The Impact of Perceived Price Fairness of Dynamic Pricing on Customer Satisfaction and Behavioral Intentions: The Moderating Role of Customer Loyalty

by

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Abstract

Applying theories and principles rooted in consumer behavior including equity theory and distributive justice, the current research presents a conceptual framework to explain the formation of price fairness perceptions that includes the impact of the magnitude and temporal proximity of price differences and the moderating effect of customer loyalty on the relationship between dynamic pricing mechanism and perceived price fairness. The current study also examines the impact of price fairness perceptions on customer satisfaction with purchase and behavioral intentions.

A three-way (2 levels of magnitude of price difference X 2 levels of temporal proximity of price difference X 3 types of products) between-subjects experimental design was employed to collect data. Participants were recruited from a convenience sample of college students at Auburn University, Auburn AL, for pre- and pilot tests. Main experiment data was collected using student samples at Auburn University and Sam Houston State University, Huntsville TX.

Using Structural Equation Modelling (SEM), this study finds that both the magnitude and temporal proximity of price difference are negatively associated with consumers' perceptions of price fairness. Customer loyalty is found to be a significant moderator on the relationship between the magnitude and temporal proximity of price difference and perceived price fairness. Perceived price fairness has a strong positive impact on customer satisfaction with purchase. The study finds that perceived price fairness has a strong negative impact on consumers' self-protection and revenge intentions, but a strong positive impact on re-purchase intention. The present study also finds that satisfactions with purchase fully mediates the relationship between perceived price fairness and re-purchase intention, but only partially the relationship between perceived price fairness and self-protection

and revenge intentions. Theoretical and practical implications for these findings, along with recommendation for future study, are discussed.

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CHAPTER 1

INTRODUCTION

Of the four "P's" of marketing (i.e., product, place, promotion, price), pricing holds a unique attribution to a seller's profitability. Therefore, the strategic importance of pricing cannot be overrated. Not only have companies been striving to seek effective pricing strategies, but also researchers have been investigating buyers' reactions to sellers' pricing strategies including their perceptions of price fairness (e.g., Herrmann, Xia, Monroe, & Huber, 2007; Kalapurakal, Dickson, & Urbany, 1991; Xia, Monroe, & Cox, 2004).

Among the various pricing strategies, dynamic pricing has become a commonly practiced price discrimination strategy used by sellers to maximize profits by charging different prices for very similar or essentially the same products or services according to the amount of money individual customer is willing to pay. With the increasing popularity of Internet shopping (Haws & Bearden, 2006), sellers can track consumer characteristics such as preferences for brands and prices, and purchase/visit frequency, to determine how to best manipulate prices to maximize revenue. Although dynamic pricing advocates are optimistic about the opportunities brought to sellers through such individual-level price discrimination (Daripa & Kapur, 2001; Garbarino & Lee, 2003; Kannan & Kopalle, 2001), dynamic pricing may lead to negative emotional and behavioral reactions among customers (Campbell, 1999; Xia et al., 2004).

Typically, when customers discover a disadvantaged inequality, negative price fairness perceptions trigger negative emotions such as disappointment and anger which may lead to consequent negative behavioral intentions (e.g., intentions to spread negative word-of-mouth, complain, switch to competitors, seek legal action) (Xia et al., 2004). For instance, although Amazon.com claimed that different prices were due to its experiment with prices, the company had to refund its customers the price difference of a DVD set and face a public relations nightmare after its customers discovered they were charged different prices for the same set of DVDs (Adamy, 2000). The negative consequences of price unfairness perceptions were also exemplified by furious reactions of loyal Apple's customers to a significant price decrease of $200 for iPhone 60 days after its launch (Blakely, 2007; Macintosh News Network, 2007).

Past research shows that consumers may perceive price differences as unfair when they discover the difference is to their disadvantage (i.e., paying a higher price than other customers or compared to past experience with the same seller) (Bolton, Warlop, & Alba, 2003; Haws & Bearden, 2006). In dynamic pricing, prices vary over time and among consumers (Haws & Bearden, 2006); thus, the magnitude and temporal proximity of price differences influence perceptions of price fairness (Haws & Bearden, 2006; Xia et al., 2004). Although buyers tend to accept small price changes that occur over time (Bolton et al., 2003), a major price change is likely to make the price discrepancy more salient and provoke perceptions of price unfairness. Moreover, such a disadvantaged price discrepancy may become more salient to consumers when the price change is recent (Haws & Bearden, 2006).

Xia et al. (2004) suggests the buyer-seller relationship influences buyers' price fairness perceptions. They noted that "buyers begin to consider themselves as loyal customers" (p. 5) after buyers gain more information about the seller's trustworthiness through repeated

transactions, and loyal customers typically believe they are entitled to certain benefits (e.g., lower prices) in the relationship. Lii and Sy (2009) found that charging more to customers who make repeat purchases is perceived to be a violation of customer trust and may be considered unfair. They concluded that buyers are likely to switch (to other sellers) to avoid being treated badly for being loyal (Lii & Sy, 2009) and suggest that researchers consider the role of customer loyalty on consumers' judgments of price fairness.

1.1 Problem Statement

Because fairness constitutes one of the reasons why individuals undertake certain actions (Maital, 2004; McFadden, 1999; Rabin, 1993), it is important to understand how buyers form price fairness judgments and what factors impact those judgment formations. Price fairness research has examined both antecedents and outcomes of price fairness perceptions (Campbell, 1999; Oliver & Swan, 1989a; Oliver & Swan, 1989b). In contrast to the agreement among researchers regarding the impact of price fairness perceptions on outcome variables such as customer satisfaction and re-purchase intention, there is a lack of consensus with respect to the antecedents of consumers' price fairness perceptions, especially in the context of dynamic pricing.

Researchers have proposed several factors that may influence consumers' price fairness perceptions. For instance, in Xia et al.'s (2004) conceptual framework, factors such as transaction similarity, choice of comparison party, buyer-seller relationship, and social norms are believed to influence perceived price unfairness. On the other hand, Bolton et al. (2004) found that consumers' perceptions of price unfairness could be influenced by their knowledge of prices, profits, and cost in the marketplace. However, some of these factors, although pertaining to price

fairness judgments in a general sense, may be as salient to consumers as other factors, such as the equity of a transaction, when judging the fairness of dynamic pricing. For example, past research has shown that the magnitude and the temporal proximity of price differences influence perceptions of price fairness (Haws & Bearden, 2006; Martin, Ponder, & Lueg, 2009) in dynamic pricing. This price difference, a discrepancy between prices paid by customers for the same product (Haws and Bearden, 2006), can be to customers disadvantage (i.e., paying a higher price relative to other customers) or advantage (i.e., paying a lower price relative to other customers). The focus of this study is disadvantaged price discrepancy which is believed to trigger negative price fairness perceptions (Haws and Bearden, 2004). A disadvantaged price discrepancy may vary in terms of magnitude and temporal proximity. The magnitude of the price difference can be a little or a lot higher relative to the price paid by other customers and the temporal proximity of price difference varies with the amount of time elapsed between the two purchases (e.g., the comparative customer paid less the same day vs. weeks later) (Haws and Bearden, 2006). . The present study extends this examination of the influence of magnitude and temporal proximity of price differences on price fairness perceptions by incorporating customer loyalty as a moderating factor, as illustrated in the proposed conceptual framework (see Figure 1.1) for the formation of consumer-based price fairness judgments.

