

**Analyzing the Dimensions of Price Fairness: A Consumer Behavior
Perspective**

by

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ABSTRACT

ANALYZING THE DIMENSIONS OF PRICE FAIRNESS: A CONSUMER BEHAVIOR

PERSPECTIVE

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In both service fairness and organizational fairness, there exist four dimensions of price fairness: **distributive, procedural, and interactional (informational and interpersonal)**. Distributive fairness is the fairness of an outcome according to the provided input as compared to a reference other. Procedural fairness is the fairness of the development of the mentioned procedure. The research looks at how distributive fairness, procedural fairness and their interaction lead to repurchase intentions/negative word of mouth intentions (NWOM). The research also looks at how the aforementioned relationship is mediated by overall price fairness. The study found that both distributive fairness and procedural fairness have a direct impact on repurchase intentions. Moreover, distributive fairness has a direct impact on NWOM; however, procedural fairness only has a marginal impact on negative word of mouth intentions. Furthermore, overall price fairness completely mediates the relationship between distributive fairness and repurchase intentions/NWOM.

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TABLE OF CONTENTS

Abstract	ii
Acknowledgements	iii
Table of Contents	iv
List of Tables	vii
List of Figures	viii
List of Abbreviations	ix
1 Introduction.....	1
2 Literature Review.....	4
2.1 Definition of Fairness and Price Fairness	5
2.2 Theories of Price Fairness	7
2.3 Justice/Fairness Theories as in the Literature	10
2.3.1 Justice/Fairness Theories as in the Service Literature	11
2.3.2 Justice/Fairness Theories as in the Organizational Sciences Literature	13
2.4 Price Fairness in Marketing.....	17
2.4.1 Introduction to the Price Fairness Literature	18
2.4.2 The Dual Entitlement Principle (DE) and Price fairness	20
2.4.3 The Attribution Theory and Price fairness.....	22
2.4.4 Store Wide Pricing Decisions and Price fairness.....	27
2.4.5 The Social Dimension and Price Fairness	33
2.4.6 The Fairness Dimensions as Antecedents to Price Fairness	40
2.5 Research Summary and Gap Identification.....	45
3 Hypothesis.....	48

3.1	Price Fairness: A Consequent to the Fairness Dimensions	48
4	Pre-Test Methodology	50
4.1	Participants	51
4.2	Procedure.....	51
4.3	Pre-Test Analysis and Results.....	52
5	Main Study Methodology	53
5.1	Design.....	53
5.2	Participants	54
5.3	Stimuli	55
5.4	Procedure.....	55
6	Analysis and Results	57
6.1	Descriptive Statistics	57
6.2	Manipulation Analysis	58
6.2.1	ANOVA Assumptions for Manipulation Analysis	58
6.2.2	Manipulation Analysis Results	58
6.2.3	ANOVA Assumptions for the Main Study.....	59
6.2.4	ANOVA Analysis for the Main Study.....	60
6.2.5	Additional Analysis	64
6.2.6	Regressions Assumptions for Mediation Analysis	66
6.2.7	Mediation Analysis	66
7	Discussion.....	73
8	Contributions.....	75
9	Conclusion, Limitations and Future Research	78
	References.....	79

Appendices.....	86
Appendix A: ANOVA Output for DV=Repurchase Intentions.....	86
Appendix B: ANOVA Output for DV=NWOM.....	86
Appendix C: ANOVA Output for DV=Overall Price Fairness	87
Appendix D: R (Studio) Code for Mediation (Path) Analysis, LAVAAN.....	87

LIST OF TABLES

Table 1: Descriptive	57
Table 2: Repurchase Intentions Descriptive	61
Table 3: NWOM Descriptive	63
Table 4: Overall Price Fairness Descriptive	65
Table 5: Mediation Analysis 1 Results	69
Table 6: Mediation Analysis 2 Results	72

LIST OF FIGURES

Figure 1: Dimensions of Fairness	10
Figure 2: Conceptual Model	48
Figure 3: Repurchase Intentions Bar Chart.....	61
Figure 4: NWOM Bar Chart	63
Figure 5: Overall Price Fairness Bar Chart.....	65

LIST OF ABBREVIATIONS

ANOVA: Analysis of Variance

DFC: Distributive fairness dummy coded as high and/or low

PFC: Procedural fairness dummy coded as high and/or low

INT_DFPCFC: Interaction effect of distributive fairness coded (DFC) and procedural fairness coded (PFC)

OPF: Overall Price Fairness

RI: Repurchase Intentions

NWOM: Negative Word of Mouth Intentions

1 Introduction

This thesis is about marketplace pricing fairness. For consumers, the judgment of fairness is an important factor when dealing in any transactions with other consumers or sellers. When purchasing products or services, consumers believe that they have been treated fairly and equitably. If the consumers believe they have not been treated fairly, the sellers might risk losing these customers' business. (Kahneman, Knetsch & Thaler, 1986).

Imagine a situation involving a grocery store. The store raises the prices of lettuce by 30 cents because its wholesale price increased by the same amount after a local shortage of lettuce. Is it fair? Kahneman et al. (1986) reported that 79% of the participants reported the price increase to be acceptable.

Imagine the same scenario again. Except this time, the price increase is not to maintain the store's profits. Instead, it is due to the seller's pricing policy in order to benefit from the decrease in local supply due to a transportation mix-up. What percentage of consumers will consider the same price increase as fair? Kahneman et al. (1986) reported that 79% of the participants reported the price increase to be unfair.

The academic literature has identified that perceptions of fair pricing procedures can cause perceptions of a fair price itself (Maxwell, 2002; Kukar-Kinney, Xia & Monroe, 2007; Nguyen & Meng, 2013; Xia & Monroe, 2010; Xia, Kukar-Kinney & Monroe, 2010). A more practical example of an unfair pricing practice was demonstrated by Coca-Cola in the year 1999 when they tried to implement variable pricing (Hays, 1999; Leonhardt, 2005). According to their chairman (M. Douglas Ivester), it was fair for Coca-Cola to charge higher prices for their soft drinks during the hot weather due to high demand, and thus they were in the process of testing a

vending machine that can charge a higher price when the temperature is hot. However, the announcement for variable pricing was perceived as unfair by customers; they responded with severe backlash, which led to Coca-Cola retracting its decision. An important question which remains unanswered is: Why did the consumers respond with backlash to variable pricing by Coca-Cola, but seem indifferent to the same practice in the airline industry? Xia, Monroe and Cox (2004), and Bechwati, Sisodia and Sheth (2009) have highlighted that consumers' failure to understand pricing policy can lead to their perceptions of unfair prices. Moreover, when consumers perceive prices to be unfair, it is on them to restore balance by responding negatively to the relevant firm's actions, i.e. lower their repurchase intentions (Bechwati et al., 2009; Kukar-Kinney et al., 2007; Nguyen & Meng, 2013; Xia et al., 2004; Xia & Monroe, 2010).

Price is one of the four P's of marketing. Thus, it is important for managers to understand how consumers perceive fairness/unfairness in terms of price changes. Failure to do so might ruin the buyer-seller relationship and lower sales and profits for the seller (Bechwati et al., 2009; Campbell 1999, 2007; Homburg, Hoyer & Koschate, 2005; Nguyen & Meng, 2013; Xia et al., 2004; Xia et al., 2010). The purpose of this thesis is to understand what constitutes as fair and unfair in a consumer's perceptions of price fairness. Literature has pointed towards four dimensions of price fairness. These are: distributive, procedural, and interactional (interpersonal and informational).

Distributive fairness is the fairness of the outcomes (Adams, 1965), procedural fairness is the fairness of the process used to define those outcomes (Kukar-Kinney et al., 2007), and interactional fairness is the fairness of the interpersonal treatment received by the consumers while the procedures are carried out (Bies & Moag, 1986; as cited in Carr, 2007).

Research in the past has reflected over how the dimensions of price fairness, i.e. distributive, procedural, and interactional (interpersonal & informational), impact price fairness and outcomes to price fairness. Ferguson, Ellen and Bearden (2014) demonstrated that distributive and procedural fairness leads to overall price fairness. Katyal, Kanetkar, and Patro (2019) defined price fairness as a second order construct to the four dimensions of fairness, i.e. distributive, procedural, interpersonal and informational.

Similarly, conceptualizations on fairness can be noted in the literature on service fairness and organizational sciences. In the service literature, Blodgett, Hill and Tax (1997) noted that distributive fairness and interactional fairness had a significant main effect on participants repurchase and WOM intentions. Along the same lines, Carr (2007) conceptualized that a model that incorporated that four dimensions of fairness along with the service quality measures was better at predicting overall service fairness as opposed to the model that only accounted for the service quality measures.

Similarly, in the organizational sciences literature Beugre and Baron (2001) put forward that procedural fairness and interactional fairness had a direct significant relationship with overall organizational fairness. Whereas, Colquitt (2001) noted that a model with the four dimensions of fairness had higher predictive validity for fairness outcomes than a model with less than the four dimensions.

The purpose of this research is to look at how distributive and procedural fairness directly contributes to repurchase intentions and negative word of mouth intentions, and how the two fairness dimensions (distributive and procedural) interact with each other to result in repurchase

intentions and negative word of mouth intentions. The research also looks at how price fairness mediates the impact of distributive and procedural fairness, and their interaction on repurchase intentions and negative word of mouth intentions.

The study employs a 2 (distributive fairness: high vs. low) x 2 (procedural fairness: high vs. low) between subjects experimental design, and surveys 201 undergraduate students from the University of Guelph.

The results reveal that both distributive fairness and procedural fairness have a direct impact on repurchase intentions. Moreover, distributive fairness is shown to have direct impact on negative word of mouth intentions; however, procedural fairness is shown only to have partial impact on negative word of mouth intentions. Furthermore, overall price fairness completely mediates the relationship between distributive fairness and repurchase intentions/negative word of mouth intentions.

2 Literature Review

The chapter will start of by providing definitions for fairness and price fairness from leading dictionaries and academic literature as well. According to Xia et al. (2004), price fairness is defined “as a consumer’s assessment and associated emotions of whether the difference (or lack of difference) between a seller’s price and the price of a comparative other party is reasonable, acceptable, or justifiable” (p. 3). It is important to note that fairness is a consumer’s judgment, which can vary between individuals and situations. The chapter moves on to define the four dimensions of fairness, i.e. distributive, procedural, interactional, and interpersonal. Moving onwards, the literature will introduce how the dimensions of fairness have been applied

in the service and organizational sciences literature. The dimensions of fairness are important because they can help sellers identify the antecedents to price fairness. Such an understanding will help them to set fair prices for their products, which would then impact consumer's repurchase intentions (Campbell, 1999; Kukar-Kinney et al., 2007; Nguyen & Meng, 2013; Xia & Monroe, 2010). Finally, the chapter will discuss the seminal works in the price fairness literature, conclude with gap identification.

2.1 Definition of Fairness and Price Fairness

The purpose of this section is to introduce the various definitions of price fairness and fairness, as conceptualized in the academic literature and leading dictionaries. Note that both price fairness and fairness have been defined inconsistently in the academic literature as well as the dictionaries.

According to the Oxford dictionary, fairness is “impartial and just treatment or behavior without favoritism or discrimination” (Oxforda, n.d.). Moreover, Merriam-Webster has defined fairness as, “fair or impartial treatment: lack of favoritism toward one side or other” (Merriam-Webster, n.d.). On the other hand, Collins dictionary's definition of fairness is closer to ones found in academic literature, i.e. “fairness is the quality of being reasonable, right or just” (Collins, n.d.). It is important to consider that the definition of fairness by Oxford and Merriam Webster has a more legal tone than fairness in day to day usage. However, the one by Collin's dictionary is more closely related to this discussion.

There are a few crucial points to be considered regarding the definition of price fairness in academic literature. First, there is no agreed upon definition of the term. Second, justice and fairness has been used interchangeability in both the organizational fairness literature and price fairness literature. According to Bolton, Warlop and Alba (2003), “fairness might refer to the extent to which outcomes are deemed reasonable and just, and transaction fairness might refer to the extent to which sacrifice, and benefit are commensurate for each party involved” (p. 475)

However, Martin, Ponder and Lueg (2009) has interpreted and redefined this as: “the belief of the justice of an outcome, process or interaction” (p. 583). On the other hand, Xia et al. (2004) redefine the same definition (Bolton et al’s) as: “a judgment of whether an outcome and /or the process to reach an outcome are reasonable, acceptable, or just”. Xia et al. (2004) also define price fairness as: “a consumer’s assessment and associated emotions of whether the difference (or lack of difference) between a seller’s price and the price of a comparative other party is reasonable, acceptable, or justifiable” (p. 3).

Lastly, according to the model presented by Bechwati et al. (2009), price fairness is a consequence to consumer’s perception that a firm is making excessive profits, consumer’s failure to understand the pricing policies and structure employed by the firm, and consumer’s perception that the firm is behaving immorally or unethically.

In conclusion, the section has given an overview of how the terms fairness and price fairness have been defined and conceptualized in both the dictionaries and the academic literature as well. It is interesting to note that there has is no central definition of price fairness in the academic literature due to which there is also no central measurement criteria for the measure

of price fairness itself. Some authors have measured price fairness as a single item construct of fairness itself (Campbell, 1999, 2007) whereas other have used a multi-item construct of a combination of the following items, (un)fair, (un)reasonable, (un)acceptable, (un)just (Ferguson et al., 2014, Kukar-Kinney et al., 2007; Xia & Monroe, 2010; Xia et al., 2010; Vaidyanathan & Aggarwal, 2003). Without a common measure of price fairness, managers, consumers, and academics will have different views regarding price fairness, which will lead to inconsistent results. Thus, following the definition of price fairness from Xia et al. (2004) we propose to use price fairness as a multi item construct of just, reasonable and acceptable.

2.2 Theories of Price Fairness

In the earlier section an overview of the definitions of fairness and price fairness as present in major dictionaries and academic literature was provided. Moving onwards, this section will present an introduction to the theories of fairness, (1) the dual entitlement principle (DE), (2) the attribution theory, and (3) the four dimensions of justice/fairness as defined in the literature, i.e. distributive fairness, procedural fairness, interactional fairness (interpersonal fairness, and interactional fairness). This is important because it enables us to understand how distributive and procedural fairness leads to repurchasing intentions, and how the relations are mediated by price fairness. Also, since justice and fairness have been used interchangeably in the literature, we will use only the word fairness moving forwards, for ease of understanding.

According to the Oxford dictionary, justice is “the quality of being fair or reasonable” (Oxfordb, n.d.).

Kahneman et al. (1986) was amongst the earliest research in price fairness. The study introduced the idea of the dual entitlement principle, which states that consumers are entitled to a price and sellers are entitled to a certain profit (Bolton & Alba, 2006). Due to this fact price increases that can be traced back to cost increases are considered fair and vice versa.

Campbell (1999) extended the dual entitlement principle by proposing the inferred motive construct on the basis of attribution theory (Weiner, 1985, 1992), which states that for any unexpected event that might also be considered negative consumers are expected to attribute casual explanation towards it. According to the author, the principle of dual entitlement only explained the inferred relative profit, i.e. consumer's perception of the amount of profit being made by the seller, as an antecedent to price fairness. However, adding the attribution theory alongside the dual entitlement principle to predict consumer's perception of price fairness also explained the inferred motive, i.e. consumer's perception of the seller's positive/negative motives behind the price increase.

