 104-121.

⁴⁸⁶ Schloderer, M.P., Sarstedt, M. and Ringle, C.M. (2014), “The relevance of reputation in the nonprofit sector: The moderating effect of socio-demographic characteristics”, *International Journal of Nonprofit and Voluntary Sector Marketing*, Vol. 19, No. 2, pp. 110-126.

⁴⁸⁷ Gelman, A. and Stern, H. (2006), “The difference between “significant” and “not significant” is not itself statistically significant”, *The American Statistician*, Vol. 60, No. 4, pp. 328-331.

| | | | | | |
|---------------------------|----------------------|--|--|---------|-----|
| heavy consumers | | 275) | 168) | | |
| RP x T → L | 0.025 ^{ns} | 0.099 ^{ns} | -0.092 ^{ns} | 0.190* | Yes |
| Fruit juices | | | | | |
| Gender | | Female (n ₁ = 217) | Male (n ₂ = 226) | | |
| CI x T → L | 0.030 ^{ns} | 0.128* | -0.029 ^{ns} | 0.157* | Yes |
| Mineral water | | | | | |
| Gender | | Female (n ₁ = 217) | Male (n ₂ = 226) | | |
| RP x T → L | -0.011 ^{ns} | 0.085 ^{ns} | -0.070 ^{ns} | 0.155* | Yes |
| Yogurt | | | | | |
| Gender | | Female (n ₁ = 217) | Male (n ₂ = 226) | | |
| S → T | 0.773*** | 0.710*** | 0.841*** | 0.131* | Yes |
| Light and heavy consumers | | Light consumers (n ₁ = 236) | Heavy consumers (n ₂ = 207) | | |
| S → T | 0.773*** | 0.843*** | 0.652*** | 0.191** | Yes |
| RP x T → L | 0.087* | 0.127** | -0.083 ^{ns} | 0.209* | Yes |

Note 1: S: atisfaction; T: rust; L: oyalty; CI: Consumer Innovativeness; VS: Variety-Seeking; RP: Relationship Proneness; Sig.: Significant difference.

Note 2: The column |diff| shows the absolute differences between groups.

*** $p < 0.001$.

** $p < 0.01$.

* $p < 0.05$.

^{ns} not significant (based on $t(4999)$, two-tailed test).

Section 2. Discussion

2.1 General discussion

The aim of this study was to investigate the mediating role of brand trust in the relationship between brand satisfaction and brand loyalty and to examine the moderating effects of consumer innovativeness, variety-seeking and relationship proneness on the relationship between brand trust and brand loyalty in the context of food brands (soft drinks, fruit juices, mineral water and yogurt). This study also evaluated the moderating effects of consumer characteristics (i.e., gender, age, marital status, education, income, occupation and light/heavy consumers) on the proposed relationships.

Soft drinks. The results support the idea that trust has a partial mediating effect on the relationship between satisfaction and loyalty. They show that satisfaction and trust have a direct positive impact on loyalty. This means that satisfaction and trust are key determinants of loyalty. Satisfaction, however, significantly influences trust. Compared to satisfaction, trust seems to be the most important factor in building loyalty. The results

also show that satisfaction has an indirect effect on loyalty through trust, indicating that satisfaction is an important factor but not sufficient to build loyalty (Narteh, 2013)⁴⁸⁸. Moreover, no significant moderating effects were found for consumer innovativeness, variety-seeking and relationship proneness. Concerning the moderating effects of consumer characteristics, the results indicate that age significantly moderates the relationship between satisfaction and trust and between trust and loyalty. These two relationships were found to be stronger among older consumers than younger consumers. This is consistent with the results of Patterson (2007)⁴⁸⁹, who suggests that older consumers are more loyal than younger consumers. A possible explanation for this is that older consumers have a higher propensity to developing a long-term relationship with a particular brand, whereas younger consumers tend only to have a short-term relationship (Lambert-Pandraud and Laurent, 2010)⁴⁹⁰. No other moderating effects were found.

Fruit juices. The results suggest that satisfaction and trust are two important factors in determining customer loyalty. Satisfaction has a significant positive influence on trust, and trust, in turn, has a significant positive influence on loyalty. Satisfaction also has a direct positive influence on loyalty. The results also indicate that satisfaction has an indirect influence on loyalty via trust. In addition, the relationship between trust and loyalty is negatively moderated by variety-seeking. Clearly, variety-seeking decreases the positive effect of trust on loyalty. This is consistent with the result of Adjei and Clark (2010)⁴⁹¹, who find that variety-seeking negatively moderates the relationship between relationship quality (satisfaction, trust and commitment) and behavioral loyalty. Consumer innovativeness and relationship proneness do not moderate this relationship. In regard to consumer characteristics, the results show that gender, age, marital status, education, income, occupation and light/heavy consumers have no moderating effects on the relationships presented in the structural model.

Mineral water. The results provide empirical evidence to support the relationships between satisfaction, trust and loyalty. Satisfaction was found to have a significant direct effect on trust. Trust ultimately has a significant direct effect on loyalty. Satisfaction,

⁴⁸⁸ Narteh, B. (2013) *op. cit.*

⁴⁸⁹ Patterson, P.G. (2007) *op. cit.*

⁴⁹⁰ Lambert-Pandraud, R. and Laurent, G. (2010) *op. cit.*

⁴⁹¹ Adjei, M.T. and Clark, M.N. (2010) *op. cit.*

however, has a significant direct effect on loyalty. The direct effect of satisfaction on trust is stronger than the direct effect of satisfaction on loyalty, whereas the direct effect of satisfaction on loyalty is stronger than the direct effect of trust on loyalty. This indicates that satisfaction is a key predictor of both trust and loyalty. Additionally, the results support the existence of a partial mediating effect of trust on the relationship between satisfaction and loyalty, suggesting that a higher level of satisfaction leads to a higher level of trust, which, in turn, leads to a higher level of loyalty. However, the results do not support the moderating effects of consumer personality traits and consumer characteristics.

Yogurt. The results reveal that there is a significant positive relationship between satisfaction and loyalty. There is also a significant positive relationship between trust and loyalty. This indicates that both satisfaction and trust are predictors of loyalty. Satisfaction, in particular, has a strong positive influence on trust, suggesting that satisfaction is an important antecedent of trust. Furthermore, the results show that trust has a mediating effect on the relationship between satisfaction and loyalty. Among the three personality traits, the results show that only relationship proneness exercises a significant moderating effect on the relationship between trust and loyalty, indicating that relationship proneness increases the strength of the relationship between trust and loyalty. This is consistent with the result of Adjei and Clark (2010)⁴⁹², who find that the effect of relationship quality (satisfaction, trust and commitment) on behavioral loyalty is positively moderated by relationship proneness. Regarding the moderating effects of consumer characteristics, gender and light/heavy consumers were found to have moderating effects on the trust-loyalty relationship. Clearly, the effect of trust on loyalty is significantly greater among males and light consumers compared to females and heavy consumers.

In general, the findings of the four structural models confirm that satisfaction significantly influences trust, which is in line with previous studies (Delgado-Ballester and Munuera-Alemán, 2001⁴⁹³; Bove and Mitzifiris, 2007⁴⁹⁴), that there is a significant positive link between trust and loyalty, which is consistent with previous studies

⁴⁹² *Ibid.*

⁴⁹³ Delgado-Ballester, E. and Munuera-Alemán, J.L. (2001) *op. cit.*

⁴⁹⁴ Bove, L. and Mitzifiris, B. (2007) *op. cit.*

(Chaudhuri and Holbrook, 2001⁴⁹⁵; Belaid and Behi, 2011⁴⁹⁶), and that satisfaction has a direct positive influence on loyalty, which is also consistent with previous studies (Torres-Moraga *et al.*, 2008⁴⁹⁷; Herrera and Blanco, 2011⁴⁹⁸; Kuikka and Laukkanen, 2012⁴⁹⁹; Bianchi *et al.*, 2014⁵⁰⁰). In addition, trust's mediating role between satisfaction and loyalty is confirmed. This is consistent with Bove and Mitzifiris (2007)⁵⁰¹, who suggest that satisfaction has an indirect influence on behavioral loyalty via trust and commitment. Indeed, the strength of the relationships between satisfaction, trust and loyalty differs across the four product categories.⁵⁰² Perhaps this could be a result of the fact that consumer perceptions of the characteristics of the product category differ across product categories (Van Trijp *et al.*, 1996)⁵⁰³. In contrast, the findings provide little evidence on the moderating effects of consumer personality traits on the relationship between trust and loyalty, as personality traits might not play an important role in a low-involvement context. Kassarian (1981)⁵⁰⁴ indicates that product involvement might interact with personality traits. When involvement is high, personality traits appear to provide a significant explanation for the consumer's relationship with a brand in the retail context (Odekerken-Schröder *et al.*, 2003)⁵⁰⁵. In this study, consumers may have had low levels of involvement because of the low price and low perceived importance of the product categories (Bove and Mitzifiris, 2007)⁵⁰⁶. Thus, contexts of low involvement may not be sufficient to investigate the moderating effects of consumer personality traits. Based on the above discussion, the authors recommend using consumer innovativeness, variety-seeking and relationship proneness in high-involvement contexts. Ultimately, most of consumer characteristics used in this study do not moderate the structural relationships. This is probably due to homogeneity of the population (Becker *et al.*,

⁴⁹⁵ Chaudhuri, A. and Holbrook, M.B. (2001) *op. cit.*

⁴⁹⁶ Belaid, S. and Behi, A.T. (2011) *op. cit.*

⁴⁹⁷ Torres-Moraga, E., Vázquez-Parraga, A.Z. and Zamora-González, J. (2008), "Customer satisfaction and loyalty: Start with the product, culminate with the brand", *Journal of Consumer Marketing*, Vol. 25, No. 5, pp. 302-313.

⁴⁹⁸ Herrera, C.F. and Blanco, C.F. (2011) *op. cit.*

⁴⁹⁹ Kuikka, A. and Laukkanen, T. (2012) *op. cit.*

⁵⁰⁰ Bianchi, C., Drennan, J. and Proud, B. (2014) *op. cit.*

⁵⁰¹ Bove, L. and Mitzifiris, B. (2007) *op. cit.*

⁵⁰² Note: This study did not attempt to address the effect of product category on the proposed relationships.

⁵⁰³ Van Trijp, H.C.M., Hoyer, W.D. and Inman, J.J. (1996) *op. cit.*

⁵⁰⁴ Kassarian, H.H. (1981), "Low involvement: A second look", *Advances in Consumer Research*, Vol. 8, No. 1, pp. 31-34.

⁵⁰⁵ Odekerken-Schröder, G., De Wulf, K. and Schumacher, P. (2003) *op. cit.*

⁵⁰⁶ Bove, L. and Mitzifiris, B. (2007) *op. cit.*

2013)⁵⁰⁷.

Summary

This chapter discusses the results of the structural model, followed by the analysis of differences in path coefficient between subgroups. A general discussion of the results is then presented. The managerial implications, limitations and suggestions for future research are provided at the end of this study.

⁵⁰⁷ Becker, J.-M., Rai, A., Ringle, C.M. and Völckner, F. (2013), "Discovering unobserved heterogeneity in structural equation models to avert validity threats", *MIS Quarterly*, Vol. 37, No. 3, pp. 665-694.

CONCLUSIONS AND MANAGERIAL IMPLICATIONS

Conclusions

This study aims to empirically investigate the relationship between brand satisfaction, brand trust and brand loyalty and the moderating effects of personality traits, namely, consumer innovativeness, variety-seeking and relationship proneness, on the relationship between brand trust and brand loyalty. The findings reveal that brand satisfaction and brand trust are key determinants of brand loyalty. Brand satisfaction has an indirect effect on brand loyalty through brand trust. This indicates that brand trust plays an important role in explaining the satisfaction-loyalty relationship. Therefore, marketers should pay a great deal of attention to the role of brand trust in developing long-term customer relationships. Moreover, the moderating effects of personality traits are examined in this study. The relationship between brand trust and brand loyalty was found to be negatively moderated by variety-seeking for fruit juices, whereas relationship proneness has a positive moderating effect on the relationship between brand trust and brand loyalty for yogurt. Ultimately, the effects of consumer characteristics on the proposed relationships are discussed.

Managerial implications

This study has several implications for marketing managers. The findings reveal that satisfaction has a positive direct and indirect effect on loyalty through the mediation of trust across the four product categories. The relationship between satisfaction and loyalty is better explained when including trust as a mediating variable. Thus, companies that market soft drinks, fruit juices, mineral water and yogurt should pay more attention to the important role of satisfaction in generating trust, which, in turn, leads to loyalty. They should invest in satisfaction programs to increase consumers' levels of trust in their brands, thereby building brand loyalty. Gaining satisfaction, trust and loyalty is an effective strategy for companies to build long-term relationships with customers and to create sustained competitive advantage.

In addition, the findings show that variety-seeking negatively moderates the positive relationship between brand trust and brand loyalty for fruit juices. This result indicates that the strength of the relationship between brand trust and brand loyalty depends on the level of variety-seeking, suggesting that, if the level of variety-seeking

increases, the strength of the relationship will decrease. Moreover, consumers who have a high level of variety-seeking tend to switch between brands (Hoyer and Ridgway, 1984)⁵⁰⁸. They also tend to get information about new products and brands (Manning *et al.*, 1995)⁵⁰⁹. Therefore, companies should frequently offer new brands and products and provide information about the new brands, which could help variety-seeking consumers to break the routine of consuming familiar brands and get some arousal or novelty (Roehm and Roehm, 2004)⁵¹⁰. However, there is a positive moderating effect of relationship proneness on the relationship between brand trust and brand loyalty for yogurt. This suggests that the effect of brand trust on brand loyalty increases, as relationship proneness does. In addition, relationship-prone consumers tend to maintain and improve a long-term relationship with a particular brand (De Wulf *et al.*, 2001)⁵¹¹. Most relationship-prone consumers are proactive when they feel that the brand makes an effort to develop a long-term relationship (Bloemer and Odekerken-Schröder, 2002)⁵¹². Thus, in this context, relationship marketing seems to be an effective strategy for companies to investigate with consumers (Palmatier *et al.*, 2006)⁵¹³.

Regarding the moderating effects of consumer characteristics, a significant age difference was found in the satisfaction-trust-loyalty relationship. More specifically, older consumers tend to be more loyal than younger consumers. This indicates that as the level of trust increases, older consumers become more loyal to the brands of soft drinks. However, the effect of satisfaction on trust was found to be stronger among males and light consumers than females and heavy consumers to yogurt brands. Thus, marketers and managers should pay attention to younger consumers who express less loyalty to the brands of soft drinks. One way of attempting this is by offering new and various brands and services, which may allow the customers to try and use different brands, and therefore do not switch to competitors' brands. Moreover, marketers should not treat their customers in the same way (Adjei and Clark, 2010)⁵¹⁴. They should segment their market by age (for soft drinks) and by gender and light/heavy consumers (for yogurt) in order to

⁵⁰⁸ Hoyer, W.D. and Ridgway, N.M. (1984) *op. cit.*

⁵⁰⁹ Manning, K.C., Bearden, W.O. and Madden, T.J. (1995) *op. cit.*

⁵¹⁰ Roehm, Jr. H.A. and Roehm, M.L. (2004) *op. cit.*

⁵¹¹ De Wulf, K., Odekerken-Schröder, G. and Iacobucci, D. (2001) *op. cit.*

⁵¹² Bloemer, J. and Odekerken-Schröder, G. (2002) *op. cit.*

⁵¹³ Palmatier, R.W., Dant, R.P., Grewal, D. and Evans, K.R. (2006), "Factors influencing the effectiveness of relationship marketing: A meta-analysis", *Journal of Marketing*, Vol. 70, No. 4, pp. 136-153.

⁵¹⁴ Adjei, M.T. and Clark, M.N. (2010) *op. cit.*

better understand the differences among the segments, and thus formulate effective strategies for each segment.

