# Asperities of Revenue Management 

## The effects on price fairness perceptions.

In the recent past there has been a significant increase in the adoption and use of various dynamic pricing and revenue management strategies in consumer product and service sectors. The overall goal of these strategies is often to maximize the revenue of the firm. Nevertheless, engaging in revenue management may lead to customers perceiving that they are being treated unfairly, which often results in perceptions of price unfairness. These perceptions of price unfairness have been shown to influence customers' behaviour resulting in severe consequences for the firm, in the end affecting sales and the final results.

Two of the most commonly researched determinants of customers' price fairness perceptions are; the seller's motive for a price increase, as well as, what other customers have paid for the same product/service, to the same seller. This thesis aims to examine how the two determinants, when combined, affect customers' price fairness perceptions. As well as, to investigate what the effects of those perceptions are, more specifically how price fairness perceptions affect perceived monetary sacrifice, perceived transaction value, satisfaction, and behavioural intentions. An experimental study was carried out through a survey with written scenarios. The results showed that both of the determinants influence customers' perceptions of price fairness. Rising the price with the motive of increasing the profits of the firm often results in low levels of price fairness perceptions. Awareness and knowledge regarding what another customer paid for the same product, at the same seller, was also found to affect the price fairness perceptions. However, no full interaction between the two determinants was found. In addition, lower levels of perceived price fairness were shown to result in higher levels of perceived monetary sacrifice, and lower levels of perceived transaction value and satisfaction. The recommendation is to not neglect the effects revenue management practices have on customers' perceptions and behaviours, but at the same time not to have a "one price fits all" kind of policy. The key lies in making price changes and differences perceived as fair and acceptable among customers.

Keywords: Revenue management, Price fairness perceptions, Dual entitlement, Social comparison, Pricing.

Author:
Carl-Oskar Bergh (50163)

## Supervisor:

Patric Andersson

Date of Presentation: 2016-05-30

Part of Examination for M.Sc. in Business and Management

# Special Thanks to... 

Patric Andersson<br>Great guidance and insights

All Respondents

No thesis without you

## Table of Contents

Terminology ..... 5

1. Introduction ..... 6
1.1 Background ..... 6
1.2 Problem Area ..... 7
1.3 Purpose of Study ..... 8
1.4 Expected Contribution ..... 9
1.5 Scope and Limitations of Study ..... 9
1.6 Disposition ..... 10
2. Theoretical Framework ..... 11
2.1 Revenue Management ..... 11
2.2 Perceived Price (Un)Fairness ..... 11
2.3 Distributive Justice: Equity Theory ..... 12
2.3.1 Equity Theory ..... 12
2.3.2 Equity Theory and Price Fairness ..... 13
2.4 Reference Points ..... 14
2.5 The Seller and the Dual Entitlement Principle ..... 15
2.5.1 Types of Cost Increases ..... 17
2.5.2 Asymmetry: Cost Reductions ..... 17
2.5.3 Attribution Theory ..... 18
2.5.4 Inferred Motive and Price Fairness Perceptions ..... 19
2.6 Social Comparison - Other Customers ..... 20
2.6.1 The Process of Comparative Evaluation ..... 20
2.6.2 Similarity and Dissimilarity ..... 22
2.6.3 Assimilation or Contrast ..... 22
2.6.4 Similar Others ..... 23
2.6.5 Past Research - Other Customers and Price Fairness Perceptions ..... 24
2.6.6 Advantaged \& Disadvantaged Inequality ..... 25
2.7 The Effects of Customers' Price Fairness Perceptions ..... 27
2.7.1 Perceived Transaction Value and Monetary Sacrifice ..... 27
2.7.2 Satisfaction ..... 29
2.7.3 Behavioural Intentions ..... 31
2.8 Summary, Hypotheses and Research model ..... 32
2.8.1 The Determinants ..... 32
2.8.2 The Effects ..... 33
2.8.3 Research Model. ..... 33
2.8.4 Summary of Research Gap ..... 34
2.8.5 Hypotheses ..... 35
3. Methodology ..... 36
3.1 Scientific Approach ..... 36
3.2 Study Design ..... 37
3.3 Experiment Design ..... 37
3.4 Scenario Design ..... 38
3.4.1 Common Parts of All Scenarios ..... 38
3.4.2 The Reference Points ..... 39
3.5 Pilot Studies ..... 41
3.5.1 Pilot Study One - Scenario Interpretations ..... 41
3.5.2 Pilot Study Two - Quantitative Test of Scenarios ..... 41
3.5.3 Critique of Pilot Studies ..... 42
3.6 Questionnaire Design - Measurements. ..... 42
3.6.1 Price Fairness ..... 42
3.6.2 Perceived Monetary Sacrifice ..... 43
3.6.3 Perceived Transaction Value ..... 43
3.6.4 Satisfaction ..... 43
3.6.5 Intentions ..... 44
3.7 Main Study ..... 46
3.7.1 Group Distributions ..... 46
3.8 Analytical Tools and Models ..... 47
3.8.1 Moderator Test ..... 48
3.8.2 Serial Mediation Analysis ..... 49
3.8.3 Multivariate Regression Analysis ..... 51
3.9 Quality of Data ..... 52
3.9.1 Reliability ..... 52
3.9.2 Validity. ..... 52
4. Results and Analysis ..... 54
4.1 The Effect of the Seller's Price Increase Motive on Price Fairness Perceptions ..... 54
4.2 The Effect of Awareness of Other Customers on Price Fairness Perceptions ..... 55
4.3 The Effects of Price Fairness Perceptions ..... 58
4.3.1 Results - Serial Mediator Analysis ..... 61
4.3.2 Testing the Indirect Effects ..... 62
4.4 Behavioural Intentions ..... 63
4.5 Summary, Hypotheses Testing ..... 66
5. Discussion, Conclusions, and Implications ..... 67
5.1 Discussion ..... 67
5.1.1 The Determinants of Price Fairness Perceptions ..... 67
5.1.2 The Effects of Price Fairness Perceptions ..... 69
5.2 Practical Implications ..... 72
5.3 Critique and Limitations ..... 73
5.4 Future Research ..... 74
References ..... 75
Appendix 1-Survey ..... 80
Appendix 2 - Additional Table ..... 86

## Terminology

Seller - In this case, a profit seeking firm that sells products/services to consumers.

Direct Exchange Partners - Parties directly involved in an exchange(/purchase). The seller and the customer in an exchange, are direct exchange partners to each other (Homans, 1961).

Indirect Exchange Partners - Other customers who are in an exchange relationship with the same seller and buying the same product or service, as the studied customer(s) (Thaler, 1985).

Other Customers - Customers, other than the studied customer(s). In this thesis, "Other customers" are indirect exchange parties.

Equity - Equity is said to exist when the ratios of outcome-to-input are equal for all parties involved in the exchange. Where outcomes and inputs refers to what the exchange parties get (outcomes) and brings (inputs) to the exchange (Adams, 1965).

Inequity - Inequity is said to exist when the outcome-to-input ratios are not equal for all parties involved in the exchange (Adams, 1965).

Advantaged Inequity - You will experience an advantaged inequity if you have a higher outcome-to-input ratio than some or all other involved (direct or indirect) exchange parties (Adams, 1965). In this thesis, advantaged inequity relates to; when you, as a customer, have paid a lower price compared to another customer. - You are thereby an advantaged customer (Xia, 2004).

Disadvantaged Inequity - An exchange partner who has a lower outcome-to-input ratio than another (direct or indirect) exchange party, will experience a disadvantaged inequity (Adams, 1965). In this thesis; a customer who has paid a higher price than another customer is referred to as a disadvantaged customer (Xia, 2004).

## 1. Introduction

### 1.1 Background

In the recent past there has been a significant increase in the adoption and use of various dynamic pricing and revenue management strategies in consumer product and service sectors. Customers may encounter different prices for the same product/service depending on factors such as; weekday-, time of day-, location of purchase, loyalty and so on. The business environment within consumer industries has become highly complex, businesses have to make well-timed pricing decisions in order to cope with the modern shopping behaviours and the fierce competition. Firms within these type fast-paced and completive markets has to set the right price at a great speed, as well as to a high degree of accuracy and scale (Wirtz, \& Kimes, 2007).

Revenue management strategies have been used for more than 25 years in industries such as the airline, hotel and car rental industries. Nevertheless, in the past decade more and more firms in other consumer industries have started to use and integrate revenue management principles in their businesses and decision making processes. Industries such as broadcasting, restaurants, retail, and health care are some of the new sectors which have started to incorporate these types of pricing principles. One of the driving forces of this progression is assumed to be the advancement in technology. The advancement in technological solutions has enabled firms to more easily track customer demands and behaviours, as well as, to offer different customers different prices and to change prices very quickly, not at least for internet based companies but also through e.g. electronic signage in physical stores (Haws, \& Bearden, 2006; Wirtz, 2007)

A common example of engaging in revenue management activities, is the e-retailer Amazon.com which charged different customers different prices for the same title DVDs based on how the site identified its customers. Customers reported that depending on aspects such as your internet account and used web browser the price of a DVD could vary substantially. When the customers started to detect the inconsistencies, the pricing practices of Amazon became a recurrent topic of conversation in the US, and mediums such as internet forums were filled up with criticism against Amazon for pricing the DVDs unfairly. In the end, this affected the attitudes and behaviours among Amazon's customers. As a consequence, Amazon finally decided to notify all DVD buyers that all customers who had paid higher prices would be refunded the difference. Amazon also stated that they had stopped the "price tests" (Adamy, 2000).

One of the main objectives of revue management pricing is to prevent customers, who are willing to pay more, from taking advantage of a lower price which is targeted at a more pricesensitive segment. In the end, to maximize the revenues and the bottom line result. However, engaging in revenue management and dynamic pricing may lead to customers perceiving that they are being treated unfairly. These perceptions of unfairness have shown to influence
customers' behaviour - resulting in severe consequences for the firm, and in the end affecting sales and the final results (Mayer, 2015; Vaidyanathan, \& Agrarwal, 2003; Wirtz, 2007).

More specifically, firms' engagements in dynamic pricing and revenue management have been shown, by past research, to pose large impact on customers' price fairness perceptions. Price fairness perceptions are thus by many scholars considered the main psychological effect on customers, regarding firms' revenue management activities. Past research have found that customers' price unfairness perceptions influence customer behaviours, including customers leaving the relationship, spreading negative information regarding the seller, seeking monetary compensation and so on (Campbell, 1999; Xia, Monroe, \& Cox, 2004).

### 1.2 Problem Area

The price fairness concept refers to customers making fairness judgements regarding the sellers' prices (Haws, 2007). The concept is anticipated to be a descendant from equity theory. Equity theory states that parties participating in an exchange judge the exchange (/purchase) to be fair if all parties' contributions are perceived to be equivalent in relation to each other, meaning that every parties' outcome-to-input ratios have to be equal. In terms of the formation price fairness perceptions; the price paid/received is the major input and outcome of the exchange (the price the customer pays is one of her inputs to the exchange and the price/payment received is one of the seller's outcomes from the exchange) (Adams, 1965; Martins, \& Monroe, 1994).

Previous research on price fairness perceptions of business to consumer (B2C) exchanges/sales, has mainly focused different types of reference points which the customer uses when making price fairness judgements. Two of the most frequent types of researched reference points are the seller and other customers (Xia, 2004).

The seller as a reference point refers to that the customer compare her own outcome-to-input ratio to the ratio of the seller. The major finding regarding the seller as a reference point for price fairness judgements is called: The Dual Entitlement Principle. The principle states that the customer is entitled to a fair price and the seller is entitled to a fair profit. If the seller breaches the entitlement by a setting a price which will give him a large profit than he's entitled to, the result will be perceptions of price unfairness. However, if the price increase is justified by a cost increase of the seller, then the increase will be perceived as fair, as the profit of the seller stay the same. This means that customers' price fairness perceptions are dependent on the seller's motive for a price increase - when using the seller as a reference point (Kahneman, Knetsch, \& Thaler, 1986b).

The reference point: Other Customers refers to so-called indirect exchange parties, that is; other customers who have bought the same product/service from the same seller. If another customer had paid a different price, then this discrepancy would also be a source of price unfairness perceptions (Xia, 2010).

These two categories of reference points have in previous research been treated as two rather separate research streams within price fairness research. As described above, both the dual entitlement principle and other customers have been proven to affect price fairness perceptions. Nevertheless, it's seldom that a study has examine more than one type of reference point and investigated if there are for instance any interactions between different reference points. No study has explicitly examined how these two references, the seller and other customers, interact with each other in terms of the formation of customers' price fairness perceptions. No study gives the answer to what effects on price fairness perceptions would have been if you were to combine the dual entitlement principle (the seller) and other customers as reference points. If information regarding both of them were available then it's argued for that the customer ought to use both of them as reference points and seldom only choose to use one (Xia, 2004).

Every dynamic pricing/revenue management practice can be seen from two perspectives; one from the person paying the higher price, and one from the person paying the lower price (Wirtz, 2007). It has been concluded in previous research that perceived price fairness differences between advantaged customers (customers who has paid a lower price than others) and disadvantaged customers (customers who has paid a higher price than others) could be clarified further (Xia, 2004; Xia; 2010).

### 1.3 Purpose of Study

The purpose of the thesis is to examine how customers' knowledge regarding the price increase motive of the seller (the dual entitlement principle) and the price paid by other customers may serve as reference points, and how they interact with each other, in customers' price fairness judgements. More specifically, the main purpose is to determine whether other customers, as a reference point, moderates the impact the seller's motive for a price increase has on customers' price fairness perceptions.

Since the seller is a prerequisite for a sale/exchange to take place, the seller is assumed to be a given (direct) exchange partner. While other customers are indirect (not given/not a prerequisite) exchange partner to the customer making price fairness judgements, it's expected that a customer's awareness and knowledge of other customers' outcomes will moderate the impact the seller's motive has on a customer's price fairness perceptions.

Several potential effects of customers' price fairness perceptions are intended to be investigated in this study. More precisely, the study will investigate what effects price fairness perceptions have on perceptions of monetary sacrifice and transaction value, as well as, satisfaction and behavioural intentions.

It's also expected to get more insights in how advantaged (paying a lower price) and disadvantaged (paying a higher price) customers differ in terms of price fairness perceptions and the effect variables of those perceptions.

In summary, the purpose of this thesis is to investigate the following:

- Do customers use the seller's price increase motive and other customers as reference points when making price fairness judgements and forming their price fairness perceptions?
- Does the reference point: Other Customers moderate the impact the seller's price increase motive has on customers' price fairness perceptions?
- What effects do price fairness perceptions have on perceptions of monetary sacrifice and transaction value, as well as, satisfaction and behavioural intentions?
- How do advantaged and disadvantaged customers differ in terms of price fairness perceptions and the effect variables of those fairness perceptions?


### 1.4 Expected Contribution

The overall purpose of this thesis is to take a small step to contribute with findings and knowledge regarding how dynamic pricing- and revenue management practices among business may affect customers' price fairness perceptions, and how these perceptions affect perceptions of monetary sacrifice, transaction value, as well as, satisfaction and behavioural intentions. The aim is also to contribute to knowledge concerning how the two reference points; the seller and other customers, interact when a customer uses them as comparison standards in her price fairness judgements. As well as, to how advantaged and disadvantaged customers may differ in these respects.

The study also has the purpose to provide insights and implications for business which are engaging in dynamic pricing or similar activities. Especially, to highlight how various consumer perceptions and behaviours may be affected by such pricing activities. In addition, the results of this study will be related, as well as, contrasted to the results of previous research. In this way the ambition is also to provide ideas and suggestions for further studies. Lastly, this is a student thesis and the final aim is to raise hypotheses rather than to accept or reject them.

### 1.5 Scope and Limitations of Study

Due to time and resource limitations, as well as, to maintain focus, this thesis has some delimitations. First of all, only business-to-consumer (B2C) exchanges/sales will be studied. Price fairness perceptions are also expected to be formed during other types of exchanges such as between consumers (C2C) and businesses selling to other businesses (B2B). Nevertheless, this area is left to previous and future studies to clarify. The study is also limited to examine the price fairness perceptions of the customer and not the fairness perceptions of the seller. The main reason for this is due to that it's the price fairness
perceptions of the customer which are expected to influence the behaviour of the customer (Xia, 2004).

Another limitation is that only price increases will be studied regarding the dual entitlement principle. The major reason for not studying decreases is because it has been proven that there is an asymmetry between increases and decreases in terms of how they affect customers' price fairness perceptions. Price increases have significantly larger impacts (Kahneman, Knetsch, \& Thaler, 1986a). Past research have proven that the emphasis which customers place on a loss is greater than that placed on the same amount of gain in financial terms. Customers react more seriously to a loss than a gain (Kahneman, \& Tversky, 1979; Oh, 2002)

Only one type of product will be tested in the experiment of the study. It's important to stress that the main purpose of the thesis is to investigate how two different reference points affect customers' perceptions of price fairness and not differences between product/service categories.

In the experiment of this thesis, the different manipulated scenarios of the reference points will be tested through written scenarios (i.e. a fictional setting) and not in a real life situation, such as doing a field experiment. However, it has been argued for to be hard to control and simulate all reference points when performing such an experiment in a real environment. Written scenarios have the advantage of being able to manipulate the information available to the participants, and at the same time be able to control for potential nuisance and nondesirable factors. Written scenarios are also said to be particular suited for researching theories and depict how people process justice-related information (Collie, 2002).

Related to this, only behavioural intentions will be studied, which will give indications regarding actual behaviour, and further research would be needed to get certain conclusion on actual behaviours.

### 1.6 Disposition

The thesis consists of five main sections: Introduction, Theory, Methodology, Results, and finally Discussion and Implications.

The introduction explains the background to the chosen study subject, description of why the subject is interesting, what the purpose of the thesis is, as well as, to what insights and knowledge the thesis hopefully may contribute with. The theory chapter describes previous research within the chosen subject. Hypotheses are being continually formulated throughout the theory part and in the end of the chapter the complete research model is presented. The methodology section describes the research design such as the survey and collection of data. In the fourth chapter the results and findings of the study will be presented. In the discussion section the results will be related to hypotheses and theory. Lastly the implications of the results will be discussed.

## 2. Theoretical Framework

This chapter will present a review of past research related to the purpose of this thesis. Firstly, there will be an introduction to revenue management and price fairness perceptions. Thereafter the determinants and effects of price fairness perceptions will be reviewed. Hypotheses will be formulated throughout the chapter.

### 2.1 Revenue Management

Revenue management refers to practices among businesses trying to maximize their revenues. It's often done by charging different customer segments different prices for the same product or service, based on differences in demand characteristics between different segments.
Examples of demand characteristic could be the following; time and location of booking/purchase, frequency and/or volume of consumption, group membership etc. (Wirtz, \& Kimes, 2007). Three common characteristics of all revenue management issues are; perishability, fixed capacity/supply, and the ability to segment (Weatherford, \& Bodily, 1992). These types of pricing strategies have been found to frequently affect customers' fairness perceptions, which in turn have shown to be related to the profitability of the firm (Wirtz, 2007).

