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Indrė RADAVIČIENĖ

The importance of emotional reactions, perceived price fairness and perception of product quality in assessing the impact of price change on the intention to buy

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INTRODUCTION

Relevance of the topic. Price is an expression of product value and a marketing factor determining consumer decisions and intentions. The principal assumption of behavioral science states that, in real life, a human can behave differently than theoretical judgment suggests. Human decisions are often related to rational choice theories that justify the core idea of cognitivism: that human decisions are constructive, cumulative, focused on an objective, and assessment of rationally calculated benefits. This theory is based on a belief that an individual always seeks the most cost-effective solution (lat. homo economicus), rationally evaluates "pros" and "cons", and selects the optimal solution. However, a distinct transformation of the theory is observed: it states that human behavior and decisions are complex, highly influenced by the environmental, physical, psychological factors, aroused emotions, approach, attitudes, and social norms. Prominent behaviorists Kahneman and Tversky (1979, 2000), Damasio (1994) criticize the rational decision-making model and state that both emotional and rational justifications of human behavior exist.

Subsequent studies revealed that emotions, in fact, play a significant role in consumer decisions. Clore (1992); Forgas (1995); Isen (1993); Lerner and Keltner (2000); Schwartz (1990) proved that affect, a spontaneous emotional response to stimulus, has a direct positive relationship with consumer judgments and choices in both short-term and long-term perspectives. The behavioral paradigm is often based on a model S (stimulus) \rightarrow O (organism) \rightarrow R (response) (Mehrabian and Russel, 1974; Laroche, 2010), which addresses emotional stimulus as a cause of the emotional response. Behavioral pricing studies prove that price is a stimulus, which, depending on its frame, level, communication (Bagchi and Davis, 2012; Gamliel and Herstein, 2012; Koo and Suk, 2019; Sinha and Smith, 2000; Sokolova and Li, 2020), evokes positive or negative consumer response. The latter, in turn, influences consumer's purchase intentions, choice intentions, product evaluation, and word-of-mouth (Kim and Kim,

2014; Oh et al., 2008; Sautter et al., 2004, Björk, 2010; Manganari et al., 2009; Mummalaneni, 2005; Ganesh et al. 2010).

A significant proportion of studies examine the impact of price frame on consumers' emotional response. A somewhat smaller number of studies focus on the evaluation of the effects of price level, in cases of price increase or price decrease, on consumers' emotional response: excitement, pleasure, and domination (PAD) (Mehrabian, 1980). Russel and Pratt (1980), Donovan and Rossiter (1982), Youn and Faber (2000), Lee and Yi (2008); Eroglu et al. (2001) explored the impact of price communication message, and price frame on consumer emotional response, eliminating the domination emotional response. The authors stated that price stimuli applied have no relationship with this emotional response. Only a part of researchers (Mathwick and Rigdon, 2004; Massara et al., 2010; Miniero et al., 2014) have included domination emotion into their studies, proving the relationships with price level and price frame. In studies, cognitive price assessment is related to transaction value perception, examined through product quality (Palma et al. 2016; Lee and Chen-Yu, 2018; Ding et al., 2010; Erdem et al., 2008; Golder et al., 2012; Suri and Monroe, 2003) and price fairness perception (Xia et al., 2004; Zietsman et al., 2019; Nguyen and Meng, 2016).

This doctoral dissertation combines two scientific paradigms: cognitivism and behaviorism, providing evidence that price level, in cases of both price increase and price decrease, can cause consumer's rational and affective (emotional) judgments, which influence transaction value perception and product purchase intention. It must be emphasized that the direction of the research is based on the theoretical assumption that price level, with no additional information on a product, brand, and product quality features, can make a dual (lat. dualis) impact on consumer decisions. Cognitive consumer behavior is related to price perception factors: price fairness and product quality perception, while emotional behavior is related to consumers' emotional response to stimulus, namely, price increase and price decrease.

The level of scientific investigation. Behavioral pricing research distinguishes the influence of price as a stimulus on cognitive and affective consumer perceptions. Lazarus (1991), Damasio (1994), Schwartz (1990) suggested that an individual facing an emotional situation assesses it as an issue - rationally: focusing on finding a solution; or emotionally: affectively, spontaneously, experiencing difficultly controlled positive/negative emotions. The influence of affect on consumer behavior is evident (Andrade, 2005). Scholars examined the relationships between affect and feelings (Schwarz and Clore, 1983), relationships between moods and affect (Bower, 1981), and the influence of affect called the affect infusion (Forgas, 1995). Peine et al. (2009) linked price affect with emotional affect, stating that negative price affect can be related to the price increase, which can cause negative consumer intentions, for example, refusing to purchase a product in a particular shop or purchasing less. In contrast, positive price affect is often caused by the price level decrease, which has a direct positive impact on intention to purchase a product. Furthermore, in this case, lower price perception blocks the purchase of the same product at a higher price (Lee and Thorson, 2009; Donovan and Rossiter, 1982; Lee et al., 2019).

The theories examined state that price can be a stimulus arising consumer's emotions and causing the emotional response, as well as influencing intentions to purchase a product (Andrade, 2005). Price is defined as an emotional stimulus awaking consumer emotions, and price communication can be related to the formulation of the communication message. Price messages can take various price frames that often cause price affects and influence consumer decisions (Sokolova and Li, 2020; Tang et al., 2020; Tversky and Kahneman, 2000). Price affect is measured using a basic emotional background (Plutchik, 1980), applying the PAD emotional response measurement framework that consists of three dimensions: excitement, pleasure, and domination. A significant proportion of research on the price affect measures two emotions caused by price stimulus: excitement and pleasure, stating that they are sufficient for measuring an affect

(Russel and Pratt 1980; Donovan and Rossiter, 1982). Later studies widely use pleasure and excitement dimensions in determining the impact of price stimuli (level, message, frame) (Donovan and Rossiter 1982; Donovan et al. 1994; Youn and Faber 2000, Lee and Yi, 2008; Eroglu et al., 2001). Studies link the domination factor with consumer's judgments regarding the utility and actual use, and selfcontrol behavior (Mathwick and Rigdon, 2004). Although pleasure, excitement, and domination are considered distinct emotional responses, placed on the same level in numerous studies, the recent research shows that three dimensions have a hierarchical order and that emotional response of pleasure may be caused by excitement and domination (Massara et al., 2010; Miniero et al., 2014). It must be noted that in the context of empirical research, the impact of price as an emotional stimulus on emotional response can be examined through either two or all three emotional response dimensions: pleasure, excitement, and domination; though some studies prove that affect can be measured through the first two dimensions: pleasure and excitement (Russel, 1980; Bagozzi, 1991). This dissertation analyzes three emotional responses to prove the relationship of domination emotional response with price change level and direction. It must be emphasized that the author of this dissertation justifies an assumption that sufficiently significant price level change can lead to the domination emotional response caused by price affect.

Researches demonstrate that price influences the transaction value perception (Kayacan, 2017). Li (2017), Chao (2016), Wang and Cheng (2016), Hustic and Gregurec (2015) proved that price level perception has a direct positive relationship with intention to purchase a product (Son and Jin, 2019; Carvalho et al., 2020; Hustic and Gregurec, 2015; Anwar, 2017; Zhang and Zhang, 2007; O'Cass, 2000; Stock and Zinszer, 1987; Waspodo, 2010).

The analysis of price transaction value perception also addresses the price fairness factor. Studies by Lee and Stoel (2016) found that a somewhat slight price decrease appeals to a lower value perceived by a consumer; however, it increases the perception of price unfairness. Peine et al. (2009) identified the opposite phenomenon to the aforementioned findings: product price increase is followed by transaction value decrease, as it appeals to lower price fairness perception. Price level increase has a direct influence on price fairness perception (Xia et al., 2004). The direction of the empirical study of this dissertation manifests an idea of exploring the direct influence of transaction value perception on purchase intention and evaluating the mediator effect to the examined links.

Huang and Yang (2015) determined another factor influencing transaction value perception: involvement in the product category. Authors emphasize that consumer transaction value perception is related to the degree of involvement in the product category. The higher consumer is involved in a product category, the more valuable the same product or service is to the consumer. In the assessment of this phenomenon, authors have proven that it has a strong influence on transaction value perception.

Consumer price transaction value perception is linked to consumer internal reference price that a consumer usually compares with the changed product price (Maxwell and Comer, 2010). An internal reference price is associated with consumer knowledge regarding product market price and prior experience, which forms normal or acceptable product price perception (Festinger, 1954; Major and Testa, 1989; Ashworth and McShane, 2012; Haws and Bearden, 2006). The aforementioned authors state that consumer price assessment is often indirectly influenced by internal reference pricechanged price difference. An internal reference price is somewhat not static, and it can consistently change conditioned by the impact of environment, market knowledge, more or less extensive consumer purchasing experience (Cheng and Monroe, 2013). An internal reference price is linked to price fairness perception, often associated with the difference between a changed price and an internal reference price. Namely, in the case of price increase, a more significant difference leads to lower price fairness perception. The author of this

dissertation anticipates an opportunity to evaluate the influence of transaction value perception on intention to purchase in conditions of more substantial internal reference price-changed price difference; the impact of product quality perception on transaction value perception in conditions of more substantial internal reference price-changed price difference; and the influence of price fairness on transaction value perception in conditions of more substantial internal reference price-changed price difference both in the case of the price increase and price decrease.

Summarizing relevant studies in the dissertation theme, the author of this dissertation states that presently there is a gap in the scientific literature addressing the influence of level and direction of price change on consumer cognitive and affective (emotional) price assessment when a stimulus is limited to the price decrease or price increase without taking into account the brand, product quality features, and communication message. The author supports prior research in measuring the impact of price level on the intention to purchase a product through transaction value perception evaluating price fairness and product quality perception. However, the theoretical field is expanded to complement prior research findings on the measurement of price affect evaluating consumer's emotional response and linking it to the arousal of three emotional responses: excitement, pleasure, and domination. Some prior studies rejected the dominance dimension, applying two-factor measurements. Yet the scientific literature contains several empirical studies utilizing a full PAD scale, especially in the evaluation of the interaction effect of a price decrease and increase on price affect and other perceptions. However, the researches show that price alone often has no direct relationship with product quality perception; therefore, price change is anticipated as prie information and presentation frame, which is supposed to impact product quality perception and influence product purchase intention through transaction value perception, internal reference price and/or involvement in the product category. The

aforementioned challenges of the research insights allow the author to formulate **the scientific problem** as a question: what are the influence of price change level and direction on transaction value perception and intention to purchase, evaluating the price affect, price fairness perception, and product quality perception? This question lacks broader examination with regards to studies analyzing such factors as involvement in the product category and internal reference pricechanged price difference.

The aim of the dissertation is to determine the influence of price change level and direction on the intention to purchase a product, evaluating product quality perception, price fairness perception, price affect, and transaction value perception.

To achieve the aim of the dissertation, the following objectives were formulated:

1. To reveal consumer thinking and decision-making typology in the behavioral pricing based on the primary consumer behavior, cognitivism and behaviorism, economic and marketing theories.

2. To analyze the impact of price change on transaction value perception and intention to purchase through the theoretical perspectives of consumer emotional responses, price fairness, product quality perceptions, and purchase intentions.

3. To construct a research model measuring the impact of price change level and direction and their interaction on aroused price affect, price fairness perception, product quality perception, and transaction value perception on the intention to purchase a product.

4. Based on the research model, to design the research methodology for measuring the impact of aroused affect by different price levels and price fairness perception on the purchase intention.

5. To conduct empirical studies determining the impact of price change level and direction on consumers' emotional and cognitive evaluation of the intention to purchase a product. 6. To empirically evaluate the impact of price change level and direction and their interaction on consumers' emotional and cognitive evaluation of intention to purchase a product.

7. To provide recommendations for pricing decisions in line with empirical studies conducted in the dissertation.

Formulated and proved dissertation statements:

1. A consumer evaluates transaction value perception and intention to purchase a product emotionally and cognitively, dependent upon price change level and direction.

2. Price change level has a positive impact on price affect (pleasure, excitement, or domination) controlled by the direction of price change.

3. Price fairness perception influences the intention to purchase a product through transaction value perception.

4. The influence of price affect on purchase intention is dependent upon emotional responses aroused by price affect.

5. The more significant the price decrease, the greater the impact of price affect on domination emotional response.

6. The internal reference price-changed price difference moderates the relationships between price fairness perception, product quality perception, and transaction value perception and purchase intention.

The scientific novelty of the dissertation and contribution to science. This dissertation fills the gap in scientific literature addressing the impact of price change level and direction on emotional responses aroused by price affect: pleasure, excitement, and domination, as well as on price fairness perception and product quality perception. The empirical studies conducted by the author of this dissertation prove that a consumer evaluates transaction value perception and the intention to purchase a product emotionally and cognitively, dependent upon price change level and direction. Price change level, dependent upon different price change directions, causes different consumer responses that directly influence purchase intention or/and are mediated by transaction value perception. Two representative studies have been conducted in this dissertation. In Study 1 (N= 186) and Study 2 (N= 436), the study samples are homogenous in every examined category and conform to the experiment reliability condition.

The author of this dissertation has adopted the price affect PAD scale, ensuring its relevance to Lithuania and the possibility to measure three emotional responses (pleasure, excitement, domination) to aroused price affect. The construct of Study 2 has high reliability for future studies in behavioral pricing. The identification of mediation effects in the empirical model of Study 2 enabled formulating further conclusions of the dissertation that significantly contribute to future research in the area.

Research methodology and empirical study methods.

Two empirical studies have been conducted in this dissertation: Study 1 and Study 2. In Study 1, factorial experiment design 2x2x2 (two involvements in the product category x two price change directions x two price change levels) was used, eight scenario variations, divided into four homogenous respondent groups, were formulated. A total sample of 186 respondents was analyzed in the research findings. In the experiment of Study 1, two measures of price change were selected after evaluating the market price of analyzed products and anticipated involvement in the product category: price level increase by 10% and 60%, and price level decrease by 10% and 60%. Furthermore, two products: a reusable face mask and a water park day ticket, were selected.

The demographic characteristics of the four groups participating in the experiment of Study 1 were distributed equally homogeneously, proving the reliability condition of the experiment and allowing to perform targeted data analysis. In Study 2, factorial experiment design 2x2x4 (two products x two price change x four price change levels) was used, 16 scenario variations, divided into eight homogeneous respondent groups, were formulated. A total sample of 436 respondents was analyzed in the research findings. Study 2 was conducted using two products: perfume (Eau de Parfum, EDP): 70 €/50 ml; and jeans: 40 €. In Study 2, four levels of price increase: 60%, 70%, 10%, and 20%; and four levels of price decrease: 60%, 70%, 10%, and 20%, were selected.

The data was processed using data analysis and statistical software package IBS SPSS Statistics 26 with the "Process" plugin. The following data analysis methods were used: correlation, multiple linear regression, ANOVA, t-tests, exploratory factor analysis, reliability tests.

Limitations of the dissertation researches. Selected product categories were close to similar involvement. Future research shall consider additional evaluation selecting product types of different involvement in the product category.

The limitation of Study 1, solved in Study 2, can be defined as forming homogenous experiment groups with attention to the essential demographic data and equal distribution of participants in groups. Study 2 conformed to the aforementioned requirements; therefore, the reliability of its findings is higher.

Due to selecting a small number of cases of price change in Study 1, the author faced difficulties in measuring the dynamic impact of price change level and direction on the dependent variables. In the case of Study 2, four price decrease and four price increase levels were selected, which allowed measuring different impacts in cases of a price decrease and price increase, dependent upon different price change levels.