Limitations and future research

This study includes several limitations that should be noted. First, this research was conducted in the context of food brands within a limited geographical region in Algeria, which might affect the generalizability of these findings. Future research could apply this model to different contexts and countries, which could help confirm the generalizability of the findings and allow for a better understanding of the research topic. Second, this study considers two antecedents of customer loyalty (i.e., satisfaction and trust). Future research could include other variables, such as commitment and attachment. Third, this study does not separate attitudinal and behavioral loyalty; it addresses loyalty as a single construct. Future research could examine the effect of satisfaction and trust on the two components of loyalty. Fourth, this study focuses on examining the moderating effects of consumer innovativeness, variety-seeking and relationship proneness on the relationship between trust and loyalty. Future research could examine the moderating effects of these personality traits on both the relationship between satisfaction and trust and that between satisfaction and loyalty. Fifth, the use of consumer innovativeness, variety-seeking and relationship proneness as moderators might not be sufficient to understand the nature of the relationship between trust and loyalty (e.g., for soft drinks). Future research could use other moderating variables, such as involvement and the length of relationship, to provide a more comprehensive understanding of the trust-loyalty relationship. Sixth, this study focuses on low-involvement products (i.e., soft drinks, fruit juices, mineral water and yogurt). Future research could also include high-involvement products, such as sportswear clothing and cosmetics. Finally, this study investigates the moderating effects of seven consumer characteristics (i.e., gender, age, marital status, education, income, occupation and light/heavy consumers) on the relationships between brand loyalty and its antecedents. Future research could incorporate other demographic variables.

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APPENDICES

Appendix A

Questionnaire on Consumer Perceptions and Preferences of Food Brands in Algerian Market

Dear participant,

We are conducting a study on consumer perceptions and preferences toward food brands. The purpose of this research questionnaire is to find out the most preferred brands of soft drinks, fruit juices, mineral water and yogurt that consumers consider buying most of the time. Your opinions will be important in helping managers and marketers to improve marketing strategies and provide you, as a customer, a better service in the future. This research is purely for academic purpose and all responses you provide will be anonymous.

Your participation in this research should take no longer than 10 minutes of your time. We appreciate your participation. A present will be offered to each participant after completing the questionnaire.

Thank you for your assistance.

Sincerely,

Choukri Menidjel
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Algeria

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Algeria

Section A

We are interested in finding out your perceptions and preferences of the following product categories. Please provide the information being asked from you.

Soft drinks

1. Please list the names of all brands that you are aware of.

| | | | |
|---|---|---|---|
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |

2. Please list the names of brands that have high probability of being bought.

| | | | |
|---|---|---|---|
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |

Fruit juices

1. Please list the names of all brands that you are aware of.

| | | | |
|---|---|---|---|
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |

2. Please list the names of brands that have high probability of being bought.

| | | | |
|---|---|---|---|
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |

Mineral water

1. Please list the names of all brands that you are aware of.

| | | | |
|---|---|---|---|
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |

2. Please list the names of brands that have high probability of being bought.

| | | | |
|---|---|---|---|
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |

Yogurt

1. Please list the names of all brands that you are aware of.

| | | | |
|---|---|---|---|
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |

2. Please list the names of brands that have high probability of being bought.

| | | | |
|---|---|---|---|
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |

Section B

Please tick (✓) one of the following boxes according to your situation.

Gender

Female

Male

Age group

19 or below

20-29

30-39

40-49

50 or above

Marital status

Single

Married

Other (please precise): _____

Education

Primary

Middle

Secondary

University

Other (please precise): _____

Monthly individual income (DA)

18,000 or below

18,001-30,000

30,001-40,000

40,001-50,000

50,001 or above

On average, how many glasses do you drink per day?

| | Soft drinks | Fruit juices | Mineral water |
|---------------------------|--------------------------|--------------------------|--------------------------|
| 1 glass or less | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Between 2 glasses and 1 L | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| More than 1 L | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

On average, how many cups of yogurt do you eat per day?

- 1 cup or less
Between 2 cups and 1 L
More than 1 L

ملحق (أ)

استبانة حول تصورات وتفضيلات المستهلكين للعلامات التجارية الغذائية في السوق الجزائرية

عزيزي المشارك،

نحن نجري دراسة حول تصورات المستهلكين وتفضيلاتهم تجاه علامات المنتجات الغذائية، وهذه استبانة بحثية الغرض منها هو معرفة العلامات التجارية الأكثر تفضيلاً من مشروبات غازية، عصير فواكه، مياه معدنية وياوورت التي يقوم المستهلكون بشرائها معظم الأوقات.

أراؤكم مهمة في مساعدة المديرين والمسوقين لتحسين استراتيجيات التسويق، وتوفير أفضل خدمة لكم -كزبائن- في المستقبل، هذا البحث هو لغرض أكاديمي بحث، وكل الإجابات التي تقدمونها ستكون مجهولة المصدر، مشاركتكم في هذا البحث لن تأخذ من وقتكم أكثر من 10 دقائق، وتقديراً لمساهمتم في إنجاح هذه الدراسة سيتم تقديم هدية لكم بعد الانتهاء من الاستبانة.

شكراً لمساعدتكم.

مع خالص التقدير،

إعداد وتقديم:

شكري منيجل

طالب دكتوراة

قسم العلوم الاقتصادية

جامعة أبو بكر بلقايد - تلمسان

الجزائر

إشراف وتوجيه:

عبد الرزاق بن حبيب

بروفيسور

قسم العلوم الاقتصادية

جامعة أبو بكر بلقايد - تلمسان

الجزائر

قسم (أ)

نحن مهتمون بمعرفة تصوراتكم وتفضيلاتكم لأصناف المنتجات الآتية، ونرجو منكم تقديم المعلومات المطلوبة.

مشروبات غازية

1. ماهي كل العلامات التجارية التي تعرفونها؟

| | | | |
|---|---|---|---|
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |

2. ماهي العلامات التجارية التي لديها احتمالية كبيرة للشراء من طرفكم؟

| | | | |
|---|---|---|---|
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |

عصير فواكه

1. ماهي كل العلامات التجارية التي تعرفونها؟

| | | | |
|---|---|---|---|
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |

2. ماهي العلامات التجارية التي لديها احتمالية كبيرة للشراء من طرفكم؟

| | | | |
|---|---|---|---|
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |

مياه معدنية

1. ماهي كل العلامات التجارية التي تعرفونها؟

| | | | |
|---|---|---|---|
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |

2. ماهي العلامات التجارية التي لديها احتمالية كبيرة للشراء من طرفكم؟

| | | | |
|---|---|---|---|
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |

ياوورت

1. ماهي كل العلامات التجارية التي تعرفونها؟

| | | | |
|---|---|---|---|
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |

2. ماهي العلامات التجارية التي لديها احتمالية كبيرة للشراء من طرفكم؟

| | | | |
|---|---|---|---|
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |

قسم (ب)

يرجى وضع علامة (X) في المربع المناسب.

الجنس

- أنثى
 ذكر

الفئة العمرية

- 19 أو أقل
 29-20
 39-30
 49-40
 50 أو أكثر

الحالة العائلية

- أعزب/عزباء
 متزوج(ة)
 أخرى (من فضلكم حدّدوا): _____

المستوى التعليمي

- ابتدائي
 متوسط
 ثانوي
 جامعي
 أخرى (من فضلكم حدّدوا): _____

الدخل الشهري (دج)

- 18,000
 30,000-18,001
 40,000-30,001
 50,000-40,001
 50,001 أو أكثر

كمتوسط، ما هو عدد الكؤوس التي تشربونها في اليوم؟

| مياه معدنية | عصير فواكه | مشروبات غازية | |
|--------------------------|--------------------------|--------------------------|--------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1 كأس أو أقل |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | من 2 كأس إلى 1 لتر |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | أكثر من 1 لتر |

كمتوسط، ما هي كمية الياوورت التي تأكلونها في اليوم؟

- 1 علبة أو أقل
- من 2 علبة إلى 1 لتر
- أكثر من 1 لتر

Annexe A**Questionnaire sur les Perceptions et les Préférences du Consommateur vis-à-vis des
Marques de Produits Alimentaires sur le Marche Algérien**

Cher participant,

Nous menons une étude sur les perceptions et les préférences du consommateur à l'égard des marques de produits alimentaires. Le but de ce questionnaire est de nous aider à déterminer les marques préférées de boissons gazeuses, jus de fruits, eaux minérales et yaourts, que les consommateurs envisagent d'acheter la plupart du temps. Vos avis sont importants car ils peuvent aider les gestionnaires et les commerçants à améliorer les stratégies de commercialisation et de vous fournir, en tant que client, un meilleur service, à l'avenir. Cette recherche est menée à des fins purement académiques, et toutes vos réponses seront anonymes.

Votre participation à cette recherche ne devrait pas prendre plus de 10 minutes de votre temps. Nous vous remercions et vous informons qu'un cadeau sera offert à chaque participant à ce questionnaire.

Merci pour votre précieuse contribution.

Cordialement,

Choukri Menidjel

Doctorant

Département des Sciences Economiques

Université Abou Bekr Belkaid – Tlemcen

Algérie

Abderrezzak Benhabib

Professeur

Département des Sciences Economiques

Université Abou Bekr Belkaid – Tlemcen

Algérie

Section A

Nous nous intéressons à connaître votre perceptions et préférences pour les catégories de produits suivantes. Veuillez donner les informations qui vous sont demandées.

Boissons gazeuses

1. Veuillez donner la liste de toutes les marques dont vous êtes au courant.

| | | | |
|---|---|---|---|
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |

2. Veuillez donner la liste de toutes les marques ayant une forte probabilité d'être achetées.

| | | | |
|---|---|---|---|
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |

Jus de fruits

1. Veuillez donner la liste de toutes les marques dont vous êtes au courant.

| | | | |
|---|---|---|---|
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |

2. Veuillez donner la liste de toutes les marques ayant une forte probabilité d'être achetées.

| | | | |
|---|---|---|---|
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |

Eaux minérales

1. Veuillez donner la liste de toutes les marques dont vous êtes au courant.

| | | | |
|---|---|---|---|
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |

2. Veuillez donner la liste de toutes les marques ayant une forte probabilité d'être achetées.

| | | | |
|---|---|---|---|
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |

Yaourts

1. Veuillez donner la liste de toutes les marques dont vous êtes au courant.

| | | | |
|---|---|---|---|
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |

2. Veuillez donner la liste de toutes les marques ayant une forte probabilité d'être achetées.

| | | | |
|---|---|---|---|
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |

Section B

Prière de cocher (√) une des cases suivantes selon votre situation.

SexeFéminin Masculin **Groupe d'âge**19 ou moins 20-29 30-39 40-49 50 ou plus **Situation familiale**Célibataire Marié(e)

Autre précisez: _____

Education et formationPrimaire Moyen Secondaire Université

Autre précisez: _____

Revenu mensuel (DA)18,000 ou moins 18,001-30,000 30,001-40,000 40,001-50,000 50,001 ou plus

En moyenne, combien de verres buvez-vous par jour?

| | Boissons gazeuses | Jus de fruits | Eaux minérales |
|-----------------------|--------------------------|--------------------------|--------------------------|
| 1 verre ou moins | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Entre 2 verres et 1 L | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Plus de 1 L | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

En moyenne, combien de pots de yaourts mangez-vous par jour?

- 1 pot ou moins
Entre 2 pots et 1 L
Plus de 1 L

Appendix B

Number of Brands Mentioned in each Participant's Set

| Participant | Soft drinks | | Fruit juices | | Mineral water | | Yogurt | |
|-------------|-------------|-----|--------------|-----|---------------|-----|--------|-----|
| | Aw. | Ev. | Aw. | Ev. | Aw. | Ev. | Aw. | Ev. |
| 1 | 5 | 3 | 3 | 3 | 4 | 3 | 3 | 1 |
| 2 | 9 | 6 | 4 | 2 | 5 | 3 | 2 | 1 |
| 3 | 7 | 3 | 4 | 2 | 5 | 3 | 2 | 2 |
| 4 | 8 | 3 | 6 | 4 | 7 | 3 | 2 | 2 |
| 5 | 6 | 2 | 2 | 2 | 3 | 2 | 1 | 1 |
| 6 | 4 | 3 | 2 | 2 | 3 | 1 | 2 | 2 |
| 7 | 4 | 1 | 2 | 1 | 3 | 1 | 1 | 1 |
| 8 | 5 | 2 | 4 | 2 | 4 | 2 | 2 | 1 |
| 9 | 6 | 2 | 5 | 1 | 4 | 2 | 2 | 2 |
| 10 | 5 | 2 | 2 | 1 | 3 | 1 | 1 | 1 |
| 11 | 7 | 2 | 4 | 1 | 2 | 2 | 2 | 2 |
| 12 | 5 | 1 | 1 | 1 | 3 | 1 | 3 | 2 |
| 13 | 9 | 4 | 8 | 3 | 4 | 2 | 5 | 1 |
| 14 | 8 | 4 | 5 | 2 | 6 | 2 | 3 | 2 |
| 15 | 10 | 3 | 3 | 2 | 6 | 2 | 2 | 2 |
| 16 | 12 | 3 | 2 | 1 | 3 | 1 | 4 | 1 |
| 17 | 6 | 2 | 2 | 2 | 4 | 2 | 3 | 1 |
| 18 | 8 | 3 | 3 | 1 | 2 | 2 | 2 | 2 |
| 19 | 7 | 4 | 7 | 3 | 5 | 3 | 3 | 3 |
| 20 | 9 | 2 | 6 | 1 | 1 | 1 | 1 | 1 |
| 21 | 4 | 2 | 2 | 1 | 2 | 2 | 1 | 1 |
| 22 | 8 | 3 | 5 | 2 | 4 | 2 | 3 | 2 |
| 23 | 6 | 2 | 4 | 2 | 5 | 2 | 2 | 2 |
| 24 | 4 | 2 | 1 | 1 | 2 | 1 | 2 | 1 |
| 25 | 6 | 3 | 5 | 2 | 4 | 1 | 3 | 2 |
| 26 | 7 | 3 | 4 | 2 | 5 | 2 | 3 | 2 |
| 27 | 4 | 2 | 5 | 2 | 4 | 2 | 3 | 1 |
| 28 | 3 | 1 | 3 | 1 | 4 | 1 | 1 | 1 |
| 29 | 5 | 1 | 3 | 2 | 2 | 1 | 2 | 1 |
| 30 | 5 | 1 | 2 | 1 | 3 | 1 | 2 | 1 |
| 31 | 11 | 3 | 4 | 2 | 6 | 2 | 2 | 1 |
| 32 | 8 | 3 | 4 | 2 | 6 | 2 | 2 | 2 |
| 33 | 7 | 2 | 4 | 2 | 4 | 2 | 1 | 1 |
| 34 | 4 | 3 | 3 | 2 | 3 | 2 | 1 | 1 |
| 35 | 8 | 4 | 6 | 3 | 4 | 2 | 3 | 2 |
| 36 | 5 | 2 | 2 | 2 | 2 | 1 | 2 | 2 |
| 37 | 6 | 2 | 5 | 2 | 5 | 2 | 1 | 1 |
| 38 | 7 | 2 | 3 | 2 | 4 | 2 | 2 | 2 |
| 39 | 7 | 3 | 3 | 2 | 4 | 2 | 3 | 2 |
| 40 | 4 | 2 | 5 | 2 | 4 | 2 | 1 | 1 |
| 41 | 9 | 4 | 5 | 4 | 6 | 3 | 3 | 3 |
| 42 | 6 | 2 | 5 | 2 | 6 | 2 | 3 | 2 |
| 43 | 8 | 4 | 6 | 3 | 5 | 2 | 3 | 3 |
| 44 | 5 | 3 | 3 | 3 | 3 | 2 | 3 | 3 |
| 45 | 4 | 2 | 3 | 2 | 5 | 3 | 3 | 1 |
| 46 | 6 | 4 | 3 | 2 | 3 | 2 | 1 | 1 |
| 47 | 7 | 4 | 4 | 2 | 4 | 2 | 2 | 2 |

| | | | | | | | | |
|---------|------|------|-----|------|-----|------|------|-----|
| 48 | 8 | 2 | 3 | 2 | 5 | 2 | 2 | 2 |
| 49 | 4 | 4 | 3 | 2 | 4 | 3 | 2 | 2 |
| 50 | 12 | 4 | 7 | 6 | 5 | 2 | 1 | 1 |
| Total | 328 | 134 | 190 | 102 | 200 | 96 | 109 | 80 |
| Average | 6.56 | 2.68 | 3.8 | 2.04 | 4 | 1.92 | 2.18 | 1.6 |

Note: Aw.: Awareness set; Ev.: Evoked set.