### 2.2 Perceived Price (Un)Fairness

Perceived price fairness is a significant psychological factor influencing consumer reactions to prices. Basically, if a price is perceived as unfair, the consumer is often unwilling to pay that price (Xia, 2004). Past research has proven the importance of consumer price fairness perceptions toward the pricing decisions of organizations, namely that price fairness perceptions influence behavioural intentions, as well as, actual behaviour (Campbell, 1999).

It's important to stress the fact that the concept of price (un)fairness is understood as a perception and are commonly studied from the perspective of the customer. Being a perception among people it means that pricing cues and -information, from various sources, are used to form subjective price fairness judgements (Kahneman, 1986a).

Price fairness perceptions are commonly developed at the transactional level, which could be defined in the following way: An economic transaction involves the exchange of a given product at a certain location for an agreed-on amount of money with specified terms between at least two parties" (Xia, 2004).

General- and transactional fairness can be defined in the following way; "Fairness refer to the extent to which outcomes are deemed reasonable and just, and transaction fairness refer to the extent to which sacrifice and benefit are commensurate for each party involved" (Bolton, Warlop, \& Alba, 2003). This means that in a transaction a judgement is taking place to determine whether the outcome of the transaction, and/or the process to attain the outcome, is
reasonable and acceptable. Thus, on the cognitive level the price fairness judgements involve comparisons of prices and/or procedures based on standards, references or norms (Xia, 2004).

Price fairness assessments are all considered being of a comparative nature, meaning that when an outcome is being compared with a comparative other's outcome, the perception of fairness will be affected. The term comparative other could have several meanings, some examples are; other customers, the seller and historical experiences (Haws, and Bearden, 2006; Xia, 2004).

### 2.3 Distributive Justice: Equity Theory

In all social systems there are mechanisms which guide the distribution of valued resources, as well as, the allocation of rights, responsibilities, costs, and burdens. Theories of distribution justice attempt to explain and specify which of these particular distributions, both the procedures and outcomes, that are perceived to be fair (Cook and Hegtvedt, 1983). There are several orientations within distributive justice theory, one of those is equity theory. While the conventional distributive justice theory concerns general fairness of allocations, equity theory specifically involves situations where notions of exchange are present (Eckhoff, 1974).

### 2.3.1 Equity Theory

The equity concept origins from the exchange theories and proposals of Homans (1961) and Adams (1965). In regards to the term; exchange, the authors refer to situations when two or more persons exchange valued resources, goods, money, love or affection. The simplest form of an exchange is when two parties ( 1 and 2 ) are exchanging two valued resources ( $x$ and $y$ ), where x is 1 's input to the exchange and 2 's outcome from the exchange, and vice versa for resource y (Cook and Emerson 1978).

According to Adams (1965) equity is said to exist when the ratios of outcome to input are equal for all parties involved in the exchange. When the ratios are not equal between the parties, inequity will exist instead. This means that equity is dependent on the ratio, and different parties may have different inputs and outcomes, and still achieve a state of equity, as long as the ratios are the same for all exchange participants (Adams, 1965).

$$
\begin{equation*}
\frac{A^{\prime} \text { s outcome }}{A^{\prime} \text { s Input }}=\frac{B^{\prime} \text { s outcome }}{B^{\prime} \text { s Input }} \tag{2.1}
\end{equation*}
$$

The equation above illustrates the conditions which are necessary in order to achieve equity of a simple two-person exchange between individuals called $A$ and $B$, i.e. they both have equal outcome-to-input ratio.

Depending on the situation of the exchange, the inputs and outcomes are often consisting of several components, and in combination they make up the total levels of input and outcome. For instance, in an employee-employer exchange, which was the first type of exchange
situation to be studied from an equity theory basis, the employee's inputs might be e.g. her education, intelligence, experience, training, skills, seniority, age, social status, as well as the effort she expends on the job. These are the inputs she perceives as her contributions to the exchange, and for which she expects a fair return. Nevertheless, the other party of the exchange, the employer, might not necessarily have the same perceptions, and thereby not recognize all contributions of the other party/employee. This is one of the main potential sources of inequity, i.e. that one, several or all parties of an exchange will perceive the exchange as not being fair and just (Adams, 1965; Pritchard, 1969).

Adams (1965) develops this further and states that there are two distinct and important characteristics of inputs; recognition and relevance. The exchange parties are possessors of one or several attributes and in order for these attributes to become considered as inputs it's required that the attributes are being recognized, but also that they are being perceived as relevant to the exchange. A mismatch in recognition and relevance perceptions between the exchange parties will result in inequity. In general, this inequity tends to generate feelings of distress and tension towards the exchange counterparty. These feelings are regularly in proportion to the degree of inequity of the exchange (Adams, 1965; Walster, 1973).

### 2.3.2 Equity Theory and Price Fairness

In order to relate (in)equity to perceptions of price (un)fairness it is said that in terms of an exchange situation between a seller and one or several buyers (i.e. a transaction), inequity will result in perceptions of price unfairness among the buyers if the inequity is (entirely or partially) explained by the buyers perceiving the price paid being to high. Another type of situation where inequity, and price unfairness perceptions, may arise is when there are several buyers of identical goods from the same seller and the buyers pay different prices - meaning that their levels of inputs may differ. Consequently, in this situation the customer might not only compare her own and the seller's outcome-to-input ratio, she might also compare the ratios of the other buyer(s) (Huppertz, 1978).

If we imagine a situation consisting of several buyers/customers, for instance, two customers ( 1 and 2 ) and one seller i.e. two different transactions. According to equity theory the following conditions have to be fulfilled in order to achieve perceived equity among all parties (Oliver, \& Swan, 1989a).

Transaction 1, between Customer 1 and the Seller:

$$
\begin{equation*}
\frac{\text { Customer } 1 \text { 's outcome }}{\text { Customer } 1^{\prime} \text { s Input }}=\frac{\text { Seller's outcome }(t 1)}{\text { Sellers's Input }(t 1)} \tag{2.2}
\end{equation*}
$$

Transaction 2, between Customer 2 and the Seller:

The following condition does also have to be fulfilled in order to achieve equity when the two customers compare themselves with each other:

$$
\begin{equation*}
\frac{\text { Customer } 1^{\prime} \text { s Outcome }}{\text { Customer } 1^{\prime} \text { s Input }}=\frac{\text { Customer } 2^{\prime} \text { s outcome }}{\text { Customer 2's Input }} \tag{2.4}
\end{equation*}
$$

That is, all three parties have equal relative contribution. And in the context of price fairness perceptions, the main focus of comparison are the prices paid/received (Oliver, \& Swan, 1989b). An example of a rather simplified transaction, the outcomes and inputs could be the following:

$$
\begin{array}{rc}
\text { Customer 1: } & \text { Seller: } \\
\frac{\text { Product/Service }}{\text { Price Paid }}=\frac{\text { Received Payment }}{\text { Product/Service }} \tag{2.5}
\end{array}
$$

If then Customer 2 bought the same product/service (i.e. the same outcome) but paid a different price (i.e. differences in input), this would result in different outcome-to-input ratios and consequently perceptions of inequity and price unfairness (ibid.).

### 2.4 Reference Points

It's anticipated that buyers have different reference transactions or reference points in which, at least, some will be used as comparison standards in equity and fairness judgements. Two of of the most common types of comparison counterparties, in terms price fairness perceptions, are the seller and other customers (Monroe, 2012). Other customers refer to those who are in an exchange relationship with the same seller and are buying the same product or service. i.e. indirect exchange partners, from the other customer's perspective (Thaler, 1985).

As shown above, customers will use these reference points to compare her own outcome-tointput ratio. Once the reference points have been evoked, the formation of price fairness perceptions will be guided by similarities and differences of the different reference points, in relation to her own outcome. Prices that are judged positively compared to the reference points will be considered as fair. It could be said that the different reference points are combined into creating a reference price or reference transaction which is then compared to the current transaction the customer is evaluating (Bolton, 2003; Xia, 2004). The next two chapters will review how the seller and other customers may serve as reference points in price fairness judgements and in the formation of price fairness perceptions.

### 2.5 The Seller and the Dual Entitlement Principle

The seller and in this case a profit seeking firm, is a given and in a sense a fixed reference point in business to consumer (B2C) transactions. In order for the transaction to take place there has to be a seller taking part in the exchange. It's the seller who sets the prices and is typically the main source of price unfairness perceptions (Kahneman, 1986a; Xia, 2004).

Kahneman et al. (1986a, 1986b) examined how different price setting tactics affected consumers price fairness perceptions. Their findings showed that fairness is rather complex and they suggested that developments of price fairness perceptions are governed by the Dual Entitlement principle. The Dual Entitlement (DE) principle builds on equity theory and according to equity theory and its formula, consumers don't only reflect on how much they pay and what they get. They also consider, for instance, what they seller pays (its costs) and what the seller gets i.e. the price paid by the buyer. Here is where Kahneman et al. (1986a) with their DE principle developed the reasoning regarding equity further and tested how the reasons and motives of price changes affect customers' price fairness perceptions.

The Dual Entitlement principle suggests that both the seller and the buyer(s) are entitled to a reference profit (seller) and a reference price (customer), i.e. a reference transaction. This means that the seller will not be able to change the price so that those reference levels are being exceeded, without affecting customers' price fairness perceptions. The reference levels might for example stem from; market prices, posted prices, the latest transaction the seller and customer had or an average transaction based on several past transactions. The DE principle is restricted to deviations of the reference transaction and do not elaborate on whether the level of the reference transaction itself is fair or not (Kahneman 1986a; Kahneman 1986b; Klein \& Oglethorpe 1987).

The DE principle thereby proposes that it's only perceived fair to raise prices in order to preserve and maintain the seller's profit level. Hence, not all motives for price changes will be perceived as fair by the customer. For instance, price increases which are being justified by increased costs for the firm are perceived as fair and acceptable by customers. Nevertheless, price increases which instead will increase the profit of the seller, in relation to the reference profit, are generally not being perceived as fair. The seller's motive for the price increase might, for instance, be to take advantage of an increased market power, such as exploiting increased demand levels by increasing the price (Campbell 1999; Kahneman 1986b; Karapurakal 1991). Thus it's not perceived as fair to increase profits by arbitrarily violating the customer's entitlement to the reference price (Bazerman 1985).

In their studies Kahneman et al. (1986a; 1986b) presented several scenarios containing information regarding firms' pricing decisions, and the respondents got to rate the presented prices as either Completely Fair, Acceptable, Unfair or Very Unfair. The two favourable and the two unfavourable statements were grouped into Acceptable and Unfair. Some examples from the two studies are presented below:

## Protecting profit - Increased wholesale prices:

"Suppose that, due to a transportation mix-up there is a local shortage of lettuce and the wholesale price has increased. A local grocer has bought the usual quantity of lettuce at a price that is 30 cents per head higher than normal. The grocer raises the price of lettuce to customers by 30 cents per head." (Kahneman 1986b)

The scenario was assessed in the following way:

Percentage of respondents who found it acceptable: $79 \%$
Percentage of respondents who found it unfair: $21 \%$
( $\mathrm{n}=101$ )

## Protecting profit - Increased costs:

> "A landlord owns and rents out a single small house to a tenant who is living on a fixed income. A higher rent would mean the tenant would have to move. Other small rental houses are available. The landlord's costs have increased substantially over the past year and the
> landlord raises the rent to cover the cost increases then the tenant's lease is due for renewal." (Kahneman 1986b)

Acceptable: 75 \%
Unfair: $25 \%$
( $\mathrm{n}=15 \mathrm{l}$ )

The two examples above indicate that it is found acceptable for sellers and firms to protect their profits in cases of increased costs. The second example develops this further and shows that it's perceived acceptable for firms to protect themselves from losses even if it results in the customer/tenant experiencing significant inconvenience (ibid.).

Exploiting market power - Increased demand levels:
"A hardware store has been selling snow shovels for $\$ 15$. The morning after a large snowstorm the store raises the price to $\$ 20$."

Acceptable: 18 \%
Unfair: 82 \%
( $\mathrm{n}=107$ )

The result from the example above shows that it's considered unfair for the hardware store to exploit a short-run increase in demand related to the blizzard. A mark-up like this would violate the customer's entitlement to the reference price (Kahneman 1986b).
"A grocery chain has stores in many communities. Most of them face competition from other groceries. In one community the chain has no competition. Although its costs and volume of sales are the same there as elsewhere, the chain sets prices that average 5 percent higher than in other communities."

Acceptable: 24 \%
Unfair: 76 \%
( $\mathrm{n}=101$ )

Taking advantage of a monopoly position is also perceived as unfair, as this type of pricing tactics infringe on the entitlements relating to the reference transaction. By changing 5 percent in the scenario to 10 and 15 percent did not result in any significant differences. This suggests that the respondents indeed judge exploitation of market power, by the seller, as unfair and that they are insensitive to unjustified increases, such as increasing from $5 \%$ to $15 \%$ (Kahneman 1986a; Kahneman 1986b).

### 2.5.1 Types of Cost Increases

To conclude from the cited scenarios, customers perceive that it's fair if the seller raises prices as long as the increases don't breach the entitlements relating to the reference transaction(s). According to the dual entitlement principle, a price increase must be justified by a proportionate cost increase in order for the price increase to be perceived as fair. Nevertheless, it's important to note that not all cost increases are defendable. Only costs that pertain directly to the specific transaction are justifiable. Thereby it's for example perceived unfair to raise prices on one product to make up for losses on another product (Kahneman 1986b).

In addition, findings have shown that there are differences regarding internal and external causes for the cost increase. If the cost increase is due to causes beyond the control of the seller, the cost increase is justified and perceived as fair and acceptable. This means that even though the price increase is caused by a growth in costs related to the specific product or service, the costs increases might not be perceived as valid justifications for higher prices - if the costs can be controlled by the seller. One example is increased spending on advertising, which has proven to be deemed as unacceptable by customers (Bolton, 2003; Vaydyanathan \& Aggraval, 2003).

### 2.5.2 Asymmetry: Cost Reductions

All of the four examples above involves a price increase, which may or may not be perceived as fair by customers, depending on the seller's motive for the increase and how the price increase relates to the reference transaction. As stated by the dual entitlement theory, in the case of a cost increase the seller is permitted to pass on the entire sum of a cost increase to the customer, without significantly affecting the perceived level of price fairness. Hence, it's
acceptable for the firm to impose its claim and entitlement rather than to compromise (Kahneman 1986a; Kahneman 1986b).

However, there is an asymmetry regarding cost increases and cost decreases in terms of perceived price fairness. Past research has shown that if the costs of the seller have decreased, it's perceived fair by the customers for the seller to keep the original price and thereby retain all, or most, of the benefits of the cost reduction. No differences have been found comparing, for instance, lower input prices and improved efficiency (ibid.).

As a consequence, this asymmetry is also suggested by the dual entitlement principle, and is also one of main reason why the research within the price fairness field have been focusing more on price increases than decreases. In terms of the reference transaction; the price which the customer has to pay is the same, as before the cost reduction, and thereby the seller's choice of keeping the benefits of the cost reduction does not violate the reference price, only the reference profit. The asymmetry also demonstrates that price fairness perceptions might be a rather more complex concept compared to equity theory, as previously mentioned (ibid.).

To cite Kahneman et al. (1986b); "The rules of fairness permit a firm not to share in the losses that it imposes on its transactors, without imposing on it an unequivocal duty to share its gains with them."

### 2.5.3 Attribution Theory

The inferences customers make regarding the seller's motive, of the price change, doesn't have to be based on explicit information regarding for example the cost structure and profit of the seller. It might not be common that the customer has access to this type of profit information. Other types of information-sources may play a part, such as perceived product quality, service level, store environment, seller reputation etc., especially if no specific information regarding the motive of the seller is available (Campbell 1999; Xia 2004). To relate this to equity theory, "it's all about perceptions". As noted above, for an attribute to become considered as an input to the exchange relation it has to both be recognized, as well as, to be perceived as relevant to the exchange (by the exchange parties), regardless of from where, whom, what etc. the information of the attribute comes from (Adams 1965). Thereby customer may rely on general knowledge and/or beliefs regarding the motives and practices of the seller, to form their judgements and perceptions of price fairness (Xia, 2004).

Why customers are this inclined to make these types of inferences of seller motives, can also be explained by attribution theory; "Attribution theory deals with how the social perceiver uses information to arrive at casual explanations for events. It examines what information is gathered and how it is combined to form a casual judgement." (Fiske \& Taylor, 1991). Research within this field have found that people are very likely to search for casual explanations for events which are surprising and/or negative. An unforeseen price increase is often considered both surprising and negative by the customers and are thereby prone to find explanation for the reason of the price increase (Campbell, 1999; Weiner, 1985). Weiner (1992) has found that the attributions made for a particular event are influenced by the
motives and intentions for the event. This explains the psychological reasoning of the dual entitlement principle and why price increases are being evaluated differently, dependent on the motive of the seller.

### 2.5.4 Inferred Motive and Price Fairness Perceptions

In summary, the dual entitlement principle proposes that customers have some sense of a reference transaction and the perceived fairness of price changes are assessed based on this reference transaction. If the seller is violating this reference, the price increase has to be justified by increased costs for the seller, in order to be judged as fair by the customer. This type of seller motive is often called a positive motive, while a negative motive refers to when the seller deviates from the reference transaction and intent to increase its profits (Campbell 1999; Kahneman 1986b).

Based on the theory and principle of dual entitlement the following hypothesis has been formulated:

## Hypothesis 1:

A seller's motive for a price increase will have a direct impact on the price fairness perceptions of the customer. A price increase caused by a positive motive (e.g. increased costs for the seller) will lead to a higher degree of price fairness perceptions among the customers compared to a price increase caused by a negative motive (e.g. seller exploiting its increased market powers).


Figure 2.1 Hypothesis 1

### 2.6 Social Comparison - Other Customers

An alternative and complementary stream of research regarding determinants of price fairness perceptions is concerning how other customers might serve as reference points in price fairness evaluations. Just as in the case of the dual entitlement principle, past research has found that customers may form their price fairness judgement and perceptions on the basis of so-called indirect exchange partners (i.e. other customers who are in an exchange relationship with the same seller and for the same product or service). As equity theory states; outcome and inputs of the different parties will be compared and differences in the outcome-to-input ratio, and differences in prices paid, will most likely result in perceptions of inequity and price unfairness (Oliver, 1989a).

In order to get a good comprehension of how other customers may be this influential regarding an individual customer's comparison judgements, it's suitable to review the process of a social comparative evaluation.

### 2.6.1 The Process of Comparative Evaluation

According to Mussweiler (2003) the process of social comparative evaluations involves three main stages: standard selection, target-standard comparison, and evaluation.

### 2.6.1.1 Stage 1: Standard Selection.

The human judgement is said to be comparative in nature, evaluations are not made in vacuum. Instead, such evaluations are dependent on the specific context in which the evaluation is made. This means that every evaluation is relative in nature and the comparison of a target or object is made in relation to a relevant norm or standard (Mussweiler, 2003). As an example; in order for a person to identify and characterize herself as athletic, it's implied that she is more athletic than others (i.e. more athletic than the used standard/norm) If the person instead had compared herself to an elite athlete, for instance, an Olympic gold medallist, the evaluation had presumably been the opposite; that she is not athletic person (Huttenlocher \& Higgins, 1971).