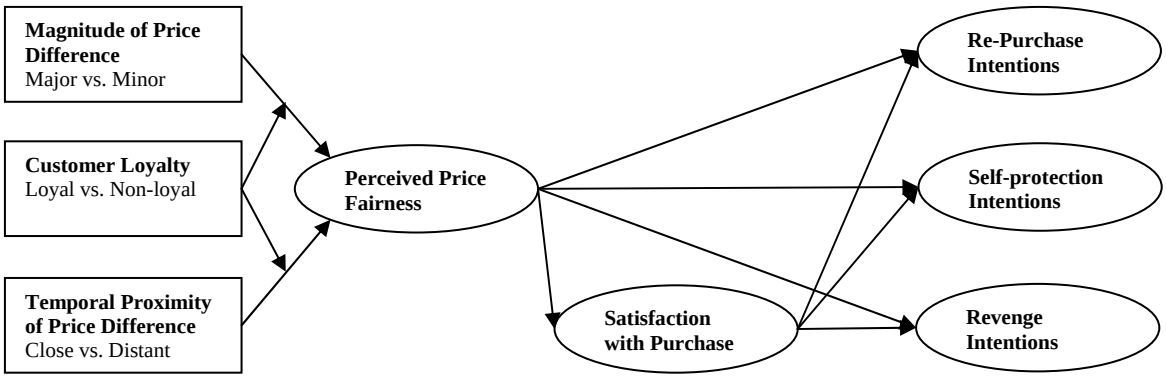


Figure 1.1. Conceptual model: Perceived Fairness of Dynamic Pricing and Its Impact on Customer Satisfaction and Behavioral Intentions

Xia et al. (2004) argue that customer loyalty will "serve as a buffer to decrease the negative effect of a comparatively disadvantaged price on price unfairness perceptions" (p. 6). Because of the strong attachment between the two parties (i.e. buyer and seller), the relationship may sustain a certain level of challenge, for example, challenge that comes from a relatively small price discrepancy to buyers' disadvantage (e.g., paying a slightly higher price than other customers) (Lewicki & Bunker, 1995). But, what is the capacity of the sustainable power of customer loyalty? To what extent does customer loyalty influence consumers' perception of price unfairness or buffer the negative impact of perceptions of price unfairness under varied disadvantageous conditions? These questions remain unanswered. Extant price fairness research has rarely explored the moderating effect of customer loyalty on price fairness perceptions. Both Amazon's and Apple's cases signify the importance for sellers to understand how loyal customers perceive the fairness of price discrepancies at different levels of magnitude and temporal proximity and whether customers' responses differ by level of customer loyalty.

Although previous research has shown that perceived fairness and satisfaction are highly correlated concepts and are often used interchangeably (Ordonez, Connolly, & Coughlan, 2000),

Xia et al. (2004) argued that perceived fairness is different from satisfaction. Prior research has provided evidence that perceptions of fairness will influence customer satisfaction (Oliver & Swan, 1989a) and purchase intentions (Campbell, 1999). Specifically, research shows that perceptions of price unfairness lead to dissatisfaction and that purchase intention is influenced by satisfaction (Oliver & Swan, 1989a, b). In this study, customer satisfaction is defined as the extent to which the customer believes the shopping experience evokes positive feelings (Cronin, Brady, & Hult, 2000), and represents consumers' evaluation of the overall purchase experience as well as the purchase. Furthermore, previous research has provided evidence of the mediating role of satisfaction on the relationship between consumers' experience and their behavior (Bloemer & de Ruyter, 1998; Lam, Shankar, Erramilli, & Murthy, 2004; Olsen, 2002). Yet, past price fairness research overwhelmingly focuses on the impact of fairness perceptions on purchase intentions (Campbell, 1999; Oliver & Swan, 1989a, 1989b) while overlooking other dimensions of behavioral intentions. The actions taken by outranged customers in Amazon's and iPhone's cases suggest that perceived price unfairness may lead to behaviors harmful to sellers. Xia et al. (2004) propose that negative price fairness perceptions will lead consumers to take actions to protect their own interests (i.e., self-protection), and sometimes, act in ways that harm the seller (i.e., revenge) when their perceptions of unfairness are intense.

1.2 Purpose

The purpose of this study is to investigate the formation of price fairness judgments toward dynamic pricing by examining the impact of dynamic pricing mechanisms (magnitude and temporal proximity of price change) on price fairness perceptions, the moderating effect of customer loyalty on the relationship between dynamic pricing mechanisms and price fairness

perceptions, and the influence of price fairness perceptions on satisfaction and behavioral intentions. The results of this study can enrich extant knowledge about consumers' reactions to sellers' dynamic pricing strategies, the reasons for those reactions, and the consequent behavioral intentions that may affect sellers' long-term profitability. Therefore, this study aims to examine how perceived price fairness impacts overall satisfaction with purchase and how this satisfaction mediates the relationship between price fairness perceptions and consumers' intentions to re-patronize the seller, seek self-protection, and take revenge against the seller. The objectives of the current study are to:

Objective 1: Examine the extent to which the magnitude and temporal proximity of price differences affect price fairness perceptions in dynamic pricing;

Objective 2: Examine whether or not customer loyalty moderates the impact of the magnitude and temporal proximity of price differences on perceived price fairness;

Objective 3: Examine the extent to which price fairness perceptions influence consumers' overall satisfaction with purchases and their future behavioral intentions;

Objective 4: Examine whether or not customers' satisfaction with purchase mediates the impact of price fairness perceptions on behavioral intentions.

1.3 Significance of the Study

Given the lack of extant research addressing the above issues and the growing practice of dynamic pricing, it is necessary to further examine the theoretical underpinnings and empirical findings of this phenomenon to better understand the formation of price fairness perceptions and subsequent behavioral responses to dynamic pricing strategies. In this study, a conceptual model is developed to examine the effect of sellers' dynamic pricing mechanism (i.e., price difference

magnitude and temporal proximity) and customer loyalty on price fairness perceptions and the impact of these price fairness perceptions on consumers' overall satisfaction with the purchase and their behavioral intentions (see Figure 1.1).

Theories such as dual entitlement, distributive and procedural justice, and equity theory, have been frequently applied to the examination of price fairness perception formation and the role of fairness perceptions in consumers' purchase intentions. The theory of distributive justice and equity theory deal with the outcome equality (or inequality) between two parties involved in an exchange relationship (Adams, 1965; Homans, 1961). The theory of procedural justice emphasizes the importance of the procedures used to determine the outcomes (Thibaut & Walker, 1975). The principle of dual entitlement (DE) focuses on the relationship between prices and supply-demand (Urbany, Madden, & Dickson, 1989), emphasizing both the procedures and the outcomes in an exchange relationship. This research explores how these theories can be applied to examine the impact of magnitude of price difference on price fairness perceptions in dynamic pricing.

