

5 Concluding Remarks

5.1 Summary

The aim of this thesis was to empirically investigate the influence of the unit price at the product and retailer level. In the first part of this thesis, a comprehensive overview of unit price research was given that was structured according to the individual phases of price information processing. In order to better understand the individual phases of consumers' price processes, i.e., price information awareness, price information evaluation, and price information storage, the most important concepts of the individual phases were reviewed, and categorized the unit price research according to these phases. This categorization reveals that each phase of unit price processing has been addressed by previous unit price research. However, there are differences in the thoroughness of the consideration of each phase. Many studies concentrate on unit price awareness and unit price usage. These studies also highlight differences in unit price awareness and unit price usage between individual consumer groups, product categories, and retailers. Other phases, such as unit price storage, barely gained any attention from previous research.

Especially the influence of the unit price's unit of measure on the evaluation of products as well as the influence of unit price availability and prominence on the store price image have not been addressed. To underline the relevance of the research questions and to find avenues for further research, previous findings in relevant fields of research were discussed. Here the relevant fields of research address the influence of framing on the perception of quantitative information, the influence of prices on quality perception, as well as the store price image.

The empirical part of this thesis was divided into two parts. First, the influence of unit price format at the product level was analyzed. In the second part, the influence of the unit price at the retailer level was analyzed.

In the first part, after developing the hypotheses regarding the unit price format's influence on consumers' attitude towards individual products, the hypotheses were tested with two experiments. The experiments manipulated the unit price's unit of measure and compared the price-level perception, quality perception and purchase intention of the individual experimental group. The results differ between product categories. For the product category of unpackaged salami and prepackaged jam, results show that a large unit of measure (e.g., price per kg) leads to a higher perceived price-level perception, and subsequently also to a higher perceived quality. Price-level perception as well as quality perception then influence the consumers purchase intention, while the negative influence of price-level perception on purchase intention tends to be stronger than the positive influence of quality perception. For the product category of tomatoes no influence of unit price format on consumer behavior could be observed. Furthermore and in line with previous research, several moderation effects exist for psychographic characteristics.

In the second part, the influence of unit prices on the store price image was addressed. Again, hypotheses were developed and tested with two experiments. The results show that the statement of unit prices impacts several store price image dimensions. Price processibility, price perceptibility and evaluation certainty increase if the unit price is displayed. However, there is no impact of unit pricing on price-level perception, suggesting that the unit price statement does not influence whether a retailer is perceived as expensive or as inexpensive. Also an indirect influence of unit price presence on value-for-money perception has been discovered that is mediated by price perceptibility, as well as an indirect influence on shopping intentions via price processibility, price perceptibility, evaluation certainty and value-for-money perception. This implies that customers prefer retailers that display unit prices, all other aspects being equal.

Not only the presence, but also the prominence of unit price information influences the store price image dimension price processibility. However, this relationship is moderated by prior unit price usage and brand consciousness and therefore differs between customer groups.

However, the results prove the existence of unit price influences at the retailer and product levels that have not been addressed by previous research.

5.2 Limitations

One shortcoming of the conducted experiments is the geographic region the experiments were conducted in. The studies included in this thesis were conducted in Germany, where the indication of unit prices is well established and the retail market is concentrated with only a low share of small retailers that are not obliged to indicate unit prices, in the marketplace. Therefore, German consumers are very familiar with the unit price. It would be a great addition to this field of research to conduct similar experiments in geographic regions with a higher number of small retailers or with a higher number of products exempt from the indication of unit prices. Furthermore, it would be of great interest to conduct these studies also in countries, where unit prices became mandatory only recently, such as in Australia. Here the effects of unit price presentation on consumer's behavior possibly differ from the results observed among German consumers.

A second limitation is the samples used for the experiments. Although the online experiments had a more diverse sample than the student sample in the laboratory experiments, better educated and lower earning respondents are slightly overrepresented. Future studies should therefore analyze more thoroughly if lower income customers (which have to be more price conscious) or customers with lower education (may having more trouble comparing prices) behave differently.

A third limitation is the limited number of products used as stimuli in these studies. In the first experiment salami and tomatoes were used as stimuli. These stimuli were chosen based on a qualitative pretest, where participants were asked which product categories they frequently purchase as unpackaged goods. The second, third and fourth experiment focus on prepackaged goods. However, these product categories are just examples and give limited insights about how consumer behavior concerning other product categories.