From the example above it's clear that evaluations depend on pertinent and relevant contexts, norms and standards. This means that the first step of a comparison is to find a relevant standard which you are able to compare yourself with, based on acquired information. There are several potential standards to choose from for any judgement. In case of a purchase, a customer might have information regarding other customers, for instance, customers buying the same product in the same store, customers buying same product in another store, or customers buying another type of product in the same store and so on.

There are at least three different principles that guides the selection of standards (Mussweiler, 2003). Conversational inferences constitute the first principle, suggesting that one may chose a standard which is either explicitly or implicitly suggested by people the judge (the person making the comparison) has communicational interactions with. The second principle argues that the judge may chose a standard which is very accessible in their memory. The more
accessible the standard is when searching for an appropriate and relevant standard, the higher probability it is for the the standard to come to mind and also to be chosen. Finally, the selection of a standard might be guided by normative forces, and similarity is often seen as the driving force in choices of comparison standards.

### 2.6.1.2 Features of the Comparison.

After the comparison standard has been chosen, one has to decide the particular features of the standard on which the comparison will be based on (ibid.). In terms of an exchange situation and development of price fairness perceptions, it has been stated above that the components of the equity formula serve as the particular features of the comparison, i.e. the outcomes in relation to the inputs of the different (direct or indirect) exchange parties (Adams, 1965; Campbell 1999; Karapurakal 1991). It's suggested by cognitive literature on similarity comparisons that the features, which will be the focus of the comparison, will be determined by matching individual features of oneself and the chosen standard, and then one will also recognize structures among those features. In a purchase situation, common features (inputs and outcomes) would for instance be the price paid and the product/service bought by different customers (Mussweiler, 2003; Tversky, 1977). The price paid of different customers is often rather easy to find out and put one's finger on, as well as, being uncomplicated to compare due its quantitative nature. This explains at least to some extent why inequity, in seller-customer exchanges, most often results in price unfairness perceptions (Oliver, 1989b).

### 2.6.1.3 Stage 2: Target-Standard Comparison.

When the standard and its critical features of comparison have been determined the next stage is the actual comparison. You compare yourself to the selected standard based on the determined features. It's in this stage where the relevant knowledge for the judgement is activated. Once a customer has chosen a standard she will then compare her outcomes and inputs (i.e. features) of the specific purchase to this standard. Questions which may arise in this analysis are for example; Are my inputs and outcomes similar to those of the standard? Do we have the same outcome-to-input ratio? and so on (Mussweiler, 2003; Xia, 2004).

### 2.6.1.4 Stage 3: Evaluation.

After the comparison, the obtained relevant knowledge will be integrated into an evaluation. This process of integrating knowledge into an evaluation is a basic process and is included in every judgement and not only restricted to comparative evaluations. As suggested by equityand price fairness theory; perceptions of difference in the outcome-to-input ratio will possibly result in perceptions of inequity, and price unfairness (Higgins, 1996; Mussweiler, 2003; Adams, 1965; Xia, 2004).

In summary, the selected standard and the determination of its critical features are very important aspects of the comparison process. Mostly due to that these aspects will affect what information and knowledge the judge/customer bases its comparison on. Overall it's the accessible knowledge and information that guide the social comparison process and its stages. In the first stage, the awareness of other customers will affect if one choses to compare one's
outcome with the outcome of other customer. If the customer isn't aware of other customers she thereby doesn't know their outcomes and cannot compare their outcomes either. Knowledge and information of other customers will also influence the other two stages; comparison and evaluation, if she is aware of others customers. There are often limitations regarding the level or amount of accessible knowledge and information regarding the outcome of other customers. You usually don't have perfect information of other's situations and the features available to compare are thereby often limited to some extent - Regardless of the source of the information, e.g. from external pure facts, or from pure speculations etc. However, the available information will also have to be perceived as relevant by the customer in order to be used in the comparison, i.e. the customer will only search for information which is perceived as judgement-relevant knowledge (Adams, 1965; Higgins, 1996; Mussweiler, 2003; Strack, 1992)

### 2.6.2 Similarity and Dissimilarity

In addition to the framework presented above, the person engaging in a social comparison can test two different hypotheses; either if one is similar to the standard or if one is dissimilar in comparison to the standard. Which one of the hypotheses will be tested depends on the overall perceived similarity between oneself and the standard. Meaning that one will do a quick holistic assessment of a small number of features (e.g. salient characteristics), in order to determine if they are generally similar or dissimilar to each other. The judge will thereafter engage in either similarity or dissimilarity testing. The main implication of this is that the judge is expected, further on in the comparison process, to focus on information and evidence which is consistent with the chosen hypothesis. The judge will selectively search for information and evidence being consistent to the hypothesis, resulting in some information will be more accessible than other (called: The Selective Accessibility Mechanism) (Mussweiler, 2003; Smith, Shoben \& Rips, 1974; Snyder \& Swann, 1978). This means that if customers would pay different prices buying the same product from the same seller (and all other potential inputs \& outcomes are also the same between customers), the customer would end up in dissimilarity testing, assuming that the price difference is large enough to influence the initial holistic assessment. This would trigger the customer to focus on information and knowledge which would support the dissimilarity hypothesis, i.e. focusing on the price difference - the only difference in terms of outcomes and inputs (Xia, 2004).

### 2.6.3 Assimilation or Contrast

It's assumed that a person engaging in social comparison (e.g. a customer) uses the knowledge, which was rendered accessible during the comparison, as the basis for the evaluation. The more accessible an information set is the more likely it is that it will be considered in the comparison process and influence the judgement. In this way, comparisons and their consequences are rather dependent on accessible knowledge and are essentially knowledge accessibility effects (Mussweiler, 2003; Higgins, 1996).

From the two possible hypotheses there are two different types of evaluations the judge may end up in; assimilation or contrast. Assimilation means that the judge has evaluated herself as being assimilated to the standard and the comparison must have rendered knowledge
accessible which is consistent to the standard i.e. the similarity hypothesis has been accepted. In the other case, the evaluation has been contrasted away from the standard and accessible knowledge confirming the contrast has been used to accept the dissimilarity hypothesis (ibid.). In terms of transactions, and more specifically price differences, in the case where the customers only differ in term of prices paid it's assumed that a situation like this would result in a contrast-evaluation. As customers consider that they are entitled to to equal prices in relation to the different reference parties, a contrast-evaluation like this would thereby result in perceptions of price unfairness. Assimilation on the other hand would not violate the entitlement and consequently lead to perceptions of the price being fair (Xia, 2004).


Figure 2.2 The selective accessibility process. (Mussweiler, 2003)

### 2.6.4 Similar Others

According to social comparison theory co-called "Similar Others" have been identified as the most important and influential comparison reference/standard due to its high degree of salience, as well as, due to a common preference to compare oneself to similar others. When a customer is estimating her own entitlement she is most likely to select others who are the most alike and similar to herself as comparison references. This suggests that the presence and/or the awareness of other customers will strongly affect the development a customer's price fairness perceptions. Even though other customers are indirect exchange parties, opposed to the seller which is the direct exchange party, the awareness and knowledge of other customers are assumed to pose large impact on a customer's price fairness perceptions (Festinger, 1954; Wood, 1989; Xia, 2004). This proposes that in cases where a customer, in one way or another, becomes aware and has knowledge of the outcomes of other customers the seller will not be the only reference point affecting the customer's entitlement evaluation and perceptions of price fairness perceptions. In situations when similar others/customers are
not available, not salient in the setting, or regarded as too dissimilar, the customer will then not use other customers as reference points (Xia, 2004).

### 2.6.5 Past Research - Other Customers and Price Fairness Perceptions

 Several academic studies have found that social comparisons affect price fairness judgements and perceptions (Haws \& Bearden, 2006). For example, Cox (2001) found that when a large webstore (Amazon) charged higher prices (for the same product) to returning customers compared new customers, the returning customers perceived the pricing practice as inequitable and unfair. Martins (1995) found that the presence of price discrepancies affects customers' price fairness perceptions, when comparing prices with comparable others. This finding is in accordance with the the study by Haws and Bearden (2006). They concluded that customers use multiple reference points, and knowing that another customer paid a lower price influenced fairness perceptions more than any other price-equivalent comparison reference, e.g. becoming aware of a lower price in another store, or a price reduction by the same store later in time.Based on the presented literature and theory regarding social comparison, the following hypotheses have been formulated, to be examined by this thesis.

If the customer is aware of another customer who has bought the same product, from the same seller (and all other inputs and outcomes being the same) then the customer will use the other customer as a reference point in the formation of price fairness perceptions:

## Hypothesis 2a:

Awareness of another customer's outcomes will moderate the impact the price increase motive of the seller has on customers' price fairness perceptions (i.e. moderate the presented relationship in hypothesis 1).

In line with equity and social comparison theory; All customers experiencing price differences and inequality will, to some extent, perceive such a situation as unfair.

## Hypothesis 2b:

Awareness of another customer who has paid a different price will lead to a lower degree of perceived price fairness, compared to if the customers had paid the same price.

As described above, similar others (i.e. other customers in this case) serves as the most important and influential comparison reference. Thereby, it's assumable that in situations in which different customers pay the same price, they would judge such a situation as more fair, compared to a situation where the customers aren't aware of other customers or their outcomes - regardless of the price motive seller. Since the customers have the knowledge of that all other customers are being treated in the same way this influences the customer to
develop a higher degree of price fairness perceptions - compared to those being unaware of other customers (Xia, 2004, Major \& Testa, 1980).

## Hypothesis 2c:

In a situation in which the customer is aware of the price paid by another customers and the prices paid are equal, then the customer will evaluate such a situation with higher degree of price fairness - compared to situations when not being aware of other customers.

### 2.6.6 Advantaged \& Disadvantaged Inequality

Price comparisons between customers are assumed to result in one of three different judgements; equality, advantaged inequality, or disadvantaged inequality. Inequality means, as described above, that the customer perceives an injustice and a lower degree of price fairness, compared to a situation of equality (i.e. in the case of inequality there is a price difference between the customers). Advantaged inequality refers to when you are the customer who has paid the lower price compared to the other customer who experiences a disadvantaged inequality - due to paying the higher price (Xia, 2004).

Price fairness judgements and perceptions are subjective in nature and they thereby tend to be biased by the customer's self interest. The customer will attempt to maximize her own outcome in relation to other parties, in this case; try to pay a lower price. This will result in differences in judgements and perceptions between advantaged and disadvantaged customers. When the price inequality is to the customer's advantage, she will judge the situation as less unfair compared to the disadvantaged customer. As stated above (in H2b), all customers experiencing price differences and inequality will, to some extent, perceive such a situation as unfair, regardless of being advantaged or disadvantaged. However, they will differ in terms of the "magnitude" of their price unfairness perceptions (Ordonez, Connolly \& Coughlan, 2000; Xia, 2004).

In case of an equal size of a price difference it's expected that a advantaged customer will perceive price unfairness to a lesser degree compared to a disadvantaged customer.

## Hypothesis 2d:

In the context of a price inequality; a disadvantaged customer will perceive a lower degree of price fairness compared to an advantaged customer.

To summarize the hypotheses $\mathrm{H} 2 \mathrm{a}-\mathrm{H} 2 \mathrm{~d}$; there are four different types of situations included in the hypotheses; (1) not being aware of other customers, (2) having paid the same price as another customer, (3) having paid a lower price than the other customer; i.e. being advantaged, and (4) having paid a higher price than the other customer, i.e. being disadvantaged.

It's expected that disadvantaged customers will perceive the situation as being the least fair (H2d), and customer in an equity context will develop the highest levels of price fairness perceptions (H2c). Customers not being aware of other customers will come after the "equity" group in terms of the level of price fairness perceptions (H2c). Thereafter you will have the advantaged group (H2b), which will thereby develop stronger price fairness perceptions than the disadvantaged customers (H2d), but lower levels compared to the other two groups (H2b).


Figure 2.3 Hypotheses H2a-H2d

### 2.7 The Effects of Customers' Price Fairness Perceptions

Prior research has shown that price perceptions influence several different outcome variables. For instance, price fairness perceptions have been proven to affect perceived value of the purchase, perceptions of monetary sacrifice, as well as, satisfaction. These variables are then assumed to mediate the relationship between perceived price fairness and behavioural intentions and actions (Bolton, 2003; Huppertz, 1978; Xia, 2004).

### 2.7.1 Perceived Transaction Value and Monetary Sacrifice

Xia et al. (2004) suggest that a price fairness perceptions influence value judgments, and more specifically; value- judgements and perceptions of the seller's offering. This is what Thaler (1985) calls transaction utility, which depends solely on the "merits of the deal" i.e. the price paid by the customer. Transaction utility or transaction value is defined as the value of paying the actual price compared to a reference price - which is determined from reference points. The reference points, for instance, the seller's motive for a price increase, as well as, the price paid by other customers, will strongly affect a customer's perception of what is a fair price and thereby influence the value/number for the reference price (Monroe, 2012; Thaler, 1985). The implication from this is that price fairness perceptions will, to some extent, influence transaction value judgements. Several studies have proven that there is a positive relationship between price fairness perceptions and transaction value judgements (Grewal, Monroe, \& Krishnan, 1998; Klein, \& Oglethorpe, 1987; Oh, 2003; Zeithaml, 1988).

In addition, Monroe (2003) explain§s these types of transaction value judgements in the following way: "Buyers' perceptions of value are mental trade-offs of what they believe they gain from a purchase with what they sacrifice by paying the price". In the case of a price increase, and keeping all other inputs and outcomes constant (i.e. the quality and benefits from acquiring a product or service are the same), a price increase would result in customers perceiving a higher degree of sacrifice in comparison to paying the "regular" price. Transaction value judgements are therefore dependent on monetary sacrifice perceptions, and it's argued that a decrease in perceived value is a consequence of perceptions of increased monetary sacrifice (Monroe, 2012; Xia, 2004).

From the research of Martins (1995) it was found that customers compare prices when different customers was being charged different prices for identical products and from the same seller. Price differences led to lower degree of price fairness judgements compared to situations of equal prices. In the study it was proven that perceived price fairness in turn directly affected perceptions of monetary sacrifice, in regards of acquiring the product. Lower levels of perceived price fairness led to higher levels of perceived monetary sacrifice, i.e. a negative relationship.

In general, it's assumed that there is a negative relationship between price fairness perceptions and perceptions of monetary sacrifice. However, there is an asymmetry here and in the case of an advantaged inequality, i.e. customers paying a lower price than other customers, it's expected that this advantaged customer's situation will result in a decreased level of perceived monetary sacrifice - even though advantaged customers are expected to judge the situation as
rather unfair (Hypothesis 2b). This asymmetry will also apply to value perceptions, as those perceptions are dependent on the customer's monetary sacrifice perceptions, i.e. advantaged customers will despite having perceived the situation as rather unfair, they will still judge the situation with high level of transaction value (Martins, 1994; Monroe, 2012; Xia, 2004).

Based on theory regarding perceived monetary sacrifice and transaction value the following hypotheses have been formulated.

Past research have proven a relationship between price fairness perceptions and perceptions of monetary sacrifice. There is however one exception in the case of advantaged customers.

## Hypothesis 3a:

A higher degree of perceived price fairness will lead to a lower degree of monetary sacrifice.

There is one exception in the case of advantaged customers:

## Hypothesis 3b:

In the case of perceived advantaged price inequality, the relationship presented in hypothesis $3 a$ will be positive instead.

A lower degree of perceived monetary sacrifice has been proven to result in higher degree of perceived transaction value, and vice versa in regards to a higher degree of perceived monetary sacrifice.

## Hypothesis 3c:

There is a negative relationship between perceived monetary sacrifice and perceived transaction value.


Figure 2.4 Hypotheses H3a-H3c

### 2.7.2 Satisfaction

Past research are rather in agreement regarding that price fairness perceptions positively correlate with customer satisfaction (Mayer, 2015). According to Voss et al. (1998); satisfaction is a function of price, performance, and expectations. Expectation has been proven to have a rather weak link to satisfaction, and the results from the study show that perceived price fairness perceptions may be the dominant determinant of satisfaction, in contrast to performance. In cases of high degrees of price unfairness perceptions, the effect is particular strong and the price perceptions had a substantial influence on satisfaction, and consequently led to moderately negative satisfaction judgements i.e. dissatisfaction. In general, it's assumed that most equity concepts are related to satisfaction in this way, i.e. equity making up a dominant influence on satisfaction (Hermann, Xia, Monroe, \& Huber, 2007; Oliver \& Swan, 1989a).

There are several different definitions of customer satisfaction and in terms of studying equity and price fairness perceptions regarding exchanges, it's argued that outcome satisfaction, as well as, satisfaction with the seller will be affected (Oliver, 1997; Hermann, 2007). Outcome satisfaction refers more specifically to the satisfaction of the purchase and the subsequent outcome e.g. the product/service purchased and the price paid. Satisfaction with the seller refers to the overall satisfaction with the seller organisation (ibid.).

Previous studies have found both that price fairness perceptions and perceived transaction value have a direct relationship to satisfaction judgements. For example, Oliver and Swan (1989b) surveyed automobile purchasers regarding perceptions of the seller's and her own inputs and outcomes, as well as, price fairness. The results from the study showed that customers do make equity-inferences and inequity leads to price unfairness perceptions which in turn result in lower degree of satisfaction with the outcome and the car dealer - compared to cases of equity (findings supported by e.g. Hermann, 2007; Haws, 2006; Martins, 1994; Oliver, 1989a). Ordonez (2000) also found a link between fairness and satisfaction. However, in situations of inequity; advantageous inequity results in the highest levels of satisfaction compared to disadvantageous inequity and cases of equity. People in equity have higher satisfaction than those in disadvantageous inequity. As mentioned above, customers perceiving an advantageous inequality will, to some extent, perceive their situation as unfair (hypothesis 2b). Hence, there will be an asymmetry and in the specific case of advantaged customers the link between price fairness perceptions and satisfaction is expected to be negative (Xia, 2004).

Several studies have shown a positive direct relationship between perceived transaction value and satisfaction (Grewal, 1998; Mayer, 2015 Oh, 1999). It's expected that all types of customers will demonstrate a positive correlation between perceived transaction value and satisfaction, regardless of, for instance, differences in equity/inequity (Xia, 2004).

Thereby are customers' price fairness perceptions expected to influence satisfaction judgements, both directly and indirect through perceptions of monetary sacrifice and transaction value.

## Hypothesis 4a:

A higher degree of perceived price fairness will lead to a higher degree of satisfaction.

There is however one exception in the case of advantaged customers:

## Hypothesis 4b:

In the case of perceived advantaged price inequality, the relationship between perceived price fairness and satisfaction will instead be negative (cf. H4a).

## Hypothesis 4c:

There is a positive relationship between perceived perceived transaction value and satisfaction.


Figure 2.5 Hypotheses H4a-H4c

### 2.7.3 Behavioural Intentions

In the end it's expected that customers' price fairness perceptions, through satisfaction, will influence and result in behavioural outcomes. These customer behaviours are expected to affect the seller/firm in various ways such as patronize- and purchase intentions - in the end affecting the firm's profitability. Such behavioural consequences motivate the reasoning regarding why the concept of price fairness perceptions is a relevant study area and perceptions of price unfairness could cause severe consequences for the seller (Xia, 2004; Campbell, 1999; Martins; 1994).