Moreover, theory of social comparison and temporal construct theory are used as the theoretical framework to explore antecedents to fairness perceptions in dynamic pricing. Comparisons are inevitable and central to most theories underlying outcome justice. The theory of temporal construct (Trope & Liberman, 2003) posits that buyers respond to temporal distant versus close future and past events differently. Applying these theories, this study offers a conceptual model that provides better explanation of how consumers form fairness perceptions in dynamic pricing depending upon on the temporal distance of price discrepancies. Specifically, in dynamic pricing, consumers are likely to encounter disadvantaged price differences (i.e., paying higher prices than other buyers or past self-experience for the same product/service) at different

levels of temporal proximity. How they respond to such differences will frame their fairness perceptions, their satisfaction, and their future behavioral intentions.

1.4 Conceptual Definition of Constructs

Constructs in the proposed conceptual model are identified from the literature review. Conceptual definitions of each of the constructs and sources for the definitions are provided as follows:

Magnitude of Price Difference: The extent of price change, either a major or a minor price increase/decrease (Martin et al., 2009)

Temporal Proximity of Price Difference: The period of time within which price change occurs. (Haws & Bearden, 2004)

Perceived Price Fairness: A consumer's subjective assessment of whether the difference between a seller's price and the price of a comparative other party is reasonable, acceptable, or justifiable (Bolton et al., 2003; Xia et al., 2004)

Customer Loyalty: An attitudinal preference for the retailer accompanied by strong repeat purchase behavior (Dick & Basu, 1994; Kumar & Shah, 2004; Oliver, 1999)

Satisfaction with Purchases: The extent to which the customer believes the shopping experience evokes positive feelings (Cronin et al., 2000)

Re-purchase Intentions: Ajzen (2002) defines behavioral intention as an indication of an individual's readiness to perform a given behavior. In this study, re-purchase intention is defined as consumers' intention to purchase from a seller repeatedly.

Self-protection Intentions: Consumers' intentions to take actions to enhance their own benefits and to reduce their perceived monetary sacrifice when consumers perceive a price as less fair (Xia et al., 2004)

Revenge intentions: Consumers' intentions to take actions against the seller with the objective of damaging the seller (Xia et al., 2004)

CHAPTER 2

REVIEW OF LITERATURE

In this chapter, previous price fairness research that examines the formation of price fairness perceptions and the impact of price fairness perceptions on satisfaction and behavioral intentions is summarized. In addition, the theories that have/may be applied to price fairness research are discussed. Findings of previous research on price fairness perceptions are reviewed to present the foundation upon which the current research expands. Based on themes emerging through literature review, a detailed discussion is provided to explain the theories (i.e., theory of social comparison, equity theory, distributive justice, and construal level theory) that are applied to address research objectives of this current study. A set of hypotheses that address relationships between variables in interest of the current research are set forth. Discussions are developed to explain the formation of price fairness perceptions in dynamic pricing and the impact of such perceptions on satisfaction with purchase and consumers' behavioral intentions (see Figure 2.1).

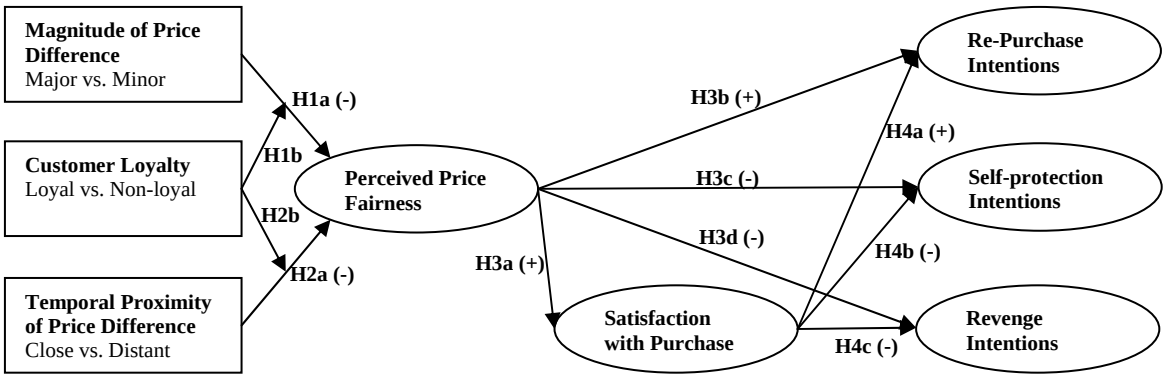


Figure 2.1. Impact of Perceived Price Fairness on Satisfaction and Behavioral Intentions

2.1 Perceived Price Fairness

The extant research on price fairness perceptions can be categorized into two themes: (1) exploration and identification of antecedents to price fairness perceptions (Bolton & Alba, 2006; Campbell, 1999; Campbell, 2007; Gielissen, Dutilh, & Graafland, 2008; Vaidyanathan & Aggarwal, 2003) and (2) examination of the impact of price fairness perceptions on consumers' attitudinal and behavioral outcomes (Daskalopoulou & Petrou, 2006; Lii & Sy, 2009; Oh, 2003; Xia et al., 2004). Findings from both streams provide insights into the study of price fairness perceptions under various pricing contexts (e.g., Homburg, Hoyer, & Koschate, 2005; Martin et al., 2005) with respect to consumers reactions' to a seller's pricing strategy (Bolton et al., 2003; Choi & Mattila, 2009; Herrmann et al., 2007).

Conceptually, perceived price fairness is defined as consumers' assessments of whether a seller's price can be reasonably justified (Xia et al., 2004). Fairness is more of a subjective than an objective judgment because it is what consumers actually perceive regardless whether such perception is correct or not. Thus, price fairness perceptions may not be critical until consumers

perceive a price as unfair (Xia et al, 2004). Previous research has found that price fairness perceptions can be easily influenced by various factors.

In the comprehensive conceptual model developed to depict how buyers form price fairness judgments by Xia et al. (2004), the similarity of comparative transactions, the choice of comparative other parties (self, other customers, or other sellers), and buyer-seller relationship are believed to influence consumers' judgment of price fairness. To be specific, Xia et al. (2004) propose that price discrepancies will only become salient to consumers when the comparison is made between two transactions of high similarity because "a fairness judgment may not even occur if consumers consider the two transactions incomparable" (p. 4).