Furthermore, all studies utilized an experimental setting. Although great effort was put into creating scenarios as realistic as possible, it cannot be ruled out that customers behave differently in a real purchase environment, due to influences not included in the experiments. Nevertheless, it would be a valuable contribution, if further studies test these hypotheses also in a real shopping environment. An additional advantage thereof would be that a possibly larger customer sample could statistically confirm trends the data indicates, for example, that more prominent unit prices lead to a more positive store price image.

Another limitation is that different types of experiments were conducted at the expense of comparability. For example, while experiment 1 and 3 were conducted in a laboratory environment, experiments 2 and 4 were conducted online. This has the advantage that consumers with different demographic characteristics were able to participate in the experiments. However, it cannot be ruled out that, for example, differences in the results between experiment 1 and 2 are exclusively based on the difference in consumers' behavior in regard to unpackaged and prepackaged products, but also based on the experimental design. However, a comparison of experimental results was not intended, as also different product categories were used for both experiments. Furthermore, also experiment 3 and 4 do not show significant differences in the results that can be assigned to the different types of experiments. The only relationship tested with both experiments is the influence of unit price prominence on store price image and both experiments only show a weak influence of unit price prominence on store price image. An additional limitation is that in experiment 3 and 4, store price image is measured immediately after the consumers first encountered the prices and price labels of the displayed stores. In reality, store price image develops over time and has to be seen as a dynamic process, as the image adapts to newly acquired information (Lourenço/Gijsbrechts, 2013, p. 369). Therefore, future research should measure the influence of unit prices on store price image of the same consumers at different points in time, in order to better account for the dynamic nature of store price image. If it is not possible to measure the store price image of the same consumers at different points in time, an alternative would be to measure the store price image of consumers not immediately after observing the

stimuli. In this way, the store price image can develop the image measured at a later point in time might better represent the actual store price image.

A last limitation for all four experiments is that in the experiments only one store type was considered. The product shelf displayed resembled a product shelf in a supermarket. However, the influence of unit price format on price-level perception and purchase intention may be different at other stores. For example, a high price-level perception may have a positive influence on purchase intention at more exclusive retailers. Furthermore, Zielke (2010, pp. 761–762) points out that for different store types the individual store price image dimensions influence each other and influence shopping intentions in different ways. In order to exclude any effects of store type, future research should also display price labels that are typical for other types of stores, such as discounters, exclusive retailers, organic food stores or weekly markets.

5.3 Future Research

This thesis addresses a number of important gaps in unit price research. However, unit price research offers new avenues for further research. Aspects future research should address are (1) the unit price layout as predictor of unit price awareness and unit price usage, (2) the objective measurement of unit price awareness, (3) unit price storage and its usage as a reference price, and (4) unit pricing of services. In the following, each of these research gaps is explained and its relevance is substantiated.

(1) Unit Price Layout as Predictor of Unit Price Awareness and Unit Price Usage

On the product level, future research needs to address the influence of unit price format, such as the position of the unit price information relative to the overall price on the price tag, the size of unit price information, the color of unit price information relative to the overall price.

The format of information presentation is an important aspect in retailing and behavioral pricing literature. One aspect frequently assessed in general consumer behavior literature is the influence of color. It has been demonstrated that color is

related to physical attraction (Bellizzi et al., 1983, p. 34). For example, when shown pictures of young women, men perceive these women as more attractive if the background in the picture is red (Schwarz/Singer, 2013, p. 163). Transferring these findings to pricing, Crowley (1993, p. 68) shows that color can affect consumer perceptions of products at the point of purchase. Consumer activation by color follows a U-shaped course for color wavelength, implying that consumer activation is highest for extremely long-waved and extremely short-waved colors. Consequently, activation is highest for red and violet. In contrast, color wavelength has a linear positive influence on price evaluation (Crowley, 1993, p. 65). By observing individuals during experiments in which colors are manipulated, Bagchi/Cheema (2013, p. 951) demonstrate that in auctions, individuals that are exposed to the color red show higher jumps in their bids than those exposed to blue color. Furthermore, they show that in the course of negotiations participants that are exposed to red color make lower offers than those exposed to blue color.