Moving onwards, a considerable amount of price fairness literature is based on the four dimensions of fairness, i.e. distributive, procedural, interpersonal, and informational. Simply put, distributive fairness refers to how fair an outcome is. A strong introduction to distributive fairness can be found in the study by Xia et al. (2004). They argued that according to (Homans, 1961), distributive fairness conceptualizes the fact that individuals are supposed to receive an outcome in accordance to their provided input. Moreover, they explain that Adams (1965) further introduced the concept of Equity Theory. The Equity Theory added the concept of 'reference other' in to distributive fairness, i.e. they mention that individuals are interested in receiving the outcome in comparison to their input as received by their reference others.

According to Jacoby (1976), ‘reference other’ can be defined as “another person, a class of people, an organization, or the individual himself relative to his experiences from an earlier point in time” (p. 1053; as cited in Xia & Monroe, 2010, p. 886)

Kukar-Kinney et al. (2007) has mentioned that fairness is a two part construct, i.e. the fairness of the outcomes, and the fairness of the procedure followed to come up with the outcomes. The latter part of this refers to procedural fairness. According to Thibaut and Walker (1975), procedural fairness “concerns judgments of whether the processes or procedures are based on prevailing norms and behaviors” (as cited in Kukar-Kinney et al., 2007, p. 326). According to Xia et al. (2004), information that guides consumer on how a price is set may contribute to fair perceptions of the price.

Carr (2007) has stated that according to Bies and Moag (1986), the way in which the people are treated when procedures are carried out is interpersonal fairness. However, according to Greenberg (1993) interactional fairness can actually be conceptualized in two different sub-dimensions, i.e. interpersonal and informational fairness (as cited in Carr, 2007). Interpersonal fairness refers to being treated in a positive or a negative manner, for example politely or rudely. This has been referred to as the distributive side of interactional fairness. On the other hand, informational fairness is about communicating information regarding the procedures to the consumers. This has been referred to as the procedural side of interactional fairness (Greenberg, 1993; as cited in Carr, 2007).

Thus far, the academic literature has used the word fairness and justice interchangeably. Additionally, for the purpose of this study an overview of the four dimensions of fairness,

distributive fairness, procedural fairness, interpersonal fairness, and informational fairness has been provided. Distributive fairness is the fairness of an outcome according to the input provided as compared with the reference others. Procedural fairness is the fairness of how the procedure has been come up with. Lastly, interactional fairness has two dimensions, interpersonal and informational. Interpersonal fairness is about the treatment of others while outcomes and procedures are carried out, whereas informational fairness is about providing stakeholders relevant information regarding the procedures. The figure below shows this hierarchy of terms.

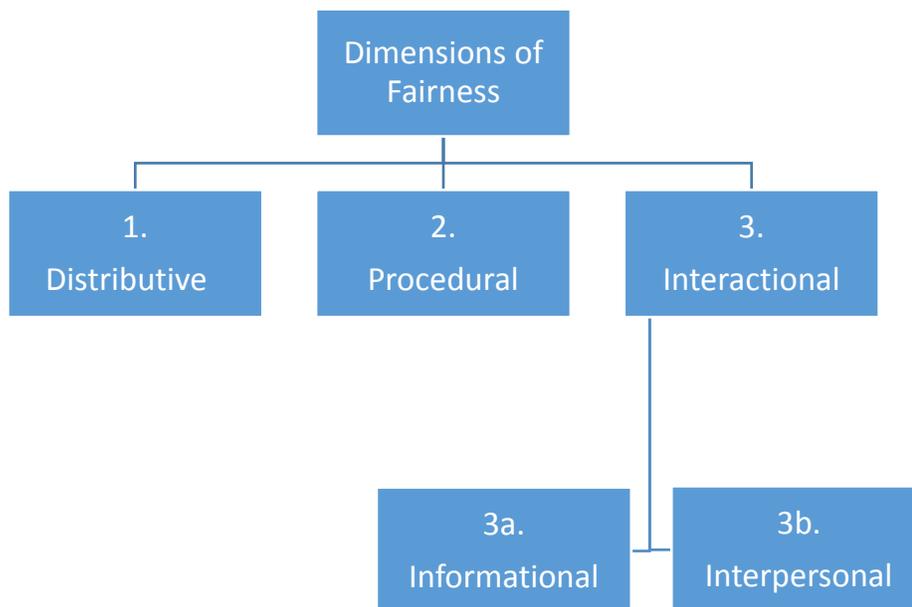


Figure 1: Dimensions of Fairness

2.3 Justice/Fairness Theories as in the Literature

The purpose of this section is to introduce readers the usage of these four dimensions of fairness in both the service literature and organizational sciences literature. This will provide an

introduction to some of the seminal works that have been done in the area, and understand how the four dimensions of fairness impacts overall service fairness, organizational fairness, and consequents to fairness, i.e. Word of Mouth (WOM), and repurchase intentions.

2.3.1 Justice/Fairness Theories as in the Service Literature

Blodgett et al. (1997) tried to understand the impact of the fairness dimensions, i.e. distributive, procedural and interactional fairness, and post consumer's complaints on their negative Word of Mouth (WOM) and patronage intentions.

The study employed 265 participants (students and staff) from US and Canadian universities. The participants were asked to read scenarios that manipulated them according to the aforementioned dimension of fairness. The authors presented the participants with scenarios involving the purchase of a poor quality shoe in which they were: a) allowed to claim a discount on the product vs. exchanging the product (high vs. low distributive fairness), b) treated rudely vs. treated with respect (high vs. low interpersonal fairness) and c) complaints were solved immediately vs. not solved immediately, i.e. they were asked to come back (high vs. low procedural fairness). After reading the scenarios, participants were measured for the aforementioned fairness dimensions, as well as their post-complaint behavior (i.e. Word of Mouth (WOM) and patronage intentions), using a survey questionnaire.

Interestingly, Blodgett et al. (1997) found that distributive fairness and interactional fairness had a significant main effect on the participant's repurchase intentions and negative word of mouth. A higher (lower) distributive fairness/interactional fairness led towards higher

(lower) repurchase intentions and lower (higher) negative Word of Mouth. However, no main effect of procedural fairness over repurchase intention or negative Word of Mouth was observed. Additionally, only the interaction effect of distributive and interpersonal fairness on both repurchase intentions and negative word of mouth was significant.

Carr (2007) was another study to understand the role of fairness dimensions in the service fairness literature. Taking forward the idea of Blodgett et al. (1997), the author postulated that a FairServ model (a model that regards for both overall service fairness and service quality) is a better predictor of service satisfaction than the ServQual model, a model that only accounts for service quality as a predictor of service satisfaction.

The reasoning for this gap, provided by Carr (2007), was that in the past the research had only focused on the application of the ServQual model (service quality model) to predict service satisfaction. The FairServ model (service fairness model) looked at how the four dimension of fairness, i.e. distributive, procedural, interpersonal, and informational, could predict the outcome variable, i.e. overall service fairness, and how the overall service fairness could be combined with the ServQual model (service quality model) to predict customer's service satisfaction and re-patronage intentions. The author argued that the differential point about the FairServ model was that consumers were interested in both the service fairness as well as the service quality, in order to form their judgments of service quality. The basic premise of the author was that a high service quality as predicted only by the ServQual model (service quality model) may not necessarily be considered a fair service as well.

Carr (2007) mailed surveys to those employees of an organization who had experience in working with Information System (IS) services as part of their job and had recently interacted with the IS service providers (internal service providers of the company). A total of 1758 usable surveys were analyzed for the study.

Carr (2007) reported that the FairServ model (service fairness model) reliably predicted both the consumer's re-purchase intentions as well as their service satisfaction. Moreover, he found that overall service fairness is a byproduct of the four dimensions of fairness, i.e. distributive, procedural, interpersonal, and informational. Additionally, the author's reported that the variable overall service fairness was a separate construct from the four dimensions of fairness, i.e. the dimensions were antecedents to overall service fairness.

Moreover, the authors reported that overall service fairness mediated the relationship between the four dimensions of fairness and the outcome variables to overall service fairness, i.e. service satisfaction, and re-patronage intentions. Additionally, service satisfaction positively co-related with the two aforementioned outcome variables, i.e. overall service fairness and service quality. Lastly, the authors found that not only did overall service fairness positively co-related with the service quality, but also that the two constructs were perceived as quite different by consumers.

2.3.2 Justice/Fairness Theories as in the Organizational Sciences Literature

Following the lines of Blodgett et al. (1997), Beugre and Baron (2001) conducted a similar study in the domain of organizational sciences. The authors set out to understand how

the three dimensions of fairness, i.e. distributive, procedural, and interactional can lead to employee's overall perception of systematic justice (overall organizational fairness). The importance of the research was in the fact that it was among the first study in organizational fairness literature to go beyond the study of two dimensions of fairness, i.e. distributive and procedural only, to include interactional fairness as an important antecedent to organizational fairness.

Moreover, the study looked at the overall organizational fairness as a dependent variable at a time when most research did not consider overall organizational fairness as an outcome variable. Rather, the previous research had focused more on the consumers' reactions to the fairness dimensions as can be seen in the study by Blodgett et al. (1997) where they have measured consumers' reactions (i.e. WOM and repurchase intentions) as direct outcomes to the dimensions of fairness.

Beugre and Baron (2001) sent out questionnaires to 232 employees across 50 organizations in both the service and manufacturing sector. The participants were measured for the three fairness dimensions, i.e. distributive, procedural and interactional, as independent variables to overall organizational fairness, the dependent variable.

The authors used the fairness heuristic theory (Lind & Tyler, 1988), which claims that once individuals have made judgments regarding perceived fairness of a situation they carry those perceptions forward to conclude their evaluations of subsequent events (as cited in Beugre & Baron, 2001), and concluded that employees do indeed use the multiple dimensions of fairness to determine the overall organizational fairness. The results of the study demonstrated that

procedural and interactional fairness significantly led to overall positive evaluations of organizational fairness. Interestingly, no such significant relationship was found between distributive fairness and overall organizational fairness.

According to Beugre and Baron (2001), the non-significant relationship of distributive fairness with overall organizational fairness might be associated to the fact that distributive fairness is tied to the attitudinal aspect of the outcomes, for example satisfaction, rather than the final outcome itself, i.e. overall organizational fairness.

However, Beugre and Baron (2001) were not the only ones to consider the fairness dimensions in the organizational sciences literature. Colquitt (2001) challenged the earlier research by realizing that most of the research on organizational fairness had either focused on the two, i.e. distributive and procedural, or three, i.e. distributive, procedural and interactional, dimensions of fairness. However, not many had tried to include the four dimensions of fairness, i.e. distributive, procedural, and interactional (interpersonal & informational). Therefore, Colquitt (2001) decided to predict if using all the four dimensions of fairness was better than using only two or three dimensions in a model.

Additionally, Colquitt (2001) realized another problem in the fairness literature: Even after years of research, many authors did not have agreed upon measures for the dimensions of fairness, and many of them had used single item measures. They decided to statistically measure the validity of the four dimensions of fairness and their measures, which can be used with high validity of the measurement constructs. Thus, Colquitt (2001) gathered items of fairness measures from previous research and set out to define their validity as measures for the four

dimensions of fairness, i.e. distributive fairness, procedural fairness, interpersonal fairness and informational fairness. For study 1, a week before their final exams, 301 undergraduate students were asked to fill surveys that measured them for the fairness dimensions. The context was the student's experience with the institution's grading. Study 2 was similar to study 1 except it used 331 employees from an automobile parts manufacturer, and thus was done in the context of employee-employer relationship. Across these studies, the participants were measured for fairness dimensions, leader evaluation, rule compliance, and commitment behavior.

It was found that a confirmatory factor analysis supported a high fit for the four dimensional model of fairness, instead of the more commonly used two dimensional or three dimensional model of fairness. Moreover, using structure equation modeling (SEM) it was also found that a model with the four dimensions of fairness had a higher predictive validity for relevant outcomes to organizational fairness, i.e. leader evaluation, rule compliance, commitment behavior, in comparison to a model with less than four dimensions of fairness.

In summary, the section has provided an introduction to the seminal works on the justice/fairness literature in the service literature and the organizational sciences literature as well. Blodgett et al. (1997) looked at how the three dimensions of fairness, i.e. distributive, procedural and interactional, impacted consumers' post-service behavior, i.e. WOM and re-patronage intentions. They found that interactional fairness followed by distributive fairness strongly had a significant relationship with consumer's WOM and patronage intentions. Similarly, Carr (2007) also looked at how the four dimension of fairness, i.e. distributive, procedural, interpersonal and informational impacted overall service fairness. Carr (2007)

reported that using the four dimensions of fairness alongside the service quality predicted service satisfaction better than using the service quality only.

Moreover, in the literature of organizational sciences Beugre and Baron (2001) looked at how the three dimensions of fairness, i.e. distributive, procedural and interactional, predicted overall organizational fairness. They reported that procedural and interactional fairness had a significant positive relationship with the overall organizational fairness. Adding to this, Colquitt (2001) reported that a model that included all the four dimensions of fairness had a higher predictive validity as opposed to models that contained less than four dimensions of fairness.

2.4 Price Fairness in Marketing

The purpose of this section is to introduce seminal works that have been done in the price fairness literature. The section starts off with a qualitative research on the topic by Bechwati et al. (2009). The section then extends to introduce how the price fairness literature has developed due to the introduction of various theories in price fairness. Lastly, the research presents how some of the studies in the last decade has moved towards directly measuring the impact of fairness dimensions (i.e. distributive, procedural, interpersonal and informational) on price fairness and consequences to price fairness (i.e. shopping intentions, word of mouth, satisfaction and customer loyalty).

2.4.1 Introduction to the Price Fairness Literature

Price fairness literature can be obtuse and its timeline is often not very clear. To start, one can refer to the study by Bechwati et al. (2009), who performed a seminal work in the price fairness literature by being the first to conduct a qualitative research in the domain, and trying to explore the multiple unidentified antecedents and causalities to price fairness. It was also the first publication to conduct content analysis as an attempt to come up with antecedents and consequents to price fairness through consumer surveys and link it with the prior literature. The authors identified three main antecedents to price fairness, mainly (1) consumers' perceptions that organizations are making excessive profits, (2) consumers' inability to understand the pricing structures used by the organization, and (3) consumers' perceptions that the firm is unethical and/or immoral in its pricing.

Bechwati et al. (2009) had a total of 969 participants fill online surveys. The participants were requested to report the perceived pricing practices they had experienced or observed for a total of fifteen different products or services. The participants were also asked to answer an open ended question regarding their experiences of perceived price fairness.

The author's found that consumers were sensitive regarding the distributive fairness of their transactions with the sellers. This means that they were concerned if the outcome they received from a transaction was equal to the amount they had put into the transaction. However, as the dual entitlement principle (Kahneman et al., 1986) states, the consumers did believe that sellers are entitled to a certain level of profits, and buyers are entitled to a certain level of price.

Along the same lines, support for a key aspect of distributive fairness, i.e. the reference price, was also found (Adams, 1965). Consumers identified the fact that they used reference prices to form their judgments about price fairness. The reference prices were not limited to the products/services in question only, i.e. consumers may have seller's income or product's perceived cost as a reference price. Interestingly, consumers used heuristics to come up with a products expected cost, which signaled its fair price. However, consumers also neglected some of the cost as part of this heuristic, for example high salaries of CEO's were not considered a fair means to have higher prices.