Findings from empirical studies have provided evidence that consumers' price fairness perceptions are influenced by various factors. Overall, consumers tend to rely on several reference points such as past prices, competitor prices, and cost of goods sold when inferring price fairness to make comparisons (Bolton et al., 2003). In studies that examine price discrimination strategies, it was found that the price setting strategies (e.g., uniform vs. differential pricing, posted vs. auction pricing) influence price fairness perceptions (Choi & Mattila, 2009; Haws & Bearden, 2006). According to social comparison theory (Festinger, 1954), people make comparisons constantly to evaluate their own opinions. When making such comparisons, people tend to choose similar others, when available, as the most important comparison target, than self-reference. Therefore, it is very likely that: (1) most fairness perceptions and judgments are based on comparison (Austin, McGinn, & Susmilch, 1980), and (2) people tend to choose others who are close to themselves as comparative other party (Wood, 1989). Thus, customers may see others who purchased the same product as a comparative reference and a price paid higher than other customers is likely to be perceived as less fair.

Bechwati, Sisodia, and Sheth (2009) found that consumers tend to compare prices to those paid by other customers when judging price fairness.

Moreover, the buyer-seller relationship serves as a buffer to mitigate the negative impact of a disadvantageous price discrepancy on price fairness perceptions (Xia et al., 2004). However, it is not clear if such buffer effect may apply to high price discrepancy that is to consumers' disadvantage. For example, Martin et al. (2009) reported that although loyal customers perceive a minor price increase to be more fair than non-loyal customers do, loyal customers' fairness perceptions are not more favorable than non-loyal customers when the price increase is high.

With respect to the impact of price fairness perceptions on consumer attitudinal and behavioral outcomes, Xia et al. (2004) proposed that perceived price unfairness may lead to negative behaviors such as self-protection tendency, and even revenge actions, depending on the nature of fairness judgments. This proposition is consistent with other empirical findings in fairness perception research, showing that perceived price fairness is positively related to customer satisfaction and purchase intentions (Campbell, 1999; Campbell, 2007; Oliver & Swan, 1989a, b).

In summary, depending on the contextual relevance of all factors discussed above, some of the factors, such as prices comparison with other customers may directly impact price fairness judgments, while other factors, such as customer-seller relationship, may moderate the relationship between direct antecedents and price fairness judgments. It may be theoretically unrealistic to propose "the" most comprehensive framework that fits all fairness judgment situations because the price fairness judgment is a complex process and the extent to which this process can be understood depends on the identification of factors that hold unique attribution to perceptions of price fairness. To better understand the formation of price fairness judgment of

dynamic pricing, it is important to first determine what factors are salient to consumers when making fairness judgment in dynamic pricing and then to explore how such factors impact consumer judgments. Specifically, this study will examine whether or not magnitude and temporal proximity of price difference impact customers' perceptions of price fairness and the impact of price fairness perceptions on customer satisfaction and future behavioral intentions within the context of dynamic pricing. Additionally, this study also investigates how price fairness judgments impact customers' overall satisfaction with purchases and behavioral intentions and whether or not satisfaction mediate the impact of perceived price fairness on behavioral intentions.

2.2 Theoretical Framework

2.2.1 Social Comparison Theory

Fairness perception is a judgment based on comparison (Xia et al., 2004). As a matter of fact, social comparison is essential to most justice theories that underlie attitudinal/behavioral outcomes (Major & Testa, 1989). Therefore, consumers make judgments of equality or inequality based on comparison.

Although rarely specified, comparison is present in various forms (e.g., comparison with other consumers, other seller, self-experience, etc.) in almost all price fairness research that compares the outcomes of a reference other in consumer judgment of price fairness (Campbell, 2007; Gielissen et al., 2008; Haws & Bearden, 2006; Lii & Sy, 2009; Vaidyanathan & Aggarwal, 2003). Jacoby (1976) defined a reference other 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). Xia et al. (2004) proposed that, for price comparison, "the other-customer comparison has greater effect on perceived price unfairness" (p. 4) than self-reference, if the transaction characteristics are similar. A later study (Haws & Bearden, 2006) provided evidence supporting this proposition.

Haws and Bearden (2006) examined how consumers perceived fairness of dynamic pricing. The authors compared a price discrepancy among different sellers and consumers at different times under different pricing setting mechanisms. It was found that consumers reported lowest perceptions of fairness when the comparison was made with other consumers. This may be due to the fact that in dynamic pricing, most transaction characteristics (e.g. seller, product) are highly comparable, and difference prices charged to buyers are distinct and thus comparable. There is little doubt that such a price discrepancy or inequity, especially when it is to consumers' disadvantage, may lead to a negative emotional state, such as anger, disappointment, and dissatisfaction, which will trigger adverse behaviors, such as complaints, negative word-of-mouth, and revenge action against the seller. Although Haws and Bearden (2006) attested to the importance of price discrepancy, as a result of comparing with reference others (consumers), on price fairness perceptions, it is not clear whether price discrepancies at different magnitudes or temporal proximity will lead to different levels of perceived price fairness. That is, will a major or a temporally close price difference lead to a higher level of price fairness perception than a minor or a temporally distant price difference due to a higher level of inequality?

2.2.2 Equity Theory

Equity theory suggests that individuals are concerned not only with the absolute level of outcomes, but also with fairness of outcomes for both parties involved in transactions (Adams,

1965). Because it deals with the equality of the outcomes for both parties of an exchange relationship, equity theory has been frequently applied in the research of price fairness perceptions (e.g., Martins & Monroe, 1994; Martin-Ruiz & Rondan-Cataluna, 2008; Oh, 2003; Xia et al., 2004). Equity theory also suggests that the presence of inequity creates tension, which will be in proportional to the magnitude of inequity. According to Adams (1965), "the presence of inequity will motivate the perceiver to achieve equity or to reduce inequity; and the strength of motivation to do so will vary directly with the magnitude of inequity experienced" (p. 283). Deutsch (1975) argued that equity serves as the most dominant distribution principle for evaluating exchange fairness. When inequity within an exchange is noted, the parties engage in activities that reduce tension, or the party at a comparative disadvantaged position may choose to leave the relationship. For example, buyers may choose to recover their loss by asking for monetary compensation or they may leave the exchange relationship by not choosing the particular seller for future purchases or even switching to the seller's competitors.

2.2.3 Distributive Justice versus Procedural Justice

Homans (1961) defined distributive justice as judgment of the allocation of rewards on the basis of individual contributions to an exchange relationship and proposed that one's reward in an exchange relationship should be proportional to the investment. Thus, distributive justice suggests that a discrepancy in the ratio of outcome to inputs between seller and buyer will result in perceived unfairness. On the other hand, procedural justice emphasizes that the process, the method, and/or the rules used to determine the outcomes influence judgments of fairness perceptions (Thibaut & Walker, 1975). Unlike distributive justice, which relates to the outcome

of an exchange relation, procedural justice focuses on the perceived fairness of the underlying procedures of derived outcomes.