Appendix C

Evoked Set

Table 1. Percentage of brands mentioned in each set.

| | Brand | Percentage (N = 50) | |
|----------------|----------------|---------------------|------------|
| | | Awareness set | Evoked set |
| Soft drinks | Coca-Cola | 98 | 58 |
| | Pepsi | 92 | 50 |
| | L'exquise | 76 | 42 |
| | Hamoud Boualem | 66 | 22 |
| | Mirinda | 62 | 34 |
| | Ifri | 48 | 18 |
| | Fanta | 46 | 10 |
| | 7 Up | 42 | 10 |
| | La source | 20 | 4 |
| | Sprite | 16 | 6 |
| | Chrea | 12 | 0 |
| | Mouzaia | 10 | 2 |
| | Ramy | 10 | 6 |
| | N'gaous | 8 | 2 |
| | Star Energie | 6 | 2 |
| | Abou Sofiane | 4 | 0 |
| | Bahdja | 4 | 0 |
| | Bouguerra | 4 | 0 |
| | Farha | 4 | 0 |
| | Orangina | 4 | 2 |
| | Red Bull | 4 | 0 |
| | Toudja | 4 | 0 |
| | Amane | 2 | 0 |
| | Mecca Cola | 2 | 0 |
| Nahla | 2 | 0 | |
| Rodeo | 2 | 0 | |
| Sarmouk | 2 | 0 | |
| Schweppes | 2 | 0 | |
| Fruit juices | Ramy | 78 | 66 |
| | Ifruit | 52 | 30 |
| | Rouiba | 38 | 18 |
| | N'gaous | 34 | 18 |
| | Vitajus | 34 | 14 |
| | Ifri | 28 | 16 |
| | Tchina | 26 | 14 |
| | Toudja | 14 | 4 |
| | Jufre | 10 | 6 |
| | Orangina | 10 | 2 |
| | Bonjos | 6 | 0 |
| | Danone | 6 | 6 |
| | Rani | 6 | 2 |
| | Star | 6 | 2 |
| | Frutty | 4 | 4 |
| | Jupiter | 4 | 2 |
| Hamoud Boualem | 4 | 0 | |

| | | | |
|---------------|----------------|----|----|
| | Labelle | 4 | 0 |
| | Amila | 2 | 0 |
| | Candia | 2 | 0 |
| | El Arabi | 2 | 0 |
| | Jutop | 2 | 0 |
| | Mitidja | 2 | 0 |
| | Rodeo | 2 | 0 |
| Mineral water | Mansourah | 86 | 74 |
| | Saida | 86 | 30 |
| | Ifri | 84 | 52 |
| | Lalla Khedidja | 36 | 4 |
| | Nestle | 36 | 22 |
| | Sfid | 28 | 4 |
| | Dhaya | 12 | 2 |
| | Mouzaia | 6 | 0 |
| | Sidi Ali | 6 | 0 |
| | Guedila | 4 | 2 |
| | Misserghine | 4 | 0 |
| | Ben Haroun | 2 | 0 |
| | Djurdjura | 2 | 0 |
| | Hayet | 2 | 0 |
| | Lejdar | 2 | 2 |
| | Salsabil | 2 | 0 |
| | Sidi El-Kebir | 2 | 0 |
| Yogurt | Soummam | 92 | 84 |
| | Danone | 74 | 58 |
| | Trefle | 16 | 10 |
| | Hodna | 10 | 6 |
| | Djurdjura | 8 | 0 |
| | Yoplait | 6 | 2 |
| | Ifruit | 4 | 0 |
| | Rio | 4 | 2 |
| | Dahra | 2 | 0 |
| | Nestle | 2 | 0 |

Table 2. Cross-tabulation results of evoked set with the quantity of fruit juices consumed per day.

| | Evoked set (N = 50) | | | |
|---------------------------|---------------------|-----------|-----------|-----------|
| | Ramy | Ifruit | Rouiba | N'gaous |
| | Count (%) | Count (%) | Count (%) | Count (%) |
| 1 glass or less | 8 (16) | 1 (2) | 2 (4) | 5 (10) |
| Between 2 glasses and 1 L | 24 (48) | 13 (26) | 7 (14) | 3 (6) |
| More than 1 L | 1 (2) | 1 (2) | 0 (0) | 1 (2) |
| Total | 33 (66) | 15 (30) | 9 (18) | 9 (18) |

Note: The remaining brands included in the evoked set are removed from Table 2.

Appendix D

Questionnaire

Dear participant,

This questionnaire is being conducted to provide data for a study of “*Trust issue relationship between the consumer and food brands: the moderating role of personality traits.*” The purpose of this research questionnaire is to know your attitudes and behavior related to trust and loyalty toward food brands. Your opinions will be important in helping managers and marketers to improve marketing strategies and provide you, as a customer, a better service in the future. This research is purely for academic purpose and all responses you provide will be anonymous.

Your participation in this research should take no longer than 15 minutes of your time. We appreciate your participation. A present will be offered to each participant after completing the questionnaire.

Thank you for your assistance.

Sincerely,

Prepared and Presented:

Choukri Menidjel

Ph.D. Candidate

Department of Economics

Abou Bekr Belkaid University of Tlemcen

Algeria

Supervision and Guidance:

Abderrezzak Benhabib

Professor

Department of Economics

Abou Bekr Belkaid University of Tlemcen

Algeria

Section A

Please read each statement carefully. Indicate the extent to which you either agree or disagree with the statement. For example, if you slightly disagree with a statement circle the number (-1). If you completely agree with a statement circle the number (+2), and so on.

Note: Please you should only make one response for each statement.

Soft drinks

Rank, in order of preference from 1 to 3, the following brands.

Coca-Cola Pepsi L'exquise

What is your level of satisfaction for the brand that you put the number 1 on?

(Please put an 'X' in the appropriate box)

Very Good Good Average Poor Very Poor

The answer on the following table will be about the brand that the number 1 was put on.

| | Strongly agree +2 | <input checked="" type="radio"/> +1 | 0 | -1 | Strongly disagree -2 |
|---|----------------------|-------------------------------------|---|----|-------------------------|
| Brand satisfaction | | | | | |
| I am pleased with this brand | +2 | +1 | 0 | -1 | -2 |
| I am happy with this brand | +2 | +1 | 0 | -1 | -2 |
| I am contented with this brand | +2 | +1 | 0 | -1 | -2 |
| Overall, I am satisfied with this brand | +2 | +1 | 0 | -1 | -2 |
| Brand trust | | | | | |
| I trust this brand | +2 | +1 | 0 | -1 | -2 |
| I rely on this brand | +2 | +1 | 0 | -1 | -2 |
| This is an honest brand | +2 | +1 | 0 | -1 | -2 |
| This brand is safe | +2 | +1 | 0 | -1 | -2 |
| Brand loyalty | | | | | |
| I am committed to this brand | +2 | +1 | 0 | -1 | -2 |

| | | | | | |
|---|----|----|---|----|----|
| I would be willing to pay a higher price for this brand over other brands | +2 | +1 | 0 | -1 | -2 |
| I will buy this brand the next time I buy soft drinks | +2 | +1 | 0 | -1 | -2 |
| I intend to keep purchasing this brand | +2 | +1 | 0 | -1 | -2 |
| <i>Consumer innovativeness</i> | | | | | |
| In general, I am among the first in my circle of friends to buy a new brand of soft drinks when it appears | +2 | +1 | 0 | -1 | -2 |
| If I heard that a new brand of soft drinks was available in the store, I would be interested enough to buy it | +2 | +1 | 0 | -1 | -2 |
| I will buy a new brand of soft drinks, even if I have not heard/tried it yet | +2 | +1 | 0 | -1 | -2 |
| In general, I am the first in my circle of friends to know the latest brands of soft drinks | +2 | +1 | 0 | -1 | -2 |
| I like to buy new brands of soft drinks before other people do | +2 | +1 | 0 | -1 | -2 |
| <i>Variety-seeking</i> | | | | | |
| I take advantage of the first available opportunity to find out about new and different brands of soft drinks | +2 | +1 | 0 | -1 | -2 |
| I like to go to places where I will be exposed to information about new brands of soft drinks | +2 | +1 | 0 | -1 | -2 |
| I am continually seeking new brands of soft drinks | +2 | +1 | 0 | -1 | -2 |
| When I go shopping, I find myself spending a lot of time checking out new brands of soft drinks | +2 | +1 | 0 | -1 | -2 |
| I seek out situations in which I will be exposed | +2 | +1 | 0 | -1 | -2 |

| | | | | | |
|---|----|----|---|----|----|
| to new and different sources of brand information of soft drinks | | | | | |
| I like magazines that introduce new brands of soft drinks | +2 | +1 | 0 | -1 | -2 |
| I frequently look for new brands of soft drinks | +2 | +1 | 0 | -1 | -2 |
| <i>Relationship proneness</i> | | | | | |
| Generally, I am someone who likes to be a regular customer of a brand | +2 | +1 | 0 | -1 | -2 |
| Generally, I am someone who wants to be a steady customer of the same brand | +2 | +1 | 0 | -1 | -2 |
| Generally, I am someone who is willing to make the extra mile to buy the same brand | +2 | +1 | 0 | -1 | -2 |

Fruit juices

Rank, in order of preference from 1 to 3, the following brands.

Ramy

Ifruit

Rouiba

What is your level of satisfaction for the brand that you put the number 1 on?

(Please put an 'X' in the appropriate box)

Very Good

Good

Average

Poor

Very Poor

The answer on the following table will be about the brand that the number 1 was put on.

| | | | | | |
|-----------------------------|----------------|----|---|----|-------------------|
| | Strongly agree | | | | Strongly disagree |
| | +2 | +1 | 0 | -1 | -2 |
| <i>Brand trust</i> | | | | | |
| I rely on this brand | +2 | +1 | 0 | -1 | -2 |
| This brand is safe | +2 | +1 | 0 | -1 | -2 |
| I trust this brand | +2 | +1 | 0 | -1 | -2 |
| This is an honest brand | +2 | +1 | 0 | -1 | -2 |
| <i>Brand loyalty</i> | | | | | |

| | | | | | |
|--|----|----|---|----|----|
| I would be willing to pay a higher price for this brand over other brands | +2 | +1 | 0 | -1 | -2 |
| I intend to keep purchasing this brand | +2 | +1 | 0 | -1 | -2 |
| I am committed to this brand | +2 | +1 | 0 | -1 | -2 |
| I will buy this brand the next time I buy fruit juices | +2 | +1 | 0 | -1 | -2 |
| <i>Brand satisfaction</i> | | | | | |
| I am happy with this brand | +2 | +1 | 0 | -1 | -2 |
| Overall, I am satisfied with this brand | +2 | +1 | 0 | -1 | -2 |
| I am pleased with this brand | +2 | +1 | 0 | -1 | -2 |
| I am contented with this brand | +2 | +1 | 0 | -1 | -2 |
| <i>Variety-seeking</i> | | | | | |
| I like to go to places where I will be exposed to information about new brands of fruit juices | +2 | +1 | 0 | -1 | -2 |
| When I go shopping, I find myself spending a lot of time checking out new brands of fruit juices | +2 | +1 | 0 | -1 | -2 |
| I frequently look for new brands of fruit juices | +2 | +1 | 0 | -1 | -2 |
| I take advantage of the first available opportunity to find out about new and different brands of fruit juices | +2 | +1 | 0 | -1 | -2 |
| I like magazines that introduce new brands of fruit juices | +2 | +1 | 0 | -1 | -2 |
| I am continually seeking new brands of fruit juices | +2 | +1 | 0 | -1 | -2 |
| I seek out situations in which I will be exposed to new and different sources of brand information of fruit juices | +2 | +1 | 0 | -1 | -2 |
| <i>Relationship proneness</i> | | | | | |
| Generally, I am someone who wants to be a | +2 | +1 | 0 | -1 | -2 |

| | | | | | |
|--|----|----|---|----|----|
| steady customer of the same brand | | | | | |
| Generally, I am someone who is willing to make the extra mile to buy the same brand | +2 | +1 | 0 | -1 | -2 |
| Generally, I am someone who likes to be a regular customer of a brand | +2 | +1 | 0 | -1 | -2 |
| <i>Consumer innovativeness</i> | | | | | |
| If I heard that a new brand of fruit juices was available in the store, I would be interested enough to buy it | +2 | +1 | 0 | -1 | -2 |
| In general, I am the first in my circle of friends to know the latest brands of fruit juices | +2 | +1 | 0 | -1 | -2 |
| I like to buy new brands of fruit juices before other people do | +2 | +1 | 0 | -1 | -2 |
| In general, I am among the first in my circle of friends to buy a new brand of fruit juices when it appears | +2 | +1 | 0 | -1 | -2 |
| I will buy a new brand of fruit juices, even if I have not heard/tried it yet | +2 | +1 | 0 | -1 | -2 |

Mineral water

Rank, in order of preference from 1 to 3, the following brands.

Mansourah

Ifri

Saida

What is your level of satisfaction for the brand that you put the number 1 on?

(Please put an 'X' in the appropriate box)

Very Good

Good

Average

Poor

Very Poor

The answer on the following table will be about the brand that the number 1 was put on.

| | | | | | |
|--|----------------|----|---|----|-------------------|
| | Strongly agree | | | | Strongly disagree |
| | +2 | +1 | 0 | -1 | -2 |

| | | | | | |
|--|----|----|---|----|----|
| <i>Brand loyalty</i> | | | | | |
| I will buy this brand the next time I buy mineral water | +2 | +1 | 0 | -1 | -2 |
| I am committed to this brand | +2 | +1 | 0 | -1 | -2 |
| I intend to keep purchasing this brand | +2 | +1 | 0 | -1 | -2 |
| I would be willing to pay a higher price for this brand over other brands | +2 | +1 | 0 | -1 | -2 |
| <i>Relationship proneness</i> | | | | | |
| Generally, I am someone who is willing to make the extra mile to buy the same brand | +2 | +1 | 0 | -1 | -2 |
| Generally, I am someone who likes to be a regular customer of a brand | +2 | +1 | 0 | -1 | -2 |
| Generally, I am someone who wants to be a steady customer of the same brand | +2 | +1 | 0 | -1 | -2 |
| <i>Brand satisfaction</i> | | | | | |
| I am contented with this brand | +2 | +1 | 0 | -1 | -2 |
| I am pleased with this brand | +2 | +1 | 0 | -1 | -2 |
| Overall, I am satisfied with this brand | +2 | +1 | 0 | -1 | -2 |
| I am happy with this brand | +2 | +1 | 0 | -1 | -2 |
| <i>Consumer innovativeness</i> | | | | | |
| In general, I am the first in my circle of friends to know the latest brands of mineral water | +2 | +1 | 0 | -1 | -2 |
| I like to buy new brands of mineral water before other people do | +2 | +1 | 0 | -1 | -2 |
| I will buy a new brand of mineral water, even if I have not heard/tried it yet | +2 | +1 | 0 | -1 | -2 |
| In general, I am among the first in my circle of friends to buy a new brand of mineral water when it appears | +2 | +1 | 0 | -1 | -2 |
| If I heard that a new brand of mineral water | +2 | +1 | 0 | -1 | -2 |

| | | | | | |
|---|----|----|---|----|----|
| was available in the store, I would be interested enough to buy it | | | | | |
| <i>Brand trust</i> | | | | | |
| This is an honest brand | +2 | +1 | 0 | -1 | -2 |
| I trust this brand | +2 | +1 | 0 | -1 | -2 |
| This brand is safe | +2 | +1 | 0 | -1 | -2 |
| I rely on this brand | +2 | +1 | 0 | -1 | -2 |
| <i>Variety-seeking</i> | | | | | |
| I seek out situations in which I will be exposed to new and different sources of brand information of mineral water | +2 | +1 | 0 | -1 | -2 |
| I frequently look for new brands of mineral water | +2 | +1 | 0 | -1 | -2 |
| When I go shopping, I find myself spending a lot of time checking out new brands of mineral water | +2 | +1 | 0 | -1 | -2 |
| I like magazines that introduce new brands of mineral water | +2 | +1 | 0 | -1 | -2 |
| I take advantage of the first available opportunity to find out about new and different brands of mineral water | +2 | +1 | 0 | -1 | -2 |
| I am continually seeking new brands of mineral water | +2 | +1 | 0 | -1 | -2 |
| I like to go to places where I will be exposed to information about new brands of mineral water | +2 | +1 | 0 | -1 | -2 |

Yogurt

Rank, in order of preference from 1 to 3, the following brands.

 Soummam

 Danone

 Trefle

What is your level of satisfaction for the brand that you put the number 1 on?