Similarly, consumers were concerned about the policy and procedures that were used to calculate the price. Consumers' inability to understand the procedural structure of the pricing process led to lower levels of perceived price fairness.

To re-iterate, it is important to note that the authors identified three main antecedents to price fairness, mainly (1) consumers' perceptions that organizations are making excessive profits, (2) consumers' inability to understand the pricing structures used by the organization, and (3) consumers' perceptions that the firm is unethical/immoral in its pricing.

If observed, it is logical to conclude that the first identified antecedent to price fairness by Bechwati et al. (2009) can be linked to the dual entitlement principle (Kahneman et al., 1986), equity theory (Adams, 1965) and distributive fairness, whereas the last two antecedents refer to the pricing procedures and can be linked to procedural fairness.

2.4.2 The Dual Entitlement Principle (DE) and Price fairness

Kahneman et al. (1986) was amongst the earliest research to provide contribution to the price fairness literature. They introduced the concept of dual entitlement principle (DE), which to date is used significantly in price fairness research (Campbell 1999, 2007; Xia et al., 2010).

The methodology employed for this study consisted of scenario based surveys over telephone. The participants were presented with specific scenarios that a seller/retailer was facing regarding changes in consumer prices or scenarios that an employer was facing regarding wage determinations for its new/current employees. The participants were presented with the decisions the seller/retailers or employers took in the given scenarios, and then were asked to judge whether they thought the decision was either acceptable or unfair.

Kahneman et al. (1986) found that consumer's deemed price increase by a seller/retailer as acceptable when it was because of a threat to the seller's/retailer's profits or an increase in their expenses. However, the same price increase was perceived to be unfair when it was because of a change in the economic conditions of supply and/or demand. The authors explained this phenomenon through the conceptualization of the dual entitlement principle.

According to Bolton and Alba (2006), the dual entitlement principle states that sellers are entitled to a certain profit and on the same hand buyers are entitled to a certain price. Thus, increase in prices that can be traced back to an increase in sellers cost is perceived as fair. On the other hand, an increase in price that cannot be reasoned towards an increase in cost is considered unfair (Kahneman et al., 1986).

Many authors after Kahneman et al. (1986) have added or identified limitations to the dual-entitlement principle to understand price fairness (Bolton & Alba, 2006; Campbell, 1999). Bolton and Alba (2006) were one of them. They further contributed to the research by identifying a limitation to the dual-entitlement principle, i.e. cost-alignability, the fact that if a certain changes in price can be linked to a certain changes in the cost of the product or service being provided. In the past, research by Kahneman et al. (1986) had argued that a price increase caused by an increase in vendors' costs was considered fair by consumers. However, no one had yet tried to observe how the alignability vs. non-alignability between the sellers' costs and their price increases could influence consumers' price fairness perceptions and act as a limitation to the dual entitlement principle.

Bolton and Alba (2006) looked at how the alignability vs. non-alignability between the sellers cost and their price increase influenced consumer's perceived fairness. The authors conducted a series of studies using a scenario based experimental design approach involving the sale of art and pharmacy supplies and services. Study 1 was a between subjects single factor experimental design with three levels (alignable goods vs. alignable service vs. non-alignable overheads). Study 2 was similar to study 1, however it accounted for a situation in which the cost increase was uncontrollable by the seller. For this study the authors defined alignable costs as direct costs (i.e. labor costs/services) or material costs (product costs), whereas non-alignable costs were defined as costs that cannot be directly linked with vendors' products/services, for example rent overheads.

Over a series of studies, Bolton and Alba (2006) found that when a price increase was deemed alignable (vs. non-alignable), perceived price fairness was high (vs. low). Moreover, the

authors reported that in the case of non-alignability, a service price increase was considered fairer than a product price increase. However, no such difference was observed between a product's or a service's condition in case of alignable costs. The authors found that when the costs were alignable, retailers were able to pass it to the consumer's without influencing their perceptions of price fairness. However, when the costs were non-alignable, increased price of products was perceived as less fair than increased price of services.

Nevertheless, Bolton and Alba (2006) was not the only research to make extensions to the dual entitlement principle. Campbell (1999) added to the principle of dual entitlement using the attribution theory (Weiner, 1985, 1992), and on its basis added a new construct to the price fairness literature: inferred motives.

2.4.3 The Attribution Theory and Price fairness

Campbell (1999) attempted to extend the dual entitlement principle (Kahneman et al., 1986). They conceptualized that the principle works through the concept of inferred relative profit, i.e. how much more than the reference profit (inferred relative profit) has the seller made due to a change in price, which determines whether the price increase is fair or not. However, they critiqued that the inferred relative profit as put forward by the dual entitlement principle was not a sufficient condition to encapsulate all possible antecedents to price fairness. Instead, the author suggested that a required antecedent to price fairness was inferred motives as derived from the attribution theory (Folkes, 1988; Weiner, 1985, 1992; as cited in Campbell, 1999). Campbell (1999) stated that according to the attribution theory, for any unexpected event that

might also be considered negative consumers are expected to attribute casual explanations towards it. Thus, as price increase is an event that may be unexpected and negative at the same time, consumers might casually explain the price increase through the inferred motives, i.e. the positive or negative reasons behind the seller's price changes as inferred by the consumer. Therefore, the author put forward a study in which they accounted for a consumer's inferred relative profit, inferred motive for a seller's price increase and the moderating role of the seller's reputation as antecedents to price fairness.

Campbell (1999) conducted a series of studies in which the participants were asked to read different scenarios. The scenarios involved the sale of a doll during the Christmas season. Study 1 consisted of a 2 (inferred motive: negative vs. positive) x 2 (inferred relative profit: more than normal vs. no more than normal) between subjects design. Similarly, study 2 also was a 2 (inferred relative profit: more than normal vs. no more than normal) x 2 (reputation: good vs. poor). The dependent variables across both the studies were price fairness and shopping intentions. Study 1 used 186 part time MBA students, whereas study 2 used 86 students and staff at a university.

The primary finding by Campbell (1999) was that the consumer's inferred motive affected the consumers' perception of price fairness, which then impacted consumer's shopping intentions through a mediation process of price fairness. The author posited that when the inferred motive for price increase was positive (negative), perceived price fairness was high (low). The author's attributed this phenomenon to the attribution theory, which posits that consumer's hypothesize casual explanations towards unexpected events that may also be negative (Weiner, 1985, 1992).

Secondly, the author noted that there was a direct relationship between the inferred relative profit and price fairness; such that when the inferred relative profit was high (low), consumer's perceived price fairness was low (high). This phenomenon was attributed to the principle of dual entitlement according to which sellers are entitled to a reference profit, whereas buyers are entitled to a reference price (Kahneman et al., 1986).

Moreover, Campbell (1999) reported the moderating impact of a firm's reputation on its perceived motive. It was found that the firm's reputation moderated the impact of firm's relative profit on firm's perceived motives for price increase. The author found that for the firm with a good reputation, the consumers' inferred motives were more positive (vs. less positive) when firm made no more than profit (vs. more than normal profit) due to price increase. However, for firms with poor reputations there was no significant difference between the two conditions.

Nevertheless, Campbell (1999) was not the only study to account for the inferred motives (as defined by the attribution theory) as an antecedent to price fairness. Homburg et al. (2005) was another study to consider inferred motives as a precursor to price fairness. The authors tried to study price fairness by understanding it at an individual consumer's level. They explored how a price increase would impact consumer's repurchasing intentions, while considering the consumer's satisfaction with the retailer, the level of price increase by the firm and the consumer's inferred motive fairness for the price increase. Specifically, the impact of consumer's inferred motive fairness, and the level of price increase was measured on consumer's repurchase intention keeping into account the moderating impact of consumer's satisfaction.

Homburg et al. (2005) employed a series of studies using the experimental design approach. The studies asked participants to read a scenario involving eating at an Italian restaurant. Study 1 was a 3 (magnitude of price increase: 2.5% vs. 7.5% vs. 15%) x 4 (customer satisfaction: high vs. low vs. middle low vs. middle high), mixed within and between subjects design. Study 2 was a 2 (customer satisfaction: high vs. low) x 2 (inferred motive fairness of price increase: fair vs. unfair). In both the studies participants were measured for their repurchase intentions as the dependent variable. Lastly, study 3 was a one factor design with two levels, i.e. customer satisfaction (high vs. low). The participants were measured for their repurchase intentions across all the studies. Study 3 additionally measured the participants for their perceived motive fairness as the dependent variable in the study. The studies employed 80, 80, and 174 students each at a German university.

Homburg et al. (2005) found that not only did customer satisfaction directly impacted repurchase intentions, but it also inversely influenced the impact of the magnitude of price increase on repurchase intentions, such that a higher customer satisfaction reduced the pessimist impact of the magnitude of price increase on repurchase intentions. Additionally, a moderating impact of customer satisfaction was found such that the repurchase intention had a maximum value when both the perceived motive fairness and customer satisfaction was high.

Lastly, customer's satisfaction prior to the price increase had a direct main effect on perceived motive fairness such that when the satisfaction was high the inferred motive fairness was also perceived to be positive and vice versa. Moreover, a direct positive impact of perceived motive fairness of price increase on repurchase intentions was found, such that positive (negative) perceptions of perceived motive fairness led to high (low) repurchase intentions.

Using the same conceptualizations as Campbell (1999), which introduced the principle of inferred motives, the author brought their own work forward in Campbell (2007) to include how the source, i.e. human vs. non-human, of information regarding change in price moderated consumer's perception of price fairness. The main idea behind the study was to measure the mediated influence of stimulus induced affect, for example anger, and firm's inferred motives for price increase on consumer's perceived price fairness as a response to price change. Moreover, the author also accounted for how the aforementioned relationship was moderated by the human vs. non-human communication source of price change. Another interesting part about the research is that it looked at both dimensions of price change (i.e. price increase and decrease) which was unconventional as past research had mainly focused on one dimension of price change, i.e. increase or decrease (Campbell, 1999; Homburg et al., 2005).

For the study, Campbell (2007) employed an experimental design approach, in which participants were asked to read and imagine various product purchase scenarios. Study 1 and 2 involved the store purchase of a rug, whereas study 3 was regarding the store purchase of a suit. Study 1 was a 2 (Price change: 25% increase vs. 25% decrease) x (Source of price change: human vs. non-human (price tag)). Study 2 was similar to study 1 but accounted for another 2 level factor of processing resource: (constrained vs. unconstrained). Lastly, study 3 was a 2 (source: human vs. non-human) x 2 (rationale for price change: not provided vs. provided). Across the studies participants were measured for perceived inferred motives and perceived price fairness. The studies each employed 97, 260 and 80 undergraduate students.

Considering the source of price change, an interesting phenomenon was observed. When the change in price was an increase, a human source as opposed to non-human source for price

change led to higher perceptions of price fairness. However, when the change was a decrease in price, the source of price change information was not of significant importance.

Furthermore, the authors noted that whether affect or inferred motive had a greater impact on perceived price fairness was determined upon if the cognitive load was high or low. When cognitive load was high, affect impacted price fairness perceptions more than the inferred motives. However, when cognitive load was low, inferred motive had a more powerful impact on the consumer's perceptions of price fairness. However, there was an exception this rule. When there was a price decrease, a rational for price decrease was given, cognitive load was low and the source was human, affect had a greater influence than inferred motive on consumer's perceptions of price fairness.

2.4.4 Store Wide Pricing Decisions and Price fairness

Many of the studies reviewed in the pricing literature have primarily focused on the impact of seller's price change on consumer's perceptions of price fairness (Campbell, 1999, 2007; Homburg, 2005; Kahneman et al., 1986; Xia et al., 2004). However, there are a limited number of studies that also identified the need to look at consumer's responses as an outcome to store wide pricing decisions as opposed to individual price increases.

An important work that looked at the impact of store wide pricing decisions on consumer's reactions was performed by Barone, Manning and Miniard (2004). The purpose of the study was to understand the prospects of partially comparative pricing in retailing. The

authors referred to partially comparative pricing as a type of pricing in which comparative pricing was offered for some but not all of the retailer's products.

Barone et al. (2004) employed a between subjects experimental design approach. The study was a 2 (price information conditions: comparative pricing vs. no comparative pricing) * 2 Product (Comparative Condition: Cranberry Juice and Cup of Noodles; Non Comparative Condition: Pickles and Potato Chips). Study 2 was similar to study 1, but used shampoo and cereal as products in the non-Comparative condition instead. Study 2 additionally considered the participants into three groups, i.e. comparative & suspicion vs. comparative & no suspicion, vs. non-comparative only. Lastly, study 3 used real stores, i.e. Wal-Mart vs. Target as opposed to the fictional stores used in the first two studies. Across all the studies the common measure of interest was product belief measure, i.e. likeliness that the store has a lower price than the comparison store, i.e. comparative reference. The participants were also measured for their relative attitude towards the store and shopping intentions, and the mediating role of suspicion was also accounted for. The three studies employed 124, 88, and 127 undergraduate student participants respectively.

Barone et al. (2004) revealed that partially comparative pricing can have both positive and negative impacts on the retailer's sale. First, comparative pricing led to favorable price believes for the comparatively price products, and the retailers price overall. However, for non-comparative price products the consumers had non-favorable price believes, i.e. consumer's believed that the retailers were charging them higher for non-comparative priced products. The authors referred to this phenomenon as consumer's suspicion and looked at its mediating role in the corresponding studies.

Barone et al. (2004) found that consumer's suspicion had a strong mediating role in driving consumer's less favorable price belief measures for the non-comparatively priced products in the comparative pricing condition. Along the same line, it was found that participants in the comparative pricing & suspicion condition had lower purchase intentions and lower price belief measures as opposed to participants in the comparative pricing & no suspicion, and non-comparative pricing conditions. This conveyed that it was the consumer's suspicion that determined if a consumer would purchase a non-comparatively priced product in a store that practiced partially comparative pricing. However, the study did not measure the overall price fairness of partially comparative fairness but focused mainly on the consumer's reaction to the unfair procedures.

Even though Barone et al. (2004) looked at the impact of storewide pricing decisions on consumers reactions, and accounted for moderating role of suspicion, also referred to as inferred motives (Campbell, 1999, 2007), they did not directly measure for its impact on dimensions of fairness, or consumer's perceptions of price fairness itself. Accounting for this limitation in the price fairness literature, Kukar-Kinney et al. (2007) conducted a similar research in which they also accounted for the impact of storewide pricing policies on consumer's reactions as mediated through distributive fairness.

Kukar-Kinney et al. (2007) set out to understand the impact of a retailer's price matching policy on perceived distributive fairness and purchase intentions. The gap this research aimed to fulfill was that this was the amongst the few studies that had looked at the impact of a retailers pricing policy as opposed to individual price changes on distributive fairness. The variables that were tested out in the study included refund depth, i.e. price matching vs. beating, retailer's

product assortment, i.e. the availability of retailers products at other stores, and retailers intentions (inferred motive) for price matching/beating policy.