A prevailing concept in price fairness research is that procedural justice plays a more important role than distributive justice in determining fairness perceptions because outcomes are usually unknown (Bechwati, Sisodia, & Sheth, 2009). However, it has been found that consumers' knowledge regarding sellers' pricing structure and price setting strategies/methods is very limited (Bolton et al., 2003). Therefore, it may be argued that distributive justice is more salient than procedural justice in the judgment of price fairness in the context of dynamic pricing. Dynamic pricing, a pricing strategy often defined as first-level price discrimination, violates the rule set forth by distributive fairness because a seller's gain in profit is not proportional to its input in cost as the seller charges individual customer different prices for the same product/service without cost difference.

2.2.4 Construal Level Theory

Construal level theory (Liberman & Trope, 1998) postulates that temporal distance changes people's responses to future events by changing the way people mentally represent those events. The greater the temporal distance, the more likely events are to be represented in terms of a few abstract features that convey the perceived essence of the events (high-level construals) rather than in terms of more concrete and incidental details of the events (low-level construals). Liberman and Trope (1998) proposed that past events that are temporally proximal are viewed in more concrete terms, while past events that are temporally distant are viewed in more abstract terms. Therefore, a disadvantageous price difference that occurs within a more recent time frame

is more salient to buyers and likely to trigger a higher level of perceived unfairness than a price difference that occurs within a relatively more distant time frame.

Haws and Bearden (2006) found that consumers view price changes occurring within a relatively short period as more unfair than changes over a more extended time period. They found that after a month, price differences no longer affect fairness perceptions (Haws & Bearden, 2006). However, this claim is not supported by iPhone's fiasco, in which the price drop happened 68 days later, a much longer time period than the one month period tested in Haws and Bearden's study. The extant price fairness research has largely overlooked the important role of temporal proximity. There is limited research on the impact of temporal proximity on perceived fairness of dynamic pricing. The current study applies the theories discussed above as a foundation to develop a conceptual framework to illustrate how magnitude and temporal proximity of price difference influence judgments of price fairness and how these price fairness judgments impact satisfaction with purchase and behavioral intentions (see Figure 2.1).

2. 3 Hypotheses Development

2.3.1 Dynamic Pricing and Perceived Price Fairness

Dynamic pricing is an individual-level price discrimination strategy where prices are charged according to customer, location, product, or time (Armstrong & Kotler, 2000). The purpose of dynamic pricing is to maximize the seller's profit by charging consumers the highest prices each consumer is willing to pay through manipulating the magnitude and the temporal proximity of price differences they will employ. Typically, price discrimination tactics such as variable pricing, rebates, coupons, and random discounts are used by sellers to attract price

sensitive consumers, while charging premium prices to less price-sensitive consumers. In Internet retailing, prices of merchandise may change on a daily basis and the magnitude of price difference may vary substantially. For example, in the airline industry, where dynamic pricing is commonly practiced, air fares may double in one day! Another example is that Amazon normally changes the price of items sold on its website on a daily, weekly, or monthly basis by 5%, 10%, or 15%. With dynamic pricing, buyers will pay different prices for essentially the same product. Although customers may later discover they paid higher prices than other customers, consumers are generally not aware of the discriminant prices at the time of purchase.

Both the magnitude of inequity -- based on equity theory (Adams, 1965), and the temporal distance of an event -- based on temporal construal level theory (Liberman & Trope, 1998; Liberman & Trope, 2003) are likely to influence how people respond to an inequity. This study proposes that consumers' perceptions of the fairness of a disadvantaged price are impacted by the magnitude of the price difference (i.e., major vs. minor price difference). Consumers are more likely to interpret major price differences to their disadvantage as more unfair than when the disadvantageous price differences are minor because a higher inequity may induce more tension in consumers' mind. Furthermore, consumers' perceptions of the unfairness of price difference are impacted by the temporal proximity of the price difference (i.e., temporal close vs. temporal distant price difference). A disadvantageous price difference occurred within a recent time period is likely to remain salient to consumers and trigger negative reactions, whereas a distant price difference is less likely to induce tension, and impact price unfairness perceptions.

*H1a: Consumers will perceive a **major** price difference as more unfair than when the price difference is **minor**.*

*H2a: Consumers will perceive a **temporal close** price difference as more unfair than when the price difference is **temporal distant**.*

2.3.2 Moderating Effect of Customer Loyalty

Xia et al. (2004) suggest that consumers' fairness judgments are influenced, more or less, by the relationship formed through past buying experience; and that consumers may rely on their beliefs regarding the trustworthiness of the seller to develop judgments of price fairness. However, the potential moderating effect of the buyer-seller relationship on the relationship between dynamic pricing and price fairness perceptions is rarely investigated; only Martin et al. (2009) examine how loyal and non-loyal customers respond differently to a price increase.

Customer loyalty has been used as a key indicator of the nature of buyer-seller relationship (Lee & Turban, 2001; Morgan & Hunt, 1994; Sirdeshmukh, Singh, & Sabol, 2002). Historically, customer loyalty is defined and measured as a behavior – the degree to which or propensity of the customer to engage in repeated purchasing (e.g., Brown, 1952; Day, 1969). However, behaviors alone may not be an accurate indicator of customer loyalty because under certain situations such as unavailability, consumers engage in repeated purchase due to other reasons than loyalty. Some researchers examined loyalty from an attitudinal perspective with the argument that loyalty is a desire or intention to repurchase (Czepiel & Gilmore, 1987). However, customers with high "attitudinal" intention toward a seller may not necessarily engage in purchasing. For example, a consumer may consider himself/herself loyal to Louis Vuitton® attitudinally, but never purchase its products because Louis Vuitton's products are unaffordable to him/her. Hence, it is not meaningful to examine loyalty from an attitudinal perspective alone.

Recent research has recognized the necessity to include attitudinal/intrinsic factors to set apart customers loyalty from repeated purchase behavior. In this study, customer loyalty is defined from both a behavioral and attitudinal perspectives (Kumar & Shah, 2004; Lii & Sy, 2009) and measured as an attitudinal preference for the seller accompanied with strong repeat purchase behavior (Dick & Basu, 1994; Kumar & Shah, 2004; Olive, 1999). Loyal customers are more willing, on some level, to put aside their own interests in an effort to maintain their long-term relationship with the seller than are non-loyal customers (Crosby & Taylor, 1983; Gilliand & Bello, 2002). For example, Martin et al. (2009) found that when the price increase was minor (from $7.00 to $7.50), loyal customers view the price increase as more fair than did non-loyal customers. However, the results of Martin et al.'s (2009) research did not support the notion that loyal customers always view a company more favorably than do non-loyal customers with respect to price increases (Bolton et al., 2002; Price, Arnould, & Deibler, 1995). The buffer power of customer loyalty was found to be negated due to a high price increase when the price increase was major (price increased from $7.00 to $10.00). Furthermore, under conditions of high price inequality, customers with high shopping frequency perceive price increases to be less fair than do customers with low shopping frequency (Huppertz, Arenson, & Evans, 1978). Thus, as loyal customers expect to receive benefits, such as a lower price (compared to reference others) from the seller (Xia et al., 2004), they are likely to react more negatively than non-loyal customers to major price changes.