This just being some examples for the influence of formal aspects on consumer behavior, it is also relevant to test the influence of other formal characteristics, such as font size, and the position of unit price information on the price label, on the consumer behavior in regard to unit prices. While regulations make unit pricing for many retailers mandatory, the unit price layout has not been further determined by legislation. It can be assumed that unit price layout influences unit price awareness and unit price evaluation in a way that consumers are more aware of unit prices in large font sizes and red color, because of increased visual fluency. It has been shown that visual fluency has a positive influence on perceptual fluency (Winkielman et al., 2003, p. 77) that, hence, can influence unit price awareness and usage positively. The knowledge of how consumers react to different unit price formats is useful for retailers planning to emphasize certain unit prices more than others or to increase price processibility in general.

(2) Objective measurement of unit price awareness

For the phase of unit price awareness, previous literature assesses unit price information awareness based on self-reported consumer data. Researchers asked how confident consumers are of having seen price labels displaying unit prices at

the point of purchase (Manning et al., 2003, p. 371; Miyazaki et al., 2000, p. 102). Another method research used is that researchers showed participants price labels displaying unit prices and ask participants if they had seen these labels before (McCullough/Padberg, 1971, p. 16). Self-reported data offers valuable insights to consumers perceived unit price awareness and unit price usage. However, due to this research method, the nature of the recorded answers has to be considered as subjective and can be biased, because of participants' confusion, a low level of introspection, social desirability (van Trijp, 2009, p. S47), forgetting, and the trend towards exaggerating behavior in order to improve their self-image (Aaker/Ford, 1983, p. 121; Russo, 1977, p. 193). These factors lead to a unit price awareness measurement that possibly results in inflated levels of unit price awareness rather than measuring the actual unit price awareness among consumers (error type I). Therefore, it would be of great value to assess unit price information awareness with the help of a more objective methodology. One option to measure price awareness more objectively is to track eye movements (saccades) and fixations. This can be achieved either by stationary eye-tracking technology attached to a computer tracking the movement of the participants eyes, or mobile eye tracking cameras in the form of glasses that record the environment as well as the participants' eye movements and sets both in relation to each other. In both ways researchers can assess which information on a price label an individual observes, the duration of the individual information cue's observation, as well as the order of observation. This results in information about an individual's awareness degree in regard to the displayed unit price and the duration of information assessment. Eye tracking is becoming an accepted method and is more and more common for objectively observing consumers' attention to labels displaying product information, such as nutrition labels (Graham et al., 2012, p. 378).

Eye tracking is seen as less susceptible and leads to individuals' more instinctive behavior not being influenced by striving for conformity with social desirability and popular behavior (Graham et al., 2012, p. 379). Also, eye movements and fixations are difficult to misrepresent, as well as detailed (Russo/Rosen, 1975, p. 268). Furthermore, data derived from eye-tracking is more difficult to censor

than consumer interviews and offers a detailed trace of an individual's information search (Bettman et al., 1991, p. 74). Especially in situations when protocols cannot be used, such as if the process occurs rapidly or is automated, tracing eye movements is useful. Also visual stimuli can be hard to verbalize, as these stimuli oftentimes can hardly be disambiguated without other stimuli of the environment (Ericsson/Simon, 1985, p. 278). Furthermore, eye movements require less time and effort than, for example, retrieving a card when using display boards. Therefore, eye movement data shows more information acquisitions and is seen as the most detailed method for tracing processes (Russo, 1978, p. 565).

However, critics see this method also as being obtrusive and therefore subjects may also be biasing their information acquisition behavior (Lehmann/Moore, 1980, p. 450). The disadvantage of tracking eye movements and fixations is that this method for data collection is still immensely time-consuming, expensive, only allows for small sample sizes and can be, depending on the apparatus, obtrusive. Furthermore, eye fixations represent information-seeking processes rather than information acquisition and therefore, these fixations not necessarily exhibit details of consumers' information processing (Graham et al., 2012, p. 379; Bettman et al., 1991, pp. 74–75). Nevertheless, eye tracking is seen as less obtrusive than other methods, such as accompanied shopping and think-aloud techniques (Graham et al., 2012, p. 379).