Oliver (1989a) tested how different levels of outcomes and inputs, in a B2C exchange, affected automobile customers' equity and fairness judgements. They found that situations where the customer's outcomes and the seller's inputs are high, the exchange is perceived as fair. Satisfaction was explained by fairness perceptions, and they found that there is a positive relationship between satisfaction and return intentions.

Besides return intentions, dissatisfied customers are expected to have intentions of switching to another seller, as well as, to engage in spreading negative word of mouth regarding their disappointment with the seller (Bechwati, \& Morrin, 2003; Huppertz, Arenson, \& Evans, 1978; Zeelenberg \& Pieters, 2004).

## Hypothesis 5a:

There is a positive relationship between satisfaction and return/patronize intentions.

## Hypothesis 5b:

There is a negative relationship between satisfaction and negative word of mouth intentions.

## Hypothesis 5c:

There is a negative relationship between satisfaction and intentions switching to another seller.


Figure 2.6 Hypotheses H5a-H5c

### 2.8 Summary, Hypotheses and Research model

In summary, price fairness perceptions are assumed to be highly related to equity theory. When different exchange parties' outcome-to-input ratios differ, the exchange party/customer will have perceptions of inequity. The inequity will result in perceptions of price unfairness if the price being paid could, entirely or partially, explain the cause of inequity perceptions.

### 2.8.1 The Determinants

It is assumed that the seller's motive for a price change will affect customers' price fairness perceptions. The Dual Entitlement principle states that both the seller and the buyer(s) are entitled to a reference profit (seller) and a reference price (customer), i.e. a reference transaction. If the seller breaches the entitlements by a price change which thereby isn't justified by a difference in the seller's costs, this will likely result in changes of the customer's price fairness perceptions. The Dual Entitlement principle applies primarily to price increases. Thus, a price increase which increases the profits of the seller, in comparison to the reference transaction, is expected to cause perceptions of price unfairness among customers. While in contrast, a price increase which is justified by cost increases and don't breach the entitlements, is perceived as fairer to a greater extent.

The seller is given as exchange partner due to being a prerequisite for a B2C exchange/sale to take place, and is thereby very likely to be used as a reference point in the formation of customers' price fairness perceptions. Another category of reference point which isn't as given as the seller, is the use of other customers' outcomes (also called indirect exchange parties). It's presumed that there has to be available information about other customers as well as the information and the reference standard being deemed as relevant, in order for the customer to use another customer as a reference point. It's said that the degree to which knowledge of another customer influences one's judgement depends on the accessibility of that knowledge.

In social comparison, one often carries out an initial assessment regarding how similar one is to the reference standard, in order to determine if they are generally similar or dissimilar to each other. The main implication of this is that the customer is expected, further on in the comparison process, to focus on information and evidence which is consistent with the finding of this initial assessment. A realized price difference between customers is thereby assumed to be one of the focal points of the comparison and evaluation.

Consequently, when outcomes of other customers are unknown, customers' price fairness perceptions are expected to vary directly with the price increase motive of the seller, according to the dual entitlement principle. However, when the customer is aware of other customers' outcomes, this kind of reference point will also have a significant impact on the customer's price fairness perceptions. Thus, the awareness of other customers' outcomes will moderate the relationship between the seller's motive and the customer's price fairness perceptions.

### 2.8.2 The Effects

Price fairness perceptions are expected to influence the perceived monetary sacrifice. In general, it's expected that this relationship is negative, meaning that higher degree of price fairness perceptions will result in a lower degree of monetary sacrifice perceptions. Except for one circumstance; customers perceiving an advantageous inequity are not expected to perceive a rather low degree of monetary sacrifice, even though they will judge their situation as relatively unfair.

Monetary sacrifice perceptions will in turn influence the customers' transaction value judgements. The relationship is expected to be negative, with no exceptions.

The price fairness perceptions are expected to influence customers' satisfaction judgements both directly and indirectly through perceptions of (monetary sacrifice and) transaction value. Price fairness perceptions and perceived transaction value will both positively correlate with satisfaction judgements. Just in the case of monetary sacrifice it's expected that the direct link between price fairness perceptions and satisfaction won't be positive in the case of advantaged customers, and they will experience rather high levels of satisfaction.

In the end, the satisfaction judgements will result in different types of behavioural intentions.

### 2.8.3 Research Model

The complete research model will look like the following:


Figure 2.7 Research Model

### 2.8.4 Summary of Research Gap

The two categories of reference points; the seller and other customers, have in previous research been treated as two rather separate research streams within price fairness research. As described above, both the dual entitlement principle and other customers have been proven to affect price fairness perceptions. Nevertheless, it's seldom that a study has examine more than one type of reference point and investigated if there are for instance any interactions between different reference points. No study has explicitly examined how these two references, the seller and other customers, interact with each other in terms of the formation of customers' price fairness perceptions. No study gives the answer to what effects on price fairness perceptions would have been if you were to combine the dual entitlement principle (the seller) and other customers as reference points. If information regarding both of them were available then it's argued for that the customer ought to use both of them as reference points and seldom only choose to use one ( $\mathrm{Xia}, 2004$ ).

It has been concluded in previous research that perceived price fairness differences between advantaged customers (customers who has paid a lower price than others) and disadvantaged customers (customers who has paid a higher price than others) could be clarified further (Xia, 2004; Xia; 2010).

### 2.8.5 Hypotheses <br> Below follows a collection of all hypotheses:

Dual Entitlement Principle: Seller's Motive for a Price Increase

A price increase caused by a positive motive (e.g. increased costs for the seller) will lead to a H1: higher degree of price fairness perceptions among the customers compared to a price increase caused by a negative motive (e.g. seller exploiting its increased market powers).

## Social Comparison: Other Customers

Awareness of another customer's outcomes will moderate the impact the price increase H2a: motive of the seller has on customers' price fairness perceptions (i.e. moderate the presented relationship in hypothesis 1).

H2b: Awareness of another customer who has paid a different price will lead to a lower degree of perceived price fairness, compared to if the customers had paid the same price.

In a situation in which the customer is aware of the price paid by another customers and the H2c: prices paid are equal, then the customer will evaluate such a situation with higher degree of price fairness - compared to situations when not being aware of other customers

H2d: In the context of a price inequality; a disadvantaged customer will perceive a lower degree of price fairness compared to an advantaged customer.

## The Effects of Price Fairness Perceptions

Perceived Monetary Sacrifice and Transaction Value

H3a: A higher degree of perceived price fairness will lead to a lower degree of monetary sacrifice.
H3b: In the case of perceived advantaged price inequality, the relationship presented in hypothesis 3 a will be positive instead.

НЗс:
There is a negative relationship between perceived monetary sacrifice and perceived transaction value.

Satisfaction

H4a: A higher degree of perceived price fairness will lead to a higher degree of satisfaction.

H4b: In the case of perceived advantaged price inequality, the relationship between perceived price fairness and satisfaction will instead be negative (cf. H4a).

H4c: $\quad$ There is a positive relationship between perceived perceived transaction value and satisfaction.

Behavioural Intentions
Н5а:
There is a positive relationship between satisfaction and return/patronize intentions.

H5b: There is a negative relationship between satisfaction and negative word of mouth intentions.

Н5c:
There is a negative relationship between satisfaction and intentions switching to another seller.

## 3. Methodology

### 3.1 Scientific Approach

The main goal of the thesis is to contribute to the academic research field of price fairness perceptions. Especially how the the seller and other customers, as reference points, are influencing customers' price fairness perceptions, as well as, to examine how price fairness perceptions affect variables such as perceived transaction value and satisfaction.

Most suitable to achieve this is a deductive approach. The hypotheses of this study are based on an extensive review and examination of existing research and theory on price fairness perceptions. Critique towards a deductive approach may be that the starting point of the study is based on has concrete expectations which are derived from previous research. Thereby, the availability and access to information might become limited and there is risk of missing important information. Nevertheless, the hypotheses of this study are based on extensive and wide-ranging research within the price fairness field, which could be said to form a stable and reliable foundation (Bryman, \& Bell, 2011; Jacobsen 2002).

The data used to test the hypotheses will be obtained through a so-called quantitative experiment, meaning that the data will be collected by a quantitative survey (Bryman, 2011). The two reference points; seller and other customers, are the two variables which will be manipulated and varied in the experiment.

By using a quantitative approach it's possible to draw conclusions regarding causal relationship between different variables, and to answer the hypotheses of this study, for example the causal relationships between the customer's usage of reference point and price fairness perceptions, and between price fairness perceptions and their effects. Quantitative surveys are also considered to be appropriate to collect unobservable data such as cognitions and intentions, as well to enable data collection from large groups of respondents (Malhotra, 2010). Experiments are commonly argued to be the most suitable method to study causality. By using experiments, the hypotheses could be tested in a controlled setting (Malhotra, 2010).

However, by using a so-called "laboratory experiment" and not doing a field experiment, one could criticize the experiment for taking place in an artificial context (Söderlund, 2010). Nevertheless, written scenarios have the advantage of being able manipulate the information available to the participants, and at the same time be able to control for potential nuisance and non-desirable factors. Written scenarios are also said to be particular suited for researching theories and depict how people process justice-related information (Collie, 2002).

Past research in the field of price fairness perceptions have mostly used quantitative methods, and by choosing this type of approach there will be a high degree of methodological fit, as well as, increased comparability and generalizability of the data (Bryman, 2011). As this study is of an extensive character, the focus will be on generalizations. Since different reference points in general influence humans' fairness and justice perceptions (not just regarding price) it was considered that the greatest benefit is to be able to generalize and to draw general conclusions.

### 3.2 Study Design

A between subject design was used for the study, as it was intended to study reactions between different groups (Söderlund, 2010). The study design could be described as $2 \times 4$ which results in eight (8) different groups receiving different scenarios and treatments.

In the " $2 x 4$ " expression the " 2 " refers to the variation of the seller's motive for a price increase. The seller could either have a positive motive (e.g. due to cost increase) or a negative motive (e.g. exploiting increased market powers).

In terms of the second reference point; other customers, there will be four (4) different variations:

- No presence/awareness of other customers.
- Awareness of another customer who has paid the same price as you (equity).
- Awareness of another customer who has paid a higher price than you (advantaged inequity).
- Awareness of another customer who has paid a lower price than you (disadvantaged inequity)

Both of the reference points will be manipulated and varied through written scenarios.

In summary, the eight different scenarios are:

- Positive motive, and no awareness of other customers
- Positive motive, and equity
- Positive motive, and advantaged inequity
- Positive motive, and disadvantaged inequity
- Negative motive, and no awareness of other customers
- Negative motive, and equity
- Negative motive, and advantaged inequity
- Negative motive, and disadvantaged inequity


### 3.3 Experiment Design

The data were collected through a survey which started with the respondent reading one of the eight scenarios and thereafter answered a questionnaire in order to measure all dependent variables of the research model. Two pilot studies were also performed; the first one was of a qualitative nature to see how the scenarios were interpreted, and also to check that the scenarios and questionnaires were for example readable, understandable and didn't lead to any confusion. The second pilot study consisted of a quantitative test in order to get indications regarding if the different scenarios led to the intended effects on the respondents' price fairness perceptions. The following sections will describe the scenarios, the questionnaire and its measurements, as well as, the two pilot studies.

### 3.4 Scenario Design

The designs of the eight different scenarios were based on the literature study and mapping out how past research has developed and formulated their scenarios. Most of the previous research have chosen a specific product/service and then built purchase scenarios around the chosen offering. For this thesis the selection criteria were that the the product or service was supposed to be something that most people can relate to, regardless of aspects such as demographics, lifestyle, interests and so on. Another aspect was the price and the common price range for the product have to be large enough so that price changes will have a significant impact on respondents' price fairness perceptions, and that the different price levels at the same time were not considered abnormal for the product.

By asking people what type of product they thought matches these criteria, and checking price statistics for different consumer products and services, as well as, reviewing past research on the area, the choice fell on using television (TV) as the product in the scenarios. It's a product that most Swedes seem to have in the homes and can relate to. By checking price statistics, the prices on individual models tends to vary a lot - which is in line with the interpretation of the interviewed people. In the recent studies on price fairness perceptions several studies have used home electronic products in their scenarios. It's also interesting to focus on this type of product (i.e. retail), as the focus in past research in revenue management have mostly been in service sectors such as differences in flight and hotel fares (Wirtz, 2007).

The information regarding the TV in the scenarios is limited so that this type of information will not infer with the judgements of the respondents. The only TV-related information in the scenarios, except for the price, will be that it's a flat screen model (presently the most common type) and the size; 42 inches. Thereby, it's expected that the respondents will interpret the scenarios as realistic and still be able to focus on other aspects in the scenarios.

### 3.4.1 Common Parts of All Scenarios

The following text is included in all eight scenarios:
"Imagine that your TV has recently broken down. You have had this TV for a long time, and lately it hasn't functioned as it should. Yesterday evening when you were watching one of your favourite shows the screen went blank and the TV completely stopped functioning.

Having a TV is important for you. By having a TV you're able to watch your beloved shows, as well as, entertaining your friends who occasionally come over to watch movies.

It's now time to replace the TV for a new one. You have picked out a new TV which you have decided to buy, a 42-inch flat screen TV. You've had an eye on the market and you know that the chosen model usually costs 5000 kr . When you arrive at the
store you notice that the price is now 6500 kr for the specific TV, and you decide to pay this price"

The chosen price is based on recent market price statistics, as well as reasoning and findings from previous studies and Thaler's (1985 \& 1999) mental accounting research, and a $30 \%$ price increase is argued to have a significant impact on customers' fairness judgements. The price was stated in SEK because the survey was only distributed to Swedes.

### 3.4.2 The Reference Points

One of the important aspects of creating these scenarios are that the eight scenarios only differ in terms of the variables which are supposed to be varied and manipulated i.e. the two reference points: the sellers motive for the price increase, and other customers - both awareness of other customers and the possible price difference. Thereby it's feasible to compare the effects on price fairness perceptions of the eight different groups.

### 3.4.2.1 The Seller's Motive.

The general scenario text, presented above, will complemented with information regarding the seller's motive for the price increase (from 5000 kr to 6500 kr ). The scenarios are based on the research made by Kahneman et al.(1986a\&b), and Campbell (1999). The seller could either have a positive motive which means that he increases the price to cover a cost increase. Or the seller could have a negative motive and exploits an increased market power.

Positive Motive:
"You find out that the reason for the price increase of the television is due to that the store's purchase price for the TV has increased. (i.e. the store has to pay more to buy the TV from the supplier).

In order for the store to maintain the same margins and profitability, the store has thereby decided to increase the price for the TV."

## Negative Motive:

"You find out that the reason for the price increase of the TV is due to that the store has decided to exploit a presently increased demand level for televisions.

The store is aware of that during this time of year people watches more TV, and many people choose to buy a new television right now.

In order to earn more on all televisions and thereby increase its profits the store has decided to take advantage of the current situation, and consequently increased the price."

### 3.4.2.2 Other Customers.

The last module of the scenarios is the information regarding another customer's outcome.

In the case of the customer not being aware of another customer there won't be any additional information.

The only thing that will differ between the last three groups, when the customer is aware of another customer, are the prices paid by the other customer. In cases of inequality (i.e. price differences between the two customers) the prices will differ with 1000 kr , which is consistent with Thaler (1985, \& 1999). All three scenarios start with the following:
"About a week after your purchase you tell your colleagues that your TV has broken and you had to buy a new one."

## Equity, Same Price:

"It turns out that one of you colleagues bought the same TV, in the same store and day, and paid the same price as you, i.e. 6500 kr ."

Advantaged Inequity; Other customer paid more:
"It turns out that one of you colleagues bought the same TV, in the same store and day as you. However, she paid 7500 kr for the TV, i.e. 1000 kr more than what you paid."

## Disadvantaged Inequity; Other customer paid less:

"It turns out that one of you colleagues bought the same TV, in the same store and day as you. However, she paid 5500 kr for the TV, i.e. 1000 kr less than what you paid."

As this study focuses on distributive justice and equity theory, only information regarding the final outcomes will be included in the scenarios (e.g. prices paid, and product bought). No information regarding for instance procedural justice have been included in the scenarios, such as the treatment from store personnel. Concepts like procedural justice are expected to have their own effects on price fairness perceptions (Xia, 2004).

### 3.5 Pilot Studies

Two different pre-studies were performed in order to ensure that the different scenarios have an impact on the respondent's price fairness perceptions. The first pre-study was of a qualitative nature and and the second was a quantitative test of the eight different scenarios. A benefit was seen in using both types of tests in order to capture as much as possible regarding how people interpret and evaluate the different manipulations.

### 3.5. 1 Pilot Study One - Scenario Interpretations

The qualitative pre-study was carried out with six different respondents, ranging from 26 to 49 years old. They got to read a couple of the different scenarios and were asked to think out loud. First of all, some remarks regarding language aspects were made e.g. wording and formulations. Corrections were made, however they were not affecting the message of the scenarios.

In terms of fairness judgements, the respondents' judgements were in line with the desired effects, however it's hard to measure relative differences between scenarios from verbal answers and statements. Scenarios including a negative price increase motive and/or disadvantaged inequality were in general stated to be perceived as the least fair when comparing to the other scenarios.

When reading scenarios involving inequity between customer, several stated that they were interested in getting more information as to why there was price differences between the two customers. As such information is expected to affect customers' outcome-to-input ratios (Oliver, 1989b), it was decided not to include such information (e.g. one customer has higher loyalty status than the other etc.). However, for future research it could perhaps be interesting to examine price differences affect customers' propensities and intentions of searching for information and to find out the reasons as to why the price differences occurred.

### 3.5.2 Pilot Study Two - Quantitative Test of Scenarios

In order to complement the qualitative results of the different scenarios, a quantitative pilot study was also carried out. 12 different respondents got to read two of the different scenarios and after every scenario they got to state the perceived level of price fairness (ten item scale, see section 3.5.1). The allocation of the scenarios was randomized.

The results indicated that there are differences in terms of price fairness perceptions between the different scenarios. Due to the low number of respondent these results will just be seen as indications and nothing else. Scenarios with a positive motive and/or absence of another customer, as well as, cases of equal prices between customer (equity) scored in general high than the others. Whereas the disadvantages respondents answered low levels of price fairness. However, there were some individual "outliers" and a decision was taken to make the scenarios more concise and emphasis the differences in the different scenarios. For instance, the last sections in the seller parts (positive/negative motive) were extended to clarify the motives for the price increases even further.

### 3.5.3 Critique of Pilot Studies

Possible criticism to the pre-studies are that it's a low number of respondents and that they got to read several scenarios instead of only one. Which increases the risk that they get influenced by the different versions. By having a low number of respondents there is a risk that individual-specific opinions have a lot of weight in the results. At the same time the individual-specific opinions may to some degree get minimized due to the repeated measure design, which makes them focus on the differences of the scenarios.