The authors conducted an experimental design approach in which the participants were asked to read a given purchase scenarios regarding the purchase of a DVD player at a consumers electronics store. Study 1 was a 2 (price matching refund policy: present or absent) x 2 (product assortment uniqueness: high [80%] vs. low [20%]), between subjects design study with 144 undergraduate students as participants. Study 2 and 3 both employed a factorial design of 2 (depth of refund: price matching vs. price beating) x 2 (degree of product assortment uniqueness: high vs. low), between subjects experimental design with 229 and 339 undergraduate student participants respectively. The difference between study 2 and 3 was the fact that in study 2 price matching policy was employable on the participants, i.e. had an impact on the price the consumer paid, whereas in study 3 the price matching policy was not employable on participants. The measures of the studies were price policy fairness, distributive fairness, shopping intentions and perceived value of the transaction.

The author's found a direct positive relationship between a store's pricing policy fairness and distributive fairness such that the presence vs. absence of the price matching policy lead to higher vs. lower perceptions of policy fairness. The author's found that when the price matching policy was present, there was a direct relationship between product assortment and the policy fairness such that when the majority of the product assortment was unique (non-unique) the policy fairness was low (high). Moreover, the aforementioned relationship between the assortment uniqueness and the policy fairness was mediated by inferred motive, such that when the inferred motive was positive (negative), the policy fairness was high (low).

According to Kukar-Kinney et al. (2007), refund depth, i.e. price beating vs. matching, had a direct relationship with the policy fairness such that price beating as opposed to price matching led to higher perceptions of the policy fairness. However, this relationship was only meaningful when the consumer's expected to benefit from the refund depth policy. Lastly, perceived value not only had a direct positive relationship with shopping intentions but also positively mediated the impact of distributive fairness on shopping intentions.

Following the direction of Kukar-Kinney et al. (2007), Xia et al. (2010) also decided to look at how a retailers pricing policy may impact consumer's perception of distributive fairness albeit in a different way. The authors combined the concept of distributive fairness and procedural fairness with the feeling of entitlement principle from the social justice literature (not to be confused with the dual entitlement principle by Kahneman et al., (1986). According to Lerner (1987) the entitlement principle claims that individuals are supposed to deserve an outcome depending upon who they are or what they have done (as cited in Xia et al., 2010). Specifically, Xia et al. (2010) accounted for how consumer's non-monetary efforts lead up to their perceptions of promotion fairness and distributive fairness. An interesting part about this research is that it is among the initial research to look at distributive fairness by accounting for their non-monetary contributions through perceived effort.

The authors conducted a series of studies using the experimental design approach. The participants were asked to read and imagine a scenario involving a promotional price offer on a CD/DVD at a retailer. Study 1/3 used a coupon promotion scenario, whereas study 2/4 employed a price-match guarantee scenario. Study 1 and 2 were a 2 (effort level: high vs. low) x 2 (price outcome: granted vs. denied), and employed 90 and 97 college student participants respectively.

Whereas, study 3 and 4 were a single factor between subjects design, (effort level: high vs. medium vs. low), in which all the participants, 186 and 166 students respectively, were denied the promotional price. The participants were measured for distributive fairness, promotion fairness, and inferred motives.

The authors revealed that the consumers efforts to achieve a reduced promotional price, led them to a heightened level of entitlement for the promotion. They argued that this was through the entitlement principle (Lerner, 1987) because higher levels of efforts from the consumers increased their input and they felt it unfair if the outcome they received did not matched up to their inputs. Thus, the authors found that the impact of perceived effort on distributive fairness was dependent upon the fact that whether the consumers were denied or granted the promoted price. Xia et al. (2010) noted that when the participants were denied the promoted price, they perceived the distributive fairness to be less (more) fair when they spent more (less) effort to gain the reduced price. However, when the participants were granted the low price, their effort did not have an impact on their perceptions of distributive fairness.

Moreover, the authors demonstrated that in the condition when the participants were not granted the promoted price, higher perceived effort led to lower inferred motives for price decrease by the retailer and lower fairness perceptions of the promotion tactic. Additionally, the influence of perceived effort and inferred motives on distributive fairness was mediated by promotion fairness. Interestingly, the authors noted that both higher perceived effort by the consumers to obtain the promoted price and their negative inferred motive for price decrease by the retailer led to higher feelings of entitlement for the promoted price. Thus, both promotion fairness and distributive fairness was found to be lower when the promoted price was denied.

This was because of higher feelings of entitlement towards the promoted price. Moreover, lower/negative inferred motives for the promoted price directly led to lower perceptions promotion fairness and distributive fairness.

2.4.5 The Social Dimension and Price Fairness

In their research, Bechwati et al. (2009) highlighted that one crucial dimension of price fairness has its basis in the broader construct called social justice, which classifies how the society is impacted through price fairness, and if societal norms are followed to determine a fair price. Xia et al. (2004) recognized social fairness and social norms as an important precursor to price fairness. They put forward that social norms govern what is considered fair or unfair in economic transactions. Therefore, according to them a good deal may not be considered fair if it fails to fall under the societal norms. Some research that has reviewed this area of price fairness will be discussed in the literature that follows.

Maxwell (2002) presented an important work considering the social dimension of price fairness by introducing the idea of rule based price fairness. The basic ideology behind rule based price fairness was that society is governed by a set of rules and sellers are supposed to follow the distributive and procedural aspects of those rules.

The purpose of the research by Maxwell (2002) was to understand the impact of societal rules of price fairness on consumers purchase intentions. The author presented the idea that whereas a lower price might be considered economically fair, it may not be considered a socially fair price. They conceptualized that individuals have a concern for both themselves and the

society as well. According to the author, in the domain of price fairness the former concern is regarding the personal, economical and instrumental aspect of price, whereas the latter concern is regarding the social fairness of the price. They claimed that the dictionary defines social fairness as being according to the rules, and thus proposed the rule based fairness model. According to the rule based fairness model, the sellers are supposed to follow the rules of price, i.e. distributive fairness, which in turn leads to consumers' perceptions of whether the seller has followed the rules of pricing, i.e. procedural fairness, which in turn impacts their willingness to purchase from the seller. They further argue that the relationship is more powerful if the buyer has an asymmetric power over the seller. The authors hypothesized that a rule based fairness model can successfully predict consumer's behavioral outcomes towards a seller.

Maxwell (2002) conducted an experimental design study based on a survey. Study 1 was a 2 (reference price: same as actual price vs. lower than actual price) x 2 (seller power: normal vs. augmented) with 393 undergraduate student participants. Study 2 was a 3 (reference price: increase/decrease of \$70, same) x 2 (justification: none vs. a common practice in the airline industry) x 2 (information on price practice: no information vs. unfair vs. fair) with 283 college students as participants. The conditions were manipulated using various scenarios involving the purchase of airline tickets. The participants were measured for fair price, fair pricing, and willingness to purchase.

Maxwell (2002) found that the rule based fairness model, conceptually and effectively explained the consumer's purchase intentions as an outcome variable. The authors reported that when the sellers violated the rule based price fairness, the consumer's perception of perceived pricing fairness was low as well, which led to lower purchase intentions.

The author cited that the phenomenon can be explained through the attribution theory, which states that individuals associate reasons for actions by other firms/individuals through inferred motives (Weiner, 1985, 1992; as cited in Campbell, 1999). Thus, when the consumer's found that the price was greater than their reference price, they blamed the higher price on seller on the basis that they did not follow the rules of fair price. Thus, they automatically cited the pricing practice followed to come with the price to be unfair as well. This led to lower purchase intentions. Thus, it was found that it is not only the price fairness that is important but also the process that is used to come up with the price that affects consumer's attitude towards the seller.

Moreover, Maxwell (2002) further tested if the rule based fairness model can be influenced through the asymmetric power between the buyer and the seller. The authors found that when the buyer seller relationship was asymmetric, such that the seller had more power over the buyer, not only was the aforementioned relationship significant but also they had a higher parameter power.

Additionally, the author tried to predict the influence of communicating rule-based pricing process information on consumer's purchase intentions towards the seller. They found that retailer's communication of pricing process and procedures to consumers significantly impacted the consumer's perceived price fairness. Specifically, communicating the price and how it has been determined affects consumers behavioral and psychological attitudes, i.e. perceived price fairness and purchase intentions. This was because when the buyers were informed regarding whether the pricing procedure followed by the seller was fair (unfair) perceived price fairness was high (low). However, informing the consumers that the pricing

procedures followed were the same procedures as followed by other sellers did not seem to impact consumer's price policy fairness perceptions.

Maxwell (2002) took her idea forward to further study the dimension of social justice in the price fairness literature through the lens of conventional research. Maxwell and Comer (2010) was another study where a similar concept was studied. They put forward the idea that both the distributive and procedural fairness is based on social fairness. They theorized that the equity principle in distributive fairness reflects if the social norm of equity has been followed and the procedural fairness governs whether the pricing practice is acceptable according to the societal standards, i.e. does not take advantage of the customers. The authors' primary idea was that there are two aspects to fairness: social and personal. The social aspect is the individuals concern for fairness so that it benefits the society as a whole, in other words the fact that the price follows the current rules and norms of the society. However, the personal aspect is more instrumental in nature.

Maxwell and Comer (2010) borrowed scenarios from Kahneman et al. (1986) and tried to see how the results of the original studies varied if the social aspect and personal aspect of fairness were separated for scenarios involving changes in consumer price, and employee wages. Similar to the study by Kahneman et al. (1986), this research measured the participant's response to each scenario as unfair or fair. The authors noted that the social aspect of fairness significantly varied from the personal aspect of fairness. More importantly, it was noted that the social aspect moderated the impact of personal aspect on perceived price fairness.

Nevertheless, Xia and Monroe (2010) also looked at the social dimension of the fairness albeit in an interesting way. While the past research had mainly focused on how consumers perceived price to be unfair when they paid higher than their reference price (Campbell, 1999, 2007; Homburg et al., 2005), no one had ever tried to look at how paying less than social reference price, i.e. advantage inequity, can also lead to admissions of price unfairness. The authors tried to explain this phenomenon, i.e. advantage inequity, by including the concept of transaction value in their research a concept that will be explained in the following paragraphs.

The participants were introduced to an experimental design study in which they were presented with scenarios involving the purchase of a DVD player. Study 1 was a 3 (price difference: higher, lower, same as the reference) x 3 (comparative reference: other customer, other seller, self) and used 139 undergraduate students as participants. Whereas, Study 2 was a single factor study (price paid: same than reference vs. lower than reference) between subjects design with 51 college students as participants. The participants were measured for perceived price fairness, perceived transaction value, Word of Mouth (WOM) intentions, and shopping intentions.

According to Xia and Monroe (2010), transaction value can be defined as “consumer’s perception of the psychological satisfaction or pleasure from taking advantage of a price deal” (p.1), and is a concept that is closely related to price fairness. Using the aforementioned definition of the transaction value the authors looked at how consumers felt when they had an advantage inequity, i.e. they paid lower than their comparative reference. Over a series of multiple studies the authors found that even though paying a higher than reference price confirms

price unfairness, a similar trend can be found even if consumers pay lower than their reference price.

Xia and Monroe (2010) revealed that participants perceived lower levels of price fairness and lower levels of transaction value when they paid more than their social reference, i.e. a condition of price disadvantaged inequity. However, in the condition of price advantaged inequity, i.e. when the participants paid less than their reference comparison, the participant's perceived lower levels of price fairness but higher levels of transaction value.

Moreover, in condition of advantaged inequity, even though the participants were more pleased as compared to in the case of equality and disadvantaged inequity, they were also angrier. Thus, the author concluded that even though an unfair price due to advantaged inequity may have a higher transaction value, it may lead to lower levels of both purchase intentions and word of mouth recommendations. However, the effect of disadvantaged inequity was stronger than that of advantaged inequity. Hence, the authors concluded that a good deal can also be a consequence to unfair price, depending upon the moderating effect of the transaction value. The author mainly conceptualized the idea, that a good price, as measured by transaction value, is different from a fair price.

Most of the research that measured for the social dimension of fairness has been performed within single cultures. Rarely has anyone ever looked at it from a multi-cultural perspective. Bolton, Keh and Alba (2010) is one such research that tried to look at the social side of a key aspect of price fairness, which is that reference other serves as an important cue for

consumer's perceived price fairness. The purpose of the research was to examine how consumers from independent (US) vs. interdependent (China) cultures do reference price comparisons.

The authors conducted a series of studies using scenario based experimental design approach. Study 1 was a 2 (price comparison: higher vs. lower) x 2 (referent: in-group, i.e. friend vs. out-group, i.e. stranger) x 2 (culture: Chinese vs. U.S.) between subjects design with 334 undergraduate students as participants from US and China. Study 2 and 3 was a 3 (price comparison: higher vs. lower vs. equal) x 2 (referent: in-group, i.e. friend vs. out-group, i.e. stranger) x 2 (prime: interdependent vs. independent self-construal). Study 2 used 188 undergraduate participants from US, whereas study 3 employed 270 undergraduate student respondents from US and China. The participants were measured for the emotion of shame, fairness perceptions and purchase intentions.

Bolton et al. (2010) revealed that Chinese consumers (collectivist) as opposed to US consumers (individualistic) were more influenced by in-group comparisons vs. out-group price comparisons. The authors found that Chinese consumers have lower perceptions of price fairness when they pay more than their friend vs. a stranger. However, when US consumers pays more than a reference consumer their perceived price fairness remains the same regardless of whether the reference consumers is a friend vs. a stranger. Bolton et al. (2010) conceptualized this difference as perceived by Chinese vs. US consumers in the fact that one belongs to an interdependent culture, while the other belongs to an individualistic culture. The authors explained this phenomenon on the basis that collectivist cultures are more focused about their "face" (social status) and in-group comparisons influenced their social status.

To further prove the psychological process and reasoning behind their findings the author used participants from US but primed them for interdependent vs. independent self-construal. The authors reported similar findings as when the participants were Chinese and Americans for interdependent vs. independent self-construal primed participants.

Furthermore, the conceptualization behind the tested phenomenon was that fact that Chinese consumers felt a sense of shame, and lower “face” (social status) when they paid more than their friend vs. a stranger, and this sense of shame led to lower perceived price fairness evaluations when the comparison was made with a friend vs. a stranger. However, no such heightened level of sense of shame was found in US consumers when they paid more than friends or strangers. However, for US consumer’s anger as opposed to shame mediated the impact of higher price on perceived price fairness. Finally, the authors concluded that a lower perceived price fairness led to lower repurchase intentions.

2.4.6 The Fairness Dimensions as Antecedents to Price Fairness

In their research Martin et al. (2009) identified an important limitation to the price fairness literature. The authors identified that most of the research in the price fairness literature had measured perceived price fairness from a global perspective (Campbell, 1999, 2007; Homburg 2005; Maxwell 2002) and rarely did anyone had measured the distributive and procedural dimensions as separate constructs leading to perceived price fairness.

A seminal work in this direction was done by Katyal et al. (2019) who defined price (un)fairness as a second order construct to the four dimension of fairness, i.e. distributive,

procedural, interactional, informational. First, according to authors price fairness has two facets, price fairness and price unfairness and thus have referred the concept as price (un)fairness instead of the commonly used high or low perceived price fairness. The idea was followed from Xia et al. (2004) who also suggested that price fairness and unfairness are two separate constructs. Katyal et al. (2019) argued that in the prior literature pleasant and unpleasant feelings have been treated as two separate constructs. They cited Babin and Griffin (1998) as an example of this who argued that not only satisfaction and dis-satisfaction are two separate constructs but also one is independent from the other. Accordingly, Katyal et al. (2019) pointed out that fairness and unfairness cannot co-exist and defined them as two separate constructs. According to them, for a price to be fair it should rank fair on the four dimensions of fairness. However, a price will be considered unfair if it does not rank fair on any one of the four dimension of fairness. Moreover, they found that in case of product price unfairness, distributive as opposed to procedural has a greater impact on perceived price unfairness. However, in case of service price (un)fairness no such difference was found.