A second method of a more objective measurement of unit price awareness is the use of display boards. The method of using information display boards has been found to produce consistent and valid results (Lehmann/Moore, 1980, p. 458). Information display boards employ an information board structured as a matrix array. Oftentimes rows represent different brands and columns represent attributes such as price, material, ingredients etc. (Bettman et al., 1991, p. 73). Unit prices can be used as an attribute with this methodology. With this method, the consumer has to ask specifically for information about specific product attributes, but unconscious consideration of price information cannot be recorded.

A third alternative for the objectified measurement of unit price usage are verbal protocols. When using this method, individuals are asked to think out loud when

performing the experimental task, such as choosing between different product alternatives when unit prices are displayed (Bettman et al., 1991, p. 73).

(3) Unit price storage and its usage as a reference price

Another concept extensively discussed in behavioral pricing literature is the reference price. The unit price was introduced to act as reference price for comparing different alternatives. The unit price can be used in two different ways when evaluating different product alternatives. First the unit price of different product alternatives available at the point of purchase can be used to determine the best-value product available. Second, previously encountered unit prices that were stored in the consumer's long-term memory can be used to evaluate products' unit prices at later purchase occasions. If and how consumers form reference prices based on observed unit prices is an important research question. Furthermore, it is important to see, whether the usage of unit prices in general are used, and if this usage differs between consumer segments. However, the questions how the unit price is evaluated, how consumers create reference prices based on unit prices, and how they are used remain unanswered. Only one article addresses the influence of unit prices on reference price recall (Méndez García de Paredes et al., 2013, p. 415). No one article addresses the role of remembered unit prices as reference prices. With this knowledge, product decision processes can be anticipated more accurately.

Information about unit price knowledge and its subsequent use as reference price is of high managerial relevance. For example, package downsizing is a frequently applied tool to increase unit prices without changing the overall price (Çakır/Balagtas, 2014, p. 1). By reducing the package content, while keeping item price constant, the unit price increases. If the consumer has no unit price knowledge, he will not realize the increased unit price unless attention is invited to this price increase by consumerists. Therefore, the unit price knowledge level should be assessed taking into account potential moderating variables, such as product group and customer segment. Only if unit price knowledge is low, product downsizing will not influence sales. A consumer's unit price knowledge can be assessed when conducting surveys before, during, or after a purchase situation, depending on the chosen conceptualization of unit price knowledge.

(4) Unit pricing of services

Previous unit pricing literature focusses on the unit price for products. The unit price of services has been widely neglected. Addressing the unit price of services will be even more relevant in the future as three Member States of the EU, namely Portugal, Luxembourg, and Sweden, already introduced legislation concerning the unit price for services, or are planning to do so in the near future (Snijders et al., 2004, p. 6). Previous research has not addressed the unit pricing of services. It remains therefore unclear whether conclusions in regard to consumer reactions to unit prices of services can be drawn from results of behavioral pricing research addressing unit prices of products.

There are a number of differences in the nature of products and services that must not be neglected. Important to mention here is the *immateriality* and the *integrativity* of services (Fließ, 2009, pp. 9-11). Due to their immateriality, services are hard to store. However, services are never purely immaterial but contain material and immaterial components in different proportions. Integrativity stands for the inevitable participation of the consumer in the service creation process and can be seen as its most important characteristic. Because of the consumer participation, as well as the objects and information the consumer contributes to the service creation, services are highly heterogeneous (Fließ, 2009, p. 14).

This heterogeneity may be one reason why unit prices are used less often for services than for products. Even if unit prices are given (e.g., price of a service per minute), services are hard to compare because of their heterogeneity. Due to the novelty and impact on the consumers, unit prices for services are a promising field for research. Descriptive as well as causal research designs are able to show the consumer's attitude towards unit prices for services in general and can highlight differences among consumer groups and between service types. It would be also interesting to see if the degree of immateriality and the degree of consumer participation in the service creation process act as moderators for the perceived attractiveness and usage of unit prices for services.

Addressing these further gaps of unit price research helps consumerists and legislature to better understand consumer behavior in regard to unit prices and to

adapt legislature accordingly. Furthermore, addressing these research gaps helps retailers to actively employ unit prices as a pricing instrument they can use in their favor, instead of considering unit prices as mere legislative duty retailers have to comply with.