The same rationale may apply to the impact of temporal proximity of price difference on price fairness perceptions as well. When loyal customers discover they paid a higher price for the same product/service than comparative others, they may see the disadvantaged price as unfair and feel that the seller has "betrayed" their relationship (Xia et al., 2004). This seems especially

true when a price discrepancy is discovered within a very short period of time (e.g., within the same day of purchase) because it may be viewed in a more concrete sense by loyal customers and is likely to induce strong negative fairness perceptions. Therefore, a temporally recent disadvantaged price difference is more likely to trigger strong negative reactions among loyal customers than a temporally distant disadvantageous price.

Despite the importance of the moderating effect of customer loyalty, its impact on price fairness perception has rarely been tested in the context of dynamic pricing, and thus its impact on price fairness perception formation remains unclear. Consistent with conclusions of prior researchers (Darke & Dahl, 2003; Xia et al., 2004) that customer loyalty impacts fairness perceptions, it is predicted that the level of customer loyalty will moderate the impact of price difference magnitude and temporal proximity of price change on buyers' unfairness perceptions.

H1b: Customer loyalty moderates the relationship between magnitude of price difference and perceived price fairness. Specifically, loyal customers will perceive a ***major*** *price difference as less fair but a* ***minor*** *price difference as more fair than will non-loyal customers.*

H2b: Customer loyalty moderates the relationship between temporal proximity of price difference and perceived price fairness. Specifically, loyal customers will perceive a ***temporally close*** *price difference as less fair but a* ***temporally distant*** *price difference as more fair than will non-loyal customers.*

2.3.3 Price Fairness Perception, Satisfaction, and Behavioral Intentions

Previous research shows that perceptions of price unfairness may trigger consumers' negative emotions such as dissatisfaction, disappointment, and anger (Campbell, 1999; Xia, et al,. 2004). Although research has shown perceived price fairness and satisfaction with purchase are two highly correlated concepts and sometimes can be used interchangeably (Ordonez et al., 2000), perceived fairness is different from satisfaction. The marketing literature has emphasized price fairness perceptions as important predictors of consumer satisfaction (Anderson, Fornell, & Lehmann, 1994; Cronin, Brady, & Hult, 2000; Zeithaml, 1988; Anderson & Sullivan, 1993).

Consumers' beliefs regarding whether or not the price is fair hold great impact not only on their satisfaction with purchases but also on their willingness to re-patronize the seller (Blinder, 1991; Kahenman, Knethch, & Thaler, 1986a, 1986b). When consumers perceive the prices as unfair, they may avoid re-patronizing the seller (Campbell, 1999; Xia et al., 2004). Additionally, customers may engage in activities to protect themselves or to take revenge to get back at the seller. Self-protection is defined as actions chosen by consumers to enhance their own benefits and to reduce their perceived monetary sacrifice when they perceive a price as less fair. Revenge is defined as actions evoked by a perception of price unfairness, typically accompanied by anger and disappointment, with the objective of damaging the seller (Xia et al., 2004). Examples of such behaviors include but are not limited to complaining, asking for a refund of price difference, spreading negative information about the seller, leaving the exchange relationship, and switching to competitors (Campbell, 1999, Xia et al., 2004).

Both customers' satisfaction with purchase and their behavioral intentions toward the seller may be impacted by their perceptions of price fairness. For example, the negative

consequences of price unfairness perceptions were more recently exemplified by iPhone purchasers who angrily complained when Apple dropped the price for iPhone substantially approximately two months after its first release (Blakely, 2007; Macintosh News Network, 2007). Customers got angry when they perceived that companies were charging them higher prices than other customers (Cox, 2001), reflecting consumers' tendency to evaluate their overall shopping experience in comparison to that of other consumers. The results of such comparison hold great impact on their consequent behaviors.

A growing body of research has been dedicated to analyzing the role of fairness perceptions on consumer attitudinal and behavioral outcomes (e.g., Dodds, Monroe, & Grewel, 1991; Kim, Zhao, & Yang, 2008; Xia et al, 2004). Studies have found that price fairness perceptions can be used as a tool for 'predicting' consumers' reactions to a seller's (unfair) pricing strategies (Rabin, 1993). Past research demonstrates the significant predictive role played by price fairness perceptions on consumer satisfaction toward purchase (Herrmann et al., 2007), and decision to purchase (Daskalopoulou, 2008; Daskalopoulou & Petrou, 2006; Dodds et al., 1991). Daskalopoulou and Petrou (2006) confirmed the predicting power of perceived price fairness on consumers' decision to shop. Kukar-Kinney, Xia, and Monroe (2007) found that perceived price fairness has a direct impact on consumer shopping intentions.

Moreover, behavioral intentions other than intention to re-purchase may be influenced by price fairness judgments. Different levels of unfairness perceptions resulting from the magnitude and/or proximity of price changes may lead to various behavioral reactions (e.g., no actions, complaining, negative word-of-mouth, and even legal actions) (Xia et al., 2004). However, the findings discussed above were observed in a general price change setting. Given that dynamic pricing is a specific example of price discrimination where frequent price changes occur within a

relative short time period, factors found to have significant impact on price fairness perceptions in other pricing contexts are rarely empirically tested in the context of dynamic pricing. Consumers' reactions to this pricing scheme strategy will have a significant impact on their satisfaction with purchases and their subsequent behavioral intentions.

Based on findings that consumers' price fairness perceptions impact their behavioral outcomes, it is expected that price fairness perceptions will also positively influence satisfaction with purchase and intentions to re-patronize the particular seller (Bei & Chiao, 2001; Martin-Consegra, Molina, & Esteban, 2007). Specifically, when consumers perceive the price differences to be fair, they are more likely to report higher level of satisfaction with overall shopping experience than when they perceive the price differences to be unfair. Similarly, when consumers perceive price differences to be fair, they are more likely to re-patronize the seller. However, when consumers perceive the price differences to be less fair, they are more likely to take self-protection actions or even revenge actions against the seller (Xia et al., 2004).

H3a: Perceived price fairness will positively influence consumers' satisfaction with purchases.

H3b: Perceived price fairness will positively influence consumers' re-purchase intentions.

H3c: Perceived price fairness will negatively influence consumers' self-protection intentions.

H3d: Perceived price fairness will negatively influence consumers' revenge intentions.

2.3.4 Satisfaction and Behavioral Intentions

The literature has employed various definitions and measures of customer satisfaction in an attempt to identify antecedents of satisfaction and the behavioral consequences. Oliver (1997) defined satisfaction as the consumer's fulfillment response and proposed that one should distinguish between transaction-specific satisfaction and overall satisfaction. This study focuses on customers' overall satisfaction with their purchase that includes their satisfaction with the shopping experience as well as with the purchase. Specifically, satisfaction in this study is conceptualized as the evaluation reflecting the extent to which the customer believes the shopping experience evokes positive feelings (Cronin et al., 2000).