Another meaningful study to directly report the impact of fairness dimensions on various antecedents and consequence to price fairness was done by Martin et al. (2009) who set out to study how consumer's loyalty and reason's for price increase by the firm (justifiable, non-justifiable, no reason) were linked with the consumer's perception of price fairness in case of a high vs. low price increase. The past research had only looked at how generic (price increase and/or price decrease) as opposed to specific, i.e. high vs. low price increase impacted consumer's fairness perceptions.

The authors conducted a single study using a 2 (loyal vs. non-loyal customers) x 2 (price increase: high vs. low) x 3 (reason offered: none, justifiable, non-justifiable) between subjects experimental design and had 545 convenience sample respondents. The participants were required to imagine a scenario about dining in a fictional restaurant. The participants were measured for perceived price fairness, distributive fairness and procedural fairness.

Martin et al. (2009) found that when the consumer's loyalty was high, a lower price increase was perceived as fairer by loyal as opposed to non-loyal customers. However, no such significant relationship between loyal vs. non loyal customers was found when the price increase was high, and the higher price increase was considered unfair by both the groups. Regardless, loyal customers showed higher post price increase loyalty independent of the level of price increase.

Moreover, the author's reported that when the price increase was low, justifiable as opposed to non-justifiable reasons for price increase offered by the firm led to higher (lower) perceptions of price fairness. However, when the price increase was high, it was perceived as more fair (less fair) when firms offered justifiable or non-justifiable reasons (no reasons). Thus, in case of high price increase the firm faced more positive consumer reactions when it offered any reason (justifiable or non-justifiable) as opposed to no reason at all. The author's further extended the study by looking at how the level of price increase, type of reasons offered, and post customer loyalty were linked to the distributive and procedural dimensions of fairness.

Distributive fairness as opposed to procedural fairness had a stronger link with post customer loyalty when the price increase was low (high) and justifiable reasons (non-justifiable)

reasons were offered by the firm. However, procedural fairness as opposed to distributive fairness had a stronger link with post customer loyalty when the price increase was high and justifiable reasons were offered by the firm.

A similar concept was followed by Nguyen and Meng (2013) who also attempted to directly measure the fairness dimension and their impact on various consequences to price fairness. When most of the previous research on price fairness had focused on the procedural fairness as an antecedent to distributive fairness, Nguyen and Meng (2013) moved ahead to determine how procedural fairness can directly contribute towards consumer's actions in response to higher and lower price fairness. The purpose of this research was to look into how procedural fairness directly impacted consumer's behavioral and attitudinal actions towards the consequences price fairness, i.e. repurchase intentions, satisfaction, and WOM.

The authors used a scenario based experimental design approach. Participants were asked to imagine a scenario involving the use of hotel services. The study was a 2 preferential pricing practices (offering lower price to frequent customers vs. to an employee's friends) and magnitude of price difference [low (10 %) vs. high (30 %)]. Study 1 used 108 university students as participants. Study 2 and 3 were similar to study 1, but used a different scale to measure procedural fairness, whereas Study 3 used 155 convenience sample respondents. The participants were measured for distributive fairness, procedural fairness, satisfaction; repurchase intentions and WOM as the dependent variables.

The authors found that the impact of procedural fairness was not only limited to as an antecedent to distributive fairness as it is justified in the literature. The author's concluded that

procedural fairness directly and significantly impacted consumer's response to price fairness, i.e. Word of Mouth, satisfaction and repurchase intentions.

Moreover, Nguyen and Meng (2013) found that when information regarding the distributive fairness and procedural fairness was available clearly and simultaneously, procedural fairness had a greater and stronger effect than distributive fairness on consumer's responses, i.e. WOM, satisfaction, and repurchase intentions. Additionally, the authors figured out that procedural fairness mediated the impact of pricing practices on consumer's response, i.e. WOM, satisfaction and repurchase intentions. Lastly, the authors noted that a model with both procedural and distributive fairness had a higher explanatory power than a model with distributive fairness only.

A limitation to the study by Nguyen and Meng (2013) was that they did not look into how procedural fairness directly impacted consumer's perception of price fairness. This gap was fulfilled by Ferguson et al. (2014) who looked how distributive fairness, procedural fairness and their interaction impacted consumer's perceptions of price fairness.

The authors conducted two studies using scenario based experimental design approach. The scenario involved the purchase of a HDTV, which had a market average price of 1250. The first study was a 2 (distributive fairness: high [USD 250 above market average price] vs. low [USD 250 below market average price]) x 2 (procedural fairness: high [cost-plus pricing] vs. low [random pricing]). Study 2 was similar to study 1, however the mediating role of suspicion was also accounted for in the second study. Study 1 employed 144 participants from a Qualtrics panel, whereas study 2 employed 424 participants from Amazon Mechanical Turk (MTurk).

The authors found that high vs. low distributive and procedural fairness led to high vs. low perceptions of price fairness. Additionally, the interaction effect of distributive and procedural fairness was found such that perceived price fairness was highest when both the distributive and procedural fairness was high. Moreover, the relationship between procedural fairness and perceived price fairness was mediated by suspicion only when the distributive fairness was high but not when it was low. Lastly, perceived price fairness followed an inverse relationship with negative word of mouth intentions

2.5 Research Summary and Gap Identification

The pricing literature does not have a central definition of price fairness in the academic literature due to which there is no central measurement criterion for the measure of price fairness itself. Some authors have measured price fairness as a single item construct of fairness itself (Campbell, 1999, 2007) whereas others have used a multi-item construct of a combination of the following items, (un)fair, (un)reasonable, (un)acceptable, (un)just (Ferguson et al., 2014; Kukar-Kinney et al., 2007; Xia & Monroe, 2010; Xia et al., 2010; Vaidyanathan & Aggarwal, 2003). Even though the definitions of price fairness has used reasonable, acceptable, and just as items to measure price fairness (Bolton et al., 2003; Xia et al., 2004), the representation of the items is not found when measuring price fairness in the literature. The challenge and gap concerns, without well-defined concept of price fairness, researchers, consumers, and managers might be using the same concept in many different ways. Thus, following the definition of price fairness from Bolton et al. (2003) and Xia et al. (2004) we propose to measure price fairness as a multi-item construct of just, reasonable and acceptable.

Price fairness literature can be traced back to the research by Kahneman et al. (1986), which proposed the dual entitlement principle (DE), which states that sellers are entitled to a reference profit, and buyers are entitled to a reference price. Bolton and Alba (2006) argued that the dual entitlement principle had a limitation such that the price increase was deemed fair only when it was alignable to the product/service offering. Moreover, Campbell (1999) extended the principal of dual entitlement by proposing the inferred motive construct on the basis of attribution theory (Weiner, 1985, 1992), which states that consumers allot reason to unexpected and especially unexpected and negative (as cited in Campbell, 1999).

In their overview of the pricing literature, Xia et al. (2004) reported social fairness as an important antecedent to price fairness. Similarly, Bechwati et al. (2009) identified that consumers were interested not only in the economic aspect of the price fairness, but also in the social aspect of the price fairness, i.e. the impact of price change on the society as a whole. Maxwell (2002) formalized this idea through a proposition of the rule based fairness model, which governs that an organization that follows the rule of price is perceived to follow the rules of fair price, which leads to higher perceptions of price fairness. In another study, Maxwell and Comer (2005) found that the social fairness moderated the impact of economic fairness on price fairness.

Moving onwards, both the service literature and the organizational sciences literature have defined fairness as a consequence to the dimensions of fairness, i.e. distributive, procedural, interpersonal and informational (Beugre & Baron, 2001; Blodgett et al., 1997; Carr, 2007; Colquitt, 2001). In the price fairness literature, Katyal et al. (2019) defined price (un) fairness as two separate constructs, i.e. price fairness and price (un)fairness, and conceptualized price

(un)fairness as a second order construct to price (un)fairness. However, they did not manipulate the participants for the conditions of price (un)fairness in a consistent manner, as they asked the participants to imagine scenarios of price (un)fairness. Furthermore, the participants were not measured for price (un)fairness itself, and the scales used for fairness dimensions have limited face validity; both of these might have led to inconsistent results in the research. Similarly, Ferguson et al. (2014) reported that distributive fairness, procedural fairness and their interaction had a positive relationship with perceived price fairness. However, they did not perform manipulation check on the participants for distributive fairness, nor did they provide adequate justifications for using random pricing as a manipulation for low procedural fairness as a realistic marketing practice. Similarly, other research made attempts to understand how the dimensions of fairness can determine outcomes to price fairness, i.e. shopping intentions, word of mouth intentions, satisfaction, and loyalty (Kukar-Kinney et al. 2007; Martin et al., 2009; Nguyen & Meng, 2013; Xia & Monroe, 2010). However, no one tried to look at how the dimension of price fairness can interact with each other to impact consumer's repurchase intentions and how overall price fairness can mediate the relationship. Thus, the following research will cater to the identified shortcoming in the price fairness literature, along with the defined measurement scale for price fairness (Fig. 1).

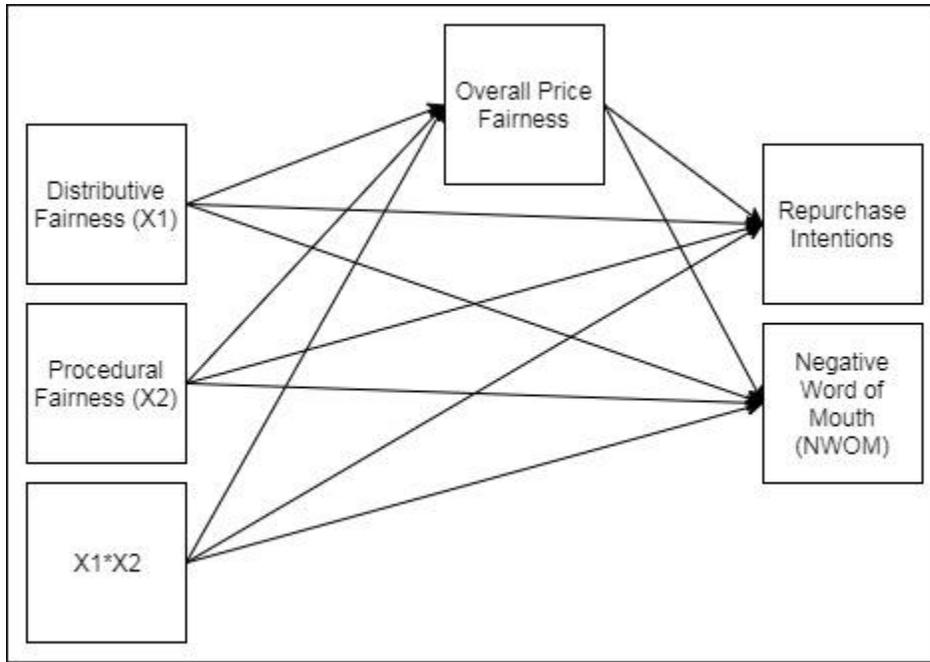


Figure 2: Conceptual Model

3 Hypothesis

3.1 Price Fairness: A Consequent to the Fairness Dimensions

Several researches in the past have indirectly or directly reflected over how the dimension of price fairness, i.e. distributive, procedural, interactional (interpersonal and informational), impact price fairness and price fairness outcomes. Ferguson et al. (2014) demonstrated that distributive and procedural fairness led to overall price fairness. Katyal et al. (2019) defined price fairness as a second order construct to the four dimensions of fairness, i.e. distributive, procedural, interpersonal and informational.

Similar conceptualizations to fairness can be noted in the literature on service fairness and organizational sciences as well. In the service literature, Blodgett et al. (1997) noted that distributive fairness and interactional fairness had a significant main effect on participants repurchase and WOM intentions. Along the same lines, Carr (2007) conceptualized that a model that incorporated that four dimensions of fairness along with the service quality measures was better at predicting overall service fairness as opposed to the model that only accounted for the service quality measures.

Similarly, in the organizational sciences literature Beugre and Baron (2001) put forward that procedural fairness and interactional fairness had a direct significant relationship with overall organizational fairness. Whereas, Colquitt (2001) noted that a model with the four dimensions of fairness had higher predictive validity for fairness outcomes than a model with less than the four dimensions.

For this study we are conceptualizing a similar idea forward in the marketing domain of price (un)fairness literature.

H1a: A high distributive fairness will lead to higher repurchase intentions as opposed to a low distributive fairness.

H1b: A high distributive fairness will lead to lower negative word of mouth intentions as opposed to a low distributive fairness.

H2a: A high procedural fairness will lead to higher repurchase intentions as opposed to a low procedural fairness.

H2b: A high procedural fairness will lead to lower negative word of mouth intentions as opposed to a lower procedural fairness.

H3a: A condition in which both distributive and procedural fairness are high will lead to higher repurchase intentions as opposed to a situation in which at least one of the dimensions is unfair.

H3b: A condition in which both distributive and procedural fairness are high will lead to higher repurchase intentions as opposed to a situation in which at least one of the dimensions is unfair.

H4a: The relationship between distributive and procedural fairness, and repurchase intentions will be mediated by overall price fairness.

H4b: The relationship between distributive and procedural fairness and negative word of mouth will be mediated by overall price fairness

4 Pre-Test Methodology

Prior to the main study a pre-test was conducted. The purpose of the pre-test was to identify scenarios that will effectively manipulate participants for high and low conditions of distributive and procedural fairness.

4.1 Participants

A total of 40 participants were selected for their participation in the pre-tests. The participants were students from the University of Guelph in Ontario, Canada and were recruited through SONA using a convenience sample. The study was conducted using an online survey via the Qualtrics platform. The students were awarded 2% in course credits in exchange for their participation in the study.

4.2 Procedure

The participants were presented with a consent form at the start of the study; those who consented were asked to read and imagine scenarios involving the purchase of a cell phone. The selection of this product was made on the basis of its high familiarity with students. The scenarios manipulated the participants for high and low conditions of distributive and procedural fairness. After the participants read the scenarios they were asked whether the situation represented in the scenario was acceptable or not. The respondents indicated their response to the question on a single item scale as a “Yes” or a “No”. The methodology was similar to the one used by Kahneman et al. (1986) and Maxwell and Comer (2010). After the study was over the participants were debriefed and were thanked for their participation in the study.

4.3 Pre-Test Analysis and Results

From a total of 40 participants, 10 of the participants submitted an incomplete response and thus were excluded from the study. The following paragraphs show the results of the study from the remaining 30 participants.

In order to manipulate distributive fairness participants were presented with high and low levels of price differentials between the price the participants paid and the reference price. The manipulation was adopted from the literature in which the participants were manipulated for high and low levels of distributive fairness in a similar fashion (Ferguson et al., 2014; Nguyen & Meng, 2013; Xia & Monroe, 2010).

As per distributive fairness, it was observed that paying \$1 and \$5 higher than the reference price was perceived to be acceptable by majority of the participants, i.e. 77% and 73% respectively. However, paying \$25, \$50, and \$75 was perceived to be not acceptable by 53%, 80% and 87% respectively.