(Please put an 'X' in the appropriate box)

Very Good

Good

Average

Poor

Very Poor

The answer on the following table will be about the brand that the number 1 was put on.

| | Strongly agree +2 | +1 | 0 | -1 | Strongly disagree -2 |
|--|-------------------------|----|---|----|----------------------------|
| <i>Relationship proneness</i> | | | | | |
| Generally, I am someone who is willing to make the extra mile to buy the same brand | +2 | +1 | 0 | -1 | -2 |
| Generally, I am someone who wants to be a steady customer of the same brand | +2 | +1 | 0 | -1 | -2 |
| Generally, I am someone who likes to be a regular customer of a brand | +2 | +1 | 0 | -1 | -2 |
| <i>Variety-seeking</i> | | | | | |
| I frequently look for new brands of yogurt | +2 | +1 | 0 | -1 | -2 |
| I like magazines that introduce new brands of yogurt | +2 | +1 | 0 | -1 | -2 |
| I seek out situations in which I will be exposed to new and different sources of brand information of yogurt | +2 | +1 | 0 | -1 | -2 |
| When I go shopping, I find myself spending a lot of time checking out new brands of yogurt | +2 | +1 | 0 | -1 | -2 |
| I am continually seeking new brands of yogurt | +2 | +1 | 0 | -1 | -2 |
| I like to go to places where I will be exposed to information about new brands of yogurt | +2 | +1 | 0 | -1 | -2 |

| | | | | | |
|--|----|----|---|----|----|
| I take advantage of the first available opportunity to find out about new and different brands of yogurt | +2 | +1 | 0 | -1 | -2 |
| Consumer innovativeness | | | | | |
| I like to buy new brands of yogurt before other people do | +2 | +1 | 0 | -1 | -2 |
| In general, I am the first in my circle of friends to know the latest brands of yogurt | +2 | +1 | 0 | -1 | -2 |
| I will buy a new brand of yogurt, even if I have not heard/tried it yet | +2 | +1 | 0 | -1 | -2 |
| If I heard that a new brand of yogurt was available in the store, I would be interested enough to buy it | +2 | +1 | 0 | -1 | -2 |
| In general, I am among the first in my circle of friends to buy a new brand of yogurt when it appears | +2 | +1 | 0 | -1 | -2 |
| Brand loyalty | | | | | |
| I intend to keep purchasing this brand | +2 | +1 | 0 | -1 | -2 |
| I will buy this brand the next time I buy yogurt | +2 | +1 | 0 | -1 | -2 |
| I would be willing to pay a higher price for this brand over other brands | +2 | +1 | 0 | -1 | -2 |
| I am committed to this brand | +2 | +1 | 0 | -1 | -2 |
| Brand trust | | | | | |
| This brand is safe | +2 | +1 | 0 | -1 | -2 |
| This is an honest brand | +2 | +1 | 0 | -1 | -2 |
| I rely on this brand | +2 | +1 | 0 | -1 | -2 |
| I trust this brand | +2 | +1 | 0 | -1 | -2 |
| Brand satisfaction | | | | | |
| Overall, I am satisfied with this brand | +2 | +1 | 0 | -1 | -2 |
| I am contented with this brand | +2 | +1 | 0 | -1 | -2 |

| | | | | | |
|------------------------------|----|----|---|----|----|
| I am happy with this brand | +2 | +1 | 0 | -1 | -2 |
| I am pleased with this brand | +2 | +1 | 0 | -1 | -2 |

Section B

Please put an 'X' in the following boxes according to your situation.

GenderFemale Male **Age group**15-25 26-35 36-45 46-55 56-65 66 or above **Marital status**Single Married

Other (please precise): _____

EducationPrimary Middle Secondary University

Other (please precise): _____

Monthly individual income (DA)18,000 or below 18,001-30,000 30,001-40,000 40,001-50,000 50,001-60,000 60,001 or above **Residence**

City: _____

District: _____

ProfessionFarmer Craftsman, trader and entrepreneur Executive

Middle executive Employee Worker
Student Retired Without professional activity
Other (please precise): _____

On average, how many glasses/cups do you consume per day?

| | Soft drinks | Fruit juices | Mineral water | Yogurt |
|-----------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1 glass/cup or less | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Between 2 glasses/cups and 1 L | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| More than 1 L | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

ملحق (د)

استبانة

عزيزي المشارك،

هذه استبانة بحثية أجريت لتزويد بيانات لدراسة بعنوان "إشكالية الثقة في علاقة المستهلك مع علامات المنتجات الغذائية: الدور المُعَيَّل لشخصية المستهلك"، والغرض من هذه الاستبانة هو معرفة مواقفكم وسلوكياتكم المتعلقة بالثقة والولاء تجاه علامات المنتجات الغذائية.

أراؤكم مهمة في مساعدة المديرين والمسوقين لتحسين استراتيجيات التسويق، وتوفير أفضل خدمة لكم -كزبائن- في المستقبل، هذا البحث هو لغرض أكاديمي بحت، وكل الإجابات التي تقدمونها ستكون مجهولة المصدر، مشاركتكم في هذا البحث لن تأخذ من وقتكم أكثر من 15 دقيقة، وتقديراً لمساهمتم في إنجاح هذه الدراسة سيتم تقديم هدية لكم بعد الانتهاء من الاستبانة.

شكراً لمساعدتكم.

مع خالص التقدير،

إعداد وتقديم:

شكري منيجل

طالب دكتوراة

قسم العلوم الاقتصادية

جامعة أبو بكر بلقايد - تلمسان

الجزائر

إشراف وتوجيه:

عبد الرزاق بن حبيب

بروفيسور

قسم العلوم الاقتصادية

جامعة أبو بكر بلقايد - تلمسان

الجزائر

قسم (أ)

يرجى قراءة كل عبارة بعناية، أشيروا إلى مدى موافقتكم أو مخالفتكم للعبارة المبينة في الجدول أدناه من خلال وضع دائرة على الرقم المناسب، على سبيل المثال، إذا كنتم تختلفون قليلاً مع عبارة معينة ضعوا دائرة على الرقم (-1)، وإذا كنتم تتفقون تماماً مع عبارة معينة ضعوا دائرة على الرقم (+2)، وهكذا دوليك.

ملاحظة: يرجى وضع إجابة واحدة فقط لكل عبارة.

مشروبات غازية

رتبوا علامات المشروبات الغازية التالية حسب تفضيلاتكم لها (1، 2، 3).

كوكاكولا — بيبسي — لكسكيز

ما هو مستوى رضاكم على العلامة التجارية التي وضعت عليها الرقم 1؟
(يرجى وضع علامة "X" في المربع المناسب)

جيد جداً جيد متوسط ضعيف ضعيف جداً

الإجابة على الجدول التالي تكون حول العلامة التجارية التي وُضِعَ عليها الرقم 1.

| لا أوافق بشدة -2 | -1 | 0 | (+1) | أوافق بشدة +2 | |
|---------------------|----|---|------|------------------|--|
| | | | | | الرضا عن العلامة التجارية |
| -2 | -1 | 0 | +1 | +2 | أنا مسرور مع هذه العلامة التجارية |
| -2 | -1 | 0 | +1 | +2 | أنا سعيد مع هذه العلامة التجارية |
| -2 | -1 | 0 | +1 | +2 | أنا مقتنع بهذه العلامة التجارية |
| -2 | -1 | 0 | +1 | +2 | عموماً، أنا راضٍ عن هذه العلامة التجارية |
| | | | | | الثقة في العلامة التجارية |
| -2 | -1 | 0 | +1 | +2 | أنا أثق في هذه العلامة التجارية |
| -2 | -1 | 0 | +1 | +2 | أنا أعتد على هذه العلامة التجارية |
| -2 | -1 | 0 | +1 | +2 | هذه علامة تجارية صادقة |
| -2 | -1 | 0 | +1 | +2 | هذه العلامة التجارية آمنة |
| | | | | | الولاء للعلامة التجارية |

| | | | | | |
|---|----|---|----|----|--|
| -2 | -1 | 0 | +1 | +2 | أنا مُلتزِمٌ مع هذه العلامة التجارية |
| -2 | -1 | 0 | +1 | +2 | أنا مستعد لدفع سعر أعلى لهذه العلامة على العلامات التجارية الأخرى |
| -2 | -1 | 0 | +1 | +2 | سأشتري هذه العلامة التجارية في المرة القادمة |
| -2 | -1 | 0 | +1 | +2 | أنوي الاستمرار في شراء هذه العلامة التجارية |
| <i>البحث عن الجديد</i> | | | | | |
| -2 | -1 | 0 | +1 | +2 | عموماً، أنا الأول بين أصدقائي في شراء علامة تجارية جديدة من المشروبات الغازية عند ظهورها |
| -2 | -1 | 0 | +1 | +2 | إذا سمعتُ أن علامةً تجارية جديدة من المشروبات الغازية متوفرة في المتجر، سأكون مهتماً بشراؤها |
| -2 | -1 | 0 | +1 | +2 | سوف أشتري علامةً تجارية جديدة من المشروبات الغازية، حتى إذا لم أسمع عنها بعد |
| -2 | -1 | 0 | +1 | +2 | عموماً، أنا الأول بين أصدقائي في معرفة العلامات التجارية الجديدة من المشروبات الغازية |
| -2 | -1 | 0 | +1 | +2 | أنا أحب أن أشتري علامات تجارية جديدة من المشروبات الغازية قبل الآخرين |
| <i>البحث عن التنوع</i> | | | | | |
| -2 | -1 | 0 | +1 | +2 | أنا أستغل أول فرصة تتاح لي لمعرفة علامات تجارية جديدة ومتنوعة من المشروبات الغازية |
| -2 | -1 | 0 | +1 | +2 | أنا أحب أن أذهب إلى الأماكن التي أجد فيها معلومات حول علامات تجارية جديدة من المشروبات الغازية |
| -2 | -1 | 0 | +1 | +2 | أنا أبحث باستمرار عن علامات تجارية جديدة من المشروبات الغازية |
| -2 | -1 | 0 | +1 | +2 | عندما أذهب للتسوق، أجد نفسي أقضي الكثير من الوقت في فحص علامات تجارية جديدة من المشروبات الغازية |
| -2 | -1 | 0 | +1 | +2 | أنا أبحث عن الحالات التي تُعرضُ لي علامات تجارية جديدة ومتنوعة من المشروبات الغازية |
| -2 | -1 | 0 | +1 | +2 | أنا أحب المجالات التي تُعرضُ علامات تجارية جديدة من المشروبات الغازية |
| -2 | -1 | 0 | +1 | +2 | أنا أبحث كثيراً عن علامات تجارية جديدة من المشروبات الغازية |
| <i>الميلول لشراء نفس العلامة التجارية</i> | | | | | |
| -2 | -1 | 0 | +1 | +2 | عموماً، أنا أحب أن أكون زبوناً منتظماً لعلامة تجارية |

| | | | | | |
|----|----|---|----|----|--|
| -2 | -1 | 0 | +1 | +2 | عموماً، أنا أريد أن أكون زبوناً ثابتاً لنفس العلامة التجارية |
| -2 | -1 | 0 | +1 | +2 | عموماً، أنا مستعد للذهاب بعيداً لشراء نفس العلامة التجارية |

عصير فواكه

رتبوا علامات عصير الفواكه التالية حسب تفضيلاتكم لها (1، 2، 3).

روبية — إفروي — رامي

ما هو مستوى رضاكم على العلامة التجارية التي وضعتُم عليها الرقم 1؟
(يرجى وضع علامة "X" في المربع المناسب)

جيد جداً جيد متوسط ضعيف ضعيف جداً

الإجابة على الجدول التالي تكون حول العلامة التجارية التي وُضِعَ عليها الرقم 1.

| لا أوافق بشدة -2 | -1 | 0 | +1 | أوافق بشدة +2 | |
|---------------------|----|---|----|------------------|---|
| | | | | | الثقة في العلامة التجارية |
| -2 | -1 | 0 | +1 | +2 | أنا أعتمد على هذه العلامة التجارية |
| -2 | -1 | 0 | +1 | +2 | هذه العلامة التجارية آمنة |
| -2 | -1 | 0 | +1 | +2 | أنا أثق في هذه العلامة التجارية |
| -2 | -1 | 0 | +1 | +2 | هذه علامة تجارية صادقة |
| | | | | | الولاء للعلامة التجارية |
| -2 | -1 | 0 | +1 | +2 | أنا مستعد لدفع سعر أعلى لهذه العلامة على العلامات التجارية الأخرى |
| -2 | -1 | 0 | +1 | +2 | أنوي الاستمرار في شراء هذه العلامة التجارية |
| -2 | -1 | 0 | +1 | +2 | أنا مُلتزمٌ مع هذه العلامة التجارية |
| -2 | -1 | 0 | +1 | +2 | سأشتري هذه العلامة التجارية في المرة القادمة |
| | | | | | الرضا عن العلامة التجارية |
| -2 | -1 | 0 | +1 | +2 | أنا سعيد مع هذه العلامة التجارية |
| -2 | -1 | 0 | +1 | +2 | عموماً، أنا راضي عن هذه العلامة التجارية |

| | | | | | |
|---|----|---|----|----|---|
| -2 | -1 | 0 | +1 | +2 | أنا مسرور مع هذه العلامة التجارية |
| -2 | -1 | 0 | +1 | +2 | أنا مقتنع بهذه العلامة التجارية |
| <i>البحث عن التنوع</i> | | | | | |
| -2 | -1 | 0 | +1 | +2 | أنا أحب أن أذهب إلى الأماكن التي أجد فيها معلومات حول علامات تجارية جديدة من عصير الفواكه |
| -2 | -1 | 0 | +1 | +2 | عندما أذهب للتسوق، أجد نفسي أقضي الكثير من الوقت في فحص علامات تجارية جديدة من عصير الفواكه |
| -2 | -1 | 0 | +1 | +2 | أنا أبحث كثيراً عن علامات تجارية جديدة من عصير الفواكه |
| -2 | -1 | 0 | +1 | +2 | أنا أستغل أول فرصة تتاح لي لمعرفة علامات تجارية جديدة ومتنوعة من عصير الفواكه |
| -2 | -1 | 0 | +1 | +2 | أنا أحب المجالات التي تعرض علامات تجارية جديدة من عصير الفواكه |
| -2 | -1 | 0 | +1 | +2 | أنا أبحث باستمرار عن علامات تجارية جديدة من عصير الفواكه |
| -2 | -1 | 0 | +1 | +2 | أنا أبحث عن الحالات التي تعرض لي علامات تجارية جديدة ومتنوعة من عصير الفواكه |
| <i>الميلول لشراء نفس العلامة التجارية</i> | | | | | |
| -2 | -1 | 0 | +1 | +2 | عموماً، أنا أريد أن أكون زبوناً ثابتاً لنفس العلامة التجارية |
| -2 | -1 | 0 | +1 | +2 | عموماً، أنا مستعد للذهاب بعيداً لشراء نفس العلامة التجارية |
| -2 | -1 | 0 | +1 | +2 | عموماً، أنا أحب أن أكون زبوناً منتظماً لعلامة تجارية |
| <i>البحث عن الجديد</i> | | | | | |
| -2 | -1 | 0 | +1 | +2 | إذا سمعتُ أن علامة تجارية جديدة من عصير الفواكه متوفرة في المتجر، سأكون مهتماً بشراءها |
| -2 | -1 | 0 | +1 | +2 | عموماً، أنا الأول بين أصدقائي في معرفة العلامات التجارية الجديدة من عصير الفواكه |
| -2 | -1 | 0 | +1 | +2 | أنا أحب أن أشتري علامات تجارية جديدة من عصير الفواكه قبل الآخرين |
| -2 | -1 | 0 | +1 | +2 | عموماً، أنا الأول بين أصدقائي في شراء علامة تجارية جديدة من عصير الفواكه عند ظهورها |
| -2 | -1 | 0 | +1 | +2 | سوف أشتري علامة تجارية جديدة من عصير الفواكه، حتى إذا لم أسمع عنها بعد |

مياه معدنية

رتبوا علامات المياه المعدنية التالية حسب تفضيلاتكم لها (1، 2، 3).