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Appendix 1: Measurement of control variables in experiments 1 and 2

Variable name	Item name	Items	α^a	ρ^a	α^b	ρ^b	Reference
Store Brand Choice	Sto_Bra	I frequently purchase store brands (e.g., Gut & Günstig, Ja!)	-	-	-	-	<i>McGoldrick/Marks (1985)</i>
Brand Loyalty	Bra_Loy1	For most supermarket items, I have favorite brands and limit my purchase to them.	.85	-	.87	-	<i>Mittal (1994)</i>
	Bra_Loy2	In most supermarket categories in the supermarket, there are certain brands for which I (and my family) have a definite preference.					
	Bra_Loy3	I and my family will consume only certain brands, not others.					
Brand Consciousness	Bra_Con1	I usually purchase brand name products.	.41	-	.21	-	<i>Donthu/Gilliland (1996)</i>
	Bra_Con2 ^c	Store brands are of poor quality.					
	Bra_Con3 ^c	All brands are about the same.					
Price-Quality	P_Q_Infe	A product that	-	.62**	-	.54**	<i>Kukar-Kinney et</i>

Beliefs		costs more will give you better service.				*	<i>al. (2012), Lichtenstein et al (1993)</i>
		The old saying “you get what you pay for” is generally true.					
Quality Consciousness	Qua_Con2	When it comes to purchasing products, I try to get the very best or perfect choice.	.81	-	.85	-	<i>Shim/Gehrt (1996)</i>
	Qua_Con3	In general, I usually try to buy the best overall quality.					
	Qua_Con4	I make special effort to choose the very best quality products.					
Striving for Prestige	Str_Pre	It is important to me that I own expensive products.	-	-	-	-	<i>Völckner (2006)</i>
Price Consciousness	Pri_Con1	I am very concerned about low prices for the products I buy.	-	.74** *		.70** *	<i>Völckner (2008)</i>
	Pri_Con2	It is important for me to get the best price for the products I buy.					
Shopping Complexity	Sho-Comp	Before shopping I give thought to the planned purchases.	-	-	-	-	<i>Völckner (2006)</i>

Unit Price Awareness in Experiment	UP_Aw_Ex	The unit price was indicated on the price tag	-	-	-	-	<i>Manning et al.</i> (2003) <i>Miyazaki et al.</i> (2000)
Unit Price Awareness in General	UP_Aw_Ge	Unit prices are indicated on price tags of most retailers.	-	-	-	-	<i>Manning et al.</i> (2003) <i>Miyazaki et al.</i> (2000)
Unit Price Comprehension	UP_Compr	I know how to determine the product with the best value-for-money relationship based on the unit price.	-	-	-	-	-
Unit Price Usage	UP_Usag	I use the unit price frequently when shopping.	-	-	-	-	<i>Manning et al.</i> (2003)
Brand Differences	Bra_Dif1 ^c	Differences among brands are large	.6 0	-	.4 9	-	<i>Van Trijp et al.</i> (1996)
	Bra_Dif2	Differences among brands are hard to judge.					
	Bra_Dif3	The best brand is hard to judge.					
Comparison Shopping – Check prices	Com_Pri1	I read price tags of the grocery products that I buy.	.8 5	-	.9 1	-	<i>Putrevu/Ratchford</i> (1997)
	Com_Pri2	I check the prices of the grocery products that I purchase.					
	Com_Pri2	Before buying a product, I check the price.					

Comparison Shopping - Unit Prices	Com_UP1	I compare unit prices across different package sizes.	.8 9	-	.9 3	-	<i>Putrevu/Ratchford (1997)</i>
	Com_UP2	I compare unit prices across brands.					
	Com_UP3	I check unit prices of products I buy.					
	Com_UP4	Before buying a product, I check the unit price.					
Unit Price Importance	UP_Import	I think it is important that retailers indicate unit prices.	-	-	-	-	<i>Mathews (1974)</i>
Financial Constraints	Fin_Con1	I frequently have problems making ends meet.	.8 9	-	.8 7	-	<i>Urbany et al. (1996)</i>
	Fin_Con2	My budgeting is always tight.					
	Fin_Con3	I often have to spend more money than I have available.					
Time Pressure	Tim_Pre1	I wish I would have more time to relax.	-	.66** *	-	.75** *	<i>Völckner (2008)</i>
	Tim_Pre2	I always seem to be in a hurry.					
Need for Simplification of Cognitive Tasks	Nee_Sim1	I do not like tasks that require much thinking	.6 3	-	-	-	<i>Völckner (2008)</i>
	Nee_Sim2	It is important for me that					

		my purchase decision making is fast and uncomplicated.					
	Nee_Sim3	In purchase decision making, I often rely on easily available attribute information.					
Risk Aversion	Ris_Ave1	I would rather be safe than sorry.	.7 2	-	-	-	<i>Donthu/Gilliland (1996)</i>
	Ris_Ave2	I want to be sure before I purchase anything.					
	Ris_Ave3	I avoid risky things.					
^a in experiment 1 ^b in experiment 2 ^c reverse scaled ** p<.05 *** p<.01							