Empirical findings suggest that satisfaction from past experience provides customers with confidence in the seller (Bansal & Taylor, 1999; Cronin et al., 2000; Rucci, Kirn, & Quinn, 1998; Siau & Shen, 2003) and that customer satisfaction is the key to customer retention and repurchase behavior (Bolton, 1998; Jones, Mothersbaug, & Beatty, 2000; LaBarbera & Mazursky, 1983; Oliver, 1997; Sambandam & Lord, 1995; Yang & Peterson, 2004). Therefore, it is argued in this study that satisfaction with purchase needs to be incorporated when examining the impact of price fairness perceptions on behavioral intentions.

H4a: Satisfaction with purchase will mediate the relationship between perceived price fairness and consumers' re-purchase intentions.

H4b: Satisfaction with purchase will mediate the relationship between perceived price fairness and consumers' self-protection intentions.

H4c: Satisfaction with purchase will mediate the relationship between perceived price fairness and consumers' revenge intentions.

CHAPTER 3

METHOD

This chapter describes the method used to (1) address the research objectives of the current study, and (2) test the hypotheses proposed regarding the relationships between the constructs as illustrated in the conceptual framework (Figure 2.1). A description of the research design selected for this study is followed by the procedure undertaken to administer the survey and collect the data. Instruments used to manipulate the independent variables and to measure dependent variables examined in this study are also discussed in this chapter.

3.1 Research Design

In order to test the hypotheses set forth in chapter 2, a 2 (price difference levels) X 2 (temporal proximity levels) X 3 (product types) between-subjects experimental design was utilized. Three different types of products were used in experiments as an attempt to increase the generalizibity of findings of this study. However, product type does not serve as an independent variable for the objective of this study and thus, no data analyses were conducted based on the product type factor. In the experiment, participants were randomly assigned to a simulated purchase scenario for a product from Amazon.com. The scenario included product information such as product specifications and price to provide participants with information needed for making price

fairness judgments. The magnitude and temporal proximity of price difference were manipulated in all purchase scenarios (see Table 3.1) in order to test the effect of these two factors on price fairness perceptions.

Product Type	Magnitude of Price Difference	Temporal Proximity of Price Difference	Scenario
The North Face ® Backpack			
	Major	Temporally Close	1
	Major	Temporally Distant	2
	Minor	Temporally Close	3
	Minor	Temporally Distant	4
Seinfeld DVD Series			
	Major	Temporally Close	5
	Major	Temporally Distant	6
	Minor	Temporally Close	7
	Minor	Temporally Distant	8
Garmin ® GPS Navigator			
	Major	Temporally Close	9
	Major	Temporally Distant	10
	Minor	Temporally Close	11
	Minor	Temporally Distant	12

Table 3.1. Dynamic Pricing Experimental Purchase Scenarios

The magnitude and the temporal proximity of price differences are the two manipulated variables in this study and serve as independent variables in analyses. Success of the manipulation was determined before data analyses in the main experiment. Customer loyalty toward Amazon.com was measured at the beginning of the experiments and serves as the moderating variable. Perceived price fairness, satisfaction with purchase, and re-purchase, self-protection, and revenge intentions were measured and serve as the dependent variables. This study is conducted in 3 stages: the pre-test, pilot study, and the main experiment.

3.2 Pre-test

The purpose of the pretest was to gauge the clarity of the purchase scenarios, and to determine face validity and clarity of item wording. Thus, the pretest was conducted in order to ensure clear description of the magnitude and temporal proximity of price differences and clarity of all scenarios and scale items. First, respondents were randomly assigned to one of the 12 dynamic pricing/purchase scenarios (see Table 3.1). After reading the assigned scenario, participants identified the magnitude and temporal proximity of the price difference described in the scenario using the manipulation check items. In addition to the manipulation check, participants' customer loyalty toward Amazon.com, perceived price fairness, satisfaction with purchase, and behavioral intentions were measured to provide a preliminary evaluation of the face validity of these constructs and clarity of item wording.

Second, the pretest included three open-ended questions to assess the appropriateness and clarity of all purchasing scenarios. The first question asked participants to provide a comparatively fair price for the stimulus product used in the pretest. The second question asked participants to identify whether or not the price difference in the experiment is major vs. minor and temporally distant vs. close for the purchase scenario. The third open-ended question asked participants to provide their comments regarding the clarity of the survey questions and scenarios in the pre-test.

3.2.1 Sample

The pre-test sample consisted of undergraduate students enrolled in a junior level consumer behavior course at Auburn University. A student sample was chosen because all

purchase scenarios are designed to depict a purchase of a product from Amazon.com and college students are a major consumer group in the U.S. online market (Hyde, 2003). A total of 42 hard copy questionnaires (see Appendix A) were distributed to participants in a classroom setting. Participants were instructed to complete questionnaires after class. Participants who completed questionnaires were given extra credit as an incentive. A total of 28 responses were received.

3.2.2 Stimulus Development

A questionnaire measuring customer loyalty, price fairness perceptions, satisfaction, and behavioral intentions was developed and administered in the pre-test and then modified based on the results of the pre-test. Twelve purchase scenarios were developed to depict the purchase of a product from Amazon.com.

Amazon.com, a multinational online retailer offering a variety of merchandise including books, DVDs, music CDs, electronics, apparel, accessories and so on (Amazon.com, 2009), has often used dynamic pricing (Blakley, 200). For experiments in this current study, three products were selected from three general product categories sold through Amazon.com (i.e., accessories, home entertainment, and electronics).

Each purchase scenario included a visual representation of the relevant product (i.e., a North Face ® backpack, a set of Seinfeld DVDs, and a Garmin ® GPS navigator) along with a verbal description of the product. The same image of the product was used in all price conditions (i.e., major vs. minor/ temporally close vs. distant price differences). Thus, each respondent saw the same product image and product information in each price condition. This method reduces the intervening effect of external variables and enhances the internal validity of the experiment. Variation in the magnitude of price difference was set so that the other customer paid 5% less for

the minor price difference condition and 30% less for the major price difference condition, a method similar to that employed by Haws and Bearden (2006). A temporally distant price difference was operationalized to be a price discrepancy one month after the comparative purchase while a temporally close price difference to be a price discrepancy the same day as the comparative purchase.

Customer loyalty was measured at the beginning of the experiment. Participants then read one of the 12 purchase scenarios. After they had read the scenario, the manipulation check was executed to assess whether or not participants correctly perceived the magnitude and temporal proximity of price difference. Perceived price fairness, satisfaction with purchase and behavioral intentions were measured after the manipulation check. Participants' demographic information including gender, age, past purchase experience with Amazon.com, ethnicity, and school curriculum was collected at the end of the experiment (see Appendix A).