منصورة — إفري — سعيدة

ما هو مستوى رضاكم على العلامة التجارية التي وضعتتم عليها الرقم 1؟
(يرجى وضع علامة "X" في المربع المناسب)

جيد جداً جيد متوسط ضعيف ضعيف جداً

الإجابة على الجدول التالي تكون حول العلامة التجارية التي وُضِعَ عليها الرقم 1.

| لا أوافق بشدة -2 | -1 | 0 | +1 | أوافق بشدة +2 | |
|---------------------|----|---|----|------------------|---|
| | | | | | الولاء للعلامة التجارية |
| -2 | -1 | 0 | +1 | +2 | سأشتري هذه العلامة التجارية في المرة القادمة |
| -2 | -1 | 0 | +1 | +2 | أنا ملتزم مع هذه العلامة التجارية |
| -2 | -1 | 0 | +1 | +2 | أنوي الاستمرار في شراء هذه العلامة التجارية |
| -2 | -1 | 0 | +1 | +2 | أنا مستعد لدفع سعر أعلى لهذه العلامة على العلامات التجارية الأخرى |
| | | | | | الميلول لشراء نفس العلامة التجارية |
| -2 | -1 | 0 | +1 | +2 | عموماً، أنا مستعد للذهاب بعيداً لشراء نفس العلامة التجارية |
| -2 | -1 | 0 | +1 | +2 | عموماً، أنا أحب أن أكون زبوناً منتظماً لعلامة تجارية |
| -2 | -1 | 0 | +1 | +2 | عموماً، أنا أريد أن أكون زبوناً ثابتاً لنفس العلامة التجارية |
| | | | | | الرضا عن العلامة التجارية |
| -2 | -1 | 0 | +1 | +2 | أنا مقتنع بهذه العلامة التجارية |
| -2 | -1 | 0 | +1 | +2 | أنا مسرور مع هذه العلامة التجارية |
| -2 | -1 | 0 | +1 | +2 | عموماً، أنا راضٍ عن هذه العلامة التجارية |
| -2 | -1 | 0 | +1 | +2 | أنا سعيد مع هذه العلامة التجارية |
| | | | | | البحث عن الجديد |
| -2 | -1 | 0 | +1 | +2 | عموماً، أنا الأول بين أصدقائي في معرفة العلامات التجارية |

| | | | | | |
|----|----|---|----|----|--|
| | | | | | الجديدة من المياه المعدنية |
| -2 | -1 | 0 | +1 | +2 | أنا أحب أن أشتري علامات تجارية جديدة من المياه المعدنية قبل الآخرين |
| -2 | -1 | 0 | +1 | +2 | سوف أشتري علامة تجارية جديدة من المياه المعدنية، حتى إذا لم أسمع عنها بعد |
| -2 | -1 | 0 | +1 | +2 | عموماً، أنا الأول بين أصدقائي في شراء علامة تجارية جديدة من المياه المعدنية عند ظهورها |
| -2 | -1 | 0 | +1 | +2 | إذا سمعتُ أن علامة تجارية جديدة من المياه المعدنية متوفرة في المتجر، سأكون مهتماً بشراءها |
| | | | | | <i>الثقة في العلامة التجارية</i> |
| -2 | -1 | 0 | +1 | +2 | هذه علامة تجارية صادقة |
| -2 | -1 | 0 | +1 | +2 | أنا أثق في هذه العلامة التجارية |
| -2 | -1 | 0 | +1 | +2 | هذه العلامة التجارية آمنة |
| -2 | -1 | 0 | +1 | +2 | أنا أعتمد على هذه العلامة التجارية |
| | | | | | <i>البحث عن التنوع</i> |
| -2 | -1 | 0 | +1 | +2 | أنا أبحث عن الحالات التي تُعرضُ لي علامات تجارية جديدة ومتنوعة من المياه المعدنية |
| -2 | -1 | 0 | +1 | +2 | أنا أبحث كثيراً عن علامات تجارية جديدة من المياه المعدنية |
| -2 | -1 | 0 | +1 | +2 | عندما أذهب للتسوق، أجد نفسي أقضي الكثير من الوقت في فحص علامات تجارية جديدة من المياه المعدنية |
| -2 | -1 | 0 | +1 | +2 | أنا أحب المجالات التي تُعرضُ علامات تجارية جديدة من المياه المعدنية |
| -2 | -1 | 0 | +1 | +2 | أنا أستغل أول فرصة تتاح لي لمعرفة علامات تجارية جديدة ومتنوعة من المياه المعدنية |
| -2 | -1 | 0 | +1 | +2 | أنا أبحث باستمرار عن علامات تجارية جديدة من المياه المعدنية |
| -2 | -1 | 0 | +1 | +2 | أنا أحب أن أذهب إلى الأماكن التي أجد فيها معلومات حول علامات تجارية جديدة من المياه المعدنية |

ياوورت

رتبوا علامات الياوورت التالية حسب تفضيلاتكم لها (1، 2، 3).

صومام — دانون — ترافل

ما هو مستوى رضاكم على العلامة التجارية التي وضعتم عليها الرقم 1؟
(يرجى وضع علامة "X" في المربع المناسب)

جيد جداً جيد متوسط ضعيف ضعيف جداً

الإجابة على الجدول التالي تكون حول العلامة التجارية التي وُضِعَ عليها الرقم 1.

| لا أوافق بشدة -2 | -1 | 0 | +1 | أوافق بشدة +2 | |
|---------------------|----|---|----|------------------|---|
| | | | | | الميلول لشراء نفس العلامة التجارية |
| -2 | -1 | 0 | +1 | +2 | عموماً، أنا مستعد للذهاب بعيداً لشراء نفس العلامة التجارية |
| -2 | -1 | 0 | +1 | +2 | عموماً، أنا أريد أن أكون زبوناً ثابتاً لنفس العلامة التجارية |
| -2 | -1 | 0 | +1 | +2 | عموماً، أنا أحب أن أكون زبوناً منتظماً لعلامة تجارية |
| | | | | | البحث عن التنوع |
| -2 | -1 | 0 | +1 | +2 | أنا أبحث كثيراً عن علامات تجارية جديدة من الياوورت |
| -2 | -1 | 0 | +1 | +2 | أنا أحب المجالات التي تُعرضُ علامات تجارية جديدة من الياوورت |
| -2 | -1 | 0 | +1 | +2 | أنا أبحث عن الحالات التي تُعرضُ لي علامات تجارية جديدة ومتنوعة من الياوورت |
| -2 | -1 | 0 | +1 | +2 | عندما أذهب للتسوق، أجد نفسي أقضي الكثير من الوقت في فحص علامات تجارية جديدة من الياوورت |
| -2 | -1 | 0 | +1 | +2 | أنا أبحث باستمرار عن علامات تجارية جديدة من الياوورت |
| -2 | -1 | 0 | +1 | +2 | أنا أحب أن أذهب إلى الأماكن التي أجد فيها معلومات حول علامات تجارية جديدة من الياوورت |
| -2 | -1 | 0 | +1 | +2 | أنا أستغل أول فرصة تتاح لي لمعرفة علامات تجارية جديدة ومتنوعة من الياوورت |
| | | | | | البحث عن الجديد |
| -2 | -1 | 0 | +1 | +2 | أنا أحب أن أشتري علامات تجارية جديدة من الياوورت قبل |

| | | | | | |
|----|----|---|----|----|--|
| | | | | | الأخرين |
| -2 | -1 | 0 | +1 | +2 | عموماً، أنا الأول بين أصدقائي في معرفة العلامات التجارية الجديدة من الياوورت |
| -2 | -1 | 0 | +1 | +2 | سوف أشتري علامة تجارية جديدة من الياوورت، حتى إذا لم أسمع عنها بعد |
| -2 | -1 | 0 | +1 | +2 | إذا سمعتُ أن علامة تجارية جديدة من الياوورت متوفرة في المتجر، سأكون مهتماً بشراءها |
| -2 | -1 | 0 | +1 | +2 | عموماً، أنا الأول بين أصدقائي في شراء علامة تجارية جديدة من الياوورت عند ظهورها |
| | | | | | <i>الولاء للعلامة التجارية</i> |
| -2 | -1 | 0 | +1 | +2 | أنوي الاستمرار في شراء هذه العلامة التجارية |
| -2 | -1 | 0 | +1 | +2 | سأشتري هذه العلامة التجارية في المرة القادمة |
| -2 | -1 | 0 | +1 | +2 | أنا مستعد لدفع سعر أعلى لهذه العلامة على العلامات التجارية الأخرى |
| -2 | -1 | 0 | +1 | +2 | أنا ملتزم مع هذه العلامة التجارية |
| | | | | | <i>الثقة في العلامة التجارية</i> |
| -2 | -1 | 0 | +1 | +2 | هذه العلامة التجارية آمنة |
| -2 | -1 | 0 | +1 | +2 | هذه علامة تجارية صادقة |
| -2 | -1 | 0 | +1 | +2 | أنا أعتمد على هذه العلامة التجارية |
| -2 | -1 | 0 | +1 | +2 | أنا أتق في هذه العلامة التجارية |
| | | | | | <i>الرضا عن العلامة التجارية</i> |
| -2 | -1 | 0 | +1 | +2 | عموماً، أنا راضٍ عن هذه العلامة التجارية |
| -2 | -1 | 0 | +1 | +2 | أنا مقتنع بهذه العلامة التجارية |
| -2 | -1 | 0 | +1 | +2 | أنا سعيد مع هذه العلامة التجارية |
| -2 | -1 | 0 | +1 | +2 | أنا مسرور مع هذه العلامة التجارية |

قسم (ب)

يرجى وضع علامة (X) في المربع المناسب.

الجنس

- أنثى
 ذكر

الفئة العمرية

- 25-15
 35-26
 45-36
 55-46
 65-56
 66 أو أكثر

الحالة العائلية

- أعزب/عزباء
 متزوج(ة)
 أخرى (من فضلكم حدّدوا): _____

المستوى التعليمي

- ابتدائي
 متوسط
 ثانوي
 جامعي
 أخرى (من فضلكم حدّدوا): _____

الدخل الشهري (دج)

- 18,000 أو أقل
 30,000-18,001
 40,000-30,001
 50,000-40,001
 60,000-50,001
 60,001 أو أكثر

مكان الإقامة _____ ولاية: _____ بلدية (من فضلكم حدّدوا): _____

المهنة

- مزارع حرفي، تاجر ورجل أعمال تنفيذي
 التنفيذي المتوسط موظف عامل
 طالب متقاعد بدون نشاط مهني
 أخرى (من فضلكم حدّدوا): _____

كم متوسط، ما هو عدد الكؤوس/العلب التي تتناولونها في اليوم؟

| ياوورت | مياه معدنية | عصير فواكه | مشروبات غازية | |
|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1 كأس/علبة أو أقل |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | من 2 كأس/علبة إلى 1 لتر |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | أكثر من 1 لتر |

Annexe D

Questionnaire

Cher participant,

Ce questionnaire consiste à fournir des données pour une étude sur *“La relation de confiance entre les consommateurs et les marques de produits alimentaires: le rôle modérateur des traits de personnalité.”* Le but de ce questionnaire de recherche est de connaître vos attitudes et comportements vis-à-vis de la confiance et la loyauté envers les marques de produits alimentaires. Vos avis sont importants car ils peuvent aider les gestionnaires et les commerçants à améliorer les stratégies de commercialisation et de vous fournir, en tant que client, un meilleur service, à l’avenir. Cette recherche est menée à des fins purement académiques, et toutes vos réponses seront anonymes.

Votre participation à cette recherche ne devrait pas prendre plus de 15 minutes de votre temps. Nous vous remercions et vous informons qu’un cadeau sera offert à chaque participant à ce questionnaire.

Merci pour votre précieuse contribution.

Cordialement,

Préparé et Présenté:

Choukri Menidjel

Doctorant

Département des Sciences Economiques

Université Abou Bekr Belkaid – Tlemcen

Algérie

Supervision et Orientation:

Abderrezzak Benhabib

Professeur

Département des Sciences Economiques

Université Abou Bekr Belkaid – Tlemcen

Algérie

Section A

Veillez lire chaque point attentivement et indiquez votre degré d'accord ou de désaccord avec le point en question. Par exemple, dans le cas d'un léger désaccord, veuillez cercler le nombre (-1). Si vous êtes totalement d'accord cercler le nombre (+2), et ainsi de suite.

Remarque: Sachez que vous ne devez donner qu'une seule réponse à chaque point.

Boissons gazeuses

Classer, par ordre de préférence de 1 à 3, les marques suivantes.

Coca-Cola Pepsi L'exquise

Quel est votre niveau de satisfaction pour la marque que vous avez mise en première position?

(Prière de cocher 'X' dans la case appropriée)

Très bon *Bon* *Moyen* *Faible* *Très faible*

La réponse sur le tableau suivant concerne la marque que vous avez mise en première position.

| | Tout à fait d'accord +2 | (+1) | 0 | -1 | Pas du tout d'accord -2 |
|--|----------------------------|-------------|---|----|----------------------------|
| <i>Satisfaction par la marque</i> | | | | | |
| Je suis ravi de cette marque | +2 | +1 | 0 | -1 | -2 |
| Je suis content de cette marque | +2 | +1 | 0 | -1 | -2 |
| Je suis comblé par cette marque | +2 | +1 | 0 | -1 | -2 |
| Dans l'ensemble, je suis satisfait de cette marque | +2 | +1 | 0 | -1 | -2 |
| <i>Confiance dans la marque</i> | | | | | |
| Je crois en cette marque | +2 | +1 | 0 | -1 | -2 |
| Je fais confiance à cette marque | +2 | +1 | 0 | -1 | -2 |
| C'est une marque honnête | +2 | +1 | 0 | -1 | -2 |

| | | | | | |
|---|----|----|---|----|----|
| C'est une marque sûre | +2 | +1 | 0 | -1 | -2 |
| <i>Fidélité à la marque</i> | | | | | |
| Je suis dévoué à cette marque | +2 | +1 | 0 | -1 | -2 |
| Je suis prêt à payer plus cher pour cette marque par rapport à d'autres | +2 | +1 | 0 | -1 | -2 |
| J'achèterai cette marque la prochaine fois | +2 | +1 | 0 | -1 | -2 |
| J'ai l'intention de continuer à acheter cette marque | +2 | +1 | 0 | -1 | -2 |
| <i>Innovation du consommateur</i> | | | | | |
| En général, je suis le premier parmi mes amis à acheter une nouvelle marque de boissons gazeuses dès qu'elle est mise sur le marché | +2 | +1 | 0 | -1 | -2 |
| Si j'apprends qu'une nouvelle marque de boissons gazeuses est disponible dans un magasin, je serais intéressé par l'acheter | +2 | +1 | 0 | -1 | -2 |
| J'achèterai une nouvelle marque de boissons gazeuses même si je n'en avais jamais entendu parler avant ou bien même si je ne l'avais jamais essayé auparavant | +2 | +1 | 0 | -1 | -2 |
| En général, je suis le premier parmi mes amis à connaître les nouvelles marques de boissons gazeuses | +2 | +1 | 0 | -1 | -2 |
| J'aime acheter de nouvelles marques de boissons gazeuses avant les autres | +2 | +1 | 0 | -1 | -2 |
| <i>Recherche de la variété</i> | | | | | |
| Je profite de la première occasion qui m'est offerte pour trouver de nouvelles marques de boissons gazeuses | +2 | +1 | 0 | -1 | -2 |
| J'aime aller dans des endroits où je peux être informé des nouvelles marques de boissons gazeuses | +2 | +1 | 0 | -1 | -2 |
| Je suis tout le temps en quête de nouvelles marques de boissons gazeuses | +2 | +1 | 0 | -1 | -2 |
| Quand je vais faire des courses, je passe beaucoup de temps à chercher des marques nouvelles de boissons gazeuses | +2 | +1 | 0 | -1 | -2 |
| Je cherche les situations qui m'exposent à des nouvelles marques de boissons gazeuses | +2 | +1 | 0 | -1 | -2 |

| | | | | | |
|--|----|----|---|----|----|
| J'aime les magazines qui présentent les nouvelles marques de boissons gazeuses | +2 | +1 | 0 | -1 | -2 |
| Je cherche souvent des nouvelles marques de boissons gazeuses | +2 | +1 | 0 | -1 | -2 |
| <i>Tendance à acheter la même marque</i> | | | | | |
| En général, j'aime être un client régulier d'une marque | +2 | +1 | 0 | -1 | -2 |
| En général, j'aime être un client assidu de la même marque | +2 | +1 | 0 | -1 | -2 |
| En général, je suis prêt à aller plus loin pour acheter la même marque | +2 | +1 | 0 | -1 | -2 |

Jus de fruits

Classer, par ordre de préférence de 1 à 3, les marques suivantes.

Ramy

Ifruit

Rouiba

Quel est votre niveau de satisfaction pour la marque que vous avez mise en première position?