However, the main purpose of the study could be said to see how the reference point regarding other customers influence/moderates the impact the seller's motive has on customers' price fairness perceptions. Thereby one of the purposes of the pre-studies is to determine whether the scenarios create, at least somewhat, the desired effect in terms of how the seller's motive affects price fairness perceptions. In both of the pre-tests, the two scenarios which don't include any information about another customer, have shown to differ and a positive motive has shown to create a higher degree of price fairness. In terms of the second reference point; other customer, indications regarding desirable effects were also found, e.g. the respondents reading a disadvantaged scenario gave in general the lowest values for the respective seller motive group (positive/negative).

### 3.6 Questionnaire Design - Measurements

After the scenario, a questionnaire followed. The questions aimed to measure the different dependent variables of the study. All scales used in this study are scales that has been developed by previous research, which have also proven the reliability of the specific scales. All scales are so-called Likert scales, except for one which is a semantic differential (see section 3.5.4). A ten-point scale is used for all measures, the advantages of this amount of steps are, for instance, higher measurement precision, offers more variance, better opportunity to detect change and explain a point of view compared than a smaller scale (Wittink, \& Bayer, 2003).

### 3.6.1 Price Fairness

Price fairness perceptions were captured by using a scale developed by Haws and Bearden (2006) and it's specifically developed to measure how fair the price of a product is perceived to be. The scale consists of ten items which the respondents had to evaluate by responding from 1 (strongly disagree) to 10 (strongly agree).

The ten items measuring perceived price fairness are: Fair, Unreasonable, Honest, Less Fair, Unfair, Unacceptable, Questionable, Justified, Satisfactory, and Acceptable.

As can be seen, five of the statements have to be reversed in when combining all into an index. The cronbach's alpha measured: $\alpha=0,821$.

### 3.6.2 Perceived Monetary Sacrifice

Perceived monetary sacrifice was measured by two questions developed by Dodds, 1985, ( $\alpha$ $=0,730$ ):

- The price for the TV is: - Much less than expected (1), to Much more than expected (10).
- The price for this TV is a lot of money to spend. - Strongly disagree (1), to Strongly agree (10).


### 3.6.3 Perceived Transaction Value

Perceptions regarding transaction value were measured by four different items at a sevenpoint scale, anchored at "strongly disagree" (1) and "strongly agree" (10) (Dodds, 1996) ( $\alpha$ $=0,881$ ).

- Taking advantage of a price like this makes me feel good
- Buying the TV in this store is a good purchase
- By buying the TV in this store I would get a lot of value for my money
- I would get pleasure from paying the price of the TV


### 3.6.4 Satisfaction

Satisfaction with the purchase was measured by four items on a 10-point bipolar scale (Darke, \& Dahl, 2003).

- Dissatisfied / Satisfied
- Unhappy / Happy
- Displeased / Pleased
- Disappointed / Delighted

Satisfaction with the seller was measured by the question: How would you summarize your impressions of the store? - followed by three satisfaction items (Söderlund, \& Öhman, 2003; Johnson, Gustafsson, Andreassen, Lervik, \& Cha, 2001):

- How satisfied or dissatisfied are you with the store? -Very dissatisfied (1), to very satisfied (10)
- To what extent does the store meet your expectations? - Not at all (1), to Totally (10)
- Imagine a store that is perfect in every respect. How near or far from this ideal do you find this specific store? - Very far from (1), to Can not get any closer (10)

The two types of satisfaction were firstly intended to be treated as to separate variables in the analysis. However, due to high correlation and to minimize the risk of multicollinearity, all seven satisfaction variables were combined into one satisfaction index ( $\alpha=0,812$ ).

### 3.6.5 Intentions

Three different types of intentions will be measured; Return Intentions, Negative Word of Mouth Intentions, and Switching Intentions.

### 3.6.5.1 Return Intentions.

Three questions were asked regarding return intentions to the store; as an expectation, plan, and as a want to revisit the store (Söderlund, 2003) $(\alpha=0,905)$.

- It's likely that I will return to the store when it's time to buy a new TV (if the store was real) - Very unlikely (1), to Very likely (10).
- I plan to revisit the store (if it was real) - Do not agree at all (1), to Agree completely (10)
- I want to revisit the store in the future (if it was real) - Do not agree at all (1), to Agree completely (10)
3.6.5.2 Negative Word of Mouth Intentions.

Negative word of mouth intentions were measured by three different statements on a ten-point scale - not at all likely (1) to very likely (10) (Voorhees, Brady, \& Horowitz, 2006) ( $\alpha=$ 0,796 ):

- I will recommend friends not to visit this store
- I will say bad things about this store to others
- I will encourage friends and relatives to visit other stores


### 3.6.5.3 Switching Intentions.

Two measurements were used regarding intentions of switching to another store (Bansal, \& Taylor, 2005) ( $\alpha=0,901$ ).

- Rate the probability that you would switch to another store to buy the TV - Very unlikely (1), to Very likely (10)
- I would like to buy the TV at another store - Do not agree at all (1), to Agree completely (10)

In addition to these measures some questions regarding the demographic characteristics of the respondents were added, as well as, control questions in order to find out if the respondents have reacted to something beyond the variables which were asked for (Söderlund, 2010).

The questionnaire was proof-read and reviewed by several people with varying degree of experience and competence in this type of research.

For the complete survey please see appendix 1.

### 3.7 Main Study

After a short introduction (see appendix 1) the survey started with the respondent reading one of the eight scenarios, and thereafter the respondent answered the questionnaire.

The allocation of the different scenarios was randomized, meaning that every respondent had an equal probability to get to read anyone of the eight scenarios. This is in line with experiment theory which states that individual differences are spread out and thereby cancel each other out. Furthermore, systematic differences regarding personal characteristics and preferences between groups will also be minimized due to the randomization of the scenarios. As the eight different groups of respondents will only differ in term of the treatment/scenario, the likelihood will be very high that it's the treatment which has caused the differences in the reactions of the different groups, and nothing else (Söderlund, 2010).

The sample of the study is a convenience sample, and the respondents are mainly chosen on the basis of their availability. Possible biases related to this type of sampling method are expected to minimized by randomizing the allocation to the eight different treatment groups. Nevertheless, the aim was to get a good representation of the general Swedish population and the majority of the responses have been collected on three different workplaces. Most of the surveys have been sent out by email, only 28 answers have been collected through paper.

In total 284 persons answered the survey, which of nine have been excluded from the analysis due to not having completed the whole survey (eight persons) and one respondent who has replied with the same answer to almost all questions. Other variables such as time taken to complete survey have also been checked. Of the remaining 275 respondents the age ranged from 19 to 63 , and $57,5 \%$ (158) were men, and the resulting $42,5 \%$ (117) were female respondents.

### 3.7.1 Group Distributions

The number of respondents in each treatment groups are presented by the following table (3.1):

Table 3.1 Treatment Groups Distributions

|  |  | Treatment Group <br> Sumber | n | $\%$ |
| :--- | :--- | :---: | :---: | :---: |
| Positive | No Awareness | 1 | 33 | 12,0 |
|  | Equity | 2 | 37 | 13,5 |
|  | Advantaged | 3 | 36 | 13,1 |
|  | Disadvantaged | 4 | 32 | 11,6 |
| Negative | No Awareness | 5 | 31 | 11,3 |
|  | Equity | 6 | 32 | 11,6 |
|  | Advantaged | 7 | 39 | 14,2 |
|  | Disadvantaged | 8 | 35 | 12,7 |

### 3.8 Analytical Tools and Models

In order to test the different hypotheses of this thesis a number of different statistical test were used. SPSS (Statistical Package for Social Science) was used to analyse the data and perform the tests.

When performing mean comparisons between different groups of respondents, either independent samples $t$-tests, when the sample was split into two groups, or ANOVA:s (more than two groups) with post-hoc tests (Scheffe), were used. The Scheffe standard for post-hoc tests were chosen due to it allowing mean comparisons when the groups are of different sizes, as well as, it being perceived as one of the most conservative post-hoc tests and provides one of the highest levels of protection against type-1 error (Armstrong, \& Hilton, 2004).

A significant level of $5 \%$ was used for all tests in this thesis.

Furthermore, correlation- and regression analysis were used in this thesis. The regression models have been tested for mutlicollinearity between different independent variables, which can cause the beta coefficients to be estimated wrongly, or that the independent variables get wrongfully removed or included to the regression model. The test is done through Condition Index, and values below 20 have been accepted (Farrar, \& Glauber, 1967; Malhotra, 2010).

In order to decrease the risk of multicollinearity indexes were made, in which variables with high level of internal connectedness have been merged together into an index. Variables that were indexed were tested through Cronbach's Alpha tests in which the internal connectedness has been tested and get an indication of how much variance they capture. Values equal or above $0,70(70 \%)$ on test were accepted. Factor analysis has also been used in order to get insights regarding suitable groupings of different questions which are empirically related (Malhotra, 2010).

The regression models have also been tested for heteroscedasticity, which could result in wrongly calculated models with incorrect values, e.g. due to differences between subpopulations in the sample. The heteroscedasticity in the regression models have been visually controlled for by comparing the estimated residuals to the actual residuals (White, 1980).

### 3.8.1 Moderator Test



Figure 3.1 Illustration of a Moderated Relationship

Moderator tests have been performed in order to test moderated relationships, between a predictor $(X)$ and dependent variable ( $Y$ ) (illustration above). The test involves testing the individual effects of $X$ and $M$ on $Y$ as well as the effect the interaction between $X$ and $M$ has on $Y$. The interaction is defined as the product of $X$ and $M(X M)$, and in order to avoid multicollinearity it has been standardized. The three independent variables are tested together in a multiple regression analysis where Y is the dependent variable. If the effects of the predictor $X$ and the interaction $(X M)$ are statistically significant and the effect of the moderator is not, then there is complete moderation (Baron, \& Kenny, 1986). In this thesis the moderator test is performed through a factorial (two-way) ANOVA, as it by default assumes that both the predictors $X$ and $M$ are categorical, which is suitable for this thesis. However, in mathematical terms there are no differences compared to the common regression based procedure, if it's also coded for categorical variables (Hayes, 2013).


Figure 3.2 Moderator Test

### 3.8.2 Serial Mediation Analysis

The research model of this thesis proposes that price fairness perceptions will affect satisfaction both directly and indirectly through two mediators; perceptions of monetary sacrifice and transaction value. The testing of the direct and indirect effects of price fairness will be done by performing a serial mediation analysis, which is illustrated by figure 3.3 below.


Figure 3.3 Serial Mediation Analysis

As can be seen from the illustration, two additional effects ( $a_{2}$ and $b_{1}$ ) will be tested in order to get the complete picture of how price fairness $(X)$ affects satisfaction $(Y)$. Perceived monetary sacrifice will be $M_{1}$ in this model and perceived transaction value is $M_{2}$.

According to the model, $X$ can affect $Y$ through four different paths. The first one is the direct effect; $c$ ' which does not pass through any of the mediators. The other three effect are indirect, and the first one goes from $X$ to $Y$ through $M 1$ only $\left(a_{1} \times b_{1}\right)$; the second runs only through $M_{2}\left(a_{2} \times b_{2}\right)$; and third indirect effect passes trough both $M_{1}$ and $M_{2}$ sequentially; $M_{1}$ affecting $M_{2}\left(a_{1} \times d_{21} \times b_{2}\right)$. Thereby the model translates into three different linear regression equations, due to the model containing three consequent/dependent variables (Hayes, 2013).

$$
\begin{align*}
M_{1} & =i_{M 1}+a_{1} X+e_{M 1}  \tag{3.1}\\
M_{2} & =i_{M 2}+a_{2} X+d_{21} M_{1}+e_{M 2}  \tag{3.2}\\
r & =i_{Y}+c^{\prime} X+b_{1} M_{1}+b_{2} M_{2}+e_{Y} \tag{3.3}
\end{align*}
$$

The $i$ 's and $e$ 's represent the constants and error terms of the models. In a serial mediation analysis these three regressions are performed in order to find out the coefficients, statistical significance, values of determination $\left(R^{2}\right)$ and so on.

By having all the coefficients, the total (direct + indirect) effect of perceived price fairness ( $X$ ) on satisfaction ( $Y$ ) can be determined. The total effect is normally denoted " $c$ ":

$$
\begin{equation*}
c=c^{\prime}+a_{1} b_{1}+a_{2} b_{1}+a_{1} d_{21} b_{2} \tag{3.4}
\end{equation*}
$$

The total indirect effect of X on Y can then be equated as the following:

$$
\begin{equation*}
c-c^{\prime}=a_{1} b_{1}+a_{2} b_{1}+a_{1} d_{21} b_{2} \tag{3.5}
\end{equation*}
$$

The final step of the serial mediation analysis is to statistically test the effects of the three different indirect effects (the mediations). This is done by creating confidence intervals for the three coefficients (confidence level in this thesis: $95 \%$ ). By checking the lower and upper limit of the intervals one can easily determine if the interval include the number zero ( 0 ). If it doesn't include 0 , one can reject the null-hypothesis which claims that the coefficient is equal to zero. Thereby the individual indirect effect can be said to be statistically significant (Hayes, 2013).

By checking the confidence intervals of all the three indirect effects (the mediations), you can draw conclusions regarding the total (direct + indirect) effect of $X$ on $r$.

In this thesis bootstrapped confidence intervals will be used, meaning that the confidence intervals for specific indirect effects are constructed by taking a random sample of n cases from the total sample, and sampling those with replacement (keeping $n$ equal to the total sample), which is called a bootstrap sample. Then the indirect effects (e.g. $a_{1} b_{1}$ ) will be estimated from the bootstrap sample. This process will be repeated a number of times, in this thesis; 10000 times, which will then result in 10000 estimates. The estimates will be sorted from low to high and the two values (upper and lower limits) in the distribution which defines the chosen percentile of the distribution will then be the upper and lower limits of the confidence interval of the effect. The percentile is determined from the chosen confidence level ( $95 \%$ confidence level gives; $100-0,5(100-95)=97,5$ percentile). This method (i.e. bootstrapping) is argued to be more powerful than other methods, for instance, minimizing possible bias from having a rather small sample and thereby coming closer to the actual distribution (ibid.).


PRICE FAIRNESS
Figure 3.4 Serial Mediation Model, Two Mediators.

### 3.8.3 Multivariate Regression Analysis

A multivariate regression (not to be mistaken for multiple regression analysis) is a regression analysis which includes several dependent ( $Y$ ) variables. Multivariate regression will be used for the last part of the research model in the thesis; the relationship between satisfaction $(X)$ and the three intention variables; return intentions $\left(Y_{1}\right)$, negative word of mouth intentions $\left(Y_{2}\right)$, and switching intentions $\left(Y_{3}\right)$.

In practice to conduct a multivariate regression, three regression models for each of the three dependent variables are performed. Then a Manova (set for continuous variables) is run to get the multivariate statistics. The Manova tests the different coefficients of the three regressions and test them across the three equations, i.e. tests that the coefficients still hold when the three equations are seen in a unity. The multivariate test can detect if whether groups differ along a combination of variables (avoiding multiplying error rates), which in the end contribute to greater statistical power. The multivariate tests include four different test regarding the total effect of the independent variable ( $X$ ); Pillai's trace, Wilks' lambda, Lawley-Hotelling trace, and Roy's largest root. The main difference between the tests is the criteria they are based on and the order they are written is generally the preference in terms of power (Afifi, Clark, \& May, 2004).


Figure 3.5 Illustration, Multivariate Regression

### 3.9 Quality of Data

Reliability and validity are both critical aspects within academic research (Bryman, 2011). Both aspects will be discussed in the sections below.

### 3.9.1 Reliability

Reliability concerns the consistency in measurements, meaning, for instance, that if a measurement procedure was repeated it would have yielded the same results. A high reliability means that the study is performed in a correct way and doesn't affect the results in a non-desirable way (ibid.). The design of the experiment could influence the reliability negatively. However, the experiment is based comprehensive revision of past research, which increases the reliability. The survey and scenarios have also been checked in the pre-studies, in order to determine that the survey holds a high degree of comprehensibility and clarity.

In terms of internal consistency, the coherence of the different measures included in survey have been tested. For instance, price fairness perceptions are in this thesis measured by 10 different items, which have later been indexed into one variable. Cronbach's alpha tests have been used to examine the internal consistency of the various metrics, and values equal or above 0,7 have been accepted (all measures passed this test). The questions used in this thesis have also already been tested for internal reliability in past research.

### 3.9.2 Validity

Validity concerns how the measurements and results correspond to the real world, and is often divided into internal and external validity.

### 3.9.2.1 Internal Validity.

Internal validity relates to whether the measurements measure what they are intended to measure. In order to keep a high level of internal validity multiple questions were used to measure every variable. The questions used in the survey are established measurements by past research.

By using written scenarios, the setting in which the experiment takes place can be rather controlled. One is able to isolate the different stimulus that are being manipulated. Written scenarios have the advantage of being able to manipulate the information available to the participants, and at the same time be able to control for potential nuisance and non-desirable factors.

### 3.9.2.2 External Validity.

External Validity concerns the generalizability of the results. Using a fictional setting in the experiment might affect the external validity negatively. Only one type of product is tested in the experiment which limits the external validity.

In terms of the sample, the allocation of the different treatments (i.e. scenarios) has been randomized, which is argued to, for instance, minimize systematic differences in the sample.

There is a good distribution regarding age and gender of the respondents. Having a large sample is beneficial for the external validity, and every treatment group, in this thesis includes more than 30 respondents, which is satisfactory. All statistical tests have been performed with a significance level of $5 \%$ or below, which also ensure external validity.

## 4. Results and Analysis

This chapter will present the findings from the analysis of collected data. The focus will be on determining if empirical support for the different hypotheses could be found in the data. The order of this chapter will follow the proposed research model and its hypotheses. Data and results regarding the determinants of price fairness perceptions will be presented first, followed by the effects of those perceptions. Tables which are not presented in this section will be found in appendix 2.

### 4.1 The Effect of the Seller's Price Increase Motive on Price Fairness Perceptions

## Hypothesis 1:

A price increase caused by a positive motive (e.g. increased costs for the seller) will lead to a higher degree of price fairness perceptions among the customers compared to a price increase caused by a negative motive (e.g. seller exploiting its increased market powers).

Table 4.1 Independent-Samples T-test, Perceived Price Fairness Means, Positive/Negative Seller Motive

| Seller's Motive | Price Fairness Mean | Mean diff. | $p$ (2-tailed) |
| :--- | :---: | :---: | :---: |
| Positive Motive | 5,05 |  |  |
| Negative Motive | 3,96 | 1,09 | .000 |

As can be seen in table 4.1, a positive motive for a price increase leads to a higher level of perceived price fairness, compared to a negative motive ( $p<.001, M_{\text {Pos }}=5,05, M_{\mathrm{Neg}}=3,96$ ).

### 4.2 The Effect of Awareness of Other Customers on Price Fairness Perceptions

Hypothesis 2a:<br>A customer's awareness of another customer's outcomes will moderate the impact the price increase motive of the seller has on customers' price fairness perceptions (i.e. moderate the presented relationship in hypothesis 1).