Product quality assessment is usually linked to price information, stipulating product description, brand, value attributes. For a more accurate examination of the impact price change level and direction and their interaction on the dependent variables, the author provided only a relevant price and changed price. In the evaluation of the impact of a price increase and price decrease on product quality perception, expanding the price offer with product presentation and its qualitative features is relevant.

In the examination of the impact of price increase on price fairness perception and transaction value perception, it is appropriate to indicate the reason for the price increase, the brand, retailer, or organization. Such offer presentation allows evaluating a more accurate price fairness perception in the condition of the increased price.

For price affect, it is recommended to select the PAD measurement construct to evaluate price affect, dependent upon different price change levels and directions. In the case of Study 1, only the general positive/negative price affect was measured, and it did not reveal the exact impact of the aroused emotional response on consumer behavior.

Dissertation structure. The dissertation contains seven principal chapters, and conclusions and recommendations, and practical application part. The three first chapters of the dissertation are dedicated to the disclosure of consumer thinking and decision-making typologies in behavioral pricing, based on the primary consumer behavior, cognitivism and behaviorism, economic and marketing theories. The influence of price change level and direction on transaction value perception and purchase intention through the theoretical aspect of consumer emotional responses, price fairness, and product quality perception and purchase intention has been examined. Chapter 4 adapts the theories in the context of behavioral pricing evaluating consumer emotional and cognitive assessment of price change level and direction. In Chapter 5, the research methodology of conducted empirical studies is presented. This Chapter defines the conceptual research model, stages of the empirical studies, in-depth description of the quantitative research tool: questionnaire, justification of its design, constructs. and measurements. Chapters 6 and 7 of the dissertation present the research findings of Study 1 and Study 2. The results of empirical studies are further disclosed, identifying their parallels and contradictions in relation to the theoretical scientific paradigms. The final part of the dissertation summarizes the conclusions and recommendations and provides the aspects of practical implementation of the research results.

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Chapter 1: "Aspects of consumer decision-making in the context of behavioral pricing" is divided into three sub-chapters: "1.1 The behavioral economics paradigm and its significance in science", "1.2 Conceptualization of behavioral pricing and the new research frontiers", and "1.3 Consumer thinking and decision-making typologies in pricing".

Classical economics had been a dominating paradigm for years; however, its assumptions have faced intensifying criticism. Rational economic individual (lat. homo economicus) has been actively criticized. The critique was ignored until the mid-XXth century when Katona (1957) and Simon (1955-1996), representatives of somewhat traditional behavioral economics paradigms, began actively manifesting the lack of precision in classical economic paradigms. The authors have opened doors for the new behavioral economics era, putting extensive attention to the factors of the cognitive decisionmaking process and bounded rationality paradigm. Kahneman and Tversky (1978, 1979) conducted significant behavioral economics studies. The authors examined the decision-making controlled by the uncertainty, Prospect theory, and risk-aversion.

As the new field of behavioral economics, behavioral pricing is instituted since 1970, and in the XXIst century, it is considered an extensively developed and considerably examined area. In the past fifty years, the research in behavioral pricing has shaped several new concepts that have been criticized, modified, renewed, enriched with new perspectives and insights. In the past decade, extensive attention has been put on price affect studies (Peine et al., 2009). Studies define price affect as a valent (author's note: strongly positive or strongly negative) state of feeling that combines emotions, feelings, moods directly related to the response to price. Emotional response to price is evaluated applying the classical theory of emotions (Bagozzi et al., 1999; Plutchik, 1980), where a price is assessed as a stimulus raising positive/negative emotional response. Behavioral pricing research of the last decades reveals that neoclassical economics, psychology, and other paradigms can be perfectly adapted to the analysis of the impact of price, as a stimulus, on consumer emotional responses, moods, feelings, as well as the investigation of the influence of human memory or motives on price perception, price justice, fairness, and evaluation perceptions. The majority of behavioral economics studies/experiments face criticism. Similarly, behavior pricing studies/experiments have numerous limitations that shape the adaptation and recognition of the new theories. Nonetheless, their significant contribution to expanding classical economics, finance, microeconomics fields is evident: they allow more precise determination, change, and communication of a price that has a stimulating impact on consumer decisions, especially on the intention to purchase a product.

Chapter "2. The influence of price change on consumer's emotional response and purchase intention" is divided into three sub-chapters: "2.1 The role of emotions in consumer decision-making", "2.2 Consumer emotional response as an expression of a response to stimulus" and "2.3 The relationship between consumer perceptions and intentions and the response to price and its level".

The second half of the XXth century marked the beginning of the scientific analysis of the cognitive aspect of emotions. Scholars declared that perception, thinking, and memory are significant components of emotions that influence their emergence. Shacheter and Singer (1962) stated that emotion comprises two factors: physical arousal and its cognitive assessment (two-factor theory). Zajonc (1984a) has proven that some emotions arise spontaneously, and a human does not know the reason why one or another stimulus evokes sadness, joy, or other emotion. The author claimed that aroused emotions have a cognitive basis (Zajonc, 1984b). Lazarus (1984) added to the ideas of prior researchers that emotions play a cognitive role and often arise influenced by previous encounters and experiences. Damasio (1994), Ratner (2000) expressed a thought that emotions are inseparable from human's rational thinking, and

individuals have both rational and emotional ways of thinking that are influenced both by stimulus: event (Fridja, 1986) and personality, experience, thinking abilities.

The selected dissertation research field consents that aroused emotions can be evaluated as spontaneous, controlled by human's affective (author's note: emotional) state, and cognitive state. It must be noted that such bipolar evaluation of aroused emotions is intensively studied since the second half of the XXth century (Izard, 1993, Damasio, 1994, Zajonc, 1984 a,b; Lazarus, 1984) and lays a fundamental basis for further research on arising emotions, responses, cognition.

Scientific insights prove that emotions are a significant research direction in marketing and consumer behavior in the evaluation of causality of consumer decisions, communication efficiency, relations with the brand or organization, as well as in the analysis of price perception and its impact on transaction value perception and intention to purchase a product/service. Emotions expose by their arousal, which is linked to stimulus-event. The conceptualization of exhibited theories of emotions in the area of consumer decision-making allows making an insight that price can be disclosed as a stimulus, and price level can be related to the emotional appeal that evokes a positive or negative emotional response of a consumer (author's note: price affect), which influences the latter consumer decisions.

Studies by Rivis et al. (2009) proved that research on emotional response often discloses the relationship between consumer cognitive perception, moral norms, and emotion experienced after receiving a stimulus. Nonetheless, Eroglu and Machleit (2001) found the growing need to examine the emotional response in the process of consumer decision-making; therefore, the prior influence of cognitive perception on the emotional response aroused can fluctuate. On this basis, the Stimulus-Organism-Response model was designed (Mehrabian and Russel, 1974; Laroche, 2010). Wang et al. (2011) developed the research model based on the SOR model to identify the impact of

stimuli from the environment (virtual) on consumer emotional response. The authors measured three emotions: pleasure, excitement, and domination and their influence on consumer intention to purchase a product.

The model relies on the findings of previous studies proving that purchase environment factors influence consumer purchase behavior (Babin et al., 1994), and the purchase environment evokes an emotional response (Ganesh et al., 2010; Machleit and Eroglu, 2000). An emotional response is typically measured using a semantic differential scale evaluating a basic set of emotions: joy, surprise, anger, disgust, fear, sadness (Plutchik, 1980). It must be emphasized that studies on emotional response frequently use the PAD emotional reaction measurement tool that composes three dimensions: excitement, pleasure, and domination. The research logic of this dissertation suggests that in the evaluation of price affect, the influence of all three dimensions shall be considered, and the complete PAD construct shall be used as price stimulus can impact both transaction value perception, dependant upon experienced pleasure, excitement, and domination emotional responses (Massara et al., 2010; Miniero et al., 2014; Yang et al., 2019).

The significance of the application of emotional response theories in pricing research is proven by Urbany et al. (1991), who concluded that emotional response to price information is stored in short-term memory and related to consumer emotions. A study by Vahuele and Dreze (2000) disclosed that the intention to purchase a product is influenced by price knowledge level, which can be linked to the reference price. A higher level of price knowledge, formed by prior consumer experience, leads to weaker price affect and more robust cognitive behavior, addressed to the price assessment. Authors contributed to the previous research and provided an insight that purchase intention, linked to the impact of price as a stimulus, shall be evaluated through both emotional and cognitive aspects. Furthermore, it can be impacted by the information stored in the consumer's long-term memory.

Campbell (2007) found that efficient response to the price change (price-level) can cause price fairness perception, which, in turn, influences the intention to purchase a product. O'Neill and Lambert (2001) provided evidence that price affect is linked to price perception, product quality perception, internal reference price, and sports shoe price acceptance. Consumers, who perceived an unfair price, can engage in negative word-of-mouth and select different sellers in the future (Xia et al., 2004; Bechwati and Morrin, 2003; Lii and Sy, 2009).

The analysis of the previous research reveals that price affect influences consumer's intention to purchase a product; however, a significant proportion of studies address the influence of price discount presentation, increased price frame, price communication but not the impact of price-level, in cases of the price increase and price decrease, on price affect and its relationship with consumer transaction value perception and purchase intention. Studies prove the relationship between price affect and product quality perception, as well as between price affect and price fairness perception.

Chapter "3. Price perception and its role in consumers' intentions to purchase a product" is divided into four sub-chapters: "3.1 The relationship between price transaction value perception and purchase intention", "3.2 Price fairness perception and its influence on the intention to purchase a product ", "3.3 Theoretical aspects of the relationship between price change level/direction and product quality perception", and "3.4 Reference price and its impact on the price assessment".

In the analysis of the concept of transaction value perception, Krishna et al. (2002) identified that one of the most significant factors influencing transaction value perception is price presentation. Authors distinguish price communication aspects, indicating that price presentation methods have a direct influence on price transaction value perception. The presentation of price change shapes the communication of benefits of price decrease or price increase for consumers and determines whether consumer perceives an offer as beneficial or not. Krishna et al. (2002) provided factors influencing transaction value perception.

Scientific studies prove the relationship between price transaction value perception and purchase intention. It must be emphasized that transaction value perception is influenced by price level, which can impact product quality perception and price fairness perception. Given the relationship between the price level and price fairness perception, the link between the price level and product quality is nonetheless criticized, emphasizing that it is influenced indirectly by consumer internal reference price, involvement in the product category, price presentation, and price communication. The research focus of this dissertation implies that the evaluation of the cognitive side of the price must include product quality perception, price fairness perception, and factors of internal reference price that impact transaction value perception and purchase intention.

Price fairness perception is linked to cognitive price assessment, influenced by the price level, as well as by positive and negative emotions aroused by the price level or by the internal reference pricefixed difference. The theoretical concept of price fairness elaborated in this dissertation sets a significant direction, and the possibility to measure how the price fairness perception depends on price level change: its increase and decrease. It must be noted that involvement in the product category and internal reference price impact price fairness perception; therefore, the measurement of cognitive price perception can incorporate both these factors, evaluating whether a fixed price is perceived as fair or vice-versa.

In the case of a price decrease, the relationship with product quality perception is twofold. Research by Garretson and Clow (1999) proved that price decrease has a negative influence on product quality perception, while Huang et al. (2014); Rungtrakulchai (2013)

provided somewhat opposite findings: price decrease has a positive influence on product quality perception. Studies by Grewal et al. (1998a), Shrout is Bolger (2002), Lee and Chen-Yu (2018) found no direct influence of price discount on product quality perception. Pitic et al. (2014) linked product quality perception with price fairness perception. The authors have found that consumers often tend to relate higher product prices with a higher quality perception, which directly influences high price fairness perception. However, all aforementioned studies identified a positive relationship between higher quality perception and higher product transaction value perception.

To summarize the influence of price level on product quality perception, it must be highlighted that price level alone, with no environmental factors or price presentation/communication involved, is somewhat unlikely to influence product quality perception. From a different perspective, price level change is viewed as a situational factor, closely linked to product quality perception. The author of this dissertation further highlights that product perception, in the evaluation of price level, is influenced by consumer's internal reference price, involvement in the product category, and personality traits. The research perspective of this dissertation implies the need to include product quality evaluation, influenced by price level change when a price level is being decreased or increased. It must be emphasized that measuring the impact of price level changes on product quality perception remains a relatively broad research area for future studies on price perception.

The dissertation is based on several theoretical backgrounds: cognitive consumer behavior theory and price affect-related sociopsychological theories of emotional response. Based on the aforementioned theories, the author of this dissertation analyzes emotional responses aroused by stimulus, particularly: price change level and direction, directed towards the intention to purchase products of various involvement in the product category. The dissertation links purchase intention with the Theory of Planned Behavior (TPB) (Fishbein and Ajzen, 1975) and the model of emotional response aroused by a stimulus: Stimulus-Organism-Response (SOR).

Rivis et al. (2009) provided evidence that studies on emotional response often reveal the relationship between consumer's cognitive perception, moral norms, and experienced emotion after receiving stimulus. Yet Machleit and Eroglu (2000) identified the growing need to examine emotional response in the process of consumption as the influence of prior cognitive perception on emotional response can vary.

The author of this dissertation highlights that studies on emotional response frequently use the PAD emotional response measurement construct; however, it is extensively criticized due to the measurement scale limitations as the scale measures three dimensions: excitement, pleasure, and domination.

RESEARCH METHODOLOGY OF THE SIGNIFICANCE OF EMOTIONAL RESPONSES, PERCEIVED PRICE FAIRNESS AND PRODUCT QUALITY PERCEPTION IN THE EVALUATION OF THE INFLUENCE OF PRICE CHANGE LEVEL AND DIRECTION ON PURCHASE INTENTION: STUDY 1 AND STUDY 2

Conceptual model of the empirical research. The conceptual research model of this doctoral dissertation (Figure 1) reflects the idea that price decrease or increase has a direct impact on the emotional response to price. Furthermore, it can have a direct influence on product quality perception and price fairness perception. One of the moderating factors: involvement in the product category, impacts the product quality perception dependent upon a price decrease or a price increase (Haws and Bearden, 2006), and internal reference price-changed price difference. In that case, higher involvement in the

product category will have a stronger impact on product quality perception, which, in turn, will influence transaction value perception. Internal reference price can moderate the relationships between product quality perception or price fairness perception and purchase intention (Krishna et al., 2002). In cases of a price decrease or a price increase, consumer internal reference price can be one of the most intensively impacted factors in the evaluation of transaction value perception (Biswas et al., 1999). Product quality perception and price fairness perception can influence purchase intention through transaction value perception.

The aim of the research: to identify how different price change levels and directions influence the intention to purchase a product, evaluating price affect, price fairness perception, product quality perception, and offer transaction value perception.

Doctoral dissertation research model (Figure 1) design is based on the SOR (Stimulus-Organize-Resvose) theoretical model (Mehrabian and Russell, 1974) that visualizes the relationships between environmental stimulus (price increase and decrease levels), organism (price affect), and response (offer transaction value perception, purchase intention); and on the Theory of Planned Behavior (TPB) (Ajzen, 1991) that explains consumer cognitive response to price increase or decrease controlled by internal reference price-changed price difference and by involvement in the product category.



Figure 1. Conceptual research model of the dissertation (compiled by the author)

In line with the empirical research model of Study 1, based on the literature review, 27 hypotheses were formulated and tested (Table 1).

Table 1. Hypotheses of Study 1.