(Prière de cocher 'X' dans la case appropriée)

Très bon

Bon

Moyen

Faible

Très faible

La réponse sur le tableau suivant concerne la marque que vous avez mise en première position.

| | | | | | |
|---|----------------------|----|---|----|----------------------|
| | Tout à fait d'accord | | | | Pas du tout d'accord |
| | +2 | +1 | 0 | -1 | -2 |
| <i>Confiance dans la marque</i> | | | | | |
| Je fais confiance à cette marque | +2 | +1 | 0 | -1 | -2 |
| C'est une marque sûre | +2 | +1 | 0 | -1 | -2 |
| Je crois en cette marque | +2 | +1 | 0 | -1 | -2 |
| C'est une marque honnête | +2 | +1 | 0 | -1 | -2 |
| <i>Fidélité à la marque</i> | | | | | |
| Je suis prêt à payer plus cher pour cette marque par rapport à d'autres | +2 | +1 | 0 | -1 | -2 |

| | | | | | |
|---|----|----|---|----|----|
| J'ai l'intention de continuer à acheter cette marque | +2 | +1 | 0 | -1 | -2 |
| Je suis dévoué à cette marque | +2 | +1 | 0 | -1 | -2 |
| J'achèterai cette marque la prochaine fois | +2 | +1 | 0 | -1 | -2 |
| <i>Satisfaction par la marque</i> | | | | | |
| Je suis content de cette marque | +2 | +1 | 0 | -1 | -2 |
| Dans l'ensemble, je suis satisfait de cette marque | +2 | +1 | 0 | -1 | -2 |
| Je suis ravi de cette marque | +2 | +1 | 0 | -1 | -2 |
| Je suis comblé par cette marque | +2 | +1 | 0 | -1 | -2 |
| <i>Recherche de la variété</i> | | | | | |
| J'aime aller dans des endroits où je peux être informé des nouvelles marques de jus de fruits | +2 | +1 | 0 | -1 | -2 |
| Quand je vais faire des courses, je passe beaucoup de temps à chercher des marques nouvelles de jus de fruits | +2 | +1 | 0 | -1 | -2 |
| Je cherche souvent des nouvelles marques de jus de fruits | +2 | +1 | 0 | -1 | -2 |
| Je profite de la première occasion qui m'est offerte pour trouver de nouvelles marques de jus de fruits | +2 | +1 | 0 | -1 | -2 |
| J'aime les magazines qui présentent les nouvelles marques de jus de fruits | +2 | +1 | 0 | -1 | -2 |
| Je suis tout le temps en quête de nouvelles marques de jus de fruits | +2 | +1 | 0 | -1 | -2 |
| Je cherche les situations qui m'exposent à des nouvelles marques de jus de fruits | +2 | +1 | 0 | -1 | -2 |
| <i>Tendance à acheter la même marque</i> | | | | | |
| En général, j'aime être un client assidu de la même marque | +2 | +1 | 0 | -1 | -2 |
| En général, je suis prêt à aller plus loin pour acheter la même marque | +2 | +1 | 0 | -1 | -2 |
| En général, j'aime être un client régulier d'une marque | +2 | +1 | 0 | -1 | -2 |
| <i>Innovation du consommateur</i> | | | | | |
| Si j'apprends qu'une nouvelle marque de jus de fruits est disponible dans un magasin, je serais | +2 | +1 | 0 | -1 | -2 |

| | | | | | |
|---|----|----|---|----|----|
| intéressé par l'acheter | | | | | |
| En général, je suis le premier parmi mes amis à connaître les nouvelles marques de jus de fruits | +2 | +1 | 0 | -1 | -2 |
| J'aime acheter de nouvelles marques de jus de fruits avant les autres | +2 | +1 | 0 | -1 | -2 |
| En général, je suis le premier parmi mes amis à acheter une nouvelle marque de jus de fruits dès qu'elle est mise sur le marché | +2 | +1 | 0 | -1 | -2 |
| J'achèterai une nouvelle marque de jus de fruits même si je n'en avais jamais entendu parler avant ou bien même si je ne l'avais jamais essayé auparavant | +2 | +1 | 0 | -1 | -2 |

Eaux minérales

Classer, par ordre de préférence de 1 à 3, les marques suivantes.

Mansourah

Ifri

Saïda

Quel est votre niveau de satisfaction pour la marque que vous avez mise en première position?

(Prière de cocher 'X' dans la case appropriée)

Très bon

Bon

Moyen

Faible

Très faible

La réponse sur le tableau suivant concerne la marque que vous avez mise en première position.

| | Tout à fait d'accord | | | | Pas du tout d'accord |
|---|----------------------|----|---|----|----------------------|
| | +2 | +1 | 0 | -1 | -2 |
| <i>Fidélité à la marque</i> | | | | | |
| J'achèterai cette marque la prochaine fois | +2 | +1 | 0 | -1 | -2 |
| Je suis dévoué à cette marque | +2 | +1 | 0 | -1 | -2 |
| J'ai l'intention de continuer à acheter cette marque | +2 | +1 | 0 | -1 | -2 |
| Je suis prêt à payer plus cher pour cette marque par rapport à d'autres | +2 | +1 | 0 | -1 | -2 |
| <i>Tendance à acheter la même marque</i> | | | | | |

| | | | | | |
|---|----|----|---|----|----|
| En général, je suis prêt à aller plus loin pour acheter la même marque | +2 | +1 | 0 | -1 | -2 |
| En général, j'aime être un client régulier d'une marque | +2 | +1 | 0 | -1 | -2 |
| En général, j'aime être un client assidu de la même marque | +2 | +1 | 0 | -1 | -2 |
| <i>Satisfaction par la marque</i> | | | | | |
| Je suis comblé par cette marque | +2 | +1 | 0 | -1 | -2 |
| Je suis ravi de cette marque | +2 | +1 | 0 | -1 | -2 |
| Dans l'ensemble, je suis satisfait de cette marque | +2 | +1 | 0 | -1 | -2 |
| Je suis content de cette marque | +2 | +1 | 0 | -1 | -2 |
| <i>Innovation du consommateur</i> | | | | | |
| En général, je suis le premier parmi mes amis à connaître les nouvelles marques d'eaux minérales | +2 | +1 | 0 | -1 | -2 |
| J'aime acheter de nouvelles marques d'eaux minérales avant les autres | +2 | +1 | 0 | -1 | -2 |
| J'achèterai une nouvelle marque d'eaux minérales même si je n'en avais jamais entendu parler avant ou bien même si je ne l'avais jamais essayé auparavant | +2 | +1 | 0 | -1 | -2 |
| En général, je suis le premier parmi mes amis à acheter une nouvelle marque d'eaux minérales dès qu'elle est mise sur le marché | +2 | +1 | 0 | -1 | -2 |
| Si j'apprends qu'une nouvelle marque d'eaux minérales est disponible dans un magasin, je serais intéressé par l'acheter | +2 | +1 | 0 | -1 | -2 |
| <i>Confiance dans la marque</i> | | | | | |
| C'est une marque honnête | +2 | +1 | 0 | -1 | -2 |
| Je crois en cette marque | +2 | +1 | 0 | -1 | -2 |
| C'est une marque sûre | +2 | +1 | 0 | -1 | -2 |
| Je fais confiance à cette marque | +2 | +1 | 0 | -1 | -2 |
| <i>Recherche de la variété</i> | | | | | |
| Je cherche les situations qui m'exposent à des nouvelles marques d'eaux minérales | +2 | +1 | 0 | -1 | -2 |

| | | | | | |
|---|----|----|---|----|----|
| Je cherche souvent des nouvelles marques d'eaux minérales | +2 | +1 | 0 | -1 | -2 |
| Quand je vais faire des courses, je passe beaucoup de temps à chercher des marques nouvelles d'eaux minérales | +2 | +1 | 0 | -1 | -2 |
| J'aime les magazines qui présentent les nouvelles marques d'eaux minérales | +2 | +1 | 0 | -1 | -2 |
| Je profite de la première occasion qui m'est offerte pour trouver de nouvelles marques d'eaux minérales | +2 | +1 | 0 | -1 | -2 |
| Je suis tout le temps en quête de nouvelles marques d'eaux minérales | +2 | +1 | 0 | -1 | -2 |
| J'aime aller dans des endroits où je peux être informé des nouvelles marques d'eaux minérales | +2 | +1 | 0 | -1 | -2 |

Yaourts

Classer, par ordre de préférence de 1 à 3, les marques suivantes.

Soummam Danone Trefle

Quel est votre niveau de satisfaction pour la marque que vous avez mise en première position?

(Prière de cocher 'X' dans la case appropriée)

Très bon *Bon* *Moyen* *Faible* *Très faible*

La réponse sur le tableau suivant concerne la marque que vous avez mise en première position.

| | Tout à fait d'accord +2 | +1 | 0 | -1 | Pas du tout d'accord -2 |
|--|----------------------------|----|---|----|----------------------------|
| <i>Tendance à acheter la même marque</i> | | | | | |
| En général, je suis prêt à aller plus loin pour acheter la même marque | +2 | +1 | 0 | -1 | -2 |
| En général, j'aime être un client assidu de la même marque | +2 | +1 | 0 | -1 | -2 |

| | | | | | |
|---|----|----|---|----|----|
| En général, j'aime être un client régulier d'une marque | +2 | +1 | 0 | -1 | -2 |
| Recherche de la variété | | | | | |
| Je cherche souvent des nouvelles marques de yaourts | +2 | +1 | 0 | -1 | -2 |
| J'aime les magazines qui présentent les nouvelles marques de yaourts | +2 | +1 | 0 | -1 | -2 |
| Je cherche les situations qui m'exposent à des nouvelles marques de yaourts | +2 | +1 | 0 | -1 | -2 |
| Quand je vais faire des courses, je passe beaucoup de temps à chercher des marques nouvelles de yaourts | +2 | +1 | 0 | -1 | -2 |
| Je suis tout le temps en quête de nouvelles marques de yaourts | +2 | +1 | 0 | -1 | -2 |
| J'aime aller dans des endroits où je peux être informé des nouvelles marques de yaourts | +2 | +1 | 0 | -1 | -2 |
| Je profite de la première occasion qui m'est offerte pour trouver de nouvelles marques de yaourts | +2 | +1 | 0 | -1 | -2 |
| Innovation du consommateur | | | | | |
| J'aime acheter de nouvelles marques de yaourts avant les autres | +2 | +1 | 0 | -1 | -2 |
| En général, je suis le premier parmi mes amis à connaître les nouvelles marques de yaourts | +2 | +1 | 0 | -1 | -2 |
| J'achèterai une nouvelle marque de yaourts même si je n'en avais jamais entendu parler avant ou bien même si je ne l'avais jamais essayé auparavant | +2 | +1 | 0 | -1 | -2 |
| Si j'apprends qu'une nouvelle marque de yaourts est disponible dans un magasin, je serais intéressé par l'acheter | +2 | +1 | 0 | -1 | -2 |
| En général, je suis le premier parmi mes amis à acheter une nouvelle marque de yaourts dès qu'elle est mise sur le marché | +2 | +1 | 0 | -1 | -2 |
| Fidélité à la marque | | | | | |
| J'ai l'intention de continuer à acheter cette marque | +2 | +1 | 0 | -1 | -2 |
| J'achèterai cette marque la prochaine fois | +2 | +1 | 0 | -1 | -2 |

| | | | | | |
|---|----|----|---|----|----|
| Je suis prêt à payer plus cher pour cette marque par rapport à d'autres | +2 | +1 | 0 | -1 | -2 |
| Je suis dévoué à cette marque | +2 | +1 | 0 | -1 | -2 |
| <i>Confiance dans la marque</i> | | | | | |
| C'est une marque sûre | +2 | +1 | 0 | -1 | -2 |
| C'est une marque honnête | +2 | +1 | 0 | -1 | -2 |
| Je fais confiance à cette marque | +2 | +1 | 0 | -1 | -2 |
| Je crois en cette marque | +2 | +1 | 0 | -1 | -2 |
| <i>Satisfaction par la marque</i> | | | | | |
| Dans l'ensemble, je suis satisfait de cette marque | +2 | +1 | 0 | -1 | -2 |
| Je suis comblé par cette marque | +2 | +1 | 0 | -1 | -2 |
| Je suis content de cette marque | +2 | +1 | 0 | -1 | -2 |
| Je suis ravi de cette marque | +2 | +1 | 0 | -1 | -2 |

Section B

Prière de cocher 'X' une des cases suivantes selon votre situation.

SexeFéminin Masculin **Groupe d'âge**15-25 26-35 36-45 46-55 56-65 66 ou plus **Situation familiale**Célibataire Marié(e)

Autre précisez: _____

Education et formationPrimaire Moyen Secondaire Université

Autre précisez: _____

Revenu mensuel (DA)18,000 ou moins 18,001-30,000 30,001-40,000 40,001-50,000 50,001-60,000 60,001 ou plus **Résidence**

Ville: _____

District: _____

ProfessionAgriculteur Artisan, commerçant(e) et chef d'entreprise

Cadre professionnel Cadre moyen Employé(e) Ouvrier(e)
Etudiant(e) Retraité(e) Sans activité professionnel
Autre précisez: _____

En moyenne, combien de verres/pots consommez-vous par jour?

| | Boissons gazeuses | Jus de fruits | Eaux minérales | Yaourts |
|----------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1 verre/pot ou moins | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Entre 2 verres/pots et 1 L | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Plus de 1 L | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Appendix E

Multi-Group Comparison Results

1. Soft drinks

Gender

Table E1. Path differences between female ($n_1 = 217$) and male ($n_2 = 226$) groups.

| Relationship | Path coefficient | | diff | p-value |
|--------------|----------------------|----------------------|-------|---------|
| | Female | Male | | |
| S → T | 0.663*** | 0.702*** | 0.039 | 0.544 |
| T → L | 0.444*** | 0.290*** | 0.154 | 0.127 |
| S → L | 0.147* | 0.331*** | 0.184 | 0.072 |
| CI x T → L | -0.010 ^{ns} | -0.028 ^{ns} | 0.018 | 0.841 |
| VS x T → L | -0.005 ^{ns} | -0.010 ^{ns} | 0.005 | 0.949 |
| RP x T → L | 0.016 ^{ns} | 0.159* | 0.143 | 0.163 |

Note 1: S: atisfaction; T: rust; L: oyalty; CI: Consumer Innovativeness; VS: Variety-Seeking; RP: Relationship Proneness.

Note 2: The column |diff| shows the absolute differences between groups.

*** $p < 0.001$.

* $p < 0.05$.

^{ns} not significant (based on $t(4999)$, two-tailed test).

Age

Table E2. Path differences between younger ($n_1 = 283$) and older consumer ($n_2 = 160$) groups.

| Relationship | Path coefficient | | diff | p-value |
|--------------|----------------------|----------------------|---------------|--------------|
| | Younger consumers | Older consumers | | |
| S → T | 0.636*** | 0.764*** | 0.128* | 0.043 |
| T → L | 0.288*** | 0.520*** | 0.231* | 0.026 |
| S → L | 0.249*** | 0.225** | 0.024 | 0.838 |
| CI x T → L | -0.039 ^{ns} | 0.023 ^{ns} | 0.063 | 0.494 |
| VS x T → L | -0.045 ^{ns} | -0.054 ^{ns} | 0.009 | 1.000 |
| RP x T → L | 0.185* | 0.101* | 0.085 | 0.309 |

Note 1: S: atisfaction; T: rust; L: oyalty; CI: Consumer Innovativeness; VS: Variety-Seeking; RP: Relationship Proneness.

Note 2: The column |diff| shows the absolute differences between groups.

*** $p < 0.001$.

** $p < 0.01$.

* $p < 0.05$.

^{ns} not significant (based on $t(4999)$, two-tailed test).

Marital status

Table E3. Path differences between married ($n_1 = 193$) and unmarried ($n_2 = 250$) groups.

| Relationship | Path coefficient | | diff | p-value |
|--------------|----------------------|----------------------|-------|---------|
| | Unmarried | Married | | |
| S → T | 0.653*** | 0.716*** | 0.063 | 0.319 |
| T → L | 0.282*** | 0.427*** | 0.145 | 0.149 |
| S → L | 0.240*** | 0.302*** | 0.061 | 0.575 |
| CI x T → L | 0.016 ^{ns} | -0.043 ^{ns} | 0.059 | 0.502 |
| VS x T → L | -0.042 ^{ns} | -0.007 ^{ns} | 0.035 | 0.649 |

| | | | | |
|------------|---------------------|---------------------|-------|-------|
| RP x T → L | 0.183 ^{ns} | 0.087 ^{ns} | 0.097 | 0.331 |
|------------|---------------------|---------------------|-------|-------|

Note 1: S: atisfaction; T: rust; L: oyalty; CI: Consumer Innovativeness; VS: Variety-Seeking; RP: Relationship Proneness.

Note 2: The column |diff| shows the absolute differences between groups.

*** $p < 0.001$.

^{ns} not significant (based on $t(4999)$, two-tailed test).

Education

Table E4. Path differences between university ($n_1 = 317$) and non-university ($n_2 = 126$) groups.

| Relationship | Path coefficient | | diff | p -value |
|--------------|----------------------|----------------------|-------|------------|
| | Non-university | University | | |
| S → T | 0.713*** | 0.666*** | 0.047 | 0.543 |
| T → L | 0.411*** | 0.328*** | 0.084 | 0.418 |
| S → L | 0.204* | 0.234*** | 0.029 | 0.821 |
| CI x T → L | 0.061 ^{ns} | -0.040 ^{ns} | 0.101 | 0.377 |
| VS x T → L | -0.133 ^{ns} | -0.004 ^{ns} | 0.129 | 0.454 |
| RP x T → L | 0.031 ^{ns} | 0.084 ^{ns} | 0.053 | 0.413 |

Note 1: S: atisfaction; T: rust; L: oyalty; CI: Consumer Innovativeness; VS: Variety-Seeking; RP: Relationship Proneness.