In order to manipulate procedural fairness, participants were presented with various (un)fair pricing practices as adopted from the literature, which manipulated the participants for high/low levels of procedural fairness (Ferguson et al., 2014; Kahneman et al., 1986; Kukar-Kinney et al., 2007; Nguyen & Meng, 2013; Xia & Monroe, 2010; Xia et al., 2010).

As per procedural fairness, as recommended by Nguyen & Meng (2013), receiving discount because one is a friend of the sales representative was considered not acceptable by majority (67%) of the students. However, receiving discount for being a frequent customer through the store's loyalty program was perceived to be acceptable by (93%) of the participants.

Apart from this, majority of the students reported price gouging (60%), random pricing (87%), variable pricing (87%), and denial for price matching (80%) and price beating (80%) to be not acceptable.

Moreover, majority of the students reported that cost-plus pricing (90%), coupon discounts (90%), bulk/quantity discount (70%), holiday sale discount (83%) were acceptable as pricing policies.

From the results a difference of \$5 and \$50 will be used to manipulate situations of high and low distributive fairness in the final study. Whereas, from the results of the pre-test and Nguyen and Meng (2013), discounts through loyalty programs vs. discounts for being friend of the sales representative will be used to manipulate high vs. low conditions of procedural fairness in the final study.

5 Main Study Methodology

5.1 Design

The research will use a between subjects experimental design approach. It will be a 2 (distributive fairness: high vs. low) x 2 (procedural fairness: high vs. low) between subjects factorial design. A between subjects design was followed by allocating each participant to one of the following situation: high distributive and high procedural fairness, high distributive and low procedural fairness, low distributive fairness and high procedural fairness, and low distributive and low procedural fairness.

The participants were measured for their perceptions of overall price fairness for the given situation/scenario. Additionally, the participants were also measured for their repurchase intentions as the final dependent variable.

5.2 Participants

The study recruited participants using University of Guelph's SONA, the university's data collection platform. The participants were provided 2% course credit according to the university's policy.

A sample size of 201 participants (based on G*Power) were recruited for the study. The sample size was on the basis of an alpha value of $p < 0.05$, a medium effect size of 0.25, and a power of 0.80 (Faul, Erdfelder, Lang & Buchner, 2007). According to Cohen (1992), a power of 0.80 is a standard power in social sciences research. According to G*Power the minimum required participants for the study were 128. Collecting 201 respondents provided the threshold to account for incomplete responses.

The following will be the mathematical equation for the study:

$$y_i = b_0 + b_1 \textit{Distributive} + b_2 \textit{Procedural} + b_3 \textit{Distributive} * \textit{Procedural} + \textit{Error}$$

Where, b_1, b_2 and $b_3 \neq 0$

5.3 Stimuli

The following stimuli were presented to the participants on the basis of the results of the pre-test and past literature:

“You bought a cell phone. You later found out that your friend bought the same product for \$5 [\$50] less from the same/competitor’s store. Upon inquiry you found out that the other person received a lower price through the stores loyalty program for being a frequent customer [received a lower price for being a friend of the sales representative]” (Nguyen & Meng, 2013, p. 534)

A 2x2 between subjects design was followed by presenting the aforementioned scenario, which presented participants with high/low conditions of distributive and procedural fairness simultaneously.

5.4 Procedure

To participate in the study participants were required to read and agree to the informed consent upon which they were presented with online study. After the participants are done with the experiment they were thanked and provided with a debriefing form.

For the study participants were equally divided into four groups by Qualtrics. Each group received one of the following conditions: high distributive and high procedural fairness, high distributive and low procedural fairness, low distributive fairness and high procedural fairness, and low distributive and low procedural fairness. The participants were distributed across conditions in a random manner.

After the participants were divided in groups, they were presented with a written scenario that manipulated them according to the condition/group they were in. Participants were measured for distributive fairness, procedural fairness, overall price fairness, re-purchase intentions and negative word of mouth intentions (NWOM) using surveys from the existing literature.

Overall price fairness was measured as a multi-item construct as represented in Ferguson et al. (2014). The scale is a three item construct ranging from -3 (strongly disagree) to +3 (strongly agree), has a reliability of $r=0.88$ and asks the following question “All things considered, the price you paid for the product is just/reasonable/acceptable” (p. 223). Distributive fairness was measured as a multi-item construct as represented in Gultinan (2006). The scale is a three item construct ranging from -3 (strongly disagree) to +3 (strongly agree), has a reliability of $r=0.78$ and asks the following question, “the higher price you paid compared with your friend is reasonable, the lower price that your friend paid is justifiable, and the difference between the you paid compared with your friend is acceptable” (p. 372). Procedural fairness was measured as a multi-item construct as represented in Nguyen and Meng (2013). The scale is a three item construct ranging from -3 (strongly disagree) to +3 (strongly agree), has a reliability of $r=0.95$ and asks the following question, “I believe the price discount practice by the store is just/reasonable/acceptable” (p. 535) Lastly, negative word of mouth intentions (NWOM) was measured as a multi-item construct as represented in Ferguson et al. (2014). The scale is a three item construct ranging from -3 (strongly disagree) to +3 (strongly agree), has a reliability of $r=0.57$ and asks the following question, “I would make negative comments to friends or family members about the seller, I would post negative online reviews about the seller” (p. 223).

6 Analysis and Results

6.1 Descriptive Statistics

The study had a total of 201 responses out of which 45 responses were removed due to incorrect data, i.e. missing response and/or failed manipulation check. The final responses used for the study totaled up to 156 responses. Table 1 show that there were 81 and 75 participants in the low and high conditions of distributive fairness respectively. Moreover, there were 77 and 79 participants in low and high conditions of procedural fairness respectively. Additionally, demonstrates that across the four experimental conditions, high distributive fairness & high procedural fairness had 36 participants, high distributive fairness & low procedural fairness had 39 participants, low distributive fairness & high procedural fairness had 43 participants and low distributive fairness & low procedural fairness had 38 participants.

Table 1: Descriptive

Treatment	Participants	Total
High Distributive Fairness	75	
Low Distributive Fairness	81	
Total Distributive Fairness		156
High Procedural Fairness	79	
Low Procedural Fairness	77	
Total Procedural Fairness		156
High Distributive & High Procedural Fairness	36	
High Distributive & Low Procedural Fairness	39	
Low Distributive & High Procedural Fairness	43	
Low Distributive & Low Procedural Fairness	38	
Total across the four treatment conditions		156
Missing/Incorrect Data	45	
Total Response	156+45	201

6.2 Manipulation Analysis

6.2.1 ANOVA Assumptions for Manipulation Analysis

In order to conduct ANOVA analysis several assumptions were required. The assumptions included, (1) continuous dependent variable, (2) independence of observations, (3) normality of error variances, and (4) homogeneity of residuals. The first two assumptions are met since the dependent variables are continuous and the experiment is a between subjects design. However, the assumption of normality of error variances was not met. According to Field (2013), ANOVA is a robust test and the analysis may be carried out even if the assumptions of normality and homogeneity of residuals is not met if there are equal number of participants in a between subjects design. Since, the study has fairly equal number of participants across conditions, an ANOVA analysis was performed.

6.2.2 Manipulation Analysis Results

ANOVA analysis revealed that the high vs. low difference in price comparisons had a significant effect on the measurement on distributive fairness, [$F(1, 154) = 4.26, p < 0.05$]. However, the average difference between the high ($M=4.88, SD=1.45$) and low ($M=4.34, SD=1.75$) conditions of distributive fairness was fairly small. Surprisingly, procedural fairness had a significant effect on the distributive fairness, [$F(1, 154) = 21.46, p < 0.01$], suggesting a confounding effect of procedural fairness on distributive fairness.

ANOVA analysis showed that the high vs. low conditions of fair pricing policies, i.e. having discount due to the store's loyalty program vs. having discount because of being friend of

a sales representatives, had a significant effect on the measurement of procedural fairness, [$F(1, 154) = 39.71, p < 0.01$]. The mean difference between the high ($M = 5.50, SD = 1.27$) and low ($M = 3.98, SD = 1.71$) conditions of procedural fairness was considerable. As expected, the impact of distributive fairness on procedural fairness was not significant [$F(1, 154) = 0.58, p = 0.44$].

6.2.3 ANOVA Assumptions for the Main Study

In order to conduct ANOVA analysis several assumptions were required to be met. The assumptions included, (1) continuous dependent variable, (2) independence of observations, (3) normality of error variances, and (4) homogeneity of residuals. The first two assumptions are met since the dependent variables are continuous and the experiment is a between subjects design. However, the assumption of normality of error variances was not met for both the repurchase intentions and NWOM. However, the assumption of homogeneity of residuals was met for repurchase intentions but not for NWOM. According to Field (2013), ANOVA is a robust test and the analysis may be carried out even if the assumptions of normality and homogeneity of residuals is not met if there are equal number of participants in a between subjects design. Since, the study has fairly equal number of participants across conditions an ANOVA analysis was performed. Furthermore, a path analysis using the LAVAAN package in R was also performed for mediation analysis (section 5.2.6), which provided further evidence to the ANOVA results.

6.2.4 ANOVA Analysis for the Main Study

6.2.4.1 ANOVA Analysis with Repurchase Intentions as the Dependent Variable

The main analysis revealed that distributive fairness (DFC) had a significant main effect on repurchase intentions [$F(1, 152) = 5.27, p < 0.05$]. As expected repurchase intentions were higher for high distributive fairness ($M=4.72, SD= 1.49$) in comparison to the condition of low distributive fairness ($M=4.18, SD=1.71$). Thus, support for hypothesis 1a was found.

Similarly, procedural fairness (PFC) also had a significant main effect on repurchase intentions [$F(1, 152) = 8.32, p < 0.01$]. As expected the repurchase intentions was higher for high procedural fairness ($M=4.79, SD= 1.52$) in comparison to the condition of low procedural fairness ($M=4.09, SD=1.66$). Thus, support for hypothesis 2a was found.

However, the interaction effect of distributive and procedural fairness on repurchase intentions was not significant [$F(1, 152) = 0.037, p=0.84$]. Thus, support for hypothesis 3a was not found. However, the condition in which both the conditions were high had a greater impact on repurchase intentions ($M=5.08, SD=1.30$) as opposed to a case in which both the conditions were low ($M=3.77, SD=1.69$). Table 2 and figure 3 present the summary of results.

Table 2: Repurchase Intentions Descriptive

Descriptive Statistics				
Dependent Variable: Repurchase Intentions				
DFC	PFC	Mean	Std. Deviation	N
Low DFC	Low PFC	3.77	1.69	38
	High PFC	4.55	1.66	43
	Total	4.18	1.71	81
High DFC	Low PFC	4.40	1.59	39
	High PFC	5.08	1.30	36
	Total	4.72	1.49	75
Total	Low PFC	4.09	1.66	77
	High PFC	4.79	1.52	79
	Total	4.44	1.62	156

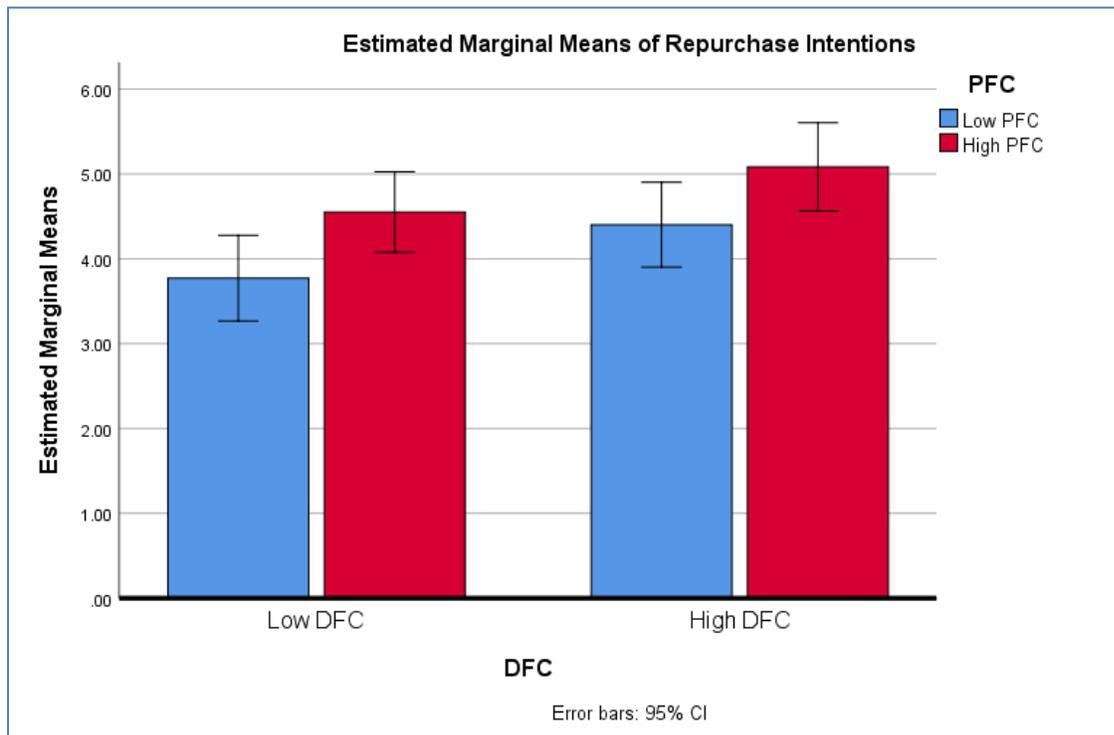


Figure 3: Repurchase Intentions Bar Chart

6.2.4.2 ANOVA Analysis with Negative Word of Mouth intentions (NWOM) as the Dependent Variable

Similar analysis was performed with negative word of mouth intentions (NWOM) as the dependent variable. ANOVA analysis revealed that distributive fairness had a significant main effect on NWOM [$F(1, 152) = 5.45, p < 0.05$]. As expected NWOM was lower for high distributive fairness ($M=2.16, SD= 1.08$) in comparison to the condition of high distributive fairness ($M=2.61, SD=1.37$). Thus, support for hypothesis 1b was found.

However, procedural fairness only had a marginally significant main effect on NWOM [$F(1, 152) = 3.43, p < 0.10$]. As expected NWOM was lower for high procedural fairness ($M=2.22, SD= 1.19$) in comparison to the condition of low procedural fairness ($M=2.57, SD=1.30$). Thus, support for hypothesis 2b was not found.

However, the interaction effect of distributive and procedural fairness on NWOM was not significant [$F(1, 152) = 0.001, p=0.97$]. Thus, support for hypothesis 3b was not found. However, the condition in which both the conditions were high had a lower measurement on NWOM ($M=1.97, SD=0.90$) as opposed to a case in which both the conditions were low ($M=2.80, SD=1.37$). Table 3 and figure 4 show the summary of results.