H1: With a price decrease, product quality perception will be lower than with a price increase.
H2: Product quality perception will differ dependent upon price change level.
H3: Price change level will positively influence product quality perception, dependent upon price change direction.
H3a: With a higher price increase, product quality perception will be higher given higher involvement in the product category.
H3b: With a higher price decrease, product quality perception will be lower given higher involvement in the product category.
H4: With a price decrease, price fairness perception will be higher than with a price increase.

H5: Price change level will have a direct positive influence on price fairness perception.

H6: Price change level will positively influence price fairness perception, dependent upon price change direction.

H6a: With a higher price increase, price fairness perception will be lower given higher involvement in the product category.

H6b: With a higher price decrease, price fairness perception will be higher given higher involvement in the product category.

H7: With a price decrease, price affect will be more positive than with a price increase.

H8: Price change level will have a direct positive influence on price affect.

H9: Price change level will positively influence price affect, dependent upon price change direction.

H9a: With a higher price increase, price affect will be more negative given higher involvement in the product category.

H9b: With a higher price decrease, price affect will be more positive given higher involvement in the product category.

H10: With a higher price decrease, transaction value perception will be higher than with a price increase.

H11: Price change level will have a direct positive influence on transaction value perception.

H12: Price change level will positively influence transaction value perception, dependent upon price change direction.

H12a: With a higher price increase, transaction value perception will be lower given higher involvement in the product category.

H12b: With a higher price decrease, transaction value perception will be higher given higher involvement in the product category.

H13: Price affect will have a direct positive influence on the intention to purchase a product.

H14: transaction value perception will have a direct positive influence on the intention to purchase a product.

H15: Product quality perception will have a direct positive influence on the intention to purchase a product.

H16: Price fairness perception will have a direct positive influence on the intention to purchase a product.

H17: Product quality perception will have a direct positive influence on transaction value perception.

H18: Price fairness perception will have a direct positive influence on transaction value perception.

H19: Price fairness perception will have a stronger influence on transaction value perception given higher involvement in the product category.

H20: Product quality perception will have a stronger influence on transaction value perception given higher involvement in the product category.

H21: Product quality perception will have a stronger influence on purchase intention given higher involvement in the product category.

H22: Price affect will have a stronger influence on purchase intention given higher involvement in the product category.

H23: transaction value perception will have a stronger influence on purchase intention given higher involvement in the product category.

H24: Price fairness perception will have a stronger influence on purchase intention given higher involvement in the product category.

H25: transaction value perception will have a stronger influence on purchase intention controlled by a larger internal reference pricechanged price difference.

H26: Product quality perception will have a stronger influence on transaction value perception controlled by a larger internal reference price-changed price difference e.

H27: Price fairness perception will have a stronger influence on transaction value perception controlled by a larger internal reference price-changed price difference.

In the research, factorial experimental design 2x2x2 (two involvements in the product category x two price change directions x two price change levels) was used, eight scenario variations, divided into four homogenous respondent groups, were formulated. A total sample of **186 respondents** was analyzed in the research findings.

The research questionnaire comprised 15 questions; two products were investigated: a reusable face mask and a water park day ticket. The analysis of product prices determined the average prices of selected products: 3,99 EUR for the reusable face mask and 25 EUR for the water park day ticket. Two levels of a price increase: by 60% and 10%, and two levels of price decrease: by 60% and 10%, were applied.

At the beginning of the questionnaire, a recruitment question was provided to determine whether respondents purchased a reusable face mask or a water park day ticket in the past five years. Respondents who have not purchased the aforementioned products were not permitted to proceed with the survey.

Respondents who have qualified for the recruitment question were provided the involvement in the product category scale (10 pairs of statements), adapted from Zaichkowsky (1985).

The next section of the questionnaire included eight scenario variations that introduced respondents with changes of the price level (Table 2):

Table 2. Examples of two scena	arios applied in the Ex	periment (compiled by
the author)		

You visited an e-shop and noticed that a	Reusable face mask
reusable face mask (1 pcs.), previously	Price level increase: 60%
priced at 3,99 EUR, is now 60% more	
expensive. The price of a reusable face	
mask (1 pcs.) is now 6,38 EUR. How do	
you assess this situation?	
You visited a water park and noticed that	Water park day ticket
a day ticket, previously priced at 25 EUR	Price level increase: 60%
(unlimited time), is currently 60% more	
expensive and now costs 40 EUR. How	
do you assess this situation?	

The next section of the questionnaire included price affect semantic differential scale comprising 13 pairs of adjectives, adapted from Barnes-Holmes et al. (2000); product quality perception 7-point Likert scale (4 items), adapted from Sweeney et al. (1999); price fairness

perception 7-point Likert scale (6 items), adapted from Darke and Dahl (2003); transaction value perception 7-point Likert scale (3 items), adapted from Urbany et al. (1988); internal reference price scale (2 open-ended questions), adapted from Grewal et al. (1998b); purchase intention 7-point Likert scale (3 items), adapted from Dodds et al. (1991). The final section of the questionnaire included demographic questions: gender, age, income, geographical residence, education.

Study 2 was based on the adjusted conceptual research model of the dissertation (Figure 2). In line with the findings of Study 1, the author declined to test a moderating effect of involvement in the product category on the relationships between elements of the research model. Study 2 investigated two products of similar involvement: perfume (Eau de Parfum, EDP), 50 ml, and jeans. For accurate testing of the influence of price change level on product quality perception, price fairness perception, and price affect, dependent upon price change direction, the author selected four price increase levels (10%, 20%, 60%, 70%) and four price decrease levels (10%, 20%, 60%, 70%). The aforementioned decision is especially significant for the analysis of differences of iteration values identified in Study 1 and Study 2 and for robust testing of the impact of independent variables.



Figure 2. Empirical model of Study 2 (compiled by the author)

The analysis of constructs selected for Study 1 revealed that a more focused selection of constructs adaptive to the research model is essential. Therefore, in Study 2, constructs of product quality perception, price fairness perception, price affect, and transaction value perception were replaced entirely. It must be emphasized that price affect was measured adapting the PAD emotional response measurement construct, which allows linking price affect to three pleasure, excitement, emotional responses: and domination (Mehrabian, 1980). Selecting the aforementioned construct enhanced the possibilities of empirical research and allowed more extensive examination of the impact of price change level and direction on emotional responses aroused by price affect.

In line with the adjusted conceptual model of Study 1, the empirical model of Study 2 was designed, 23 hypotheses were formulated (Table 3).

Table 3. Hypotheses of Study 2.

H1: With a price decrease, product quality perception will be lower than with a price increase.

H2: Product quality perception will differ dependent upon price change level.

H3: Price change level will positively influence product quality perception, dependent upon price change direction.

H4: With a price decrease, price fairness perception will be higher than with a price increase.

H5: Price change level will have a direct positive influence on price fairness perception.

H6: Price change level will positively influence price fairness perception, dependent upon price change direction.

H7: With a price decrease, price affect will be more positive than with a price increase.

H8: Price change level will have a direct positive influence on price affect.

H9: Price change level will positively influence price affect, dependent upon price change direction.

H9a: With a higher price decrease, price affect (pleasure) will be higher than price affect (excitement).

H9b: With a higher price decrease, price affect (domination) will be higher than price affect (excitement).

H9c: With a higher price increase, price affect (excitement) will be higher than price affect (pleasure).

H10: With a higher price decrease, transaction value perception will be higher than with a price increase.

H11: Price change level will have a direct positive influence on transaction value perception.

H12: Price change level will positively influence transaction value perception, dependent upon price change direction.

H13: Price affect (pleasure) will have a direct positive influence on the intention to purchase a product.

H14: Price affect (excitement) will have a direct positive influence on the intention to purchase a product.

H15: Price affect (domination) will have a direct positive influence on the intention to purchase a product.

H16: transaction value perception will have a direct positive influence on the intention to purchase a product.

H17: Price fairness perception will have a direct positive influence on the intention to purchase a product.

H18: Product quality perception will have a direct positive influence on the intention to purchase a product.

H19: Product quality perception will have a direct positive influence on transaction value perception.

H20: Price fairness perception will have a direct positive influence on transaction value perception.

H21: transaction value perception will have a stronger influence on purchase intention controlled by a larger internal reference price-changed price difference.

H22: Product quality perception will have a stronger influence on transaction value perception controlled by a larger internal reference pricechanged price difference.

H23: Price fairness perception will have a stronger influence on transaction value perception controlled by a larger internal reference price-changed price difference.

Based on the proposed empirical research model, similar to Study 1, factorial experiment research method was used in Study 2. In Study 2, factorial experiment design 2x2x4 (two products x two price change directions x four price change levels) was used, 16 scenario variations, divided into eight homogeneous respondent groups, were formulated. A total sample of **436 respondents** was analyzed in the research findings.

The research questionnaire comprised 14 questions; two products were examined: perfume (Eau de Parfum, EDP), 50 ml, and jeans. The overview of price offers in the renowned e-shops (the overview was performed in the period from August 2020 until September 2020) determined the average prices of selected products: 70 EUR/50 ml for a perfume (EDP) and 40 EUR for jeans. Four levels of the price increase: by 60%, 70%, 10%, and 20%, and four levels of the price decrease: by 60%, 70%, 10%, and 20%, were applied.

At the beginning of the questionnaire, a recruitment question was provided to determine whether respondents purchased perfume (EDP) or jeans. Respondents who have not purchased the aforementioned products were not permitted to proceed with the survey. The next section of the questionnaire included scenarios (a total of 16 variations of the scenario) that introduced respondents with changed prices and directions (Table 4).

Table 4. Examples of two scenarios used in Study 2 (compiled by the author)

You visited an e-shop and noticed that your	Perfume (EDP)							
chosen perfume, previously priced at 70	-10%							
EUR/50 ml, is now 10% cheaper and now costs								
63 EUR/50 ml. How do you assess this								
situation?								
You visited a shop and noticed that your chosen	Jeans							
jeans, previously priced at 40 EUR, are now	-10%							
10% cheaper and now cost 36 EUR. How do								
you assess this situation?								

The next section of the questionnaire included price affect semantic differential scale comprising 18 pairs of adjectives, adapted from Lee (2018); product quality perception 7-point Likert scale (4 items), adapted from Lee and Chen-Yu (2018); price fairness perception 7-point Likert scale (8 items), adapted from Konuk (2019), Darke and Dahl (2003), Maxwell (1995); transaction value perception 7-point Likert scale (5 items), adapted from Xia (2010); internal reference price scale (3 open-ended questions), adapted from Thomas and Menon (2007); and purchase intention 7-point Likert scale (4 items), adapted from Mortwitz et al. (2007). The final section of the questionnaire included demographic questions: gender, age, income, geographic residence, education.

The data of Study 1 and Study 2 quantitative studies were processed with the data analysis and statistical software *IBM SPSS*

Statistics 22. The following data analysis methods were used: exploratory factor analysis, reliability analysis (*Cronbach's Alpha*), multiple linear regression analysis, and mediation analysis.

SOCIO-DEMOGRAPHIC CHARACTERISTICS AND CONSTRUCT RELIABILITY OF STUDY 1 AND STUDY 2

Socio-demographic characteristics of Study 1 and Study 2 excellently expose the homogeneity of respondent groups and equal distribution across age, income, and education. The aforementioned conforms to the reliability condition of the experiment and allows performing a targeted analysis of the research data (Tables 5 and 6).

Respon- dent group	Gender		Aggregat egroup indicator	Income		Aggregate group indicator	Education			Aggregate group indicator
	Male	Female		Less than 1000 EUR	1001 EUR and mre		Secon- dary	Bachelor	Master	
Group 1	31,9%	68,1%	25,3%	66,0%	34,0%	25,3%	4,3%	53,2%	34,0%	25,3%
Group 2	34,2%	65,8%	20,4%	68,4%	31,6%	20,4%	0,0%	57,8%	31,6%	20,4%
Group 3	27,7%	72,3%	25,3%	49,0%	51,0%	25,3%	0,0%	55,4%	38,3%	25,3%
Group 4	25,9%	74,1%	29,0%	53,7%	46,3%	29,0%	2,0%	53,7%	29,6%	29,0%

 Table 5. Distribution of respondents by socio-demographic characteristics in Study 1

Respon- dent	Gender Aggregate Income group			Aggregate group	Education			Aggregate group		
group	Male	Female	inaicaior	Less than 1000 EUR	1001 EUR and mre	inaicaior	Secon- dary	Bachelor	Master	
Group 1	13,3%	10,2%	11,7%	9,6%	15,1%	11,7%	18,8%	8,6%	13,9%	11,7%
Group 2	11,9%	13,3%	12,6%	12,2%	13,3%	12,6%	11,3%	12,9%	12,9%	12,6%
Group 3	13,3%	11,9%	12,6%	13,0%	12,0%	12,6%	8,8%	14,9%	9,9%	12,6%
Group 4	13,3%	11,9%	12,6%	12,6%	12,7%	12,6%	7,5%	13,3%	14,9%	12,6%
Group 5	11,0%	12,8%	11,9%	10,7%	13,9%	11,9%	11,3%	11,8%	12,9%	11,9%
Group 6	12,9%	12,4%	12,6%	14,1%	10,2%	12,6%	13,8%	12,5%	11,9%	12,6%
Group 7	13,3%	11,9%	12,6%	12,6%	12,7%	12,6%	16,3%	12,5%	9,9%	12,6%
Group 8	11,0%	15,5%	13,3%	15,2%	10,2%	13,3%	12,5%	13,3%	13,9%	13,3%

Table 6. Distribution of respondents by socio-demographic characteristics in Study 2
After the detailed reliability analysis of scale items, items that amount for Cronbach's alpha below 0,7 were eliminated. In all cases, Cronbach's alpha of constructs is more than 0.7; therefore, all constructs and the overall questionnaire should be treated as reliable (Tables 7 and 8).

Scale	Scale reliability, Cronbach's Alpha	No. of scale items	
Price fairness perception	0,843	2	
Product quality perception	0,845	2	
Transaction value perception	0,760	2	
Price affect	0,927	13	
Purchase intention	0,831	3	
Involvement in the product category	0,921	10	

 Table 7. Construct reliability of Study 1

Table 8. Construct reliability of Study 2

Scale	Scale reliability, Cronbach's Alpha	No. of scale items	
Transaction value perception	0,968	4	
Product quality perception	0,951	4	
Price fairness perception (negative effect)	0,842	3	
Price fairness perception (positive effect)	0,972	5	
Price affect: pleasure	0,976	6	
Price affect: excitement	0,858	4	
Price affect: domination	0,893	6	
Price affect (total)	0,944	16	
Purchase intention	0,851	4	

6. STUDY 1 FINDINGS

The evaluation of involvement in the product category. T-test analysis revealed no statistically significant differences between involvements in the product category for investigated product types: F(1,178)=0,725, p=0,396 (p > 0,05) (Table 9).

 Table 9. Involvement in the product category (mean, 7-point semantic differential scale)

Involvement in the	Reusable face mask , N=100	Water park day ticket N=86
	3,107	3,219
product category	Moderate involvement	Moderate involvement
	(relatively low)	(relatively high)

Further analysis of Study 1 assumed that a water park day ticket is a relatively high-involvement product, and a reusable face mask is a relatively low-involvement product.

The influence of price change direction on product quality perception. The results showed that product quality perception varied dependent upon the direction of price change: F(1, 178) = 79,408 p = 0,000 (p < 0,05). With a price decrease M = 3,746; LB = 3,554; UB = 3,938), product quality perception was higher than with a price increase (M = 2,597; LB = 2,406; UB = 2,753).