Note 2: The column |diff| shows the absolute differences between groups.

*** $p < 0.001$.

* $p < 0.05$.

^{ns} not significant (based on $t(4999)$, two-tailed test).

Income

Table E5. Path differences between lower ($n_1 = 269$) and higher income ($n_2 = 174$) groups.

| Relationship | Path coefficient | | diff | p -value |
|--------------|----------------------|----------------------|-------|------------|
| | Lower income | Higher income | | |
| S → T | 0.659*** | 0.740*** | 0.081 | 0.204 |
| T → L | 0.274*** | 0.439*** | 0.165 | 0.107 |
| S → L | 0.231*** | 0.298*** | 0.066 | 0.538 |
| CI x T → L | -0.116 ^{ns} | -0.012 ^{ns} | 0.104 | 0.286 |
| VS x T → L | 0.043 ^{ns} | -0.037 ^{ns} | 0.080 | 0.550 |
| RP x T → L | 0.123 ^{ns} | 0.166** | 0.043 | 0.881 |

Note 1: S: atisfaction; T: rust; L: oyalty; CI: Consumer Innovativeness; VS: Variety-Seeking; RP: Relationship Proneness.

Note 2: The column |diff| shows the absolute differences between groups.

*** $p < 0.001$.

** $p < 0.01$.

^{ns} not significant (based on $t(4999)$, two-tailed test).

Occupation

Table E6. Path differences between employed ($n_1 = 239$) and unemployed ($n_2 = 204$) groups.

| Relationship | Path coefficient | | diff | p -value |
|--------------|---------------------------|----------------------------|---------------|--------------|
| | Unemployed | Employed | | |
| S → T | 0.621*** | 0.733*** | 0.113 | 0.066 |
| T → L | 0.222** | 0.401*** | 0.179 | 0.074 |
| S → L | 0.211** | 0.371*** | 0.160 | 0.134 |
| CI x T → L | -0.127 ^{ns} | 0.008 ^{ns} | 0.135 | 0.120 |
| VS x T → L | 0.130^{ns} | -0.066^{ns} | 0.196* | 0.036 |
| RP x T → L | 0.191 ^{ns} | 0.149** | 0.041 | 0.782 |

Note 1: S: atisfaction; T: rust; L: oyalty; CI: Consumer Innovativeness; VS: Variety-Seeking; RP: Relationship Proneness.

Relationship Proneness.

Note 2: The column |diff| shows the absolute differences between groups.

*** $p < 0.001$.

** $p < 0.01$.

* $p < 0.05$.

^{ns} not significant (based on $t(4999)$, two-tailed test).

Light and heavy consumers**Table E7.** Path differences between light ($n_1 = 275$) and heavy consumer ($n_2 = 168$) groups.

| Relationship | Path coefficient | | diff | <i>p</i> -value |
|-------------------|---------------------------|----------------------------|---------------|-----------------|
| | Light consumers | Heavy consumers | | |
| S → T | 0.703*** | 0.621*** | 0.082 | 0.198 |
| T → L | 0.358*** | 0.340*** | 0.017 | 0.918 |
| S → L | 0.280*** | 0.138* | 0.142 | 0.203 |
| CI x T → L | -0.044 ^{ns} | -0.087 ^{ns} | 0.044 | 0.673 |
| VS x T → L | 0.033 ^{ns} | -0.033 ^{ns} | 0.065 | 0.689 |
| RP x T → L | 0.099^{ns} | -0.092^{ns} | 0.190* | 0.037 |

Note 1: S: atisfaction; T: rust; L: oyalty; CI: Consumer Innovativeness; VS: Variety-Seeking; RP: Relationship Proneness.

Note 2: The column |diff| shows the absolute differences between groups.

*** $p < 0.001$.

* $p < 0.05$.

^{ns} not significant (based on $t(4999)$, two-tailed test).

2. Fruit juices**Gender****Table E8.** Path differences between female ($n_1 = 217$) and male ($n_2 = 226$) groups.

| Relationship | Path coefficient | | diff | <i>p</i> -value |
|-------------------|---------------------|----------------------------|---------------|-----------------|
| | Female | Male | | |
| S → T | 0.605*** | 0.668*** | 0.064 | 0.410 |
| T → L | 0.277*** | 0.374*** | 0.097 | 0.362 |
| S → L | 0.393*** | 0.360*** | 0.034 | 0.722 |
| CI x T → L | 0.128* | -0.029^{ns} | 0.157* | 0.011 |
| VS x T → L | -0.130* | -0.100* | 0.030 | 0.669 |
| RP x T → L | 0.005 ^{ns} | 0.026 ^{ns} | 0.021 | 0.695 |

Note 1: S: atisfaction; T: rust; L: oyalty; CI: Consumer Innovativeness; VS: Variety-Seeking; RP: Relationship Proneness.

Note 2: The column |diff| shows the absolute differences between groups.

*** $p < 0.001$.

* $p < 0.05$.

^{ns} not significant (based on $t(4999)$, two-tailed test).

Age**Table E9.** Path differences between younger ($n_1 = 283$) and older consumer ($n_2 = 160$) groups.

| Relationship | Path coefficient | | diff | <i>p</i> -value |
|--------------|----------------------|----------------------|-------|-----------------|
| | Younger consumers | Older consumers | | |
| S → T | 0.640*** | 0.658*** | 0.018 | 0.850 |
| T → L | 0.299*** | 0.357*** | 0.059 | 0.587 |
| S → L | 0.348*** | 0.377*** | 0.029 | 0.745 |
| CI x T → L | 0.061 ^{ns} | -0.063 ^{ns} | 0.124 | 0.121 |
| VS x T → L | -0.080 ^{ns} | -0.136* | 0.056 | 0.474 |

| | | | | |
|------------|----------------------|---------------------|-------|-------|
| RP x T → L | -0.003 ^{ns} | 0.048 ^{ns} | 0.051 | 0.405 |
|------------|----------------------|---------------------|-------|-------|

Note 1: S: atisfaction; T: rust; L: oyalty; CI: Consumer Innovativeness; VS: Variety-Seeking; RP: Relationship Proneness.

Note 2: The column |diff| shows the absolute differences between groups.

*** $p < 0.001$.

* $p < 0.05$.

^{ns} not significant (based on $t(4999)$, two-tailed test).

Marital status

Table E10. Path differences between married ($n_1 = 193$) and unmarried ($n_2 = 250$) groups.

| Relationship | Path coefficient | | diff | p -value |
|--------------|----------------------|---------------------|-------|------------|
| | Unmarried | Married | | |
| S → T | 0.621*** | 0.683*** | 0.063 | 0.431 |
| T → L | 0.331*** | 0.300*** | 0.031 | 0.775 |
| S → L | 0.337*** | 0.420*** | 0.084 | 0.374 |
| CI x T → L | 0.009 ^{ns} | 0.003 ^{ns} | 0.006 | 0.979 |
| VS x T → L | -0.047 ^{ns} | -0.149** | 0.102 | 0.162 |
| RP x T → L | 0.012 ^{ns} | 0.041 ^{ns} | 0.029 | 0.602 |

Note 1: S: atisfaction; T: rust; L: oyalty; CI: Consumer Innovativeness; VS: Variety-Seeking; RP: Relationship Proneness.

Note 2: The column |diff| shows the absolute differences between groups.

*** $p < 0.001$.

** $p < 0.01$.

^{ns} not significant (based on $t(4999)$, two-tailed test).

Education

Table E11. Path differences between university ($n_1 = 317$) and non-university ($n_2 = 126$) groups.

| Relationship | Path coefficient | | diff | p -value |
|--------------|----------------------|----------------------|-------|------------|
| | Non-university | University | | |
| S → T | 0.698*** | 0.620*** | 0.078 | 0.390 |
| T → L | 0.389*** | 0.260*** | 0.129 | 0.273 |
| S → L | 0.283** | 0.410*** | 0.127 | 0.238 |
| CI x T → L | -0.025 ^{ns} | 0.021 ^{ns} | 0.046 | 0.739 |
| VS x T → L | -0.206* | -0.049 ^{ns} | 0.157 | 0.058 |
| RP x T → L | -0.044 ^{ns} | 0.026 ^{ns} | 0.070 | 0.290 |

Note 1: S: atisfaction; T: rust; L: oyalty; CI: Consumer Innovativeness; VS: Variety-Seeking; RP: Relationship Proneness.

Note 2: The column |diff| shows the absolute differences between groups.

*** $p < 0.001$.

** $p < 0.01$.

* $p < 0.05$.

^{ns} not significant (based on $t(4999)$, two-tailed test).

Income

Table E12. Path differences between lower ($n_1 = 269$) and higher income ($n_2 = 174$) groups.

| Relationship | Path coefficient | | diff | p -value |
|--------------|---------------------|----------------------|-------|------------|
| | Lower income | Higher income | | |
| S → T | 0.602*** | 0.700*** | 0.098 | 0.238 |
| T → L | 0.322*** | 0.266*** | 0.056 | 0.620 |
| S → L | 0.363*** | 0.437*** | 0.074 | 0.440 |
| CI x T → L | 0.070 ^{ns} | -0.044 ^{ns} | 0.114 | 0.124 |
| VS x T → L | -0.093* | -0.134** | 0.041 | 0.601 |

| | | | | |
|------------|---------------------|---------------------|-------|-------|
| RP x T → L | 0.006 ^{ns} | 0.008 ^{ns} | 0.002 | 0.990 |
|------------|---------------------|---------------------|-------|-------|

Note 1: S: satisfaction; T: trust; L: loyalty; CI: Consumer Innovativeness; VS: Variety-Seeking; RP: Relationship Proneness.

Note 2: The column |diff| shows the absolute differences between groups.

*** $p < 0.001$.

** $p < 0.01$.

* $p < 0.05$.

^{ns} not significant (based on $t(4999)$, two-tailed test).

Occupation

Table E13. Path differences between employed ($n_1 = 239$) and unemployed ($n_2 = 204$) groups.

| Relationship | Path coefficient | | diff | p-value |
|--------------|----------------------|----------------------|-------|---------|
| | Unemployed | Employed | | |
| S → T | 0.599*** | 0.693*** | 0.095 | 0.230 |
| T → L | 0.262** | 0.320*** | 0.058 | 0.636 |
| S → L | 0.378*** | 0.375*** | 0.003 | 0.961 |
| CI x T → L | 0.037 ^{ns} | 0.016 ^{ns} | 0.022 | 0.679 |
| VS x T → L | -0.079 ^{ns} | -0.145** | 0.065 | 0.367 |
| RP x T → L | 0.035 ^{ns} | -0.004 ^{ns} | 0.038 | 0.490 |

Note 1: S: satisfaction; T: trust; L: loyalty; CI: Consumer Innovativeness; VS: Variety-Seeking; RP: Relationship Proneness.

Note 2: The column |diff| shows the absolute differences between groups.

*** $p < 0.001$.

** $p < 0.01$.

^{ns} not significant (based on $t(4999)$, two-tailed test).

Light and heavy consumers

Table E14. Path differences between light ($n_1 = 175$) and heavy consumer ($n_2 = 268$) groups.

| Relationship | Path coefficient | | diff | p-value |
|--------------|----------------------|---------------------|-------|---------|
| | Light consumers | Heavy consumers | | |
| S → T | 0.691*** | 0.590*** | 0.101 | 0.215 |
| T → L | 0.248** | 0.351*** | 0.103 | 0.369 |
| S → L | 0.457*** | 0.344*** | 0.113 | 0.240 |
| CI x T → L | -0.048 ^{ns} | 0.053 ^{ns} | 0.101 | 0.167 |
| VS x T → L | -0.055 ^{ns} | -0.176** | 0.121 | 0.096 |
| RP x T → L | 0.039 ^{ns} | 0.006 ^{ns} | 0.033 | 0.597 |

Note 1: S: satisfaction; T: trust; L: loyalty; CI: Consumer Innovativeness; VS: Variety-Seeking; RP: Relationship Proneness.

Note 2: The column |diff| shows the absolute differences between groups.

*** $p < 0.001$.

** $p < 0.01$.

^{ns} not significant (based on $t(4999)$, two-tailed test).

3. Mineral water

Gender

Table E15. Path differences between female ($n_1 = 217$) and male ($n_2 = 226$) groups.

| Relationship | Path coefficient | | diff | p-value |
|--------------|---------------------|----------|-------|---------|
| | Female | Male | | |
| S → T | 0.739*** | 0.715*** | 0.024 | 0.771 |
| T → L | 0.099 ^{ns} | 0.205** | 0.106 | 0.296 |
| S → L | 0.508*** | 0.326*** | 0.182 | 0.112 |

| | | | | |
|-------------------|---------------------------|----------------------------|---------------|--------------|
| CI x T → L | 0.187* | 0.022 ^{ns} | 0.165 | 0.126 |
| VS x T → L | -0.143 ^{ns} | -0.017 ^{ns} | 0.126 | 0.294 |
| RP x T → L | 0.085^{ns} | -0.070^{ns} | 0.155* | 0.026 |

Note 1: S: atisfaction; T: rust; L: oyalty; CI: Consumer Innovativeness; VS: Variety-Seeking; RP: Relationship Proneness.

Note 2: The column |diff| shows the absolute differences between groups.

*** $p < 0.001$.

** $p < 0.01$.

* $p < 0.05$.

^{ns} not significant (based on $t(4999)$, two-tailed test).

Age

Table E16. Path differences between younger ($n_1 = 283$) and older consumer ($n_2 = 160$) groups.

| Relationship | Path coefficient | | diff | p -value |
|--------------|----------------------|----------------------|-------|------------|
| | Younger consumers | Older consumers | | |
| S → T | 0.748*** | 0.691*** | 0.057 | 0.461 |
| T → L | 0.125* | 0.184* | 0.059 | 0.595 |
| S → L | 0.470*** | 0.346** | 0.124 | 0.310 |
| CI x T → L | 0.016 ^{ns} | 0.154 ^{ns} | 0.139 | 0.170 |
| VS x T → L | 0.002 ^{ns} | -0.102 ^{ns} | 0.104 | 0.360 |
| RP x T → L | -0.020 ^{ns} | -0.010 ^{ns} | 0.009 | 0.911 |

Note 1: S: atisfaction; T: rust; L: oyalty; CI: Consumer Innovativeness; VS: Variety-Seeking; RP: Relationship Proneness.

Note 2: The column |diff| shows the absolute differences between groups.

*** $p < 0.001$.

** $p < 0.01$.

* $p < 0.05$.

^{ns} not significant (based on $t(4999)$, two-tailed test).

Marital status

Table E17. Path differences between married ($n_1 = 193$) and unmarried ($n_2 = 250$) groups.

| Relationship | Path coefficient | | diff | p -value |
|--------------|----------------------|----------------------|-------|------------|
| | Unmarried | Married | | |
| S → T | 0.748*** | 0.696*** | 0.052 | 0.484 |
| T → L | 0.061 ^{ns} | 0.253** | 0.191 | 0.064 |
| S → L | 0.474*** | 0.359*** | 0.115 | 0.321 |
| CI x T → L | 0.024 ^{ns} | 0.141 ^{ns} | 0.117 | 0.252 |
| VS x T → L | -0.019 ^{ns} | -0.070 ^{ns} | 0.051 | 0.661 |
| RP x T → L | -0.029 ^{ns} | -0.016 ^{ns} | 0.013 | 0.903 |

Note 1: S: atisfaction; T: rust; L: oyalty; CI: Consumer Innovativeness; VS: Variety-Seeking; RP: Relationship Proneness.

Note 2: The column |diff| shows the absolute differences between groups.

*** $p < 0.001$.

** $p < 0.01$.

^{ns} not significant (based on $t(4999)$, two-tailed test).

Education

Table E18. Path differences between university ($n_1 = 317$) and non-university ($n_2 = 126$) groups.

| Relationship | Path coefficient | | diff | p -value |
|--------------|------------------|------------|-------|------------|
| | Non-university | University | | |
| S → T | 0.679*** | 0.748*** | 0.069 | 0.411 |
| T → L | 0.260** | 0.115* | 0.145 | 0.238 |

| | | | | |
|------------|----------------------|----------------------|-------|-------|
| S → L | 0.329** | 0.465*** | 0.136 | 0.315 |
| CI x T → L | 0.136 ^{ns} | -0.006 ^{ns} | 0.142 | 0.150 |
| VS x T → L | -0.031 ^{ns} | -0.021 ^{ns} | 0.010 | 0.875 |
| RP x T → L | -0.098 ^{ns} | 0.040 ^{ns} | 0.137 | 0.096 |

Note 1: S: atisfaction; T: rust; L: oyalty; CI: Consumer Innovativeness; VS: Variety-Seeking; RP: Relationship Proneness.