Appendix 2: Moderating variables on unit price format – price-level perception relationship (Salami)

	t (3,146)	coefficient
Striving for Prestige	-45	-.10
Shopping Complexity	-.51	-.07
Comparison Shopping - Check Prices	-2.00**	-.58
Comparison Shopping - Check Unit Prices	-1.37	-.34
UP Awareness Here	-.10	-.03
UP Awareness General	-1.29	-.33
UP Importance	-.36	-.11
UP Comprehension	-.37	-.06
UP Usage	-1.31	-.28
Price Consciousness	-3.87***	-.74
Price Quality Beliefs	-.52	-.11
Financial Constraints	.13	.02
Quality Consciousness	-.92	-.21
Brand Loyalty	1.86	.31
Time Pressure	-1.04	-.17
Risk Aversion	.41	.09
Household Size	.26	.05
Shopping Frequency	-.62	-.23
Income	-.49	-.09
Gender	-.91	-.48
Age	-.81	-.08
Education	.06	.03
Dependent Variable: Quality Perception *** p < .01 ** p < .05		

Appendix 3: Moderating variables on price level – quality relationship (Salami)

	t(3, 146)	coefficient
Striving for Prestige	-.76	-.07
Shopping Complexity	.14	.01
Comparison Shopping - Check Prices	-1.27	-.10
Comparison Shopping - Check Unit Prices	-.27	-.01
UP Awareness Here	-.46	-.20
UP Awareness General	-.48	-.04
UP Importance	1.37	.10
UP Comprehension	-1.21	-.10
UP Usage	1.24	.06
Price Consciousness	-.59	-.03
Price Quality Beliefs	.46	.03
Financial Constraints	2.27**	.09
Quality Consciousness	-1.37	-.09
Brand Loyalty	-.40	-.02
Time Pressure	.69	.03
Risk Aversion	-1.05	-.07
Household Size	-1.07	-.08
Shopping Frequency	.04	.00
Income	-.08	.00
Gender	-.34	-.05
Age	.86	.02
Education	1.65	.08
Dependent Variable: Quality Perception ** p < .05		

Appendix 4: Moderating variables on unit of measure – price-level perception (Tomatoes)

	t(3, 147)	coefficient
Striving for Prestige	.77	.18
Shopping Complexity	1.94	.26
Comparison Shopping - Check Prices	.67	.21
Comparison Shopping - Check Unit Prices	.55	.11
UP Awareness Here	-1.15	-.16
UP Awareness General	-.28	-.08
UP Importance	.97	.23
UP Comprehension	.94	.16
UP Usage	.33	.08
Price Consciousness	.84	.17
Price Quality Beliefs	-.86	-.18
Financial Constraints	-.38	-.06
Quality Consciousness	2.23**	.43
Brand Loyalty	-.40	-.07
Time Pressure	.77	.12
Risk Aversion	-.13	-.03
Household Size	.86	.17
Shopping Frequency	-1.09	-.31
Income	.77	.12
Gender	.54	.27
Age	.76	-.08
Education	.69	.30
Dependent variable: Price-level perception ** p < .05		

Appendix 5: Moderating variables on price level – quality relationship (Tomatoes)

	t(3, 145)	coefficient
Striving for Prestige	-.89	-.05
Shopping Complexity	.47	.02
Comparison Shopping - Check Prices	-1.27	-.07
Comparison Shopping - Check Unit Prices	-2.16**	-0.13
UP Awareness Here	-.90	-.08
UP Awareness General	-.79	-.07
UP Importance	-.23	-.02
UP Comprehension	.67	.05
UP Usage	-.69	-.03
Price Consciousness	.12	.01
Price Quality Beliefs	.94	.05
Financial Constraints	1.40	.06
Quality Consciousness	.33	.02
Brand Loyalty	-.91	-.04
Time Pressure	-.17	-.01
Risk Aversion	.99	.03
Household Size	-.43	-.03
Household Type	-1.19	-.09
Shopping Frequency	.09	.01
Income	-.37	-.01
Gender	-.79	-.11
Age	-2.20**	-0.06
Education	-.38	-.07
Dependent variable: Quality perception ** p < .05		