The influence of price change level on product quality perception. The analysis revealed no statistically significant influence on product quality perception when the influence of price change level alone was examined F(1, 178) = 3,440 p = 0,065 (p > 0,05), as well as when price level changed by 10% (M = 3,284; LB = 3,101; UB = 3,468), and by 60% (M = 3,041; LB = 2,859; UB = 3,223).

The influence of price change level on product quality perception, dependent upon price change direction, given different involvement in the product category. Price level increase by 60% had a weaker influence on product quality perception (M =2,237; LB = 1,853; UB = 2,621) than price level increase by 10% (M = 3,000; LB = 2,605; UB = 3,395). The comparative analysis of two products disclosed a clear trend: the larger the price decrease, the higher product quality perception (reusable face mask: M = 3,455; water park day ticket: M = 4,031). However, in both cases, a weak relationship with price level decrease was found. It must be further noted that a smaller price level increase (by 10%) caused higher product quality perception than a higher price increase (by 60%). In the general case, price change had a stronger influence on the quality perception of a water park day ticket than on a reusable face mask. In the case of a reusable face mask, the price decrease by both 10% and 60% had different influences on product quality perception 10%: M = 3,893; LB = 3,445; UB = 4,340; 60%: M = 3,445; LB = 3,098; UB = 3,812). Similarly, the price increase had different influences in both cases (10%: M = 2,638; LB = 2,327; UB = 2,949; 60%: M = 2,443; LB = 2,160; UB = 2,726). In the case of a water park day ticket, a price decrease by 10% and 60% had different influences on product quality perception: a decrease by 60% influenced higher product quality perception M = 4,031; LB = 3,613; UB = 4,450) in comparison to a decrease by 10% (M = 3,606; LB = 3,315; UB = 3,898) (see Figures 3 and 4).





Figure 4. The influence of price change level on product quality perception (water park day ticket)

The influence of price change direction on price unfrairness perception. The results showed that price unfairness perception varied dependent upon price change direction: F(1, 178) = 150,543 p = 0,000 (p < 0,05). With a price decrease (M = 2,184; LB = 2,011; UB = 2,357), price unfairness perception was lower than with a price increase (M = 3,630; LB = 3,474; UB = 3,786).

The influence of price change level on price unfairness perception. The results showed no statistically significant influence on price unfairness perception when price change level alone was examined F(1, 178) = 6,273 p > 0,05.

The influence of price change level on price unfairness perception, dependent upon the price change direction, given different involvement in the product category. The data analysis disclosed that the differences in the influence of price change level and direction on price unfairness perception (Table 15) were statistically significant for both examined products: p<0,05. Price change level positively influenced price fairness perception dependent upon price change direction.

For both products, a price increase caused a higher price unfairness perception. It must be noted that a higher price increase led to higher price unfairness perception (reusable face mask, price increase by 10%: = 3,397; 60 proc. M = 3,857; water park day ticket, price increase by 10%: = 3,056; 60 proc. M = 4,211). Data analysis showed that a price increase for a water park day ticket caused a higher price unfairness perception compared to a reusable face mask. While the price decrease for both products caused lower price unfairness perception compared to the price increase. The author further highlights that a higher price decrease (60% in Study 1) led to lower price unfairness perception in comparison to 10% price decrease (reusable face mask, price decrease by 10%: = 2,464, by 60%: M = 2,182; water park day ticket, price decrease by 10%: = 2,121, by 60%: M = 1,969). However, in the case of a water park day ticket (relatively high-involvement product), price decrease caused lower price fairness perception in comparison to a price decrease for a reusable face mask (see Figures 5 and 6).



Figure 5. The influence of price change level on price unfairness perception (reusable face mask)

Figure 6. The influence of price change level on price unfairness perception (water park day ticket) The influence of price change direction on price affect. The results revealed that price affect varied dependent upon price change direction: F(1, 178) = 185,146 p = 0,000 (p < 0,05). With a price decrease (M = 1,818; LB = 1,527; UB = 2,109), transaction value perception was higher than with a price increase (M = -0,888; LB = -1,151; UB = -0,625).

The influence of price change level on price affect. The data analysis disclosed no statistically significant influence on transaction value perception when price change level alone was examined: F(1, 178) = 0.697 p = 0.405 (p > 0.05).

The influence price change level on transaction value perception, dependent upon price change direction, given involvement in the product category. For both examined products, a price increase caused a higher negative price affect. It has been observed that higher price increase led to greater negative price affect (reusable face mask, price increase by 10%: = -0,576; by 60%: M = -1,365; water park day ticket, price increase by 10%: M= -0,090; by 60 %: M = -1,522). The data analysis disclosed a higher negative price affect in the case of increased water park day ticket price compared to increased reusable face mask price.

For both examined products, a price decrease caused a higher positive price affect than a price increase. It can be further highlighted that a higher price decrease, by 60% in this Study, led to a higher positive price affect compared to 10% price decrease (reusable face mask, price decrease by 10%: M = 1,055, by 60%: M = 1,318; water park day ticket, price decrease by 10%: M = 1,802; by 60%: M = 3,096) (Figures 7 and 8).



Figure 7. The influence of price change level on price affect (reusable face mask).

Figure 8. The influence of price change level on price affect (water park day ticket).

The influence of price change direction on transaction value perception. The results revealed that transaction value perception varied dependent upon price change direction: F(1, 178) = 94,823 p = 0,000 (p < 0,05). With a price decrease (M = 3,607; LB = 3,436; UB = 3,778), transaction value perception was higher than with a price increase (M = 2,468; LB = 2,313; UB = 2,623).

The influence of price change level on transaction value perception. The research results disclosed no statistically significant influence on transaction value perception when only price change level was examined F(1, 178) = 3,697 p = 0,056 (p > 0,05), with price change by 10% M = 3,150; LB = 2,986; UB = 3,314), and by 60% (M = 2,925; LB = 2,762; UB = 3,088).

The influence of price change level on transaction value perception, dependent upon price change direction, given involvement in the product category. Transaction value perception decreased with price level increase. A higher price increase led to lower transaction value perception in cases of both examined products (reusable face mask, price increase by 10%: M = 2,517, by 60%: M = 2,357; water park day ticket, price increase by 10%: M = 2,944, by 60%: M = 2,053). With a higher price increase (by 60%), transaction value perception was lower, given a relatively high involvement in the product category (in the case of a water park day ticket; M = 2,053) compared to a relatively low involvement in the product category (reusable face mask; M = 2,357).

Price decrease level, in cases of both 10% and 60%, had a somewhat similar influence on transaction value perception (reusable face mask, price decrease by 10%: = 3,607, by 60%: M = 3,727; water park day ticket, price decrease by 10%: = 3,530, by 60%: M = 3,562); however, in the case of a higher price decrease (by 60%), transaction value perception was higher for the relatively high-involvement product (water park day ticket, M = 3,562) compared to the relatively low-involvement product (reusable face mask, M = 3,727) (see Figures 9 and 10).



Figure 9. The influence of price change level on transaction value perception (water park day ticket)

Figure 10. The influence of price change level on transaction value perception (reusable face mask)

The influence of price affect, price fairness perception, and product quality perception on purchase intention. The dissertation research model states that the intention to purchase a product is influenced by price affect, price fairness perception, and product quality perception. The coefficient of determination of the statistical model R2 = 0,780, F(1,181)=70,155. The analysis revealed three statistically significant regressors: price affect, transaction value perception, and price fairness perception. All three regressors in the model statistically significantly correlated with the dependent variable (p<0,05). One regressor: product quality perception, had no statistically significant correlation with the purchase intention (p >0,05) (see Table 10).

		Model 1								
V	ariables	B	SE	Rota	t	Sig.	Collinearity sta	Collinearity statistics		
		Ъ	SL	Deta			Tolerance	VIF		
1	(Constant)	2,958	0,469		6,307	0,000				
	Price affect	0,192	0,042	0,331	4,626	0,000	0,422	2,367		
	Transaction									
	value	0,328	0,096	0,278	3,430	0,001	0,331	3,024		
	perception									
	Product									
	quality	-0,011	0,078	-0,010 -0,136	0,892	0,435	2,298			
	perception									
	Price fairness	-0 278	0.082	-0.268	-3 371	0.001	0.342	2 920		
	perception	-0,278	0,082	-0,208	-5,571	0,001	0,342	2,920		
a. I	Dependent variab	le: purchase i	ntention							

Table 10. Coefficients of the regression model for the intention to purchase a product.

The influence of product quality perception and price fairness perception on transaction value perception. The dissertation research model states that price fairness perception and product quality perception have a direct positive influence on transaction value perception. The coefficient of determination of the research model R2 = 0,816, F(2,183)=182,124. The analysis showed that both regressors: price fairness perception and product quality perception, were statistically significant; both regressors statistically significantly correlated with the dependent variable (p<0,05) (see Table 11).

Variables		Model 1								
		В	SE	Beta	t	Sig.	Collinearity statistics			
							Tolerance	VIF		
1	(Constant)	3,222	0,276		11,687	0,000				
	Product quality perception	0,358	0,051	0,384	6,965	0,000	0,601	1,663		
	Price fairness perception	-0,454	0,048	-0,517	-9,381	0,000	0,601	1,663		
a.	a. Dependent variable: transaction value perception									

 Table 11. Coefficients of the research model for transaction value perception.

The moderating effect of the involvement in the product category on the relationships between elements of the research model. The statistical analysis revealed no statistically significant effect of the involvement in the product category on the examined relationships. It can be approached as a research limitation due to somewhat similar involvement in the product categorys and the lack of substantial differences between them.

Supplemental data analysis of Study 1 has proven that involvement in the product category moderated the relationships between product quality perception and price affect. The model statistically significantly predicted price affect (F (3, 182) = 48,5240 p<0,05). The interaction effect between product quality perception and price affect (product quality perception * price affect) was statistically significant: t=2,6099 (LLCI=0,0273; ULCI=0,1962), p<0,05.

A condition defines involvement in the product category at three relative involvement levels: relatively high, relatively moderate, and relatively low. In line with this research, the involvement interval was divided into three parts, subtracting the average of each relative value at three levels.

Figure 11 illustrates the findings of the moderating effect examination.



Figure 11. The moderation analysis (product quality perception has a stronger influence on price affect given relatively high involvement in the product category (water park day ticket)

Figure 11 demonstrates no consistent trend among the variables; hence, the influence of involvement in the product category on price affect is equivocal. A lower product quality perception, given high involvement in the product category, had a weaker influence on price affect.

The moderating effect of internal reference price-changed price difference on the relationships between elements of the empirical model. The model testing whether internal reference price-changed price difference (hereinafter: IRP) moderated the relationship between transaction value perception and purchase intention given relatively high-involvement product (water park day ticket) showed no statistical significance (F (3, 80) = 22,7725 p>0,05). Furthermore, the interaction effect between transaction value perception and intention: transaction value perception * internal reference price-changed price difference) was not statistically significant: t=0,2434 (LLCI=-0,0220; ULCI=0,0282), p>0,05.

The model testing whether the IRP-changed price difference moderated the relationship between transaction value perception and purchase intention in the case of a relatively low-involvement product (reusable face mask) statistically significantly predicted purchase intention (F (3, 93) = 46,9273 p<0,05). Moreover, the interaction effect between transaction value perception and purchase intention (purchase intention: transaction value perception * internal reference price-changed price difference) was statistically significant: t=5,3746 (LLCI=0,3637; ULCI=0,7900), p<0,05.

Figure 12 portrays the findings of the moderator analysis.



Figure 12. The moderation analysis (the moderating effect of the internal reference price-changed price difference on the relationship between transaction value perception and purchase intention given relatively low-involvement product (reusable face mask).

Figure 12 demonstrates that when transaction value perception was low, the IRP-changed price difference had a stronger influence on purchase intention than when transaction value perception was moderate or high. Therefore, the larger the IRP-changed price difference, the higher purchase intention, and vice versa.

The model testing whether the IRP-changed price difference moderated the relationship between product quality perception and transaction value perception given relatively high-involvement product (water park day ticket) statistically significantly predicted transaction value perception (F (3, 80) = 35,9753 p<0,05. Besides, the interaction effect of product quality perception and transaction value perception: product quality perception * internal reference price-changed price difference) was statistically significant: t=-2,2367 (LLCI=-0,0276; ULCI=-0,0016), p<0,05.

Figure 13 portrays the aforementioned findings.



Figure 13. The moderation analysis (the moderating effect of the internal reference price-changed price difference on the relationship between product quality perception and transaction value perception given relatively high-involvement product (water park day ticket)

As Figure 13 suggests, the lower product quality perception (water park day ticket), the stronger transaction value perception depended on the IRP-changed price difference. The moderation analysis of the IRP-changed price difference on the relationship between product quality perception and transaction value perception given relatively low-involvement product (reusable face mask) revealed no statistical significance in predicting transaction value perception (F (3, 93) = 22,1473 p>0,05). The interaction effect between product quality perception and transaction value perception (value perception: product quality perception * internal reference price-changed price difference) was not statistically significant: t = -1,9854 (LLCI=-0,0968; ULCI=-0,0968), p=0,05.

The model testing whether the IRP-changed price difference moderated the relationships between price unfairness perception and transaction value perception in the case of relatively high-involvement product (water park day ticket) was not statistically significant (F (3, 80) = 56,8374 p>0,05). Furthermore, the interaction effect between price unfairness perception and transaction value perception (interaction effect (Y*X): price unfairness perception * internal reference price-changed price difference) showed no statistical significance t=0,8534 (LLCI=-0,0076; ULCI=0,0189), p>0,05.

The model testing whether the IRP-changed price difference moderated the relationships between price unfairness perception and transaction value perception given relatively low-involvement product (reusable face mask) revealed no statistical significance (F (3, 93) = 32,5447 p>0,05). Besides, the interaction effect between price unfairness perception and transaction value perception (interaction effect (Y*X): price unfairness perception * internal reference price-changed price difference) was not statistically significant: t=1,1569 (LLCI=-0,0169; ULCI=0,0640), p>0,05.

The analysis of the research data of Study 1 identified that IRPchanged price difference moderated the relationships between price affect and transaction value perception in the case of a relatively highinvolvement product (water park day ticket). The model statistically significantly predicted transaction value perception (F (3, 80) = 31,8447 p<0,05), and the interaction effect between price affect and transaction value perception (value perception: price affect * internal reference price-changed price difference) was statistically significant: t=-3,9460 (LLCI=-0,0207; ULCI=-0,0068), p<0,05 (see Table 31).

The results of the moderation analysis are illustrated in Figure 14.



Figure 14. The moderation analysis (the moderating effect of internal reference price-changed price difference on the relationship between price affect and transaction value perception)

Figure 14 demonstrates that the lower the price affect, the stronger transaction value perception depended on the IRP-changed price difference. In the case of substantially high price affect, the influence of IRP-changed price difference on transaction value perception was reverse. The higher the price affect, the stronger a smaller IRP-changed price difference influences transaction value perception.

The model testing whether IRP-changed price difference moderated the relationship between price affect and transaction value perception in the case of relatively low-involvement product (reusable face mask) showed no statistical significance (F (3, 93) = 31,4873 p>0,05). Moreover, interaction effect between price affect and transaction value perception (value perception: price affect * internal reference price-changed price difference) was not statistically significant: t=-0,6951 (LLCI=-0,0359; ULCI=-0,0173), p>0,05.