Table 4.2 Factorial (/Two-Way) Anova, Interaction/Moderation Test, Seller's Motive and Other Customers - Determinants of Price Fairness Perceptions

| Source | Sum of Squares | $d f$ | Mean Square | $F$ | $p$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Seller's Motive (X) | 79,345 | 1 | 79,345 | 44,294 | . 000 |
| Other Customers (M) | 72,106 | 3 | 24,035 | 13,418 | . 000 |
| Interaction ( $\mathrm{X} \times \mathrm{M}$ ) | 5,653 | 3 | 1,884 | 1,052 | . 370 |
| Error | 478,284 | 267 | 1,791 |  |  |
| Model: $R^{2}=.249 \quad p<.001$ |  |  |  |  |  |

From the moderator-test (table 4.2) it can be concluded that both the seller's motive to the price increase and the awareness other customers significantly affect price fairness perceptions. However, the interaction between the two determinants is not statistically significant ( $p=.370$ ). This result indicates that reference point; Other Customers, doesn't moderate the effect the seller's motive has on price fairness perceptions. It could thereby be seen rather as a predictor to price fairness perceptions. Hypothesis 2a is not supported.

## Hypothesis 2b:

A customer's awareness of another customer who has paid a different price will lead to a lower degree of perceived price fairness, compared to if the customers had paid the same price.

## Hypothesis 2c:

In a situation in which the customer is aware of other customers and the prices paid are equal, then the customer will evaluate such a situation with higher degree of price fairness compared to situations when not being aware of other customers.

## Hypothesis 2d:

In the context of a price inequality; a disadvantaged customer will perceive a lower degree of price fairness compared to an advantaged customer.

In order to further investigate the effects of two determinants on price fairness perceptions, the price fairness means of the eight different treatments were compared and an Anova was run $(F(7,267)=12,676, p<.001)$. In table 4.3 below those price fairness means can be found. Table 4.4, on the following page, presents the result of a post-hoc test, comparing and testing the different price fairness means of the eight treatment groups.

Table 4.3 Perceived Price Fairness Means, All 8 Treatment Groups.

|  |  | Other Customers |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Seller's Motive |  | No Awareness | Equity | Advantaged | Disadvantaged |
| Positive Motive | Mean | 5,35 | 5,20 | 5,61 | 3,94 |
|  | $S D$ | 1,81 | 1,49 | 1,19 | 1,26 |
|  |  |  |  |  |  |
| Negative Motive | Mean | 3,96 | 4,13 | 4,38 | 3,33 |
|  | $S D$ | 1,22 | 1,09 | 1,29 | 1,21 |

SD $=$ Standard Deviation

In regards to hypothesis $2 \mathrm{~b}(\mathrm{H} 2 \mathrm{~b})$, the "inequity groups", either being advantaged or disadvantaged, are proposed to report lower perceived fairness scores than the ones in situations of equity. As can be seen from the results, advantaged customers report higher levels of price fairness perceptions than the ones who have read an equity scenario in combination with the same seller motive. In the case of a positive motive the means are; $M_{\text {Pos.,Equity }}=5,20$ and $M_{\text {Pos., Advantaged }}=5,61$ (difference: 0,41 ), and in the case of a negative motive; $M_{\text {Neg.,Equity }}=4,13$ and $M_{\text {Neg., Advantaged }}=4,38$ (difference: 0,25 ) (however the two mean differences are not statistically significant).

The two disadvantaged groups have both answered statistically significant lower price fairness perceptions compared to both the respective equity and advantaged groups ( $M_{\text {Pos., }}$, Disadvantaged $=3,94$ and $M_{\text {Neg., Disadvantaged }}=3,33$ ). Thereby is H2b only partially supported and H2d is fully supported.

Hypothesis 2c states that customers not being aware of other customers' outcomes, i.e. paid price, will evaluate such a situation with a lower degree of perceived price fairness compared to those who have read an equity scenario. Both when it comes to experiencing a positive or a negative seller motive, the no awareness and equity groups are scoring rather similar and the differences are not statistically significant on the $5 \%$ level. When the sellers motive is positive the no awareness group has a 0,15 higher mean than the equity group. In case of a negative motive the difference is in the other direction and the equity groups has a 0,17 higher mean. The results don't provide empirical support for hypothesis 2 c .
Table 4.4 Post-Hoc Comparisons; Price Fairness Perceptions. All Eight Treatment Groups

| Treatment Group |  | Price Fairness Mcan | Mean Differences |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Seller's Motive | Other Customers |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Positive Motive | 1. No Awareness | 5,35 | 0,00 |  |  |  |  |  |  |  |
|  | 2. Equity | 5,20 | -0,15 | 0,00 |  |  |  |  |  |  |
|  | 3. Advantaged | 5,61 | 0,27 | 0,41 | 0,00 |  |  |  |  |  |
|  | 4. Disadvantaged | 3,94 | -1,41* | -1,26* | -1,68* | 0,00 |  |  |  |  |
| Negative Motive | 5. No Awareness | 3,96 | -1,39* | -1,24* | -1,66* | 0,02 | 0,00 |  |  |  |
|  | 6. Equity | 4,13 | -1,22 | -1,07 | -1,49* | 0.19 | 0,17 | 0,00 |  |  |
|  | 7. Advantaged | 4,38 | -0,97 | -0,82 | -1,24* | 0,44 | 0,42 | 0,25 | 0,00 |  |
|  | 8. Disadvantaged | 3,33 | -2,02* | $-1,87 *$ | -2,29* | -0,61 | -0,63 | -0,80 | -1,05 | 0,00 |

* $=\mathrm{p} \leq .050$


### 4.3 The Effects of Price Fairness Perceptions

## Hypothesis 3a:

A higher degree of perceived price fairness will lead to a lower degree of monetary sacrifice.

## Hypothesis 3b:

In the case of perceived advantaged price inequality, the relationship presented in hypothesis $3 a$ will be positive instead.
Hypothesis 3c:
There is a negative relationship between perceived monetary sacrifice and perceived transaction value.

## Hypothesis 4a:

A higher degree of perceived price fairness will lead to a higher degree of satisfaction.

## Hypothesis 4b:

In the case of perceived advantaged price inequality, the relationship between perceived price fairness and satisfaction will instead be negative (cf. H4a).

## Hypothesis 4c:

There is a positive relationship between perceived perceived transaction value and satisfaction.

In order to test the above four hypotheses ( $3 \mathrm{a}-4 \mathrm{~b}$ ) a serial mediation analysis has been performed. The independent variable is perceived Price Fairness $(X)$. The two mediators are perceived Monetary Sacrifice $\left(M_{1}\right)$ and Transaction Value $\left(M_{2}\right)$ and the dependent variable is Satisfaction (Y). The tested model, in its complete form, looks like the following:


PRICE FAIRNESS
Figure 4.1, Serial Mediation Model, Two Mediators.

As the respondents who had read an advantaged-scenario are expected to demonstrate different relationships between some of the tested variables compared to the other groups (positive relationship between $X$ and $M_{1}\left(a_{1}\right)$, and a negative direct effect ( $c^{\prime}$ ) between $X$ and $Y$ ), a serial mediation analysis with only the the advantaged respondents was performed, see appendix 2.

The analysis regarding H2b\&d showed that the expectations regarding advantaged customers' price fairness perceptions didn't hold and opposed to being one of the groups reporting among the lowest price fairness perceptions, they instead had the highest price fairness means both in the case of a positive or negative seller motive. This gives an indication that the exceptions for advantaged customers presented in H 3 b and H 4 b might not be hold as the price fairness perceptions were that high for the advantaged customers. By exanimating the serial mediator analysis which only included the advantaged respondents ( $\mathrm{n}=75$ ), and also comparing it to a serial meditation analysis with only the rest of the respondents included ( $n=200$ ), the results showed that the advantaged respondents have the same directions (negative or positive) of all the relationships between the different variables, as the other respondents. Thereby it was decided to make an additional serial mediator analysis which includes all of the respondents ( $\mathrm{n}=275$ ), in order to increase the statistical power.

The result from this analysis can be found in table 4.5 on the following page.
Table 4.5 Scrial Mediation Analysis; Two Mediators. Whole Sample.

| Antecedent |  | Consequent |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $M_{1}$ (Monetary Sacrifice) |  |  | $M_{2}$ (Transaction Value) |  |  |  | $Y_{\text {(Satisfaction) }}$ |  |  |  |
|  |  | Cocff. | SE | $p$ |  | Coeff. | SE | $p$ |  | Cocff. | SE | $p$ |
| $X$ (Price Fairness) | $a_{1}$ | -0,307 | 0,064 | . 000 | $a_{2}$ | 0,389 | 0,048 | . 000 | $c^{\prime}$ | 0,213 | 0,051 | . 000 |
| $M_{1}$ (Monetary Sacrifice) |  | - | - | - | $d_{21}$ | -0,132 | 0,050 | . 009 | $b_{1}$ | 0,001 | 0,038 | . 984 |
| $M_{2}$ (Transaction Value) |  | - | - | - |  | - | - | - | $b_{2}$ | 0,672 | 0,053 | . 000 |
| Constant | $i_{M 1}$ | 7,615 | 0,308 | . 000 | $i_{M 2}$ | 2,444 | 0,455 | . 000 | $i_{1}$ | 0,332 | 0,335 | . 322 |
|  | $R^{2}=0,101$ |  |  |  | $R^{2}=0,287$ |  |  |  | $R^{2}=0,594$ |  |  |  |
|  | $F(1,273)=22,916, p \leq .001$ |  |  |  | $F(2,272)=62,079, p \leq .001$ |  |  |  | $F(3,271)=138,113, p \leq .001$ |  |  |  |

### 4.3.1 Results - Serial Mediator Analysis

The results from the serial mediator analysis, including all cases, are summarized in figure 4.2 below.


PRICE FAIRNESS
Figure 4.2,Results - Serial Mediation Model, Two Mediators. $\mathrm{N}=275$

All of tested effects of the model were statistically significant ( $p \leq .050$ ), except the effect $b_{1}$ between monetary sacrifice $\left(M_{1}\right)$ and satisfaction $(Y)(p=.984)$.

The analysis proves that there is a negative relationship between price fairness perceptions and perceived monetary sacrifice ( $a_{1}=-0,307 ; p<.001$ ), which supports hypothesis 3a.

In accordance with H 3 c , perceptions of monetary sacrifice have negative impact on perceptions of transaction value ( $d_{21}=-0,131 ; p<.001$ ).

Both perceptions of price fairness and perceptions of transaction value have direct positive relations to satisfaction ( $p<.001 ; c^{\prime}=0,216 ; b_{2}=0,737$ ), supporting both H 4 a and H 4 c .

In addition to the research model of this thesis, the serial mediation analysis showed that there is a direct, statistically significant, positive relationship between price fairness perceptions and transaction value perceptions. In addition to the indirect relation ship which goes through perceptions of monetary sacrifice ( $a_{1} d_{21}$ ).

### 4.3.2 Testing the Indirect Effects

In order to ensure that there are indirect effects of perceived price fairness $(X)$ on satisfaction $(Y)$, through perceived monetary sacrifice $\left(M_{1}\right)$ and transaction value $\left(M_{2}\right)$, the coefficients of the indirect effects have been tested through making bootstrapped confidence intervals for the coefficients of the indirect effects (number of bootstrap samples: 10000 ; level of confidence: $95 \%)$.

Table 4.6 Bootstrapped Confidence Intervals, Indirect Effects; Price Fairness $(X) \rightarrow$ Satisfaction $(1)$

|  |  | Bootstrapped Confidence Intervals |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Indirect Pathways |  | Coeff. | Lower Limit of <br> Confidence Interval | Upper Limit of <br> Confidence Interval |
| $X \rightarrow M_{1} \rightarrow Y$ | $a_{1} b_{1}$ | 0,0002 | $-0,0261$ | 0,0212 |
| $X \rightarrow M_{1} \rightarrow M_{2} \rightarrow Y$ | $a_{1} d_{21} b_{1}$ | 0,0273 | 0,0079 | 0,0591 |
| $X \rightarrow M_{2} \rightarrow Y$ | $a_{2} b_{2}$ | 0,2613 | 0,1924 | 0,3405 |
| Total Indirect Effect |  | 0,2884 | 0,2156 | 0,3708 |

Number of Bootstrap Samples: 10 000; Level of Confidence: $95 \%$

From table 4.6 it can be seen that all confidence intervals, expect the one where monetary sacrifice has a direct link to satisfaction $\left(a_{1} b_{1}\right)$. Nevertheless, the confidence interval for the total indirect (sum of all indirect effects) is different from zero, meaning that the indirect effect between perceived price fairness $(X)$ on satisfaction $(Y)$ is statistically significant on the $5 \%$ level. Which gives support to the complete research model of thesis and especially to hypotheses H3a - H4b.

The total (direct + indirect) effect is summarized in the following table (4.7). The total effect (c) perceived price fairness has on satisfaction is equal to 0,502 .

Table 4.7 Direct and Indirect Effects of $X$ (Price Fairness) on $Y$ (Satisfaction)

|  | Effect (Coeff.) | $p$ |
| :--- | :---: | :---: |
| Direct Effect of $X$ on $Y\left(c^{\prime}\right)$ | 0,213 | .000 |
| Indirect Effects (Total) of $X$ on $\Upsilon$ | 0,288 | .000 |
| Total Effect of $X$ on $Y(c)$ | 0,502 | .000 |

### 4.4 Behavioural Intentions

## Hypothesis 5a:

There is a positive relationship between satisfaction and return/patronize intentions.

Table 4.8 Regression; Satisfaction $(X) \rightarrow$ Return Intentions $\left(\Upsilon_{1}\right)$

| Antecedent | Consequent: Return Intentions $\left(\Upsilon_{1}\right)$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Unstandardized Coefficients |  | Standardized Coefficient | $t$ | $p$ |
|  | $\beta$ | $S E$ | Beta |  |  |
| Satisfaction ( $X$ ) | 1,038 | 0,037 | 0,862 | -5,174 | . 000 |
| Constant | -0,731 | 0,141 |  | 28,038 | . 000 |
| $R^{2}=0,742$ |  |  |  |  |  |
| $F(1,273) 786,105, p \leqq .001$ |  |  |  |  |  |

In coherence with hypothesis 5 a , the regression model above shows that satisfaction, as an independent variable ( $X$ ), has a positive relation to return intentions $\left(Y_{1}\right),(\beta=1,038 ; p<$ .001).

## Hypothesis 5b:

There is a negative relationship between satisfaction and negative word of mouth intentions

Table 4.9 Regression; Satisfaction $(X) \rightarrow$ Negative Word of Mouth Intentions $\left(\gamma_{2}\right)$

| Antecedent | Consequent: Negative Word of Mouth Intentions ( $\Upsilon_{2}$ ) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Unstandardized Coefficients |  | Standardized Coefficient | $t$ | $p$ |
|  | $\beta$ | SE | Beta |  |  |
| Satisfaction ( $X$ ) | -0,168 | 0,067 | -0,149 | -2,496 | . 000 |
| Constant | 5,660 | 0,257 |  | 21,983 | . 013 |
| $R^{2}=0,022$ |  |  |  |  |  |
| $F(1,273) 6,230, p=.013$ |  |  |  |  |  |

In table 4.9 it can be seen that satisfaction $(X)$ has a negative impact negative word of mouth intentions $\left(Y_{2}\right),(\beta=-0,168 ; p<.001)$. The coefficient of determination $\left(R^{2}\right)$ is rather low $\left(R^{2}=\right.$ 0,022 ), however the predictor is statistically significant and one can still draw conclusions on how it affects the dependent variable; negative word of mouth intentions.

## Hypothesis 5c:

There is a negative relationship between satisfaction and intentions switching to another seller.

Table 4.10 Regression; Satisfaction $(X) \rightarrow$ Switching Intentions $\left(r_{3}\right)$

| Antecedent | Consequent: Switching Intentions ( $\Upsilon_{3}$ ) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Unstandardized Coefficients |  | Standardized Coefficient | $t$ | $p$ |
|  | $\beta$ | $S E$ | Beta |  |  |
| Satisfaction ( $X$ ) | -0,498 | 0,053 | -0,495 | -9,389 | . 000 |
| Constant | 8,326 | 0,203 |  | 41,018 | . 000 |
| $R^{2}=0,245$ |  |  |  |  |  |
| $F(1,272) 88,159, p \leqq .001$ |  |  |  |  |  |

The third and last regression model reveals that satisfaction $(X)$ has a negative relationship with switching intentions $\left(Y_{3}\right)$, in support with $\mathrm{H} 5 \mathrm{c}(\beta=-0,498 ; p<.001)$.

Finally, a multivariate regression test was performed in order to determine whether the three regression models could be interpreted as one single multivariate regression, including one dependent variable satisfaction $(X)$ and three different dependent intention variables $\left(Y_{1-3}\right)$. The multivariate test will test the different coefficients across the three equations.


Table 4.11 gives the test statistics regarding the overall effect of the dependent variable satisfaction $(X)$. The results show that the effect of satisfaction is statistically significant, regardless of which test is being used ( $p<.001$ ). Thereby may the three separate regression models (table $4.8-4.10$ ) be interpreted as one single multivariate regression.

As the individual coefficients (and standard errors etc.) of the separate regressions will be the same as the those produced by a multivariate regression, the effects of satisfaction on the different intentions can be summarized in the following way (figure 4.3):


SWITCHING INTENTIONS
Figure 4.3 Multivariate Regression, Satisfaction $(X) \rightarrow$ Intentions $\left(\gamma_{1-s)}\right)$

### 4.5 Summary, Hypotheses Testing

Table 4.12 Supported Hypotheses
The Determinants of Price Fairness Perceptions

Dual Entitlement Principle: Seller's Motive for a Price Increase

A price increase caused by a positive motive (e.g. increased costs for the seller) will H1: lead to a higher degree of price fairness perceptions among the customers compared to a price increase caused by a negative motive (e.g. seller exploiting its increased market powers).

Social Comparison: Other Customers

| H2a: | Awareness of another customer's outcomes will moderate the impact the price increase motive of the seller has on customers' price fairness perceptions (i.e. moderate the presented relationship in hypothesis 1). |
| :---: | :---: |
| H2b: | Awareness of another customer who has paid a different price will lead to a lower degree of perceived price fairness, compared to if the customers had paid the same price. |
| H2c: | In a situation in which the customer is aware of the price paid by another customers and the prices paid are equal, then the customer will evaluate such a situation with higher degree of price fairness - compared to situations when not being aware of other customers |
| H2d: | In the context of a price inequality; a disadvantaged customer will perceive a lower degree of price fairness compared to an advantaged customer. |

Not Supported

## Partially

 SupportedNot Supported

Supported

The Effects of Price Fairness Perceptions

Perceived Monetary Sacrifice and Transaction Value
H3a:

H3b: | A higher degree of perceived price fairness will lead to a lower degree of monetary |
| :--- |
| sacrice. |

| H3c: |
| :--- |$\quad$| In the case of perceived advantaged price inequality, the relationship presented in |
| ---: |
| hypothesis 3a will be positive instead. |

## Supported

Satisfaction

| H4a: | A higher degree of perceived price fairness will lead to a higher degree of satisfaction. | Supported |
| :---: | :---: | :---: |
| H4b: | In the case of perceived advantaged price inequality, the relationship between perceived price fairness and satisfaction will instead be negative (cf. H4a). | Not Supported |
| H4c: | There is a positive relationship between perceived perceived transaction value and satisfaction. | Supported |
| Behavioural Intentions |  |  |
| H5a: | There is a positive relationship between satisfaction and return/patronize intentions. | Supported |
| H5b: | There is a negative relationship between satisfaction and negative word of mouth intentions. | Supported |
| Н5¢: | There is a negative relationship between satisfaction and intentions switching to another seller. | Supported |

## 5. Discussion, Conclusions, and Implications

This chapter begin with discussion and conclusions of the findings of the study, and will also be related to the purpose of the study. This will be followed by a section regarding practical implications, suggestions for further research, as well as, reflections on critique and limitations of the study.