Appendix 6: Moderating variables on unit price format – price-level perception relationship (Jam)

	t(3,146)	coefficient
Striving for Prestige	-.38	-.08
Shopping Complexity	.26	.05
Comparison Shopping - Check Prices	2.08**	.53
Comparison Shopping - Check Unit Prices	2.04**	.47
UP Awareness Here	.91	.30
UP Awareness General	2.72**	.73
UP Importance	1.75	.49
UP Comprehension	.70	.21
UP Usage	1.52	.32
Price Consciousness	.30	.08
Price Quality Beliefs	.14	.04
Financial Constraints	-.94	-.21
Quality Consciousness	1.27	.33
Brand Loyalty	1.28	.30
Time Pressure	.67	.16
Household Size	-.31	-.10
Shopping Frequency	-1.61	-.61
Income	1.15	.21
Gender	-.72	-.44
Age	-.76	-.08
Education	-.92	-.31
Dependent Variable: Price-level perception ** p<.05		

Appendix 7: Moderating variables on price level – quality relationship (Jam)

	t(3, 146)	coefficient
Striving for Prestige	1.13	.15
Shopping Complexity	.32	.02
Comparison Shopping - Check Prices	-.54	-.05
Comparison Shopping - Check Unit Prices	-.24	-.02
UP Awareness Here	-1.41	-.08
UP Awareness General	.05	.01
UP Importance	.16	.02
UP Comprehension	-2.51**	-.14
UP Usage	-.41	-.03
Price Consciousness	-.34	-.03
Price Quality Beliefs	.05	.01
Financial Constraints	-.95	-.07
Quality Consciousness	-.95	-.09
Brand Loyalty	.13	.01
Time Pressure	.43	.04
Household Size	-.78	-.11
Shopping Frequency	1.04	.17
Income	.17	.01
Gender	-.69	-.18
Age	-.17	-.01
Education	-.62	-.14
Dependent Variable: Quality perception ** p < .05		

Appendix 8: Moderating variables on unit price format – price-level perception relationship (Paint)

	t(3,146)	coefficient
Striving for Prestige	-.37	-.10
Shopping Complexity	.22	.04
Comparison Shopping - Check Prices	1.18	.33
Comparison Shopping - Check Unit Prices	.57	.16
UP Awareness Here	2.11**	.47
UP Awareness General	2.79***	.66
UP Importance	.80	.18
UP Comprehension	.91	.21
UP Usage	.85	.15
Price Consciousness	-.49	-.13
Price Quality Beliefs	-.07	-.01
Financial Constraints	-.34	-.07
Quality Consciousness	.04	.01
Brand Loyalty	-.41	-.10
Time Pressure	.20	.05
Household Size	1.49	.45
Shopping Frequency	-.52	-.31
Income	-.76	-.14
Gender	.95	.60
Age	-1.05	-.10
Education	-.43	-.19
Dependent variable: Quality perception *** p<.01 ** p<.05		

Appendix 9: Moderating variables on price level – quality relationship (Paint)

	t(3, 146)	coefficient
Striving for Prestige	.99	.12
Shopping Complexity	-.52	-.03
Comparison Shopping - Check Prices	-.59	-.05
Comparison Shopping - Check Unit Prices	-.05	.00
UP Awareness Here	-1.11	-.07
UP Awareness General	.13	.02
UP Importance	-.03	.00
UP Comprehension	-1.40	-.10
UP Usage	-.36	-.03
Price Consciousness	-.84	-.07
Price Quality Beliefs	-.19	-.02
Financial Constraints	-.35	-.03
Quality Consciousness	-1.80	-.14
Brand Loyalty	.19	.01
Time Pressure	.20	.02
Household Size	2.08**	.18
Shopping Frequency	-.36	-.05
Income	-1.07	-.08
Gender	.83	.21
Age	-.39	-.01
Education	.13	.03
Dependent Variable: Quality Perception ** p < .05		