To summarize the results of hypothesis testing, out of 27 hypotheses, 13 were accepted, and 14 were rejected. Table 12 exhibits the results of the hypothesis testing of Study 1:

Table 12. The results of hypothesis testing of Study 1.

H1: With a price decrease, product quality perception will be lower than with a price increase	Rejected
H2: Droduct quality percention will differ dependent	Paiaatad
H2: Product quality perception will dijjer dependent	кејестеа
upon price change level.	A
H3: Price change level will positively influence product	Accepted
quality perception, dependent upon price change	Printed
direction.	кејестей
H3a: With a higher price increase, product quality	Printed
perception will be higher given higher involvement in the	кејестеа
product category.	
H3b: With a higher price decrease, product quality	
perception will be lower given higher involvement in the	
product category.	
H4: With a price decrease, price fairness perception will	Accepted
be higher than with a price increase.	
H5: Price change level will have a direct positive	Rejected
influence on price fairness perception.	
H6: Price change level will positively influence price	Accepted
fairness perception, dependent upon price change	
direction.	Accepted
H6a: With a higher price increase, price fairness	
perception will be lower given higher involvement in the	Rejected
product category.	
H6b: With a higher price decrease, price fairness	
perception will be higher given higher involvement in the	
product category.	
H7: With a price decrease, price affect will be more	Accepted
positive than with a price increase.	
H8: Price change level will have a direct positive	Rejected
influence on price affect.	
H9: Price change level will positively influence price	Accepted
affect, dependent upon price change direction.	
H9a: With a higher price increase, price affect will be	Accepted
more negative given higher involvement in the product	
category.	Accepted

H9b: With a higher price decrease, price affect will be	
more positive given higher involvement in the product	
category.	
H10: With a higher price decrease, transaction value	Accepted
perception will be higher than with a price increase.	
H11: Price change level will have a direct positive	Rejected
influence on transaction value perception.	
H12: Price change level will positively influence	Accepted
transaction value perception, dependent upon price	
change direction.	Accepted
H12a: With a higher price increase, transaction value	
perception will be lower given higher involvement in the	Rejected
product category.	
H12b: With a higher price decrease, transaction value	
perception will be higher given higher involvement in the	
product category.	
H13: Price affect will have a direct positive influence on	Accepted
the intention to purchase a product.	
H14: transaction value perception will have a direct	Accepted
positive influence on the intention to purchase a product.	
H15: Product quality perception will have a direct	Rejected
positive influence on the intention to purchase a product.	
H16: Price fairness perception will have a direct positive	Accepted
influence on the intention to purchase a product.	
H17: Product quality perception will have a direct	Accepted
positive influence on transaction value perception.	
H18: Price fairness perception will have a direct positive	Accepted
influence on transaction value perception.	
H19: Price fairness perception will have a stronger	Rejected
influence on transaction value perception given higher	
involvement in the product category.	
H20: Product quality perception will have a stronger	Rejected
influence on transaction value perception given higher	
involvement in the product category.	
H21: Product quality perception will have a stronger	Rejected
influence on purchase intention given higher involvement	
in the product category.	

H22: Price affect will have a stronger influence on	Rejected
purchase intention given higher involvement in the	
product category.	
H23: transaction value perception will have a stronger	Rejected
influence on purchase intention given higher involvement	
in the product category.	
H24: Price fairness perception will have a stronger	Rejected
influence on purchase intention given higher involvement	
in the product category.	
H25: transaction value perception will have a stronger	Rejected
influence on purchase intention controlled by a larger	
internal reference price-changed price difference.	
H26: Product quality perception will have a stronger	Accepted
influence on transaction value perception controlled by a	
larger internal reference price-changed price difference	
е.	
H27: Price fairness perception will have a stronger	Rejected
influence on transaction value perception controlled by a	
larger internal reference price-changed price difference.	

7. FINDINGS OF THE STUDY 2

The influence of price change direction on product quality perception. The results revealed that product quality perception statistically significantly varied dependent upon price change direction: F(1, 864) = 99,551, p = 0,000 (p < 0,05). With a price decrease (M = 5,043; LB = 4,901; UB = 5,186), product quality perception was higher than with a price increase (M = 4,019; LB = 3,876; UB = 4,161).

The influence of price change level on product quality perception. The analysis of the interaction effect of each value of price change level on product quality perception revealed no statistical significance with the remaining price change level values (p>0,05) except the interaction between 10% and 60%, and between 60% and 10% (p<0,05).

The influence of price change level on product quality perception dependent upon price change direction. The research examined the influence of price change level on product quality perception dependent upon price change direction. The smallest price decrease (by 10%) had the strongest impact on product quality perception (M = 5,153; LB = 4,873; UB = 5,433). Price decrease by 20% (M = 5,051; LB = 4,073; UB = 5,339), by 60% (M = 5,016; LB = 4,732; UB = 5,300) and by 70% (M = 4,953; LB = 4,664; UB = 5,242) had a somewhat similar impact on product quality perception. The impact on product quality perception strengthened with a higher price level decrease; a 10% price decrease caused the highest product quality perception in comparison to other levels of price decrease. In the case of price increase, the highest product quality perception was caused by a price increase by 10% M = 4,357; LB = 4,073; UB = 4,641). Somewhat similar impact was observed with a price increase by 20% (M = 4,101; LB = 3,812; UB = 4,309) and by 70% (M = 3,950; LB = 3,666; UB = 4,234), while a 60% price increase had a weakest impact (M = 3,666; LB = 3,382; UB = 3,950). The most substantial difference has been discerned between a price decrease by 10% and a price increase by 60%: a smaller price level change, in the case of a price decrease, caused higher product quality perception. Vice versa, a higher price change, in cases of both price increase and price decrease, led to a lower product quality perception (see Figure 15).



Figure 15. The influence of price change level on product quality perception dependent upon price change direction.

The influence of price change direction on price unfairness perception. The results disclosed that price unfairness perception statistically significantly varied dependent upon price change direction: F(1, 864) = 169,708 p = 0,000 (p < 0.05). With a price decrease (M = 3,139; LB = 2,980; UB = 3,299), price unfairness perception was lower than with a price increase (M = 4,638; LB = 4,478; UB = 4,797).

The influence of price change level on price unfairness perception. The analysis of the interaction effect of each value of price change level on price unfairness perception revealed no statistical significance with the remaining price change level values (p>0,05).

The influence of price change level on price unfairness perception dependent upon price change direction. The evaluation of the influence of price change level on price fairness perception dependent upon price change direction disclosed that price level decrease by 70% (M = 2,969; LB = 2,645; UB = 3,292) caused the lowest price unfairness perception. A price increase by 60% caused the highest price unfairness perception (M = 4.955; LB = 4.637; UB =5,272). It must be noted that a price unfairness was lower with price level increase by 60% compared to price level increase by 70% (M =4639; LB = 4,332; UB = 4,957). The most substantial difference between price change level and direction has been observed between a price decrease by 70% and a price increase by 60%. In the case of price increase, a higher, but not the highest, price change level (in this Study, 60% compared to 70%) caused a higher price unfairness perception. In the case of a price decrease, a greater price change led to a lower price unfairness perception: the greatest price decrease (70% in this Study) caused the lowest price unfairness perception (see Figure 16).



Figure 16. The influence of price change level on price unfairness perception dependent upon price change direction.

The influence of price change direction on price affect. The analysis disclosed a statistically significant interaction of price change direction on price affect F(1, 872) = 742,285 p < 0,05. The intecation of price change level was not statistically significant on price affect F(3, 872) = 3,242 p > 0,05.

The influence of price change level on price affect. No statistically significant differences in the impact of price change level on price affect were identified in the evaluation of all price change levels F(3,864)=0,443 p>0,05.

The influence of price change level on price affect dependent upon price change direction. The analysis revealed that price affect varied depending upon change level and direction. The highest price decrease (by 70%) had the strongest impact on a positive price affect (M = 5,113; LB = 4,933; UB = 5,293). The impact of 60% price decrease on price affect slightly differed from the 70% price decrease M = 5,011; LB = 4,834; UB = 5,187). The impact on price affect weakened with a price level increase. A significant insight emerged: the impact on price affect was somewhat similar despite the level of price decrease. Nonetheless, the highest positive affect was observed with the highest price level decrease. In the case of a price increase, the highest negative affect was caused by a price increase by 20% (M = 3,302; LB = 3,122; UB = 3,482); however, a higher price increase did not cause stronger impact with 10% price increase M = 3,297; LB = 3,120; UB = 3,473) and 60% price increase (M = 3,256; LB = 3,080; UB = 3,433). The weakest influence on price affect was observed with 70% price increase (M = 3,090; LB = 2,914; UB = 3,267). The greatest difference in the interaction of price change level and direction on price affect was observed between 70% price decrease and 70% price increase (see Figure 17).



Figure 17. The influence of price change level on price affect dependent upon price change direction.

The influence of price change direction and level on price affect (pleasure, excitement, domination). Study 2 adopted the PAD construct and measured the influence of the interaction of price change level and direction on three emotions aroused by price affect: pleasure, excitement, and domination. The evaluation of the influence of price change level on price affect (domination) dependent on price change direction revealed that the highest price decrease (by 70%) had the strongest impact on price affect (domination) (M = 4,741; LB = 4,517; UB = 4,964). The impact of 10% price decrease (M = 4,659; LB = 4,443; UB = 4,876) on price affect (domination) slightly differed from 70% price decrease. Furthermore, 20% price decrease (M = 4,682; LB = 4,460; UB = 4,904) slightly differed from 70% price decrease (M = 4,682; LB = 4,460; UB = 4,904) and 70% price

decrease (M = 4,741; LB = 4,517; UB = 4,964). In the case of a price decrease, a greater price level change led to a stronger impact on price affect (domination). It must be further highlighted that the impact on price affect (domination) remains somewhat similar despite the level of price decrease. Yet the strongest impact was observed with the highest price level decrease. In the case of price increase, the highest affect was caused by a 60% price increase (M = 4042; LB = 3.823; UB = 4,262); however, a higher price level increase did not cause stronger impact in cases of 10% increase (M = 3,803; LB = 3,584; UB = 4,022), 20% increase M = 3,881; LB = 3,657; UB = 4,104), and 70% increase (M = 3,845; LB = 3,626; UB = 4,065). The largest difference was observed between a 70% price decrease and a 10% price increase: a lower price level led to a higher affect (domination). It must be emphasized that a 60% price increase caused a higher price affect (domination) than 70%, although it did not exceed the case of price decrease.

To compare findings of the data analysis, the author of this dissertation has developed graphs presenting visual comparisons of the influence of price change level on price affect dependent upon price change direction in the evaluation of each of three emotional responses aroused by price affect: pleasure, excitement, and domination (see Figures 18-20).



Figure 18. The influence of interaction of price change level and direction on price affect (pleasure)



Figure 19. The influence of interaction of price change level and direction on price affect (excitement)



Figure 20. The influence of interaction of price change level and direction on price affect (domination)

The influence of price change direction on transaction value perception. The results disclosed that transaction value perception statistically significantly varied dependent upon price change direction: F(1, 864) = 807,371 p = 0,000 (p < 0.05). With a price decrease (M = 5,354; LB = 5,214; UB = 5,495), transaction value perception was higher compared to a price increase (M = 2,477; LB = 2,337; UB = 2,618).

The influence of price change level on transaction value perception. No statistically significant differences in the influence of price change level on transaction value perception were found in the evaluation of all price change levels: F(3,864)=0,237 p>0,05.

The influence of price change level on transaction value perception dependent upon price change direction. The evaluation of the influence of price change level on transaction value perception dependent upon price change direction has proven that transaction value perception varied dependent upon the interaction of price change level and direction. In the case of a higher price decrease: by 60% (M = 5,805; LB = 5,525; UB = 6,084), transaction value perception was higher than in the case of 70% price decrease (M = 5,540; LB = 5,255; UB = 5,825). In the case of price increase, a 70% price increase (M = 2,948; LB = 2,668; UB = 3,227) caused the strongest effect on the lowered transaction value perception compared to a 20% price increase (M = 2,623; LB = 2,338; UB = 2,908), 60% price increase (M = 2,143; LB = 1,863; UB = 2,423), and 70% price increase (M = 2,195; LB = 1,916; UB = 2,475) (see Figure 21).



Figure 21. The influence of the interaction of price change level and direction on transaction value perception.

The influence of price affect, price fairness perception, and product quality perception on purchase intention. The dissertation research model states that purchase intention is influenced by price affect, price fairness perception, and product quality perception. The produced model had the determination coefficient $R^2 = 0.585$, F(6,865)=204,066. The analysis revealed four significant regressors: transaction value perception, product quality perception, price affect (domination), price affect (pleasure), and price affect (excitement). All regressors statistically significantly correlated with the dependent variable (p<0,05). Two regressors: price fairness perception and price affect (pleasure), showed no statistically significant correlation with purchase intention (p >0,05) (see Table 13).

Variables		Model 1							
		BS	SE	Beta	t	Sig.	Collinearity statistics		
							Tolerance	VIF	
1	(Constant)	1,123	0,208		5,410	0,000			
	Transaction value perception	0,535	0,034	0,612	15,760	0,000	0,317	3,154	
	Price fairness perception	-0,028	0,025	-0,028	-1,139	0,255	0,766	1,305	
	Product quality perception	0,087	0,030	0,076	2,869	0,004	0,681	1,468	
	Price affect (domination)	-0,116	0,039	-0,078	-2,952	0,003	0,681	1,462	
	Price affect (excitement)	0,161	0,045	0,119	3,567	0,000	0,684	2,310	
	Price affect (pleasure)	0,058	0,042	0,059	1,370	0,171	0,257	3,898	
a. d	a. dependent variable: purchase intention								

Table 13. Coefficients of the regression model of the intention to purchase a product.

With a price increase, the intention to purchase a product was influenced by four regressors: transaction value perception, product quality perception, price affect (domination), and price affect (excitement). All four regressors of the model statistically significantly correlated with the dependent variable (p<0,05). Two regressors: price fairness perception and price affect (pleasure), had no statistically significant correlation with purchase intention (p>0,05) in the case of a price increase. The determination coefficient of the model R2 = 0,449, F(6,429) = 58,343.

With a price decrease, the intention to purchase a product was influenced by three regressors: transaction value perception, price affect (domination) (partially), and price affect (excitement). All three regressors included in the model statistically significantly correlated with the dependent variable (p<0,05). Three regressors: price fairness perception, price affect (pleasure), and product quality perception had no statistically significant correlation with purchase intention (p >0,05) in the case of price decrease. The determination coefficient of the model R² = 0,427, F(6,429) = 53,307.

A comparative analysis of regression models evaluating the influence of regressors on purchase intention. Four predictive regression models of purchase intention of the entire research sample were produced (see Table 14).