### 5.1 Discussion

In this section the different aspects of price fairness perceptions, which have been investigated by this thesis, will be discussed. Both the determinants of price fairness perceptions; the seller's motive to a price increase, and awareness of the prices paid by other customers. As well as, the effects of price fairness perceptions; such as perceived monetary sacrifice, transaction value, satisfaction intentions, and their relationships. This discussion section will answer the four problem formulations, presented in the introduction of the thesis (section 1.3 Purpose of Study).

### 5.1.1 The Determinants of Price Fairness Perceptions

The two investigated determinants of customers' price fairness perceptions are; the seller's price increase motive, and the awareness of the prices paid by other customers.

### 5.1.1.1 Seller's Price Increase Motive.

Respondents who read scenarios including a positive motive for a price increase, perceived a higher level of price fairness compared to those who read a scenario with a negative seller motive. The results are consistent with the dual entitlement principle formulated by Kahneman et al. (1986a; 1986b), price increases which don't violate the reference transaction will be perceived as fairer to a higher degree than those price increases that violate the reference transaction and increase the profit of the seller. In this thesis it has been shown that in situations in which the seller increases the price of a good due to increased costs, the customers will evaluate such a motive as more fair, compared to when the seller is exploiting increased demand levels and takes advantage of its increased market power, which means that the reference transaction is violated and profits of the seller will increase. In the scenarios involving the positive motive the price increase is equal to the cost increase, meaning that the profit level of the seller hasn't changed in the context of a positive motive.

In order to relate the results to equity theory, an increased profit for the seller and a higher paid price by the customer, would mean that the outcome-to-input ratios of the two exchange parties differ and would result in perceptions of inequity and price unfairness.

### 5.1.1.2 Social Comparison - Other Customers.

From the moderator test it can be seen that the reference point called; Other Customer, does affect customers' price fairness perceptions. The two-way Anova test showed that the variable
other customers are a statistical significant predictor of price fairness perceptions. The first research question of this thesis is thereby answered:
"Do customers use the seller's price increase motive and other customers as reference points when making price fairness judgements and forming their price fairness perceptions?"

Both of the reference points have been proven to affect customers' price fairness perceptions.
As brought up in the theory chapter, similar others (i.e. other customers in this case) are suggested to be the most important and influential comparison reference (Major, 1989), and the results from the post-hoc test indicate the same notion. By comparing the price fairness means of the eight treatment groups, it's observable that especially the two disadvantaged groups are distinctly different from the other three groups of the respective seller motive. This difference could be explained by the notions of dissimilarity and contrast; both are concepts within the social comparison research field. The disadvantaged customer has gotten information regarding the lower price paid by the other customer. This information has then triggered an assessment with the conclusion of the two customers being dissimilar and in the end the customer has evaluated her situation as contrasted away from the standard; i.e. the other customer. This contrast-evaluation has then consequently led to perceptions of inequity and her price not being fair (Mussweiler, 2003).

The two advantaged groups have however not been affected by the price differences in the expected way. According to hypothesis 2 b , the advantaged customers were expected to perceived the situation as less fair compared to those who experienced equity. This hypothesis was not confirmed supported by the results, and the differences between those groups were not statistically significant and the means were higher for the advantaged groups in comparison to the equity groups for the respective seller motive. One possible explanation for this result is, as mentioned earlier, that customers have been found to attempt to maximize her own outcome in relation to other parties and that the customer's self interest dominates the interest she has in others. In the end this self interest-bias will affect customers' price fairness perceptions (Xia, 2004). Customers seems to be more concerned by fairness issues when they are disadvantaged (Xia, 2010). Jasso (2006) has found that an advantaged inequity requires a larger degree of inequity compared to a disadvantaged inequity to generate perceptions of unfairness.

In terms of hypothesis 2 c which was not supported, the price fairness perception differences between the equity and no awareness groups were not statistically significant. The equity groups were expected to perceive their situation as more fair compared to the comparable no awareness group. The price fairness means were rather close and in the case of a positive seller motive the no awareness group had even a higher price fairness mean than the equity group.

Possibly, the assimilation effect was not large enough for the equity groups, and more information regarding the other customer is perhaps needed in order for the customer to draw
conclusions of assimilation, which is expected to enforce the perceptions of price fairness. In the end it's the accessible information and knowledge that affects the comparison and evaluation. By priming the customers with even more information regarding features that the two customers are similar to each other on, it might have had a larger effect on assimilation and equity judgments, which in the end would have led to stronger perceptions of price being fair (see sections 2.6.2 and 2.6.3) (Mussweiler, 2003, Xia, 2004).

Even though some price fairness differences between the treatment groups have been found, the interaction between the two reference points, seller's motive and other customers, was not statistically significant and hypothesis 2 a was thereby not supported by the result of this thesis ${ }^{1}$. The answer to the second research question (below) is thus that the reference point; other customers, does not moderate the relationship between the seller's motive and price fairness perceptions. However, it is still a very important predictor of price fairness perceptions. Nevertheless, some rather interesting findings have been obtained by combining the two reference points, and not treating them as two separate aspects. For instance, no statistically significant difference between the groups; no awareness, equity and being advantaged. While being disadvantaged statistically differed from the other three groups, in terms of price fairness perceptions (at least when it comes to a positive seller motive, see table 4.4).
"Does the reference point: Other Customers moderate the impact the seller's price increase motive has on customers' price fairness perceptions?"

### 5.1.2 The Effects of Price Fairness Perceptions

The studied effects of price fairness perceptions are; perceived monetary sacrifice, perceived transaction value, and satisfaction. As well as, behavioural intentions as effects of satisfaction. The following sections serves to discuss the third research question:

What effects do price fairness perceptions have on perceptions of monetary sacrifice and transaction value, as well as, satisfaction and behavioural intentions?

### 5.1.2.1 Perceived Monetary Sacrifice and Transaction Value.

The hypotheses $3 \mathrm{a}-3 \mathrm{~b}$ proposed that there is a negative relationship between price fairness perceptions and perceived monetary sacrifice, and for advantaged customers the relationship will instead be positive.

The serial mediation analysis showed that the advantaged groups had the same signs on their coefficients as the other groups, meaning that hypothesis 2 b is not supported. This result

[^0]could be explained by the unexpected high levels of price fairness perceptions among the advantaged customers. As earlier mentioned, the two advantaged groups reported the highest price fairness means within the respective seller motive groups. Being advantaged seems to yield rather high levels of perceived price fairness, opposed to the expectation that they would develop rather low levels of price fairness perceptions due to the price discrepancies between customers. It was expected that for the advantaged customers; the higher level of inequity, the lower level of perceived price unfairness and the higher level of perceived transactional value. The deviation from this expectation could be explained by the self interest bias and customers seems to be more concerned by fairness issues when they are disadvantaged (Xia, 2010). When performing a serial mediator analysis for the whole sample, the results in terms of the signs of the coefficients were the same as in the separate analyzes. The result from the analysis including all subjects supported hypothesis 3a, the relationship between price fairness perceptions and perceived monetary sacrifice is negative. A decrease in perceived price fairness leads to a decrease in perceived monetary sacrifice.

The theory and hypothesis 3 c regarding the link between perceived monetary sacrifice and transaction value, was supported. A lower level of perceived monetary sacrifice leads to a higher level of perceived transaction value (negative relationship). Thereby it seems to be mental trade-offs when it comes to value perceptions; what customers believe they gain from a purchase are compared to what they believe they sacrifice by paying the price (Monroe 2003). From the results a direct positive relationship between price fairness perceptions and perceived transaction value was also found. In conclusion, the impact price fairness perceptions have on perceived transaction value, is both indirect and direct.

The means for all eight treatments groups have been checked and the advantaged groups has the lowest values both on perceived monetary sacrifice and the highest on perceived transaction value. The opposite applies to the disadvantaged groups. As the advantaged groups reported the highest fairness means and the disadvantaged groups had the lowest means for the respective seller motive groups (positive/negative). This indicates that there is a negative relationship between price fairness perceptions and perceived monetary sacrifice. And a positive relationship between perceive price fairness and perceived transaction value, i.e. consistent with the serial mediation analysis.

### 5.1.2.2 Satisfaction.

Just as in the case of perceived transaction value it was expected that outcomes (prices) which make customers pleased and satisfied do not necessarily mean that these outcomes also yield high levels of price fairness. In this thesis it was hypothesised that the advantaged customers would have a negative link between price fairness perceptions and satisfaction. Nevertheless, this hypothesis (H4b) was not supported, and the relationship was proven to be positive. As mentioned above, the explanation for this divergence could be due to the high levels of perceived price fairness among the advantaged treatment groups.

In regards to hypotheses $4 a$ and $4 c$, the result found positive links both between perceived price fairness and satisfaction, as well as, between perceived transactional value and
satisfaction. Equity, fairness, and value judgements have been proven, by previous studies, to be highly and positively related to customer satisfaction. This thesis demonstrates similar results.

How do advantaged and disadvantaged customers differ in terms of price fairness perceptions and the effect variables of those fairness perceptions?

The fourth research question (above) of this thesis relates to the differences between advantaged and disadvantaged customers, both in terms of price fairness perceptions and the effects of those perceptions. In conclusion, it can be said they differ in the level price fairness perceptions, the advantaged customers perceive their situation and prices as more fair. In terms of the links between price fairness and its effects, the coefficient signs (negative or positive) are the same for both types of groups. The advantaged groups have report higher means on perceived transactional value and satisfaction, while the disadvantaged groups have higher perceived monetary sacrifice means.

### 5.1.2.3 Behavioural Intentions.

All three hypotheses regarding the impact satisfaction has on the different behavioural intentions were supported. The more satisfied you are with the purchase and the store, the more inclined you are to return to the store. I.e. there is a positive relationship between satisfaction and return intentions, H5a is supported. This finding is consistent with Oliver (1986a) who, among others, have found that fairness perceptions affect satisfaction, which in turn affects return intentions, both relations being positive.

Hypothesis 5 b was also supported, meaning that satisfaction and switching intentions are negatively related. The less satisfied a customer is, the stronger intentions she has to by the product in another store.

A negative relationship was found between satisfaction and intentions of spreading negative word of mouth. However, the coefficient of determination was rather low, which implies that there could be other variables which could explain the variance in negative word of mouth intentions. Tsarenko and Tojib (2012) found that customers' personality characteristics, such as religiosity, spirituality and emotional intelligence, influence both intentions to switch and to spread negative word of mouth. Also, both decisional and emotional forgiveness may affect these two types of intentions (Tsarenko, 2012).

It's also worth mentioning, that when dividing the satisfaction variable into to variables; purchase- and store satisfaction, the coefficient signs and statistical significance are the same as by using the overall satisfaction variable as the dependent variable (see section 4.4).

### 5.2 Practical Implications

The results of this thesis have provided insights and implications for managers and especially revenue managers. It's clear that revenue management practices may affect customer's fairness judgement and perceptions. Rising the price of a product due to increased costs for the seller (i.e. positive motive) is perceived more fair compared to increasing the price due to an increase in market power, which in the end will breach the reference transaction and increase the profit of the seller. These types of fairness perceptions have been proven to influences other judgement such as perceived transactional value and satisfaction among customers. In the end, the profitability of the firm is expected to be affect by engagement revenue management practices. It is also important to stress that this thesis does not urge businesses to have a "one price fits all" kind of policy. Several previous studies have shown that customers do accept price changes and price differences. The key lies in how to make these price changes and differences acceptable and perceived as fair among customers.

In terms of the seller's motive for a price increase, it was brought up in the theory chapter of this thesis that usually customers don't get explicit information regarding if the price change is due to a positive or negative motive. Instead, in most cases customers do inferences regarding the motive of the seller based on other types of information and knowledge. It could for instance be based completely on pure speculations and beliefs. Thereby one recommendation is to further look into both when do the customers make inferences regarding the seller motive and what types of information affect these types of inferences. By having this type of knowledge firms can provide relevant information, which will influence customers price fairness perceptions. As cost based pricing is perceived more fair than market-based (Nye, \& Maxwell, 1999), firms might have to consider making their cost structures more and margins a bit more transparent. Another tactic is to switch the attention away from prices and focus more on the value or outcome the customer gets from the exchange. Equity and fairness is not only based on prices, aspects such as product quality and service level will most likely affect customers' equity judgements (Xia, 2004).

When it comes to other customers, the same reasoning regarding switching the attention away from price differences between customers can be applied. In reality customers usually differ other aspects and not just price, and in situations where the transactions of different customers are more dissimilar the transactions are, the less price differences will influence the fairness perceptions. One way to do this is through changes and customizations to the products/services. This could be achieved by, for example, yield management tactics. For instance, in hotel and air fares it is common to add additional benefits or restrictions for the same type of product (i.e. hotel room or airplane seat), e.g. the cancellation policies. As long as the price change can be explained by another change in inputs and/or outcomes (i.e. not affecting the equity ratio to a greater extent) the price fairness perceptions won't be as affected (Adams, 1965; Xia, 2004).

Finally, it could be wise to do continually to check the effects of revenue management practices on customers, and try to repair the relationship if the practices have resulted in price unfairness perceptions, as it could lead to negative effects for the firms e.g. customer
switching to other stores, or talking negatively about the firm. See for instance the Amazon example in the introduction of this thesis; negative information about the firms pricing practices can be spread rather quickly among customers.

### 5.3 Critique and Limitations

There are limitations of this thesis. First of all, the experiment has been done through written scenarios, it is a fictional setting and it is a limitation that the experiment has not taken place in a real setting. A laboratory experiment or an experiment taking place in a real store would have been more credible. However, as earlier mentioned, it is hard to manipulate both the seller's motive and other customers in a real store setting and to operationalize the manipulations. Written scenarios have the advantage of being able to manipulate the information available to the participants, and at the same time be able to control for potential nuisance and non-desirable factors. Nevertheless, in a real setting one is able to study real behaviours and not only behavioural intentions.

Another aspect is that in the experiment of this thesis the respondents get explicit information regarding the seller and other customers, which might not always be the case in a real setting. More research is needed to determine what type of knowledge and information customers use to make in inferences regarding these two types of reference point. Especially when it comes to the seller's price increase motive; it has been argued that it's rather seldom that the customer gets explicit information about this aspect, and instead uses other types of information when making these inferences.

It might be argued that customers use additional types of reference points and information when making price fairness judgements. In terms of other customers; could differ on other aspect than just the price paid for a product/service. Personal characteristics could possibly affect these types of judgements (Mussweiler, 2003).

This thesis only includes one type of product in the experiments. Possibly the aspects such as the type of product might affect price fairness perceptions more than expected. For instance, the customer's level of involvement for the product might have an impact.

### 5.4 Future Research

Research within the price fairness field are still rather sparse and limited. This thesis aimed to take the first small steps regarding combining the two reference points: seller's motive for a price increase (dual entitlement) and other customers. It was proven that in combination they both are predictors of customers' price fairness perceptions. Nevertheless, throughout this thesis other related aspects have been touched upon.

Firstly, there are rather clear finding from both this thesis and past research that the price motive of the seller has an impact on customers' price fairness perceptions. Past research have brought up that it's not that common that customers get explicit information regarding for instance the cost and profit structures of the seller. Instead, customers often use other types of information and knowledge to make inferences and form believes regarding the motive of the seller. Future research is needed to determine what type of information this could be. It would also be interested to get further findings regarding in which types of situations and contexts customers make inferences of the price change motive of the seller, customers might possibly not be concerned with the seller's motive every time she takes part in an exchange.

It has been argued that the price fairness concept is not only cognitive in nature, and in addition to price fairness judgements and perceptions one could examine how emotions are affected by different types of revenue management practices. Price unfairness might be related to emotions such as anger, disappointment and so on (Xia, 2004).

In a real situation a customer might have information of more than one other customers, and what happens if there are several other customers accessible for comparison? Future research could investigate, for instance, if the customer uses all of the other customers when forming price fairness perceptions, and what the results are. One possible scenario could be that there are three different customers who have paid different prices (i.e. three different price levels).

As earlier mentioned, it would be interesting to know what happens to price fairness perceptions if customers differ on more aspects than just their prices paid, e.g. personal characteristics, or yield management treatments (see hotel- and air fares example above).

Process and formation of price fairness perceptions might differ in B2B and C2C exchanges compared to those investigated in this thesis (i.e. B2C exchanges).

Finally, it could be interesting to know if price fairness perceptions influence other types of behaviours and intentions than those three intensions being examined in this thesis.

## References

Adams, J.S. (1965), Inequity in Social Exchange, in Advances in Experimental Social Psychology, Vol. 2, L. Berkowitz, ed. New York: Academic Press, 267-99.

Adamy, Janet (2000), E-Tailer Price Tailoring May Be Wave of Future, Chicago Tribune, (September 25), 4.

Afifi, A., May, S., \& Clark, V. A. (2003). Computer-aided multivariate analysis. CRC Press.

Armstrong, R.A. och Hilton, A. (2004). The use of analysis of variance (ANOVA) in applied microbiology. Microbiologist vol 5: No. 4 18-21.

Bagozzi, Richard P., Mahesh Gopinath, and Prashanth U. Nyer (1999), The Role of Emotions in Marketing, Journal of the Academy of Marketing Science, 27 (2), 184-206.

Bansal, Taylor, and St. James (2005), 'Migrating' to New Service Providers: Toward a Unifying Framework of Consumers' Switching Behaviors, Journal of the Academy of Marketing Science, 33 (1), 96-115.

Baron, M. and Kenny, D. (1986). The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations. Journal of Personality and Social Psychology, Vol, 51, No. 6: 1173-1182.

Bazerman, M. H., Magliozzi, T., and Neale, M. A. (1985) Intergrative Bargaining in a Compeitive Market. Organizational Behavior and Human Decision Processes, 35(3), 294-313.

Bechwati, N., and Morrin, M. (2003) Outraged Consumers: Getting Even at the Expense of Getting a Good Deal. Journal of Consumer Psychology, Vol. 13, No. 4.

Bolton, Lisa E., Luk Warlop, and Joseph W. Alba (2003), Consumer Perceptions of Price (Un)Fairness, Journal of Consumer Research, 29 (March), 474-91.

Bryman, A. \& Bell, E., 2011. Business Research Methods. 3rd ed. Oxford: Oxford University Press.

Campbell, Margaret C. (1999), Perceptions of Price Unfairness: Antecedents and Consequences, Journal of Marketing Research, 36 (May), 187-99.