Note 2: The column |diff| shows the absolute differences between groups.

*** $p < 0.001$.

** $p < 0.01$.

* $p < 0.05$.

^{ns} not significant (based on $t(4999)$, two-tailed test).

Income

Table E19. Path differences between lower ($n_1 = 269$) and higher income ($n_2 = 174$) groups.

| Relationship | Path coefficient | | diff | p -value |
|--------------|----------------------|----------------------|-------|------------|
| | Lower income | Higher income | | |
| S → T | 0.704*** | 0.759*** | 0.055 | 0.493 |
| T → L | 0.117* | 0.243** | 0.127 | 0.235 |
| S → L | 0.488*** | 0.283** | 0.205 | 0.085 |
| CI x T → L | 0.028 ^{ns} | 0.114 ^{ns} | 0.086 | 0.382 |
| VS x T → L | 0.006 ^{ns} | -0.100 ^{ns} | 0.106 | 0.350 |
| RP x T → L | -0.002 ^{ns} | -0.020 ^{ns} | 0.018 | 0.801 |

Note 1: S: atisfaction; T: rust; L: oyalty; CI: Consumer Innovativeness; VS: Variety-Seeking; RP: Relationship Proneness.

Note 2: The column |diff| shows the absolute differences between groups.

*** $p < 0.001$.

** $p < 0.01$.

* $p < 0.05$.

^{ns} not significant (based on $t(4999)$, two-tailed test).

Occupation

Table E20. Path differences between employed ($n_1 = 239$) and unemployed ($n_2 = 204$) groups.

| Relationship | Path coefficient | | diff | p -value |
|--------------|----------------------|----------------------|-------|------------|
| | Unemployed | Employed | | |
| S → T | 0.718*** | 0.729*** | 0.011 | 0.892 |
| T → L | 0.135* | 0.184* | 0.049 | 0.639 |
| S → L | 0.450*** | 0.384*** | 0.067 | 0.555 |
| CI x T → L | 0.016 ^{ns} | 0.146 ^{ns} | 0.131 | 0.244 |
| VS x T → L | -0.019 ^{ns} | -0.113 ^{ns} | 0.094 | 0.452 |
| RP x T → L | -0.015 ^{ns} | -0.006 ^{ns} | 0.009 | 0.901 |

Note 1: S: atisfaction; T: rust; L: oyalty; CI: Consumer Innovativeness; VS: Variety-Seeking; RP: Relationship Proneness.

Note 2: The column |diff| shows the absolute differences between groups.

*** $p < 0.001$.

* $p < 0.05$.

^{ns} not significant (based on $t(4999)$, two-tailed test).

Light and heavy consumers

Table E21. Path differences between light ($n_1 = 252$) and heavy consumer ($n_2 = 191$) groups.

| Relationship | Path coefficient | | diff | p-value |
|--------------|----------------------|----------------------|-------|---------|
| | Light consumers | Heavy consumers | | |
| S → T | 0.695*** | 0.770*** | 0.074 | 0.340 |
| T → L | 0.165** | 0.119 ^{ns} | 0.046 | 0.648 |
| S → L | 0.392*** | 0.477*** | 0.085 | 0.456 |
| CI x T → L | 0.078 ^{ns} | 0.092 ^{ns} | 0.013 | 0.849 |
| VS x T → L | -0.082 ^{ns} | -0.034 ^{ns} | 0.049 | 0.699 |
| RP x T → L | -0.025 ^{ns} | 0.014 ^{ns} | 0.039 | 0.644 |

Note 1: S: atisfaction; T: rust; L: oyalty; CI: Consumer Innovativeness; VS: Variety-Seeking; RP: Relationship Proneness.

Note 2: The column |diff| shows the absolute differences between groups.

*** $p < 0.001$.

** $p < 0.01$.

^{ns} not significant (based on $t(4999)$, two-tailed test).

4. Yogurt

Gender

Table E22. Path differences between female ($n_1 = 217$) and male ($n_2 = 226$) groups.

| Relationship | Path coefficient | | diff | p-value |
|--------------|----------------------|----------------------|---------------|--------------|
| | Female | Male | | |
| S → T | 0.710*** | 0.841*** | 0.131* | 0.018 |
| T → L | 0.422*** | 0.191* | 0.231 | 0.074 |
| S → L | 0.247*** | 0.387*** | 0.140 | 0.207 |
| CI x T → L | -0.035 ^{ns} | 0.019 ^{ns} | 0.054 | 0.456 |
| VS x T → L | 0.021 ^{ns} | -0.055 ^{ns} | 0.076 | 0.354 |
| RP x T → L | 0.151* | 0.023 ^{ns} | 0.128 | 0.117 |

Note 1: S: atisfaction; T: rust; L: oyalty; CI: Consumer Innovativeness; VS: Variety-Seeking; RP: Relationship Proneness.

Note 2: The column |diff| shows the absolute differences between groups.

*** $p < 0.001$.

* $p < 0.05$.

^{ns} not significant (based on $t(4999)$, two-tailed test).

Age

Table E23. Path differences between younger ($n_1 = 283$) and older consumer ($n_2 = 160$) groups.

| Relationship | Path coefficient | | diff | p-value |
|--------------|----------------------|----------------------|-------|---------|
| | Younger consumers | Older consumers | | |
| S → T | 0.775*** | 0.773*** | 0.002 | 0.943 |
| T → L | 0.339*** | 0.342*** | 0.003 | 0.931 |
| S → L | 0.240*** | 0.351*** | 0.112 | 0.338 |
| CI x T → L | -0.040 ^{ns} | 0.079 ^{ns} | 0.118 | 0.145 |
| VS x T → L | -0.004 ^{ns} | -0.023 ^{ns} | 0.019 | 0.919 |
| RP x T → L | 0.077* | 0.096 ^{ns} | 0.019 | 0.844 |

Note 1: S: atisfaction; T: rust; L: oyalty; CI: Consumer Innovativeness; VS: Variety-Seeking; RP: Relationship Proneness.

Note 2: The column |diff| shows the absolute differences between groups.

*** $p < 0.001$.

* $p < 0.05$.

^{ns} not significant (based on $t(4999)$, two-tailed test).

Marital status**Table E24.** Path differences between married ($n_1 = 193$) and unmarried ($n_2 = 250$) groups.

| Relationship | Path coefficient | | diff | <i>p</i> -value |
|--------------|----------------------|----------------------|-------|-----------------|
| | Unmarried | Married | | |
| S → T | 0.739*** | 0.813*** | 0.074 | 0.222 |
| T → L | 0.353*** | 0.303** | 0.050 | 0.726 |
| S → L | 0.221*** | 0.382*** | 0.161 | 0.140 |
| CI x T → L | -0.049 ^{ns} | 0.037 ^{ns} | 0.086 | 0.255 |
| VS x T → L | 0.011 ^{ns} | -0.013 ^{ns} | 0.025 | 0.801 |
| RP x T → L | 0.074 ^{ns} | 0.097 ^{ns} | 0.024 | 0.806 |

Note 1: S: atisfaction; T: rust; L: oyalty; CI: Consumer Innovativeness; VS: Variety-Seeking; RP: Relationship Proneness.

Note 2: The column |diff| shows the absolute differences between groups.

*** $p < 0.001$.

** $p < 0.01$.

^{ns} not significant (based on $t(4999)$, two-tailed test).

Education**Table E25.** Path differences between university ($n_1 = 317$) and non-university ($n_2 = 126$) groups.

| Relationship | Path coefficient | | diff | <i>p</i> -value |
|--------------|----------------------|---------------------|-------|-----------------|
| | Non-university | University | | |
| S → T | 0.806*** | 0.755*** | 0.051 | 0.452 |
| T → L | 0.205 ^{ns} | 0.403*** | 0.198 | 0.218 |
| S → L | 0.390** | 0.241*** | 0.149 | 0.216 |
| CI x T → L | -0.152 ^{ns} | 0.014 ^{ns} | 0.166 | 0.057 |
| VS x T → L | -0.010 ^{ns} | 0.031 ^{ns} | 0.042 | 0.804 |
| RP x T → L | 0.150 ^{ns} | 0.058 ^{ns} | 0.092 | 0.341 |

Note 1: S: atisfaction; T: rust; L: oyalty; CI: Consumer Innovativeness; VS: Variety-Seeking; RP: Relationship Proneness.

Note 2: The column |diff| shows the absolute differences between groups.

*** $p < 0.001$.

** $p < 0.01$.

^{ns} not significant (based on $t(4999)$, two-tailed test).

Income**Table E26.** Path differences between lower ($n_1 = 269$) and higher income ($n_2 = 174$) groups.

| Relationship | Path coefficient | | diff | <i>p</i> -value |
|--------------|----------------------|----------------------|-------|-----------------|
| | Lower income | Higher income | | |
| S → T | 0.731*** | 0.837*** | 0.106 | 0.058 |
| T → L | 0.290*** | 0.401*** | 0.111 | 0.390 |
| S → L | 0.270*** | 0.248** | 0.022 | 0.849 |
| CI x T → L | 0.005 ^{ns} | 0.014 ^{ns} | 0.010 | 0.870 |
| VS x T → L | 0.064 ^{ns} | -0.061 ^{ns} | 0.125 | 0.158 |
| RP x T → L | -0.011 ^{ns} | 0.009 ^{ns} | 0.020 | 0.823 |

Note 1: S: atisfaction; T: rust; L: oyalty; CI: Consumer Innovativeness; VS: Variety-Seeking; RP: Relationship Proneness.

Note 2: The column |diff| shows the absolute differences between groups.

*** $p < 0.001$.

** $p < 0.01$.

^{ns} not significant (based on $t(4999)$, two-tailed test).

Occupation

Table E27. Path differences between employed ($n_1 = 239$) and unemployed ($n_2 = 204$) groups.

| Relationship | Path coefficient | | diff | <i>p</i> -value |
|--------------|----------------------|----------------------|-------|-----------------|
| | Unemployed | Employed | | |
| S → T | 0.722*** | 0.815*** | 0.093 | 0.119 |
| T → L | 0.318*** | 0.315** | 0.002 | 0.990 |
| S → L | 0.283*** | 0.320*** | 0.037 | 0.748 |
| CI x T → L | -0.024 ^{ns} | 0.050 ^{ns} | 0.074 | 0.336 |
| VS x T → L | -0.045 ^{ns} | -0.010 ^{ns} | 0.035 | 0.728 |
| RP x T → L | 0.184* | 0.047 ^{ns} | 0.136 | 0.096 |

Note 1: S: atisfaction; T: rust; L: oyalty; CI: Consumer Innovativeness; VS: Variety-Seeking; RP: Relationship Proneness.

Note 2: The column |diff| shows the absolute differences between groups.

*** $p < 0.001$.

** $p < 0.01$.

* $p < 0.05$.

^{ns} not significant (based on $t(4999)$, two-tailed test).

Light and heavy consumers

Table E28. Path differences between light ($n_1 = 236$) and heavy consumer ($n_2 = 207$) groups.

| Relationship | Path coefficient | | diff | <i>p</i> -value |
|-------------------|----------------------|----------------------------|----------------|-----------------|
| | Light consumers | Heavy consumers | | |
| S → T | 0.843*** | 0.652*** | 0.191** | 0.001 |
| T → L | 0.308*** | 0.305** | 0.003 | 0.993 |
| S → L | 0.310*** | 0.293*** | 0.016 | 0.889 |
| CI x T → L | -0.063 ^{ns} | -0.012 ^{ns} | 0.051 | 0.494 |
| VS x T → L | 0.032 ^{ns} | -0.050 ^{ns} | 0.081 | 0.348 |
| RP x T → L | 0.127** | -0.083^{ns} | 0.209* | 0.010 |

Note 1: S: atisfaction; T: rust; L: oyalty; CI: Consumer Innovativeness; VS: Variety-Seeking; RP: Relationship Proneness.

Note 2: The column |diff| shows the absolute differences between groups.

*** $p < 0.001$.

** $p < 0.01$.

* $p < 0.05$.

^{ns} not significant (based on $t(4999)$, two-tailed test).

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ABSTRACT

This study aims at offering a conceptual model that incorporates both the relationships between brand satisfaction, brand trust and brand loyalty and the moderating effects of personality traits, namely, consumer innovativeness, variety-seeking and relationship proneness, on the relationship between brand trust and brand loyalty. Data were collected using a survey of 443 consumers of four product categories (i.e., soft drinks, fruit juices, mineral water and yogurt). Structural equation modeling, specifically, partial least squares (PLS) regression, was used to test the hypotheses. The findings reveal that brand loyalty is the most affected (both directly and indirectly) by satisfaction through the mediation of brand trust across the studied product categories. They also show that variety-seeking negatively moderates the relationship between brand trust and brand loyalty for fruit juices, whereas relationship proneness positively moderates this relationship for yogurt. Moreover, the moderating effects of consumer characteristics are examined. The managerial implications, limitations and suggestions for future research are also discussed.

Keywords Brand loyalty, Trust, Consumer satisfaction, Personality traits, Partial least squares

مُلَخَّص

تهدف هذه الدراسة إلى تقديم نموذج مفاهيمي يتضمن كلاً من العلاقة بين الرضا، الثقة والولاء للعلامة التجارية والتأثير المعدل للسمات الشخصية -المتتمثلة في البحث عن الجديد (consumer innovativeness)، البحث عن التنوع (variety-seeking) والميول للعلاقة (relationship proneness) - على العلاقة بين الثقة والولاء. تم جمع البيانات عن طريق الاستبانة التي وُزعت على عينة مكونة من (443) مستهلكاً لأربع فئات من المنتجات (مشروبات غازية، عصير فواكه، مياه معدنية وياوورت)، وقد تم استخدام نماذج المعادلات الهيكلية وتحديداً طريقة المربعات الصغرى الجزئية (PLS)؛ لاختبار مدى صحة فرضيات الدراسة. تُظهر النتائج أن للرضا تأثيراً إيجابياً (مباشراً وغير مباشر) على الولاء عن طريق الثقة بالنسبة للمنتجات محل الدراسة. كما تُظهر أن للبحث عن التنوع تأثيراً سلبياً على العلاقة بين الثقة والولاء بالنسبة لعصير الفواكه، بينما تُظهر أن الميول للعلاقة له تأثير إيجابي على هذه العلاقة بالنسبة لمُنتج الياوورت. زيادة على ذلك، تم اختبار التأثير المعدل لصفات المستهلك (consumer characteristics) على العلاقات المقترحة. وقد تم مناقشة الآثار الإدارية (managerial implications) وحدود الدراسة وتقديم اقتراحات وتوصيات للبحوث المستقبلية.

الكلمات المفتاحية: الولاء للعلامة التجارية، الثقة، رضا المستهلك، شخصية المستهلك، طريقة المربعات الصغرى الجزئية

RESUME

L'objectif du présent travail est de proposer un modèle conceptuel qui intègre les relations entre la satisfaction, la confiance et la fidélité à la marque d'un côté et de l'autre, les effets modérateurs des traits de personnalité, tels que l'innovation du consommateur, la recherche de la variété et la prédisposition à établir une relation avec une marque, sur la relation entre la confiance et la fidélité à la marque. Des données ont été recueillies à travers un sondage auprès de 443 consommateurs, de quatre catégories de produits (à savoir les boissons gazeuses, jus de fruits, eaux minérales et yaourts). La modélisation par le biais des équations structurelles, en particulier la régression par les moindres carrés partiels (PLS) a été utilisée afin de tester les hypothèses. Les résultats révèlent que la fidélité à la marque est la plus impactée (directement et indirectement) par la satisfaction, à travers le rôle médiateur de la confiance vis-à-vis de la marque, pour les catégories de produits étudiés. Ces mêmes résultats montrent aussi que la recherche de la variété a un effet modérateur négatif sur la relation entre la confiance et la fidélité à la marque, pour les jus de fruit, alors que la prédisposition à établir une relation avec une marque affecte positivement cette relation pour les yaourts seulement. En outre, les effets modérateurs des caractéristiques du consommateur sont examinés. Les implications managériales, limites et perspectives pour la recherche future sont également discutées.

Mots-clés: Fidélité à la marque; Confiance; Satisfaction du consommateur; Traits de personnalité; Régression par les moindres carrés partiels