М	Variables	R	\mathbb{R}^2	В	SE	Beta	р		
od							-		
el									
1	(Constant)		0.560	1,319	0,086		0,000		
	Transaction value	0,754	0,309	0,660	0,019	0,754	0,000		
	perception								
2	(Constant)			0,899	0,131		0,000		
	Transaction value			0,602	0,024	0,689	0,000		
	perception	0,760	0,578						
	Price affect			0,155	0,037	0,114	0,000		
	(excitement)								
3	(Constant)			1,114	0,157		0,000		
	Transaction value			0,605 0,02	0,024	0,692	0,000		
	perception								
	Price affect	0,762	0,581	0,198	0,041	0,145	0,000		
	(excitement)								
	Price affect			-0,094	0,039	-0,063	0,014		
	(domination)								
4	(Constant)			0,945	0,169		0,000		
	Transaction value			0,578	0,026	0,661	0,000		
	perception								
	Price affect			0,189	0,041	0,139	0,000		
	(excitement)	0,764	0,584						
	Price affect			-0,107	0,039	-0,072	0,000		
	(domination)								
	Product quality			0,081	0,030	0,071	0,000		
	perception								
Depe	Dependent variable: purchase intention								

 Table 14. Regression models the influence of regressors on purchase intention

Table 14 reveals that the first predictive model explained approximately 57% of the sample variance ($R^2 = 0,569$), indicating that transaction value perception predicted around 57% of purchase intention. P-value of transaction value perception t-statistics p = 0,000proved that the variable was statistically significant in the model (p<0,05). The second model included price affect (excitement) and explained 58% of the total sample ($R^2 = 0,578$). The third model, produced with a stepwise regression method, included price affect (domination) and explained 58% of the sample variance $R^2 = 0,581$). All independent variables in the model were statistically significant (p< 0,05). The fourth predictive model of purchase intention explained the largest proportion of the sample variance: 58% ($R^2 = 0,584$). The
fourth model had the highest multiple correlation coefficient (R =0,764); therefore, compared to the remaining models, it indicated the strongest prediction of purchase intention by all independent variables in the regression equation. Furthermore, Table 14 shows that transaction value perception was the strongest predictor (Beta = 0,578) of purchase intention, while price affect (excitement) predicted purchase intention weaker (Beta = 0,189), and price affect (domination) (Beta = -0,107) and product quality perception (Beta = 0,081) were the weakest predictors of purchase intention. All the variables were statistically significant in the regression model of purchase intention: p-value of the t-statistics < 0,05 for each variable.

Four predictive regression models were produced in the evaluation of regression models of purchase intention of the entire sample. They revealed that purchase intention most strongly depended on transaction value perception, less strongly on price affect (excitement), and most weakly on price affect (domination) and product quality perception. The comparison of predictive regression models in cases of a price decrease and price increase has proven that with a price decrease, purchase intention most strongly depends on transaction value perception and less strongly on price affect (excitement). With a price increase, purchase intention most strongly depends on transaction value perception and less strongly on product quality perception.

The influence of product quality perception, price fairness perception, price affect (pleasure, excitement, and domination), and internal reference price-changed price difference on transaction value perception. The dissertation research model states that transaction value perception is influenced by price affect (pleasure, excitement, and domination), price fairness perception, product quality perception, and internal reference price-changed price difference. The model had the determination coefficient $R^2 = 0,693$, F(6,864)=325,357 p<0,05. The analysis disclosed five regressors: product quality perception, price affect (domination), price affect (pleasure), internal reference price-changed price difference, and price fairness perception. All five regressors in the model statistically significantly correlated with the dependent variable (p<0,05). One regressor: price affect (excitement), had no statistically significant correlation with purchase intention (p>0,05) (see Table 15).

Variables		Model 1						
		В	SE	Beta	t	Sig.	Collinearity statistics	
							Tolera nce	VIF
1	(Constant)	0,934	0,210		4,445	0,000	0,934	0,210
	Price fairness perception	-0,132	0,024	-0,117	-5,495	0,000	-0,132	0,024
	Product quality perception	0,311	0,028	0,238	11,167	0,000	0,311	0,028
	Price affect (domination)	-0,110	0,039	-0,065	-2,849	0,004	-0,110	0,039
	Price affect (excitement)	0,035	0,045	0,023	0,792	0,429	0,035	0,045
	Price affect (pleasure)	0,652	0,036	0,584	18,092	0,000	0,652	0,036
	Internal reference price- changed price difference	-0,007	0,001	-0,115	-5,032	0,000	-0,007	0,001
a. Dependent variable: transaction value perception								

 Table 15. Coefficients of the regression model of transaction value perception

With a price increase, transaction value perception was influenced by five regressors: product quality perception, price affect (domination), price affect (excitement), price affect (pleasure), and internal reference price-changed price difference. All five regressors in the model statistically significantly correlated with the dependent variable (p<0,05). One regressor: price fairness perception had no statistically significant correlation with transaction value perception (p>0,05) in the case of a price increase. The produced model had a determination coefficient R2 = 0,406, F(6,429) = 48,847. With a price increase, price affect (pleasure) and product quality perception had the strongest positive impact on transaction value perception.

With a price decrease, transaction value perception was influenced by four regressors: price affect (excitement), price fairness perception, product quality perception, and internal reference price-changed price difference. All four regressors in the model statistically significantly correlated with the dependent variable (p<0,05). Two regressors: price affect (domination) and price affect (pleasure), had no statistically significant correlation with transaction value perception (p>0,05) in the case of a price decrease. The produced model had a determination coefficient R2 = 0,543, F(6,428) = 84,854. With a price decrease, transaction value perception is predicted by three factors: product quality perception, price affect (excitement), and price fairness.

Five predictive regression models of transaction value perception of the entire research sample were produced (see Table 16).

Model	Variables	R	\mathbb{R}^2	В	SE	Beta	p
1	(Constant)	0.797	0.620	0,514	0,100		0,000
	Price affect (pleasure)	0,787	0,620	0,880	0,023	0,787	0,000
2	(Constant)			-0,430	0,129		0,001
	Price affect (pleasure)	0,815	0,664	0,765	0,024	0,684	0,000
	Product quality perception			0,306	0,029	0,235	0,000
3	(Constant)			0,402	0,182		0,027
	Price affect (pleasure)	0.024	0.670	0,697	0,026	0,624	0,000
	Product quality perception	0,024	0,079	0,312	0,028	0,239	0,000
	Price unfairness perception			-0,153	0,024	-0,136	0,000
4.	(Constant)			0,690	0,202		0,001
	Price affect (pleasure)			0,734	0,028	0,657	0,000
	Product quality perception	0,826	0,683	0,324	0,028	0,248	0,000
	Price unfairness perception			-0,145	0,024	-0,128	0,000
	Price affect (domination)			-0,120	0,038	-0,071	0,001
5.	(Constant)			0,711	0,201		0,000
	Price affect (pleasure)			0,733	0,028	,656	0,000
	Product quality perception			0,320	0,028	,245	0,000
	Price unfairness perception	0,827	0,693	-0,148	0,024	-,132	0,000
	Price affect (domination)			-0,118	0,038	-,069	0,002
	Internal reference price-			-0,007	0,000	-,044	0.021
	changed price difference						0,021
Dependent variable: transaction value perception							

 Table 16. The regression models evaluating the influence of regressors on transaction value perception.

As Table 16 suggests, the first predictive model, which included price affect (excitement), explained 62% of sample variance ($R^2 =$ 0,620), i. e. around 62% of transaction value perception can be predicted by price affect (pleasure). P-value of price affect (pleasure) t-statistics p = 0,000; therefore, it can be stated that the variable is statistically significant in the model (p<0.05). The second model included product quality perception and explained 66% of the sample data ($R^2 = 0.664$). The third model, produced with a stepwise regression method, included price unfairness perception and explained 68% of the sample variance ($R^2 = 0,679$). Including all variables in the model showed statistical significance in all cases (p < 0.05). The fourth predictive model of transaction value perception explained somewhat similar sample variance as the third model: 68% (R² = 0,683). The fourth model had the highest multiple correlation coefficient (R =0,826) compared to other models; therefore, it indicated that all independent variables included in the regression equation were the strongest predictors of transaction value perception compared to other models when regressor: price affect (domination) added. The fifth predictive model of transaction value perception explained the most substantial proportion of the sample variation: 69% $(R^2 = 0.693)$. A multiple correlation coefficient of the fifth model was slightly higher compared to prior models (R = 0.827); thus, this model indicated the strongest prediction of transaction value perception by all independent variables in the regression equation, when regressor: internal reference price-changed price difference added. As seen from Table 16, transaction value perception most strongly depended on price affect (pleasure) (Beta = 0,733), less strongly on product quality perception (Beta = -0.148), price unfairness perception (Beta = -(0,148), price affect (domination) (Beta = -0,118), and internal reference price-changed price difference (Beta = -0.007). All the variables were statistically significant in the regression model of transaction value perception: p-value of the t-statistics < 0.05 for each variable.

Regression models were produced to evaluate the influence of a price decrease and price increase on transaction value perception. A comparison between predictive regression models in cases of a price decrease and price increase has proven that with a price decrease, transaction value perception most strongly depends on product quality perception and price affect (excitement), less strongly on price unfairness perception and internal reference price-changed price difference. With a price increase, transaction value perception most strongly depends on price affect (pleasure) and product quality perception, less strongly on price unfairness perception and internal reference price-changed price difference.

The moderating effect of internal reference price-changed price difference on the relationships between elements of the research model. The model testing whether internal reference pricechanged price difference moderated the relationship between transaction value perception and purchase intention statistically significantly predicted purchase intention (F (3, 867) = 412,9754 p<0,05. Besides, the interaction effect between transaction value perception and purchase intention: transaction value perception * internal reference price-changed price difference) was statistically significant: t=2,1248 (LLCI=0,0001; ULCI=0,0028), p<0,05.

Figure 22 proves the aforementioned findings.



Figure 22. The moderation analysis (the moderating effect of internal reference price-changed price difference on the relationship between transaction value perception and purchase intention).

Figure 22 reveals that in the case of lower transaction value perception, purchase intention depended on internal reference pricechanged price diffserence stronger compared to the cases of moderate or high transaction value perception.

The model testing whether internal reference price-changed price difference moderated the relationships between product quality perception and transaction value perception statistically significantly predicted transaction value perception (F (3, 867) = 272,5999 p<0,05. Furthermore, the interaction effect between product quality perception and transaction value perception (value perception: product quality perception * internal reference price-changed price difference) was statistically significant: t=-7,4017 (LLCI=-0,0088; ULCI=-0,0051), p<0,05 (see Figure 23).



Figure 23. The moderation analysis (the moderating effect of internal reference price-changed price difference on the relationship between product quality perception and transaction value perception)

Figure 23 indicates that the higher a product quality perception, the stronger a transaction value perception depended on the IRP-changed price difference.

The model testing whether internal reference price-changed price difference moderated the relationships between price unfairness perception and transaction value perception statistically significantly predicted transaction value perception (F (3, 867) = 170,6801 p<0,05. Furthermore, the interaction effect between price unfairness perception and transaction value perception (the interaction effect (Y*X): price unfairness perception * internal reference price-changed price difference) was statistically significant: t=3,4317 (LLCI=0,0014; ULCI=0,0051), p<0,05 (see Figure 24).



Figure 24. The moderation analysis (the moderating effect of internal reference price-changed price difference on the relationship between price unfairness perception and transaction value perception)

As Figure 24 suggests, the higher a price fairness perception, the stronger a transaction value perception depended on the IRP-changed price difference.

The analysis of mediation effects of the empirical research model. Mediation effects were tested using the "Process" plugin for the SPSS statistical software. The "Process" plugin allows parallel evaluations of several mediators and estimating the total effect.



Figure 25. The mediation effect of transaction value perception on the relationship between product quality perception and purchase intention.

$$\begin{split} PQP-product \ quality \ perception \\ VP-transaction \ value \ perception \\ PI-purchase \ intention \\ ^*p < 0.05; \\ ^{**}p < 0.001. \end{split}$$

Figure 25 proves statistically significant relationship between product quality perception and transaction value perception (p < 0,001), transaction value perception and purchase intention (p < 0,001), and product quality perception and purchase intention (p < 0,05). Table 17 portrays the indirect effects (the mediating effect of transaction value perception) of product quality perception on purchase intention.

 Table 17. Indirect effects of product quality perception and purchase intention through transaction value perception.

Mediation model M _{PVS}			
	Coeff.	LLCI	ULCI
Indirect effect	0,4363	0,4600	0,5949
Direct effect	0,0912	0,0330	0,1494
95 % CI	0,5274	0,3814	0,4923

The data analysis allowed stating that transaction value perception mediated the relationship between product quality perception and purchase intention. The relationship between product quality perception and purchase intention can be explained not singly by the mediating effect, as the analysis revealed the direct effect between variables. However, the mediating effect was stronger than the direct effect; therefore, it can be stated that the impact of product quality perception on purchase intention is stronger through transaction value perception. The research further examined the mediating effect of transaction value perception on the relationship between price affect (excitement) and purchase intention (Figure 26).



Figure 26. The mediating effect of transaction value perception on the relationship between price affect (excitement) and purchase intention.

$$\begin{split} PAE-price \ affect \ (excitement)\\ VP-transaction \ value \ perception\\ PI-purchase \ intention\\ ^*p < 0.05;\\ ^{**}p < 0.001. \end{split}$$

Figure 26 proves statistically significant relationship between price affect (excitement) and transaction value perception (p < 0,001), transaction value perception and purchase intention (p < 0,001), and price affect (excitement) and purchase intention (p < 0,05). The indirect effects (the mediating effect of transaction value perception) of price affect (excitement) on purchase intention (Table 18).

Table 18. Indirect effects of price affect (excitement) on purchase intention through transaction value perception.

Mediation model			
M _{PVS}			
	Coeff	LLCI	ULCI
Indirect effect	0,5503	0,4877	0,6148
Direct effect	0,1416	0,0699	0,2133
95 % CI	0,6919	0,6141	0,7697

The data analysis allowed stating that transaction value perception mediated the relationship between price affect (excitement) and purchase intention. The relationship between price affect (excitement) and purchase intention can be explained not singly by the mediating effect, as the analysis revealed the direct effect between variables (see Figure 26). However, the mediating effect was stronger than the direct effect; therefore, it can be stated that the impact of price affect (excitement) on purchase intention is stronger through transaction value perception.

The further analysis explored the mediating effect of transaction value perception on the relationship between price affect (domination) and purchase intention (Figure 27).



Figure 27. The mediating effect of transaction value perception on the relationship between price affect (domination) and purchase intention.

$$\begin{split} PAE-price affect (domination) \\ VP-transaction value perception \\ PI-purchase intention \\ *p < 0.05; \\ **p < 0.001. \end{split}$$

Figure 27 proves statistically significant relationship between price affect (domination) and transaction value perception (p < 0,001), transaction value perception and purchase intention (p < 0,001), while

the relationship between price affect (domination) and purchase intention was not statistically significant (p < 0.05). The indirect effects (the mediating effect of transaction value perception) of price affect (domination) on purchase intention (Table 19).

Table 19. Indirect effects of price affect (domination) on purchase intention

 through transaction value perception

Mediation model			
M _{PVS}			
	Coeff	LLCI	ULCI
Indirect effect	0,3804	0,3104	0,4509
Direct effect	-0,0176	-0,0860	0,0508
95 % CI	0,3628	0,2668	0,4588

The data analysis allowed stating that transaction value perception mediated the relationship between price affect (domination) and purchase intention. As the direct effect was not statistically significant, the mediating effect explained the relationship between price affect (domination) and purchase intention.

To summarize the results of hypothesis testing, out of 23 hypotheses, 16 were accepted, and 7 were rejected. Table 20 exhibits the results of hypothesis testing of Study 2:

Table 20. The results of hypothesis tesing of Study 2.

H1: With a price decrease, product quality perception will	Rejected
be lower than with a price increase.	
H2: Product quality perception will differ dependent upon	Rejected
price change level.	
H3: Price change level will positively influence product	Accepted
quality perception, dependent upon price change direction.	
H4: With a price decrease, price fairness perception will be	Accepted
higher than with a price increase.	
H5: Price change level will have a direct positive influence	Rejected
on price fairness perception.	