Collie, Thérèse (Tess), Graham Bradley, and Beverley A. Sparks (2002), Fair Process Revisited: Differential Effects of Interactional and Procedural Justice in the Presence of Social Comparison Information, Journal of Experimental Social Psychology, 38 (November), 545-55.

Cook, K. S., and R. M. Emerson. (1978) Power, equity and commitment in exchange networks. American Sociological Review, 43: 721-739

Cook, K. S., and Hegtvedt K. A. (1983), Distributive Justice, Equity, and Equality. Annual Review of Sociology, 9, 217-241.

Cox, J. L. (2001) Can differential prices be fair? Journal of Product \& Brand Management, Vol. 10 Iss 5 pp. 264 - 275

Darke, Peter R. and Darren W. Dahl (2003), Fairness and Discounts: The Subjective Value of a Bargain, Journal of Consumer Psychology, 13 (3), 328-38.

Dodds, W. B., and Monroe, K. B. (1985). The effect of brand and price information on subjective product evaluations. Advances in Consumer Research, 12,85-90.

Dodds, W.B. (1996), Perceived Value: A Dimension of the Consumer Risk Construct, American Journal of Business, Vol. 11 Iss. 1 pp. 15-22

Eckhoff, T. 1974. Justice: It's Determinants in Social Interaction. Rotterdam: Rotterdam Press.

Farrar, D. och Glauber, R. (1967). Multicollinearity in Regression Analysis: The Problem Revisited. Review of Economics and Statistics 49 (1): 92-107.

Festinger, L. (1954). A theory of social comparison processes. Human Relations, 7, 117-140.

Fiske, S. T., and Shelley, E. T. (1991) Social Cognition. McGraw-Hill.

Folkes, Valerie S. (1990), Conflict in the Marketplace: Explaining Why Products Fail, in Attribution Theory: Applications to Achievement, Mental Health, and Interpersonal Conflict, Sandra Graham, ed. Hillsdale, NJ: Lawrence Erlbaum Associates, 143-60.

Grewal, D., Monroe, K., and Krishnan, R. (1998) The Effects of Price-Comparison Advertising on Buyers' Perseptions of Acquisition Value, Transaction Value, and Behavioral Intentions. Journal of Marketing; Apr 1998; 62, 2.

Hayes, A. (2013) Introduction to Mediation, Moderation, and Conditional Process Analysis. New York: The Guildford Press.

Herr, P. M. (1986). Consequences of priming: Judgment and behavior. Journal of Personality and Social Psychology, 51, 1106-1115.

Higgins, E. T. (1996). Knowledge activation: Accessibility, applicability, and salience. In E. T. Higgins \& A. W. Kruglanski (Eds.), Social psychology: Handbook of basic principles (pp. 133-168). New York: Guilford Press.

Homans, G.C. (1961), Social Behavior: Its Elementary Forms. New York: Harcourt, Brace \& World.

Herrmann, A., Xia, L., Monroe, K., and Huber, F. (2007) The influence of price fairness on customer satisfaction: an empirical test in the context of automobile purchases, Journal of Product \& Brand Management, Vol. 16 Iss: 1, pp. $49-58$

Huber, F., Herrmann, A. and Henneberg, S. C. (2007), Measuring customer value and satisfaction in services transactions, scale development, validation and cross-cultural comparison. International Journal of Consumer Studies, 31: 554-564

Huppertz, John W., Sidney J. Arenson, and Richard H. Evans (1978), An Application of Equity Theory to Buyer-Seller Exchange Situations, Journal of Marketing Research, 15 (May), 250-60.

Huttenlocher, J., \& Higgins, E. T. (1971). Adjectives, comparatives, and syllogisms. Psychological Review, 78, 487-504.

Jacobsen, D.I. (2002). Vad, hur och varför? Om metodval i företagsekonomi och andra samhällsvetenskapliga ämnen. Första upplagan. Lund: Studentlitteratur, 2002.

Jasso, Guillermina (2006). The theory of comparison processes. In P. J. Burke (Ed.), Contemporary social psychological theories (pp. 165-193). Stanford, CA:Stanford University Press

Johnson, Gustafsson, Andreassen, Lervik and Cha (2001), The evolution and future of national satisfaction index models, Journal of Economic Psychology, 22, 217-245.

Kahneman, Daniel, Jack L. Knetsch, and Richard Thaler (1986a), Fairness and the Assumptions of Economics, Journal of Business, 59 (4), 285-300.

Kahneman, Daniel, Jack L. Knetsch, and Richard Thaler (1986b), Fairness as a Constraint on Profit Seeking Entitlements in the Market, The American Economic Review, 76 (September), 728-41.

Kahneman,D.,\& Tversky,A. (1979). Prospect theory: An analysis of decision under risk. Econometrica, 47 (2), 263-291.

Klein, N. H., and Oglethorpe, J .E., (1987) Cognitive Reference Points in Consumer Decision Making. Advances in Consumer Research, 14, 183-187.

Major, Brenda (1994), From Social Inequality to Personal Entitlement: The Role of Social Comparisons, Legitimacy Appraisals, and Group Membership, in Advances in Experimental Social Psychology, Vol. 26, Mark P. Zanna, ed. New York: Academic Press, 293-355.

Major, Brenda and Maria Testa (1989), Social Comparison Processes and Judgments of Entitlement and Satisfaction, Journal of Experimental Social Psychology, 25 (2), 101-120.

Malhotra, N.K. (2010), Marketing Research: An Applied Orientation, 6th Edition, Pearson Education.

Martins, Marielza (1995), An Experimental Investigation of the Effects of Perceived Price Fairness on Perceptions of Sacrifice and Value, doctoral dissertation, Department of Business Administration, University of Illinois.

Martins, Marielza and Kent B. Monroe (1994), Perceived Price Fairness: A New Look at an Old Construct, in Advances in Consumer Research, Vol. 21, Chris Allen and Deborah Roedder John, eds. Provo, UT: Association for Consumer Research, 75-78.

Mayer, Roger C., James H. Davis, and F. David Schoorman (1995), An Integrative Model of Organizational Trust, Academy of Management Review, 20 (3), 709-734.

Monroe, Kent B. (2003), Pricing: Making Profitable Decisions, 3d ed. Burr Ridge, IL: McGraw-Hill/Irwin.

Monroe, K. (2012) Price and Customers' Perceptions of Value. In Visionary Pricing: Reflections and Advances in Honor of Dan Nimer. Published online: 12 Mar 2015; 129-152.

Mussweiler, Thomas (2003), 'Everything is Relative': Comparison Processes in Social Judgment, European Journal of Social Psychology, 33 (6), 719-33.

Nye, P. and Maxwell, N. (1999), Less Pain, Some Gain: The Effects of Priming Fairness in Price Negotiations, Psychology \& Marketing, 16 (7), 545-62.

Oh, H. (1999), Service quality, customer satisfaction, and customer value: A holistic perspective. International Journal of Hospitality Management Volume 18, Issue 1, March 1999, Pages 67-82

Oh, H. (2003), Price fairness and its asymmetric effects on overall price, quality, and value judgments: the case of an upscale hotel. Tourism Management Volume 24, Issue 4, August 2003, Pages 387-399

Oliver, Richard L. (1997), Satisfaction: A Behavioral Perspective on the Consumer. Burr Ridge, IL: McGrawHill/Irwin.

Oliver, Richard L. and John E. Swan (1989a), Consumer Perceptions of Interpersonal Equity and Satisfaction in Transactions: A Field Survey Approach, Journal of Marketing, 53 (April), 21-35.

Oliver, Richard L. and John E. Swan (1989b), Equity and Disconfirmation Perceptions as Influences on Merchant and Product Satisfaction, Journal of Consumer Research, 16 (December), 372-83.

Ordóñez, Lisa D., Terry Connolly, and Richard Coughlan (2000), Multiple Reference Points in Satisfaction and Fairness Assessment, Journal of Behavioral Decision Making, 13 (3), 329-44.

Pritchard, R. D. (1969). Equity theory: a review and critique. Org. Behav. Hum Perf. 4 :176-211

Smith, Amy K., Ruth N. Bolton, and Janet Wagner (1999), A Model of Customer Satisfaction with Service Encounters Involving Service Failure, Journal of Marketing Research, 36 (August), 356-72.

Smith, E. E., Shoben, E. J., \& Rips, L. J. (1974). Structure and process in semantic memory: A featural model for semantic decisions. Psychological Review, 81, 214-241.

Snyder, M., \& Swann, W. B. (1978). Hypothesis-testing processes in social interaction. Journal of Personality and Social Psychology, 36, 1202-1212.

Strack, F. (1992). The different routes to social judgments: Experiential versus informational strategies. In L. L. Martin \& A. Tesser (Eds.), The construction of social judgment (pp. 249-275). Hillsdale, NJ: Erlbaum.

Söderlund, Magnus. (2010), Experiment med människor. Första upplagan. Malmö: Liber.

Söderlund, M. och Öhman, N. (2006). Intentions are Plural: Towards a Multidimensional View of Intentions in Consumer Research, European Advances in Consumer Research, Vol. 7, 410-415.

Thaler, R. (1985) Mental Accounting and Consumer Choice. Marketing Science, Vol. 27, No. 1, JanuaryFebruary 2008, pp. 15-25.

Thaler, R. (1999) Mental Accounting Matters. Journal of Behavioral Decision Making, 12, 183-206

Tsarenko, Y., \& Tojib, D. (2012). The role of personality characteristics and service failure severity in consumer forgiveness and service outcomes. Journal of Marketing Management, 28(9-10), 1217-1239.

Tversky, A. (1977). Features of similarity. Psychological Review, 84, 327-352.
Vaidyanathan, Rajiv and Praveen Aggarwal (2003), Who Is the Fairest of Them All? An Attributional Approach to Price Fairness Perceptions, Journal of Business Research, 56 (6), 453-63.

Voorhees, Brady, and Horowitz (2006), A Voice From the Silent Masses: AnExploratory and Comparative Analysis of Noncomplainers, Journal of the Academy of Marketing Science, 34 (4),514-527.

Voss, Glenn B., A. Parasuraman, and Dhruv Grewal. The Roles of Price, Performance, and Expectations in Determining Satisfaction in Service Exchanges. Journal of Marketing 62.4 (1998): 46-61

Walster, E., Berscheild, E., Walster, G.W. (1973), New directions in equity research. J. Pers. Soc. Psychol. 25:151-76

Weatherford, L., and Bodily, S. (1992) A Taxonomy and Research Overview of Perishabel-Asset Revenue Management: Yield Management, Overbooking, and Pricing. Operations Research 40(5):831-844.

Weiner, Bernard (1985), An Attributional Theory of Achievement Motivation and Emotion, Psychological Review, 92 (4), 548-73.

White, H. (1980). A heteroskedasticity-consistent covariance matrix estimator and a direct test for heteroskedasticity. Econometrica 48 (4): 817-838.

Wirtz, J., and Kimes, S.E. (2007) The Moderating Role of Familiarity in Fairness Perceptions of Revenue Management Pricing, Journal of Service Research, Volume 9, No. 3, February 2007, 229-240.

Wittink, D., and Bayer, L. (2003) The Measurement Imperative. Marketing Research, Vol. 15, Issue 3, p19
Wood, Joanne V. (1989), Theory and Research Concerning Social Comparisons of Personal Attributes, Psychological Bulletin, 106 (2), 231-48.

Xia, L., Monroe, K. B., Cox, J. L. (2004), The Price is Unfair! A Conceptual Framework of Price Fairness Perceptions. Journal of Marketing, v. 68, 1-15, October 2004.

Xia, L., and Monroe, K. (2010) Is a good deal always fair? Examining the concepts of transaction value and price fairness. Journal of Economic Psychology, 31, 884-894

Zeelenberg, M., and Pieters, R. (2004) Beyond valence in customer dissatisfaction: A review and new findings on behavioral responses to regret and disappointment in failed services. Journal of Business Research Volume 57, Issue 4, April 2004, Pages 445-455

Zeithaml, V. (1998) Consumer Perceptions of Price, Quality, and Value: A Means-end Model and Synthesis of Evidence. Journal of Marketing 52.3 (1988): 2-22.

## Appendix 1 - Survey

Below follows the main survey of this thesis:

## Hej!

I'm currently writing my master's thesis at the Stockholm School of Economics. In connection to this I conduct a survey that will be the basis for my thesis. The purpose of the thesis is to gain deeper insights into pricing.

On the next page You will get to read a scenario. Please read the text carefully and preferably several times. After the You have finished reading, You will be asked related question to the scenario.

Your answers are anonymous.

Thank You for you participation! It's an important and valuable contribution.
/Carl

## Scenario (example):

Group number three (3); Positive seller motive, and advantaged inequity:
"Imagine that your TV has recently broken down. You have had this TV for a long time, and lately it hasn't functioned as it should. Yesterday evening when you were watching one of your favourite shows the screen went blank and the TV completely stopped functioning.

Having a TV is important for you. By having a TV you're able to watch your beloved shows, as well as, entertaining your friends who occasionally come over to watch movies.

It's now time to replace the TV for a new one. You have picked out a new TV which you have decided to buy, a 42-inch flat screen TV. You've had an eye on the market and you know that the chosen model usually costs 5000 kr . When you arrive at the store you notice that the price is now 6500 kr for the specific TV, and you decide to pay this price.

You find out that the reason for the price increase of the television is due to that the store's purchase price for the TV has increased. (i.e. the store has to pay more to buy the TV from the supplier).

In order for the store to maintain the same margins and profitability, the store has thereby decided to increase the price for the TV.

It turns out that one of you colleagues bought the same TV, in the same store and day as you. However, she paid 7500 kr for the TV, i.e. 1000 kr more than what you paid."

Now I would like to ask you to think about what applies to this particular situation. Please indicate on a scale from 1-10 how to set up for the following statements. $1=$ Strongly disagree, and $10=$ Strongly agree.

The Price for the TV is:

|  | Strongly Disagree (1) | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | Strongly Agree (10) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fair | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Unreasonable | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Honest | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Less Fair | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Unfair | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Unacceptable | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | 0 | $\bigcirc$ |
| Questionable | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Justified | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Satisfactory | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Acceptable | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |

What do you think about the price of the TV?

| Much <br> less than <br> expected | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | Much <br> more <br> than <br> expected <br> $(10)$ |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| The price for <br> the TV is: | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |


| Strongly <br> Disagree <br> $(1)$ | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | Strongly <br> Agree |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $(10)$ |  |  |  |  |  |  |  |  |  |

The price for this TV is a lot of money to spend
$\bigcirc$


00 o ○ o


Please mark one dot in each row that matches your opinion.

| Strongly <br> Disagree <br> $(1)$ | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | Strongly <br> Agree |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $(10)$ |  |  |  |  |  |  |  |  |  |

Taking advantage of a price like this makes me feel good

Buying the TV in this store is a good purchase

By buying the TV in this store I would get a lot of value for my money
$\bigcirc$ 0 O O O ○ 0 O O O
O 0 0 00 0 0 O 0

000


I would get
pleasure from paying the price of the TV
0 0 0
00 0 00 0 00 0 0 00 0 0 0 0

Now please think about what you felt when buying the TV. "In terms of the purchase of the TV I felt..."

| Dissatisfied | $\bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$ | Satisfied |
| :---: | :---: | :---: |
| Unhappy | $\bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$ | Happy |
| Displeased | $\bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$ | Pleased |
| Disappointed | $\bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$ | Delight |

How would you summarize your impressions of the store?

|  | Very Dissatisfied <br> (1) |  |  | 3 |  | 4 | 5 | 6 | 7 | 8 | 9 | Very Satisfied (10) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| How satisfied are you with the store? | $\bigcirc$ |  |  |  |  | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  | Not at all (1) | 2 |  | 3 |  | 4 | 5 | 6 | 7 | 8 | 9 | Totally (10) |
| To what extent does the store meet your expectations? | $\bigcirc$ | $\bigcirc$ |  | $\bigcirc$ |  | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
|  | $\begin{aligned} & \text { Very } \\ & \text { Far } \\ & \text { From(1) } \end{aligned}$ | 2 |  | 3 |  | 4 | 5 | 6 | 7 | 8 | 9 | Can <br> Not Get Any Closer (10) |
| Imagine a store that is perfect in every respect. How near or far from this ideal do you find this specific store? | $\bigcirc$ |  |  | O |  | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |

To what extent do agree with the following statements?

| Very <br> Unlikely <br> $(1)$ | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | Very <br> Likely <br> $(10)$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

It's likely that I will return to the store when it's time to buy a new TV (if the store was real)
000
o
O 0 O 0 0

plan to revisit the store (if it was real)


I want to revisit the store in the future (if it was real)○


I will recommend friends not to visit this store

0 。 0 o ○ $\qquad$ 0 00 0

I will say bad things about this store to others
00000000000

I will encourage friends and relatives to visit $\bigcirc \bigcirc$ O 0 ○ 0 0 0 0 0 other stores

| Not <br> At All <br> Likely <br> (1) | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | Very <br> Likely <br> $(10)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Rate the
probability that
you would switch to another store to buy the TV

I would like to buy the TV at another store

0

 0
 0 O , O 0
$\square$


What do You think is the purpose of this survey?


Age: $\square$

Do You have any other thoughts regarding this survey?
$\square$

## Appendix 2 - Additional Table

Only Advantaged Treatment Groups ( $\mathrm{n}=74$ ), Serial Mediation Analysis. Two Mediators; Monetary Sacrifice $\left(M_{1}\right)$ and Transaction Value $\left(M_{2}\right)$

| Antecedent |  | Consequent |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $M_{1}$ (Monetary Sacrifice) |  |  | $M_{2}$ (Transaction Value) |  |  |  | $r_{\text {(Satisfaction) }}$ |  |  |  |
|  |  | Cocff. | SE | $p$ |  | Cocff. | SE | $p$ |  | Cocff. | SE | $p$ |
| $X$ (Price Fairness) | $a_{1}$ | -0,475 | 0,101 | . 000 | $a_{2}$ | 0,449 | 0,105 | . 000 | $c^{\prime}$ | 0,236 | 0,103 | . 025 |
| $M_{1}$ (Monetary Sacrifice) |  | - | - | - | $d_{21}$ | -0,242 | 0,106 | . 025 | $b_{1}$ | -0,098 | 0,076 | . 202 |
| $M_{2}$ (Transaction Value) |  | - | - | - |  | - | - | - | $b_{2}$ | 0,685 | 0,090 | . 000 |
| Constant | $i_{M 1}$ | 8,153 | 0,522 | . 000 | $i_{M 2}$ | 2,944 | 1,020 | . 005 | $i_{5}$ | 0,870 | 0,731 | . 238 |
|  |  | $R^{2}=0,213$ |  |  | $R^{2}=0,384$ |  |  |  | $R^{2}=0,700$ |  |  |  |
|  |  | $F(1,73)=22,237, p \leq .001$ |  |  | $F(2,72)=29,379, p \leq .001$ |  |  |  | $F(3,71)=61,615, p \leq .001$ |  |  |  |


[^0]:    ${ }^{1}$ Other types of categorizations of the four other customer -groups were tested in a moderator test. For instance, instead breaking it down to two groups; those not being aware of other customers and those being aware. The tests yielded the same results regarding the interaction, i.e. not statistically significant.