Table 3: NWOM Descriptive

Descriptive Statistics				
Dependent Variable: NWOM				
DFC	PFC	Mean	Std. Deviation	N
Low DFC	Low PFC	2.8	1.37	38
	High PFC	2.44	1.36	43
	Total	2.61	1.37	81
High DFC	Low PFC	2.34	1.2	39
	High PFC	1.97	0.9	36
	Total	2.16	1.08	75
Total	Low PFC	2.57	1.3	77
	High PFC	2.22	1.19	79
	Total	2.39	1.25	156

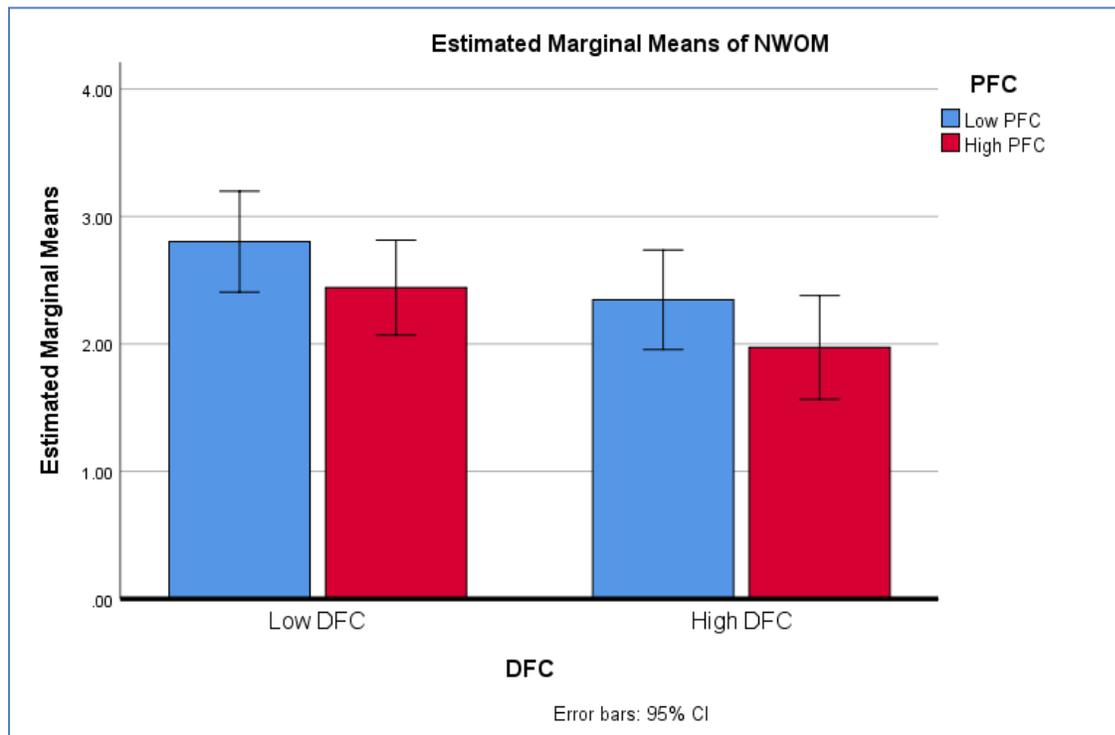


Figure 4: NWOM Bar Chart

6.2.5 Additional Analysis

Although not hypothesized, an ANOVA analysis was also performed with overall price fairness (OPF) as the dependent variable. ANOVA analysis revealed that distributive fairness had a significant main effect on overall price fairness [$F(1, 152) = 11.33, p < 0.01$]. As expected overall price fairness was higher for high distributive fairness ($M=5.39, SD=0.99$) in comparison to the condition of low distributive fairness ($M=4.72, SD=1.47$).

Surprisingly, procedural fairness did not have a significant main effect on overall price fairness [$F(1, 151) = 1.27, p=0.26$]. As expected overall price fairness was higher for high procedural fairness ($M=5.13, SD=1.31$) in comparison to the condition of low procedural fairness ($M=4.94, SD=1.30$).

Moreover, the interaction effect of distributive and procedural fairness on overall price fairness was not significant [$F(1, 152) = 0.30, p=0.58$]. However, the condition in which both the conditions were high had a higher measurement on overall price fairness ($M=5.57, SD=0.82$) as opposed to a case in which both the conditions were low ($M=4.65, SD=1.43$). Table 4 and figure 5 show the summary of results.

Table 4: Overall Price Fairness Descriptive

Descriptive Statistics				
Dependent Variable: Overall Price Fairness				
DFC	PFC	Mean	Std. Deviation	N
Low DFC	Low PFC	4.65	1.43	38
	High PFC	4.77	1.53	43
	Total	4.72	1.47	81
High DFC	Low PFC	5.23	1.1	39
	High PFC	5.57	0.82	36
	Total	5.39	0.99	75
Total	Low PFC	4.94	1.3	77
	High PFC	5.13	1.31	79
	Total	5.04	1.3	156

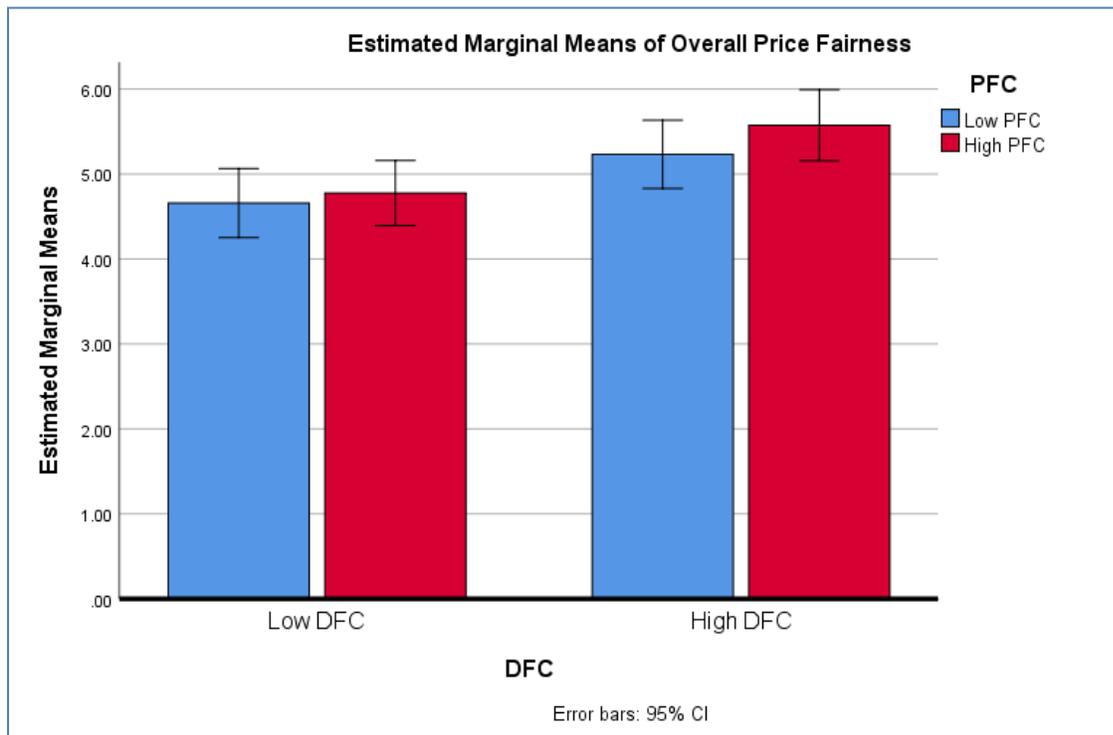


Figure 5: Overall Price Fairness Bar Chart

6.2.6 Regressions Assumptions for Mediation Analysis

In order to run the mediation analysis the assumptions for regressions were tested first. The assumptions included (1) linearity, (2) multi-collinearity, (3) normality of error variances (4) homogeneity of error variances, and (5) independence of residuals.

All the assumptions were met for both the dependent variables, i.e. NWOM and repurchase intentions. The Durbin-Watson test value of 2 revealed that the assumption of independence of residuals was satisfied. Collinearity diagnostics demonstrated a VIF value of 1, thus the assumption of multi-collinearity was also satisfied. The assumption of normality was satisfied as the error variances had a normal curve. Lastly, the scatter plot of standardized residuals to standardized predicted value demonstrated that the assumption of linearity and homogeneity of variances was satisfied.

6.2.7 Mediation Analysis

In order to test hypothesis 4a/4b, i.e. overall price fairness mediates the relationship between distributive and procedural fairness, and repurchase intentions/negative word of mouth, a path analysis was performed using the LAVAAN package in R. The code used for the analysis was adopted from Bauer and Curran (2019) and Kamranfard (2018), and is provided in Appendix D.

6.2.7.1 Mediation Analysis with Repurchase Intentions (RI) as the Dependent Variable

The first model included repurchase intentions (RI) as the dependent variable, overall price fairness (OPF) as the mediator, and distributive fairness (DFC), procedural fairness (PFC) and their interaction (INT_DFPCFC) as the independent variables. A summary of the results is provided at the end of the section in table2, and is explained in the coming paragraphs.

The analysis revealed that distributive fairness significantly led to overall price fairness ($B=0.34$, $se=0.10$, $p<0.01$, $CI= [0.15, 0.53]$), and the path from overall price fairness to repurchase intentions was significant as well ($B=0.73$, $se=0.07$, $p<0.01$, $CI [0.58, 0.86]$). Before adding the mediator, the direct path from distributive fairness to repurchase intentions was significant ($B=0.29$, $se=0.12$, $p<0.05$, $CI [0.05, 0.55]$), however after adding the mediator, overall price fairness, in the model the direct path from distributive fairness to repurchase intentions becomes insignificant ($B=0.03$, $se=0.10$, $p=0.71$, $CI [-0.15, 0.25]$). Moreover, the indirect effect of distributive fairness on repurchase intentions was significant ($B=0.25$, $se=0.07$, $p<0.01$, $CI [0.11, 0.39]$). Thus, overall price fairness mediated the relationship between distributive fairness and repurchase intentions.

Similar mediation analysis was performed with procedural fairness as the independent variable with repurchase intentions as the dependent variable. The analysis demonstrated that procedural fairness did not significantly led to overall price fairness ($B=0.11$, $se=0.09$, $p=0.24$, $CI= [-0.07, 0.31]$), however, the path from overall price fairness to repurchase intentions was significant ($B=0.73$, $se=0.07$, $p<0.01$, $CI [0.58, 0.86]$). Before adding the mediator, the direct path from procedural fairness to repurchase intentions was significant ($B=0.36$, $se=0.12$, $p<0.01$, $CI[0.12, 0.61]$), however after adding the mediator in the model the direct path from procedural

fairness (PFC) to repurchase intentions remained significant but was weakened ($B=0.28$, $se=0.10$, $p<0.01$, CI [0.07, 0.49]). Moreover, the indirect effect of procedural fairness on repurchase intentions was not significant ($B=0.08$, $se=0.07$, $p=0.24$, CI [-0.05, 0.22]). Thus, overall price fairness did not mediate the relationship between procedural fairness and repurchase intentions.

Further mediation analysis was performed with interaction effect of distributive and procedural fairness (INT_DFPC) as the independent variable with repurchase intention as the dependent variable. The analysis demonstrated that the interaction effect did not significantly lead to overall price fairness ($B=0.05$, $se=0.09$, $p=0.56$, CI [-0.15, 0.23]), however, the path from the overall price fairness to repurchase intentions was significant ($B=0.73$, $se=0.07$, $p<0.01$, CI [0.58, 0.86]). Before adding the mediator, the direct path from the interaction effect to Repurchase Intentions was not significant ($B= -0.02$, $se=0.12$, $p=0.85$, CI[-0.28, 0.23]), and after adding the mediator in the model the direct path from the interaction to repurchase intentions remains significant but is weakened ($B= -0.06$, $se=0.10$, $p=0.52$, CI [-0.27, 0.13]). Moreover, the indirect effect of interaction on repurchase intentions was not significant ($B=0.041$, $se=0.07$, $p=0.56$, CI [-0.10, 0.17]). Thus, overall price fairness did not mediate the relationship between the interaction effects and repurchase intentions.

Therefore, overall price fairness completely mediated the relationship between distributive fairness and repurchase intentions. Lastly, it did not mediate the relationship between procedural fairness and the interaction effects and repurchase intentions. Thus, hypothesis 4a was not supported.

Table 5: Mediation Analysis 1 Results

Total Effect (model without mediator)							
DV	IV	est	se	pvalue	ci.lower	ci.upper	
RI	DFC	0.29	0.12	0.02	0.05	0.55	
RI	PFC	0.36	0.12	0.00	0.12	0.61	
RI	INT_DFCPFC	-0.02	0.12	0.85	-0.28	0.23	
Direct Effect (model with mediator)							
RI	DFC	0.03	0.10	0.71	-0.15	0.25	
RI	PFC	0.28	0.10	0.00	0.07	0.49	
RI	INT_DFCPFC	-0.06	0.10	0.52	-0.20	0.13	
Indirect Effect							Mediation
RI	DFC	0.25	0.07	0.00	0.11	0.39	Yes
RI	PFC	0.08	0.07	0.24	-0.05	0.22	No
RI	INT_DFCPFC	0.04	0.07	0.56	-0.10	0.17	No
IV to OPF							
OPF	DFC	0.34	0.09	0.00	0.15	0.53	
OPF	PFC	0.11	0.09	0.24	-0.07	0.31	
OPF	INT_DFCPFC	0.05	0.09	0.56	-0.15	0.23	
OPF to RI							
RI	OPF	0.73	0.07	0.00	0.58	0.86	

6.2.7.2 Mediation Analysis with Negative Word of Mouth as the Dependent Variable

A mediation analysis was also performed with Negative Word of Mouth (NWOM) as the dependent variable and distributive fairness (DFC), procedural fairness (PFC) and their interaction (INT_DFPCFC) as the independent variables with overall price fairness (OPF) as the mediator. A summary of the results is provided in the table3 at the end of the section, the results are being explained in the coming paragraphs.

The analysis revealed the distributive fairness significantly led to overall price fairness ($B=0.34$, $se=0.09$, $p<0.01$, $CI= [0.15, 0.53]$), and the path from overall price fairness to NWOM was significant as well ($B= -0.43$, $se=0.08$, $p<0.01$, $CI [-0.59, -0.26]$). Before adding the mediator, the direct path from distributive fairness to NWOM was significant ($B= -0.23$, $se=0.09$, $p<0.05$, $CI [-0.42, -0.03]$), however after adding the mediator in the model the direct path from distributive fairness to NWOM became insignificant ($B= -0.08$, $se=0.09$, $p=0.36$, $CI [-0.26, 0.09]$). Moreover, the indirect effect of distributive fairness on NWOM was significant ($B=-0.14$, $se=0.04$, $p<0.01$, $CI [-0.24, -0.06]$). Thus, overall price fairness mediated the relationship between distributive fairness and NWOM.

Similar mediation analysis was performed with procedural fairness as the independent variable with NWOM as the dependent variable. The analysis demonstrated that procedural fairness did not significantly led to overall price fairness ($B=0.11$, $se=0.09$, $p=0.24$, $CI= [-0.07, 0.31]$), and the path from overall price fairness to NWOM was significant ($B=-0.43$, $se=0.08$, $p<0.01$, $CI [-0.59, -0.26]$). Before adding the mediator, the direct path from procedural fairness to NWOM was only marginally significant ($B= -0.18$, $se=0.09$, $p<0.10$, $CI [-0.36, 0.09]$),

however after adding the mediator in the model the direct path from procedural fairness to NWOM becomes insignificant ($B = -0.13$, $se = 0.08$, $p = 0.13$, $CI [-0.30, 0.03]$). Moreover, the indirect effect of procedural fairness on NWOM was not significant ($B = -0.05$, $se = 0.04$, $p = 0.25$, $CI [-0.13, 0.03]$). Thus, overall price fairness did not mediate the relationship between procedural fairness and NWOM.