H6: Price change level will positively influence price	Accepted
fairness perception, dependent upon price change direction.	_
H7: With a price decrease, price affect will be more positive	Accepted
than with a price increase.	_
H8: Price change level will have a direct positive influence	Rejected
on price affect.	
H9: Price change level will positively influence price affect,	Accepted
dependent upon price change direction.	
H9a: With a higher price decrease, price affect (pleasure)	Accepted
will be higher than price affect (excitement).	
H9b: With a higher price decrease, price affect (domination)	Accepted
will be higher than price affect (excitement).	
H9c: With a higher price increase, price affect (excitement)	Accepted
will be higher than price affect (pleasure).	
H10: With a higher price decrease, transaction value	Accepted
perception will be higher than with a price increase.	
H11: Price change level will have a direct positive influence	Rejected
on transaction value perception.	
H12: Price change level will positively influence transaction	Accepted
value perception, dependent upon price change direction.	
H13: Price affect (pleasure) will have a direct positive	Rejected
influence on the intention to purchase a product.	
H14: Price affect (excitement) will have a direct positive	Accepted
influence on the intention to purchase a product.	
H15: Price affect (domination) will have a direct positive	Accepted
influence on the intention to purchase a product.	
H16: transaction value perception will have a direct positive	Accepted
influence on the intention to purchase a product.	
H17: Price fairness perception will have a direct positive	Rejected
influence on the intention to purchase a product.	-
H18: Product quality perception will have a direct positive	Accepted
influence on the intention to purchase a product.	
H19: Product quality perception will have a direct positive	Accepted
influence on transaction value perception.	-
H20: Price fairness perception will have a direct positive	Accepted
influence on transaction value perception.	-
H21: transaction value perception will have a stronger	Accepted
influence on purchase intention controlled by a larger	-
internal reference price-changed price difference.	

H22: Product quality perception will have a stronger	Accepted
influence on transaction value perception controlled by a	
larger internal reference price-changed price difference.	
H23: Price fairness perception will have a stronger	Accepted
influence on transaction value perception controlled by a	
larger internal reference price-changed price difference.	

CONCLUSIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

The detailed literature review, the formulated methodology of the empirical research, the performed empirical research of the dissertation, and the generalized research results allow the author to make the following conclusions and prove six formulated dissertation statements:

1. Representatives of the behavioral science field criticize the rational human decision-making model and defend the existence of both emotional and rational justification of human behavior (Kahneman and Tversky, 1974; Damasio, 1994). Behavioral pricing science proves that price is a stimulus that, dependent upon its frame, level, communication (Bagchi and Davis, 2012; Gamliel and Herstein, 2012; Koo and Suk, 2019; Sinha and Smith, 2000; Sokolova and Li, 2020) evokes positive or negative consumer response. The latter, in turn, influences consumer's purchase intentions, choice intentions, product evaluation, and word-of-mouth (Kim and Kim, 2014; Oh et al., 2008; Sautter et al., 2004, Björk, 2010; Manganari et al., 2009; Mummalaneni, 2005; Ganesh et al. 2010). The dissertation analyzes the emotional aspect of perception, evaluates the influence of price change direction and level on consumer's emotional response (price affect), and three emotions aroused by price affect: pleasure, excitement, and domination. Only a small proportion of researchers (Mathwick and Rigdon, 2004; Massara et al., 2010; Miniero et al., 2014) addressed domination emotions in empirical studies, proving

the relationship with price change level and direction. Study 1 and Study 2 of this dissertation provided evidence that a significant price increase (by 70%) causes negative price affect. A significant price decrease (by 70%) leads to stronger excitement emotion, aroused by price affect, but not pleasure or domination. It must be highlighted that a price increase by 10-60% causes a somewhat similar price affect. A significant price decrease (by 70%) causes a positive price affect. A significant price increase (by 70%) leads to stronger pleasure emotion, aroused by price affect. A significant price increase (by 70%) leads to stronger domination emotion, aroused by price affect, than pleasure emotion. It must be further emphasized that a price decrease by 10-60% causes a somewhat similar price affect. The evaluation of the influence of price change level on price affect (domination) revealed that the highest price decrease (by 70%) had the strongest impact on price affect (domination). With a price decrease, a higher price level had a more substantial impact on price affect (domination). A price increase by 70% caused more negative price affect compared to a price increase by 60%, given higher involvement in the product category. However, with a higher price decrease, price fairness perception was higher given lower involvement in the product category. A somewhat minor price increase (by 20%) caused a more positive price affect in comparison to a 60% price increase given higher involvement in the product category. The evaluation of whether price change level solely influenced product quality perception, price fairness perception, price affect, and transaction value perception did not reveal statistically significant relationships.

2. Researches often link cognitive price assessment with transaction value perception, which is examined through product quality (Palma et al. 2016; Lee and Chen-Yu, 2018; Ding et al., 2010; Erdem et al., 2008; Golder et al., 2012; Suri and Monroe, 2003) and price fairness perception (Xia et al., 2004; Zietsman et al., 2019; Nguyen and Meng, 2016). When the price level, with no promotion features involved, has no substantial impact on product quality perception (Mastrobuoni et al., 2014), it directly impacts price fairness

perception, especially in the case of a price increase (Xia et al., 2004). O'Neil and Labert (2001). Researchers give somewhat less attention to price level decrease and price fairness perception aspects; therefore, this area has the potential to generate new valuable scientific insights. This dissertation analyzed the cognitive aspect of price perception, evaluating the influence of price change direction and level, as well as their interaction, on product quality perception and price fairness perception. It can be concluded that consumers react to price level changes differently dependent upon different involvement in the product category, evaluating price fairness perception. High involvement in the product category in cases of both price increase and price decrease influences price fairness perception. Price change level alone has no influence on price fairness perception; however, price change level positively influences price fairness perception dependent upon price change direction. With a price increase, a higher price change level causes a more negative price fairness perception. A higher price decrease leads to a higher positive price fairness perception. Price change direction influences product quality perception, yet price level does not influence product quality perception. Price change level positively influences product quality perception dependent upon price change direction; however, in the case of a more substantial price decrease, product quality perception is lower given lower involvement in the product category.

3. Zeithaml (1988), Monroe (1990) enhanced the concept of transaction value perception by stating that consumer perception of value is a compromise between benefit received by purchasing a highquality product and expenses perception experienced when paying the price for a product. A price-quality ratio has a direct influence on price transaction value perception: Gale (1994) proved that the higher pricequality ratio, the higher transaction value perception. This dissertation presents evidence that price change direction influences transaction value perception, and price change level positively influences transaction. With a price increase, transaction value perception is lower than with a price decrease. In the case of a price increase, transaction value perception is lowest with a 60% price increase. In the case of a price decrease, transaction value perception is highest with a 60% price decrease. The author of this dissertation emphasizes that a price decrease/increase by 10-60% causes somewhat a similar price affect. In the case of a price increase, price affect (pleasure) and product quality perception have the strongest positive impact on transaction value perception. In the case of a price decrease, three factors determine transaction value perception: product quality perception, price affect (excitement), and price fairness perception. The relationship between product quality perception and price affect is moderated by involvement in the product category.

4. Scholars state that consumer price transaction perception is often indirectly influenced by internal reference price-changed price difference (Festinger, 1954; Major and Testa, 1989; Ashworth and McShane, 2012; Haws and Bearden, 2006). Internal reference price is not static, it can constantly fluctuate dependent upon the environment, market knowledge, high or low consumer's purchase experience (Cheng and Monroe, 2013). Internal reference price-changed price difference is related to price fairness perception, which is often linked with changed price-internal reference price comparison: a more substantial difference, i. e., changed price is higher compared to the internal reference price, leads to lower price fairness perception. This dissertation proved that transaction value perception influences purchase intention with interaction effect of internal reference pricechanged price difference, dependent upon different product types. The lower the transaction value perception, the stronger purchase intention depends on minor internal reference price-changed price difference. The lower product quality perception, the stronger transaction value perception depends on internal reference price-changed price difference. Furthermore, internal reference price-changed price difference moderates the relationship between price fairness perception and transaction value perception, dependent upon the product type.

5. The scientific literature specifies that the impact of price on the intention to purchase a product is formed through perceived product quality, perceived expenses, and perceived value. Recent studies prove the aforementioned mediating effect (De Medeiros et al., 2016; Chapman and Wahlers, 1999). This dissertation provides evidence of other mediating effects. The influence of product quality perception on purchase intention is stronger through transaction value perception. The influence of price affect (excitement) on purchase intention is stronger through value intention. The influence of price affect (domination) on purchase intention is stronger through value intention. The direct effect of price fairness perception on transaction value perception is stronger compared to the mediating effect of price affect (excitement and domination) is stronger through transaction value perception.

The results of the empirical research allow the author of this dissertation to propose **the following recommendations for future scientific research** on the topic of this dissertation or related themes:

1. To conduct a study based on the conceptual model of the dissertation investigating low-involvement and high-involvement products for a more precise measurement of the moderating effect on the examined relationships.

2. To include more price change levels (in cases of a price decrease/increase) in the investigation of their impact on price affect and emotional responses aroused by it, price fairness perception, product quality perception.

3. Expand the research model measuring the antecedents of a price increase and price decrease to produce more robust evidence of the relationships between elements of the model.

4. To evoke price affect domination emotion, which has a direct influence on purchase intention, it is recommended to apply the highest possible price decrease level. 5. A price increase causes excitement emotion aroused by price affect, while a price decrease causes pleasure emotion. In the formation of a value proposition, it is recommended to include words, message, price frame, product presentation that evoke the aforementioned emotions.

6. Price level increase is linked to perceived unfair price; therefore, it is recommended to measure its influence on transaction value perception and purchase intention supplemented by price promotion features, such as seller's message, the reason for a price increase, and others.

PRACTICAL IMPLEMENTATION

Price level decrease or increase decisions require evaluating consumer reactions aroused by the price change. The empirical studies carried out in this dissertation prove that price direction: price decrease or increase, impact product quality perception, price fairness perception, and price affect. The results disclose that in pricing decision-making, practitioners can expect that consumers would evaluate price value and purchase intention based on the aforementioned factors. Thus, pricing decisions shall consider their significance.

The second aspect revealed in the empirical studies of this dissertation is that price change level itself does not directly impact product quality perception, price fairness perception, or price affect. However, price change level positively influences price fairness perception, and price affect dependent upon price change direction. It must be highlighted that a minor price decrease (by 10%) will cause a higher price unfairness perception compared to a more substantial price decrease (by 20%). With a price level decrease, price fairness perception increases, yet between 20% and 60% price decrease, price fairness of the empirical studies, the author of this dissertation suggests that decisions on price level decrease shall apply more substantial price

decrease levels to evoke a higher price fairness perception. With a price increase, the lowest price fairness perception has been found in the case of a 60% price increase. The author notes that with a price increase by 20% and 70%, price fairness perception remains rather similar. Therefore, decisions on the price increase must recognize that a minor price level increase will cause a higher price fairness perception; however, when a price level increases by 20-70%, price fairness begins to decrease. Thus, it is essential to acknowledge that supplementary proposition arguments or indicating the reasons for a price increase can strengthen price fairness perception. In the evaluation of price affect, the author of this dissertation emphasizes that in the case of a price decrease, price affect is sore positive compared to a price increase. For the highest possible positive price affect, a price level shall be significantly decreased: up to 70%, as the empirical studies of this dissertation reveal. It must be further highlighted that the data analysis did not reveal remarkably abrupt price affect change with 10% and 70% price decrease; however, its tendency to increase is evident. A practical suggestion for evoking price affect by decreasing the price is to propose the highest possible price decrease taking into account product type and its features, striving to evoke price affect, which has a direct influence on the intention to purchase a product. In the case of price increase, the highest negative price affect is aroused by applying the highest price increase level. It must be emphasized that a negative price affect slightly varies with a 10%, 20%, and 60% price increase. Thus, the practical implication is that a higher price level increase leads to a higher negative emotional response to the increased price.

In the development of the price proposition, it is essential to evaluate the price affect aroused by the changed price. Furthermore, particular emotions aroused by changed price shall be acknowledged. A 70% price decrease evokes the highest pleasure emotional response; a price increase by 60% evokes domination emotional response. In the case of price increase, excitement emotional response is stronger compared to pleasure. The practical insight ascents: the more substantial price decrease, the stronger consumer experiences pleasure, which can appeal to stronger wish to purchase more products or to stop postponing a purchase, i.e., to purchase "here and now". Besides, it can evoke a spontaneous, impulsive response that can showcase shopping pleasure as well. A more substantial price increase leads to stronger domination and excitement emotional responses and weaker pleasure emotional response. It must be noted that domination emotional response shows that a consumer strongly responds to the price as if a price would "operate" consumer decisions. Thus, either a radical refusal or acceptance follows. If a price increase is sufficiently high, namely 60%, a consumer can dismiss product benefits, perceive the price as unacceptable, or choke price. Practitioners shall assess the highest price acceptable for a consumer; otherwise, an excessively high price can evoke a rejection response without even considering proposition benefits.

Another practical implication emerges: consumers perceive a higher price value when a price level decrease is more substantial (60-70%), transaction value perception decreases with the price increase. Even a 10% price increase causes a significantly lower transaction value perception than a 10% price decrease. Furthermore, transaction value perception drops substantially with a higher price increase (by 60-70%). In the price increase decisions, to avoid the decrease of transaction value perception, it is recommended to assess the product quality perception and price affect (pleasure) aroused by different price increase levels and determine the internal reference pricechanged price difference. Evaluating the aforementioned factors is expected to help avoid critical errors in price increase decision-making and prevent a substantial decline of transaction value perception. In the case of a price decrease, a consumer is sensitive to product quality perception, price affect (excitement) level aroused by different price decrease levels, and transaction value perception.

Practitioners must acknowledge the consumer's internal reference price as the internal reference price-changed price difference determines the relationship between transaction value perception and purchase intention, as well as the relationship between transaction value perception and price fairness perception and between transaction value perception and product quality perception. In practical pricing decision-making, the evaluation of internal reference price-change price difference in both cases of a price decrease and price increase is essential. For instance, when product quality perception is high, a more substantial internal reference price-changed price difference is expected to lead to a higher transaction value perception, and vise versa. Another practical insight follows: when price fairness perception is low, a higher internal reference price-changed price difference leads to higher transaction value perception and vise versa.

Transaction value perception plays a critical role in the intention to purchase a product; therefore, it is essential to recognize that price proposition often evokes high/low product quality perception and price affect (excitement), which influence purchase intention through transaction value perception. The aforementioned insight is crucial in the price increase decision-making: they shall appeal to product quality perception and the expression of aroused excitement emotional response. In the case of a price decrease, price discount propositions shall be formed with regard to that price level decrease evokes domination emotional response, which leads to a higher purchase intention through higher transaction value perception. In that case, a consumer is operated through the emotional response that would trigger price discount-controlled consumer behavior.

The findings of the empirical research of this doctoral dissertation have comprehensive practical application in such areas as pricing strategy development, price change decision-making, and product promotion planning.

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REZIUMĖ

Kaina – tai prekės vertės išraiška, taip pat tai rinkodaros veiksnys, lemiantis vartotoju sprendimus ir ketinimus. Pagrindinė elgsenos mokslo prielaida yra ta, kad realiame gyvenime žmogus gali elgtis kitaip, nei leidžia spėti teorinis vertinimas. Dažnai žmogaus sprendimai yra siejami su racionalaus pasirinkimo teorijomis, kurios pagrindžia pagrindinę kognityvizmo idėją, kad žmogaus sprendimai yra konstruktyvūs, kumuliatyvūs, orientuoti į tikslą ir racionaliai naudos vertinimą. Šios teorijos pamatas apskaičiuotos vra isitikinimas, kad žmogus visuomet ieško ekonomiškai naudingiausio sprendimo (lot. homo economicus), racionaliai pasveria visus "už" ir "prieš" ir tokiu būdu pasirenka optimaliausią variantą. Bet taip pat pastebima ir tam tikra teorijų transformacija, teigianti, kad žmogaus elgesys ir sprendimai yra kompleksiški, stipriai veikiami aplinkos, fiziniu psichologiniu veiksniu, sužadintu emociju ir požiūrio, nuostatu bei socialinių normų. Garsūs bihevioristinės krypties mokslininkai

Kahneman ir Tversky (1974) bei Damasio (1994) kritikuoja racionalu žmogaus sprendimu priėmimo modeli ir teigia, kad egzistuoja tiek emocionalus, tiek racionalus žmogaus elgesio pagrindimas. Vėlesni tyrimai parodė, kad emocijos iš tiesų vaidina reikšmingą vaidmenį vartotojams priimant sprendimus. Clore (1992), Forgas (1995), Isen (1993), Lerner ir Keltner (2000), Schwartz (1990) irodo, kad afektas, spontaniškai stimulo sukelta emocinė reakcija, turi tiesiogini teigiama ryšį su vartotojų vertinimais ir pasirinkimais tiek trumpalaikiu, tiek ilgalaikiu laikotarpiu. Bihevioristinė paradigma dažniausiai grindžiama modeliu S (stimulas) \rightarrow O (organizmas) \rightarrow R (reakcija) (Mehrabian ir Russel, 1974; Laroche, 2010), kuri apeliuoja į emocini dirgiklį – stimulą, kaip sukeltos emocinės reakcijos priežastį. Elgsenos kainodaros mokslas pagrindžia, kad kaina yra stimulas, kuris priklausomai nuo jo formos, dydžio, komunikacijos (Bagchi ir Davis, 2012; Gamliel ir Herstein, 2012; Koo ir Suk, 2019; Sinha ir Smith, 2000; Sokolova ir Li, 2020) sukelia teigiama arba neigiama vartotojo reakcija, darančia itaka jo ketinimams pirkti, pasirinkti, vertinti preke, taip pat skleisti informaciją apie prekę kitiems vartotojams (Kim ir Kim, 2014; Oh ir kt., 2008; Sautter ir kt., 2004, Björk, 2010; Manganari ir kt., 2009; Mummalaneni, 2005; Ganesh ir kt. 2010). Atlikta nemažai tyrimų, kuriuose yra tiriama kainos formos įtaka vartotojų emocinei reakcijai. Kiek mažiau tyrimų yra atlikta vertinant kainos dydžio, tiek ja didinant, tiek mažinant, itaka vartotoju emocinėms reakcijoms: susijaudinimui, malonumui ir dominavimui (angl. excitement, pleasure, domination – PAD) (Mehrabian, 1980).

Disertacija jungia dvi mokslo paradigmas – kognityvizmą ir biheviorizmą, grindžiant, kad kainos dydis, tiek ją sumažinus, tiek padidinus, gali sukelti vartotojo tiek racionalius, tiek afektyvius, t. y. emocinius, vertinimus, kurie darys įtaką pasiūlymo vertės suvokimui ir ketinimui pirkti prekę. Žymėtina, kad mokslinio darbo kryptis turi teorinę prielaidą, kad kainos dydis, be papildomos informacijos apie prekę, prekės ženklą ir prekės kokybės savybes, gali daryti dualų (lot. *dualis* — dvejopas, dvigubas) poveikį vartotojo sprendimams. Kognityvioji vartotojo elgsena siejama su kainos suvokimo veiksniais kainos sąžiningumo ir prekės kokybės suvokimu, o emocinė – su vartotojo emocine reakcija į stimulą, šiuo atveju kainos dydžio padidėjimą ir kainos dydžio sumažėjimą.

Elgsenos kainodaros tyrimai išskiria kainos kaip stimulo poveiki kognityviam - (sąmoningam / racionaliam / apgalvotam) ir afektyviam (emocionaliam / spontaniškam) vartotojo suvokimui. Lazarus (1991), Damasio (1994), Schwartz (1990) pateikė svarstymą, kad individas, susidūręs su emocionalia situacija, ją vertina kaip problemą – racionaliai: susitelkia į sprendimo paiešką, arba emocionaliai – afektyviai, spontaniškai: išgyvenamos sunkiai kontroliuojamos teigiamos / neigiamos emocijos. Afekto itaka neabejotina vartotojo elgsenai (Andrade, 2005). Afekto ir jausmų sąsajas tyrė Schwarz ir Clore (1983), nuotaikų ryšį su afektu – Bower (1981), o afekto įtaką, vadinamąjį įsiliejimą (angl. affect infusion) -Forgas (1995), Peine ir kt. (2009) susiejo kainos afektą ir emocini afekta, teigdamas, kad neigiama kainos afekta galima sieti su kainos padidėjimu, kuris gali sukelti vartotojo negatyvius ketinimus, pavyzdžiui, pasirinktoje parduotuvėje atsisakyti pirkti prekę, taip pat pirkti mažiau. Teigiamą kainos afektą, priešingai, dažniausiai sukelia kainos dydžio sumažėjimas, darantis tiesioginę teigiamą įtaką ketinimui pirkti prekę, taip pat šiuo atveju žemesnės kainos suvokimas blokuoja tos pačios prekės pirkimą aukštesne kaina (Lee ir Thorson, 2009; Donovan ir Rossiter, 1982; Lee ir kt., 2019).

Disertacijos autorės nuomone, apibendrinant disertacijos tema aktualius tyrimus, galima teigti, kad šiuo metu mokslinėje literatūroje yra tyrimų spraga nagrinėjant kainos pokyčio dydžio ir krypties įtaką vartotojo kognityviniam ir afektyviam (emociniam) kainos vertinimui, kai stimulas yra tik kainos dydžio sumažėjimas ir padidėjimas, atsiribojant nuo prekės ženklo, prekės kokybės savybių, komunikacijos žinutės. Pritariama ankstesniems tyrimams kainos dydžio įtaką ketinimui pirkti prekę matuoti per pasiūlymo vertės suvokimą, vertinant kainos sąžiningumo ir prekės kokybės suvokimą. Bet praplečiamas teorinis matymas, papildantis atliktų tyrimų įžvalgas kainos afektą matuoti įvertinant vartotojo emocinę reakciją ir ją susiejant su trijų emocinių reakcijų sužadinimu: susijaudinimu, malonumu ir dominavimu. Ankstesniuose tyrimuose dominavimo dimensija buvo atmetama, taikant dviejų emocijų matavimą. Tyrimai rodo, kad vien tik kaina dažniausiai neturi tiesioginio ryšio su prekės kokybės suvokimu, todėl kainos dydžio pasikeitimas yra numatomas kaip kainos informacijos ir pateikimo forma, kuri turėtų veikti prekės kokybės suvokimą ir daryti įtaką ketinimui pirkti prekę per pasiūlymo vertės suvokimą, vidinę referencinę kainą ar / ir įsitraukimą į prekės kategoriją. Šios tyrimų probleminės įžvalgos leidžia formuoti **mokslinę problemą** kaip klausimą: kokia kainos pokyčio krypties ir dydžio įtaka pasiūlymo vertės suvokimui ir ketinimui pirkti vertinant kainos afektą, kainos sąžiningumo suvokimą ir prekės kokybės suvokimą? Šis klausimas nėra plačiai nagrinėtas, papildant tyrimus tokiais veiksniais kaip įsitraukimas į kategoriją bei vidinės referencinės kainos ir pasikeitusios kainos skirtumas.

Disertacijos tikslas – nustatyti kainos pokyčio krypties ir dydžio įtaką ketinimui pirkti prekę, vertinant prekės kokybės suvokimą, kainos sąžiningumo suvokimą, kainos afektą ir pasiūlymo vertės suvokimą.

Disertacijos tikslui pasiekti iškelti šie uždaviniai:

1. Atskleisti vartotojų mąstymo ir sprendimų priėmimo tipologiją elgsenos kainodaroje, remiantis pagrindinėmis vartotojų elgsenos, kognityvizmo ir biheviorizmo, ekonomikos ir rinkodaros teorijomis.

2. Išnagrinėti kainos pokyčio įtaką pasiūlymo vertės suvokimui ir ketinimui pirkti per vartotojų emocinių reakcijų, kainos sąžiningumo ir prekės kokybės suvokimo ir ketinimo pirkti teorinį aspektą.

3. Sudaryti disertacijos tyrimo modelį, įtraukiant kainos pokyčio dydžio ir krypties, ir jų sąveikos įtakos sukeltam kainos afektui, kainos sąžiningumo suvokimui, prekės kokybės suvokimui, pasiūlymo vertės suvokimui reikšmę ketinimui pirkti prekę.

4. Remiantis sudarytu tyrimu modeliu, parengti tyrimo metodiką skirtingų kainos lygių sukelto afekto ir kainos sąžiningumo suvokimo įtakai ketinimui pirkti matuoti.

5. Atlikti empirinius tyrimus, nustatant kainos pokyčio dydžio ir krypties, ir jų sąveikos įtaką vartotojų emociniam ir kognityviniam ketinimo pirkti prekę vertinimui.

6. Empiriškai įvertinti kainos pokyčio dydžio ir krypties, ir jų sąveikos įtaką vartotojų emociniam ir kognityviniam ketinimo pirkti prekę vertinimui.

7. Pateikti rekomendacijas kainodaros sprendimams priimti siejant su atliktais disertacijos empiriniais tyrimais.

Disertacijos ginamieji teiginiai:

1. Vartotojas pasiūlymo vertės suvokimą ir ketinimą pirkti prekę, priklausomai nuo kainos pokyčio krypties ir dydžio, vertina emocionaliai ir kognityviai.

2. Kainos pokyčio dydis daro teigiamą įtaką kainos afektui (malonumui, susijaudinimui, dominavimui) priklausomai nuo kainos pokyčio krypties.

3. Kainos sąžiningumo suvokimas daro įtaką ketinimui pirkti prekę per pasiūlymo vertės suvokimą.

4. Kainos afekto įtaka ketinimui pirkti yra priklausoma nuo sukeltų kainos afekto emocinių reakcijų.

5. Kuo didesnis kainos sumažėjimas, tuo didesnis kainos afekto poveikis, sukeliantis dominavimo emocinę reakciją.

6. Vidinės referencinės kainos ir pasikeitusios kainos skirtumas veikia kaip moderatorius tarp kainos sąžiningumo suvokimo, prekės kokybės suvokimo ir pasiūlymo vertės suvokimo bei ketinimo pirkti.

Disertacijos mokslinis naujumas ir įnašas į mokslą. Ši disertacija užpildo mokslinės literatūros spragas nagrinėjant kainos pokyčio dydžio ir krypties poveikį kainos afekto sukeltoms emocinėms reakcijoms: malonumui, susijaudinimui ir dominavimui, taip pat kainos sąžiningumo suvokimui ir prekės kokybės suvokimui. Disertacijos autorės atlikti empiriniai tyrimai įrodo, kad vartotojas pasiūlymo vertės suvokimą ir ketinimą pirkti prekę, priklausomai nuo kainos pokyčio krypties ir dydžio, vertina emocionaliai ir kognityviai.

Disertacijoje atlikti du reprezentatyvūs empiriniai tyrimai: 1 tyrimas (N= 186) ir 2 tyrimas (N= 436). Tyrimus sudarančios imtys
kiekvienai iš tirtų kategorijų yra homogeniškos tarpusavyje, taip pat atitinka eksperimento patikimumo sąlygą.

Disertacijos autorė adaptavo kainos afekto skalę, užtikrindama šios skalės tinkamumą Lietuvos rinkai bei galimybę pamatuoti tris emocines reakcijas (malonumas, susijaudinimas, dominavimas) į sužadintą kainos afektą. 2 tyrimo konstruktas yra aukšto patikimumo tęsiant ateities elgsenos kainodaros tyrimus.

2 tyrimo empirinio modelio mediacijos afektų nustatymas leido suformuoti papildomas disertacijos išvadas, kurios ypač naudingos tolesniems tyrimams.

Mokslinio tyrimo metodologija ir empirinių tyrimų metodika. Disertacijoje taikomas deduktyvus ir induktyvus požiūriai, leidžiantys apibrėžti tyrimo problematiką atlikus teorinių šaltinių analizę, kuria grindžiant formuluojamos iš anksto žinomos struktūruotos tyrimo kryptys. Taikomas kompleksiškas požiūris, kuris leidžia atskleisti kontekstus, apibrėžti sąlygas, priežastis, pasekmes, taip pat prognozuoti tarpusavio ryšius. Toks požiūris dažnu atveju padėjo atskleisti tiriamų reiškinių dimensionalumą.

Disertacijoje atliekami du empiriniai tyrimai: 1 tyrimas ir 2 tyrimas. 1 tyrime naudojamas faktorinis eksperimento dizainas 2 x 2 x 2 (du isitraukimai i kategorija x dvi kainos pokyčio kryptys x du kainos pokyčio dydžiai), suformuojamos 8 situacijos, kurios suskirstomos į 4 homogeniškas apklausiamųjų grupes. Iš viso tyrimų rezultatu dalyje buvo analizuojama 186 respondentu imtis. 1 tyrimo eksperimente, ivertinus pasirinktų prekių rinkos kainą, taip pat tikėtiną prekių įsitraukimą į kategoriją, buvo pasirinkti du kainos pokyčio dydžiai: kainos dydžio padidinimas - 10 proc., 60 proc. ir kainos dydžio sumažinimas - 10 proc. ir 60 proc. Taip pat dvi prekės: daugkartinio naudojimo veido kaukė ir vienkartinis vandens parko bilietas. 1 tyrime atliekamo eksperimento 4 grupių demografinės charakteristikos pasiskirsto tolygiai homogeniškai, tai patvirtina atliekamo eksperimento patikimumo sąlygą, leidžia atlikti kryptingą tyrimo duomenų analizę. 2 tyrime naudojamas faktorinis eksperimento dizainas 2 x2 x 4 (dvi prekės x dvi kainos pokyčio

kryptys x keturi kainos pokyčio dydžiai), suformuojama 16 situacijų, kurios suskirstomos į 8 homogeniškas apklausiamųjų grupes. Iš viso tyrimų rezultatų dalyje buvo analizuojama 436 respondentų imtis. 2 tyrimas buvo atliekamas naudojant 2 prekes: parfumuotą vandenį (*EDP-Eau de Parfum*) – 70 €/50 ml ir džinsus – 40 €. 2 tyrime naudojami 4 kainos padidinimo lygiai: 60 proc., 70 proc. ir 10 proc., 20 proc. ir 4 kainos sumažinimo lygiai: 60 proc., 70 proc. ir 10 proc., 20 proc.

Tyrimų duomenys buvo apdoroti duomenų analizės ir statistinės kompiuterinės įrangos "IBM SPSS Statistics 26 programa", taip pat "Process" įskiepiu. Analizuojant tyrimų duomenis buvo naudojami šie analizės metodai: koreliacinė analizė, daugianarė tiesinė regresinė analizė, ANOVA, t-testai, tiriamoji faktorinė analizė, patikimumo analizė (*Realibility testas*).

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