Further analysis was performed with interaction effect of distributive and procedural fairness (INT_DFCPFC) as the independent variable and NWOM as the dependent variable. The analysis demonstrated that the interaction effect did not significantly led to overall price fairness ($B = 0.05$, $se = 0.09$, $p = 0.56$, $CI = [-0.15, 0.23]$), however, the path from the overall price fairness NWOM was significant ($B = -0.43$, $se = 0.08$, $p < 0.01$, $CI [-0.59, -0.26]$). Before adding the mediator, the direct path from the interaction effect to NWOM was not significant ($B = -0.003$, $se = 0.09$, $p = 0.97$, $CI [-0.19, 0.19]$). Surprisingly, after adding the mediator in the model the direct path from the interaction to NWOM not only remained insignificant but become stronger ($B = 0.021$, $se = 0.08$, $p = 0.80$, $CI [-0.14, 0.19]$). Moreover, the indirect effect of interaction on NWOM was not significant ($B = -0.025$, $se = 0.04$, $p = 0.58$, $CI [-0.12, 0.058]$). Thus, overall price fairness did not mediate the relationship between the interaction effect and NWOM.

Therefore, overall price fairness completely mediated the relationship between distributive fairness and NWOM. Moreover, it did not mediate the relationship between procedural fairness and the interaction effect and NWOM. Thus, hypothesis 4b was not supported.

Table 6: Mediation Analysis 2 Results

Total Effect (model without mediator)							
DV	IV	Est	se	pvalue	ci.lower	ci.upper	
NWOM	DFC	-0.23	0.09	0.01	-0.42	-0.03	
NWOM	PFC	-0.18	0.09	0.06	-0.36	0.00	
NWOM	INT_DFCPFC	-0.003	0.09	0.97	-0.19	0.19	
DIRECT EFFECT (model with mediator)							
NWOM	DFC	-0.08	0.09	0.36	-0.26	0.09	
NWOM	PFC	-0.13	0.08	0.13	-0.30	0.03	
NWOM	INT_DFCPFC	0.02	0.08	0.80	-0.14	0.19	
INDIRECT EFFECT							Mediation
NWOM	DFC	-0.14	0.04	0.00	-0.24	-0.06	Yes
NWOM	PFC	-0.05	0.04	0.25	-0.13	0.03	No
NWOM	INT_DFCPFC	-0.02	0.04	0.58	-0.12	0.05	No
IV to OPF							
OPF	DFC	0.34	0.09	0.00	0.15	0.53	
OPF	PFC	0.11	0.09	0.24	-0.07	0.31	
OPF	INT_DFCPFC	0.05	0.09	0.56	-0.15	0.23	
OPF to NWOM							
NWOM	OPF	-0.43	0.08	0.00	-0.59	-0.26	

7 Discussion

The purpose of the study was to understand the impact of fairness dimensions, distributive and procedural fairness, and their interaction on repurchase intentions and negative word of mouth intentions. The research also aimed to look at the mediating role of overall price fairness in the relationship between distributive and procedural fairness, and their interaction on repurchase intentions and negative word of mouth intentions. The goal of the study was to add evidence to findings in the literature while adding new dimensions to the pricing literature as well.

The findings of the study revealed that both distributive fairness and procedural fairness had a significant impact on repurchase intentions. However, only distributive fairness had a significant impact on negative word of mouth intentions, whereas procedural fairness only had a partial impact on negative word of mouth intentions. Moreover, the interaction of distributive and procedural fairness did not have any significant impact on both repurchase intentions and negative word of mouth intentions. A failure to achieve the desired effect may be related to the effect that the manipulation of distributive fairness even though significant was not powerful enough to achieve the desired results. Moreover, manipulation of distributive fairness was significantly impacted by both distributive fairness and procedural fairness. Similar trend regarding the confounding of manipulated variables of fairness dimensions have been reported in the past (Blodgett et al. 1997; Beugre et al. 2001). However, Colquitt (2001) reported that even though there is some level of confounding in the fairness variables, they predict different outcomes. This maybe associated to the fact that distributive and procedural fairness do not

function independently (Ferguson et al., 2014; Kukar-Kinney et al., 2007; Nguyen & Meng, 2013).

Similar findings have also been observed in the past where Nguyen and Meng (2013) reported that procedural fairness had a significant impact on both repurchase intentions and negative word of mouth intentions. Even though, some of the main effects were not significant the direction of means was as expected. Repurchase intentions were at its highest when both distributive and procedural fairness were high, and were at lowest when both the fairness dimensions were low. Similarly, negative word of mouth intentions were at its lowest when both the dimensions were high and were at its highest when both the fairness dimensions were set at high.

Along the same route, only distributive fairness had a significant impact on overall price fairness. The impact of procedural fairness and the interaction effect on overall price fairness was not significant. This is contradictory to the findings in the literature, as Ferguson et al. (2014) reported not only that both distributive and procedural fairness had a significant impact on overall price fairness, but also that their interaction effect on overall price fairness was significant. Moreover, Katyal et al. (2019) also reported that distributive and procedural fairness had a significant impact on overall price fairness. Not only this, but also in their research Kukar-Kinney et al. (2007) and Xia et al. (2010) reported that procedural fairness significantly led to consumer's perception of perceived price fairness, which then translated into higher repurchase intentions.

The mediation analysis revealed that overall price fairness completely mediated the impact of distributive fairness on repurchase intentions and negative word of mouth intentions. However, overall price fairness did not mediate the effect of procedural fairness and interaction effect on both repurchase intentions and negative word of mouth intentions. This may be because the path from procedural fairness, and the interaction effect to overall price fairness was not significant, which led to a non-significant indirect effect of procedural fairness and the interaction effect on the dependent variables, i.e. repurchase intentions and negative word of mouth intentions.

Therefore, the study revealed a main effect of distributive fairness on repurchase intentions, negative word of mouth intentions, and overall price fairness. Procedural fairness had a significant effect on repurchase intentions, a marginal effect on negative word of mouth intentions, and non-significant impact on overall price fairness. Overall price fairness mediated the relationship between distributive fairness and repurchase intentions/negative word of mouth intentions.

8 Contributions

The primary contribution of this research lies in its being the first of its kind to look at how overall price fairness mediates the relationship between distributive fairness, procedural fairness and their interaction on repurchase intentions and negative word of mouth intentions. In the past the literature had primarily looked at the main effect of distributive and/or procedural fairness on overall price fairness, repurchase intentions and/or word of mouth intentions (Katyal

et al., 2019; Nguyen & Meng, 2013; Xia & Monroe, 2010; Xia et al., 2004). Ferguson et al. (2014) is the only study to look at the impact of distributive fairness, procedural fairness and their interaction effect on overall price fairness. However, they did not look at the impact of the variables on consumer behavior, i.e. repurchase intentions and negative word of mouth. This study extends Ferguson et al. (2014) by looking at the direct impact of variables on the consumer behavior, i.e. repurchase intentions and negative word of mouth. It further looks at how this relationship is mediated by overall price fairness. The findings from this research can be used to further add to the literature on price fairness in marketing.

This research also made an attempt to update/improve existing scales in the price fairness literature, according to the literature fair price is supposed to consist of three items, i.e. just, reasonable and acceptable. However, research in price fairness had used differing combination of multi-items, i.e. fair, just, reasonable, acceptable, but not these three (Campbell 1999, 2007; Ferguson et al., 2014; Kukar-Kinney et al., 2007; Xia & Monroe, 2010; Vaidyanathan & Aggarwal, 2003). This research makes an attempt in proposing to measure price fairness as a three item construct of just, reasonable and acceptable as defined by the definition of price fairness (Bolton et al., 2003; Xia et al., 2004).

This study can be useful to managers, especially in the retail industry. The findings from this study can be used to understand how different typed of pricing policies and procedures can impact consumer's perception of fair price and fair pricing, i.e. pricing procedures, which in turn may result in high or low levels repurchase intentions and negative word of mouth intentions. Thus, managers will be able to focus not only on fair price but also fair pricing as well as a combination of these that leads to an overall perception of fairness (Ferguson et al., 2014).

Moreover the literature on fairness has pointed out that not only do the dimensions of fairness work together, but also one may overpower the other. Blodgett et al. (1997) reported interactional fairness as the most important dimension of fairness followed by distributive fairness and procedural fairness to predict consumer's repurchase intentions and negative word of mouth intentions. Similarly, Nguyen and Meng (2014) reported that procedural fairness was more important than distributive fairness in the measurement of outcomes to price fairness, i.e. negative word of mouth intentions and repurchase intentions. Katyal et al. (2019) reported that distributive fairness was important than procedural fairness in consumer's judgment of price fairness when the outcomes were fair and vice versa. Along the same line, this research has demonstrated that distributive fairness is more important than procedural fairness in consumers' judgments of price fairness, repurchase intentions and negative word of mouth intentions. This points to the fact that organizations should be aware of situations in which they are being judged as unfair on any of the dimensions of fairness by the consumers. In case the organization is being unfair it may want to compensate for its unfairness by being fair on other dimensions. Additionally, in an era when consumer price varies a lot for similar products depending upon the time of the year, type of promotion, demand/supply conditions and geographical area, managers may want to figure out for their products/services if consumers are focusing more on price (dis)advantaged inequity (Xia & Monroe, 2010) or the pricing procedures that are leading to the inequity. The knowledge will help managers decide if they can justify the price (dis)advantaged inequity in terms of their fair pricing policies or not.

9 Conclusion, Limitations and Future Research

The study looked at the impact of fairness dimensions, distributive and procedural fairness, and their interaction on repurchase intentions and negative word of mouth intentions. It further looked at the mediating impact of overall price fairness on the aforementioned relationships. The results revealed that both distributive fairness and procedural fairness have a direct impact on repurchase intentions. Moreover, distributive fairness has a direct impact on negative word of mouth intentions; however, procedural fairness only has a partial impact on negative word of mouth intentions. Furthermore, overall price fairness completely mediates the relationship between distributive fairness and repurchase intentions/negative word of mouth intentions.

Future research could look at multiple dimensions of fairness, i.e. distributive, procedural, interpersonal and interactional, along the same path (Blodgett et al., 1997; Carr, 2007; Katyal et al., 2019). Moreover, future research could also look at more dependent variables along the same paths, for example satisfaction (Nguyen & Meng, 2013).

Lastly, this research primarily looked at the impact of fairness dimensions in terms of products. Future research could look at how the same research can be extended into the service sector as well (Bolton & Alba, 2006; Katyal et al., 2019) for example price fairness in the ride sharing industry. Moreover, the primary participants in the study were undergraduate students. Future research should try to look at how the perceptions of fairness differ from students to non-student samples.

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APPENDICES

Appendix A: ANOVA Output for DV=Repurchase Intentions

Tests of Between-Subjects Effects					
Dependent Variable: Repurchase Intentions					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	32.434 ^a	3	10.811	4.346	.006
Intercept	3078.948	1	3078.948	1237.700	.000
DFC	13.127	1	13.127	5.277	.023
PFC	20.699	1	20.699	8.321	.004
DFC * PFC	.091	1	.091	.037	.849
Error	378.121	152	2.488		
Total	3495.000	156			
Corrected Total	410.555	155			

a. R Squared = .079 (Adjusted R Squared = .061)

Appendix B: ANOVA Output for DV=NWOM

Tests of Between-Subjects Effects					
Dependent Variable: NWOM					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	12.935 ^a	3	4.312	2.826	.041
Intercept	887.932	1	887.932	581.940	.000
DFC	8.328	1	8.328	5.458	.021
PFC	5.241	1	5.241	3.435	.066
DFC * PFC	.002	1	.002	.001	.974
Error	231.924	152	1.526		
Total	1141.500	156			
Corrected Total	244.859	155			

a. R Squared = .053 (Adjusted R Squared = .034)

Appendix C: ANOVA Output for DV=Overall Price Fairness

Tests of Between-Subjects Effects					
Dependent Variable: Overall Price Fairness					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	20.248 ^a	3	6.749	4.185	.007
Intercept	3976.816	1	3976.816	2466.192	.000
DFC	18.271	1	18.271	11.330	.001
PFC	2.060	1	2.060	1.277	.260
DFC * PFC	.496	1	.496	.308	.580
Error	245.105	152	1.613		
Total	4235.667	156			
Corrected Total	265.353	155			

a. R Squared = .076 (Adjusted R Squared = .058)

Appendix D: R (Studio) Code for Mediation (Path) Analysis, LAVAAN

```
library(lavaan)

mydata$INT_DFCPFC<-mydata$DFC*mydata$PFC

mydata$RI<-mydata$`Repurchase Intentions`

mydata$OPF<-mydata$`Overall Price Fairness`

Rmodelabc1<-'RI~ DFC + PFC + INT_DFCPFC + OPF
OPF~DFC + PFC + INT_DFCPFC'

Rmodelabc1.fit <- sem(Rmodelabc1,
                      data = mydata)

summary(Rmodelabc1.fit)

Rmodelc<-'RI~ DFC + PFC + INT_DFCPFC
```

```

OPF~DFC + PFC + INT_DFCPFC'

Rmodelc.fit <- sem(Rmodelc,
                  data = mydata)

summary(Rmodelc.fit)

Rmediation.1<-
  #Regressions
  'RI~ D_R*DFC + P_R*PFC + I_R*INT_DFCPFC + O_R*OPF
OPF~ D_O*DFC + P_O*PFC + I_O*INT_DFCPFC

#direct effect
dir_DFC := D_R
dir_PFC := P_R
dir_INT_DFCPFC := I_R

#indirect effect
ind_DFC := D_O*O_R
ind_PFC := P_O*O_R
ind_INT_DFCPFC := I_O*O_R

#total indirect effect
#tot_ind := D_O*O_R + P_O*O_R + I_O*O_R

```

```

#total effect
tot_DFC := D_R + D_O*O_R
tot_PFC := P_R + P_O*O_R
tot_INT_DFCPFC:= I_R + I_O*O_R'

set.seed(62973)
fit.Rmediation.1<- sem(Rmediation.1,
                      data = mydata, se="bootstrap", bootstrap=1000)
parameterEstimates(fit.Rmediation.1, boot.ci.type = "perc")

#MODEL 2 FOR NWOM

Nmediation.1<-
  #Regressions

  'NWOM~ D_N*DFC + P_N*PFC + I_N*INT_DFCPFC + O_N*OPF
OPF~ D_O*DFC + P_O*PFC + I_O*INT_DFCPFC

#direct effect
dir_DFC := D_N
dir_PFC := P_N
dir_INT_DFCPFC := I_N

#indirect effect

```

```

ind_DFC := D_O*_O_N
ind_PFC := P_O*_O_N
ind_INT_DFCPFC := I_O*_O_N

#total indirect effect
#tot_ind := D_O*_O_N + P_O*_O_N + I_O*_O_N

#total effect
tot_DFC := D_N + D_O*_O_N
tot_PFC := P_N + P_O*_O_N
tot_INT_DFCPFC:= I_N + I_O*_O_N'

set.seed(62973)

fit.Nmediation.1<- sem(Nmediation.1,
                      data = mydata, se="bootstrap", bootstrap=1000)
parameterEstimates(fit.Nmediation.1, boot.ci.type = "perc")

```