Pre-test data was analyzed to check the clarity of the 12 purchase scenarios (representing the levels of price difference magnitude, temporal proximity, and types of product) and all scale items. Most participants said they felt the scenarios are clear and easy to understand. For example, one participant said, "It is clear. It actually happens to me all the time, just not with Amazon.com". Another said, "I feel as though the scenario was a good depiction of a real life experience." A few participants expressed concerns about the reasons for the price differences reported in the purchase scenarios. However, since sellers do not normally provide reasons for price differences resulting from a dynamic pricing strategy during or after transaction and there were no questions or issues about the clarity of the scenarios the 12 purchase scenarios were retained for the pilot test without further modification.

Overall, participants felt the prices for all three products described in the pre-test were within an acceptable range, that is, $66.45 to $200 for a North Face ® backpack, $100 to $190 for the set of DVDs, and $100 to $150.25 for the Garmin ® GPS navigator. A consensus was observed among respondents with respect to the manipulation of magnitude and temporal proximity of price difference as all agreed that a 30% lower price to be a major discrepancy while a 5% lower price to be a minor discrepancy; a price discrepancy occurred within the same day of purchase to be temporally close while a price discrepancy occurred after one month to be temporally distant. Thus, the manipulation of magnitude and temporal proximity of price difference were retained for the pilot test.

3.2.3 Measures

Questions were developed to measure customer loyalty, price fairness perceptions, satisfaction with purchase, and behavioral intentions (see Table 3.3), including scale items adapted from previous studies and items developed by the researcher for the purpose of the present study. Customer loyalty was measured using a 20-item measure; 16 items (of the original 28 customer loyalty items) were adapted from McMullan and Gilmore's (2003) study and four were developed by the researcher. McMullan and Gilmore's (2003) scale was used because it takes into account the dual nature of customer loyalty by measuring both attitudinal and behavioral dimensions of this construct. Moreover, the validity and reliability of this scale were reported to be satisfactory with an average communality of .75 and Cronbach's *alpha* values falling between .70 and .81(McMullan & Gilmore, 2003) for each dimension of the construct. Because the scale was initially developed for a study in service sector (i.e., restaurants), these items were revised slightly to fit the context and purpose of this study and rescaled to a seven-

point Likert scale where “1” stood for “strongly disagree” and “7” stood for “strongly agree”. Four more items were added to the scale because the adapted 16-item scale did not have adequate items to measure loyal customers’ potential behaviors related to repeated purchase and spreading positive word-of-mouth. The 20 items scale is presented in Table 3.2.

Perceived price fairness was measured using a 6-item scale adapted from Darke and Dahl’s scale for perceived price fairness (2003). Darke and Dahl (2003) reported a Cronbach’s *alpha* value of .90. Using the same six items to measure perceived fairness in their study of the perceived fairness of dynamic pricing, Haws and Bearden (2006) reported a Crobanch’s alpha of .93. The six items were re-scaled to a seven-point agree – disagree Likert scale.

Satisfaction with purchase was measured using an 8-item Likert scale developed by adapting scale items from previous research. First, five items were adapted from the measure of customer satisfaction developed by Olive (1980). Other items in Oliver’s (1980) original scale were not selected for the measure for customer satisfaction in the present study because these items are specific to a transaction and therefore, do not conform to the definition of customer satisfaction put forth in the present study. Wang and Head (2002) and Rai, Lang, and Welker’s (2001) used a three-item measure of overall customer satisfaction similar to that developed by Olive (1980). The same three-item measure was also used by Kim et al. (2008) to measure customers’ satisfaction with service quality and the validity and reliability of the scale were reported as satisfactory.

Spreng, Mackenzie, and Olshavsky’s (1996) used a four-item bipolar measure (dissatisfied/satisfied, unhappy/happy, disappointed/delighted, and displeased/pleased) of overall satisfaction with purchase. Using this four-item measure, Darke and Dahl (2003) reported a Cornbach’s alpha value of .92. All items described above were pulled together, generating a pool

of 12 items. Because some items are similar, items with close content and meaning were deleted to reduce redundancy. After elimination of redundant items, the scale used to measure customers' overall satisfaction with purchase in this study includes eight items measured on a 7-point Likert scale (1 = "strongly disagree" and 7 = "strongly agree") (see Table 3.3).

Two additional items were added to Zeithaml et al.'s (1996) 13 item scale to measure negative word-of- mouth and intent to use electronic media to spread word-of-mouth. Given that consumers may also intent to spread negative word-of-mouth about the seller's price fairness reputation (Xia et al., 2004); one question was added to measure intention to spread negative word-of-mouth. Moreover, when the original items were developed, online communications through electronic social networks such as Facebook, Twitter, MySpace, and other Internet consumer discussion boards was not yet popular. Given the speed of spread of the negative comments on iPone's price drop and the power of such comments on sellers' fairness reputation; it is necessary to also measure the likelihood of buyers' use of the electronic venue to vent their disappointment, anger and other negative emotions. Therefore, one item was added to measure the likelihood for consumers to use Internet media to vent their negative purchase experience. The resulting 15-item scale was used to measure behavioral intentions in the current study. These 15 items can be clustered into three dimensions: repurchase intentions, self-protection intentions, and revenge intentions (see Table 3.2). All items were anchored by a 7-point Likert scale with "1" for "very unlikely" to "7" for "very likely".Analysis of pre-test responses indicated that three participants felt questionnaire item 51 (I will pay a higher price than competitors' charge due to the benefits I currently receive from Amazon.com.) was problematic. One participant questioned, "Why would you pay a higher price if you have benefits?" Another participant asked, "What are the benefits I received from Amazon.com?" A third participant simply said question #51 was "a

bit wordy". Thus, this question was deleted from the questionnaire for the pilot test. A new item ("I will search for additional product price information (e.g., at competitor's site/store) before purchasing products from Amazon.com in the future.") was added to explore a dimension of consumer self-protection behavioral that depicts a change of behavior with the intention to protect their own interests as a consequence of price unfairness perceptions induced by dynamic pricing.

The magnitude and temporal proximity of price differences were manipulated in the experiment. In order to check the success of the manipulations, participants are asked to first identify the magnitude and temporal proximity of price difference described in the scenario, and then answer two more manipulation check questions (Which of the following statements is true, based on the scenario you just read? In the scenario you just read, the difference between the price you paid and the price your friend paid is MAJOR/MINOR; the price difference occurred within a relatively SHORT/LONG (circle one) period of time.).

Constructs	Items	Sources
Customer Loyalty	CL1. Amazon.com is a retailer that interests me. CL2. Amazon.com is exactly what I need from a retailer. CL3. I frequently purchase products from Amazon.com. (*) CL4. Amazon.com as a choice of retailer has not worked out as well as I thought it would. CL5. If I could do it over again, I'd choose a different retailer than Amazon.com. CL6. I have truly enjoyed buying products from Amazon.com. CL7. Amazon.com is a retailer that I could talk about for a long time. CL8. I prefer buying products from Amazon.com. CL9. Amazon.com is more than a mere retailer to me. CL10. I would try a different retailer if the same product was less expensive. CL11. I would try a different retailer if the other retailer offered better features. CL12. Buying products from Amazon.com says a lot about who I am. CL13. I care about Amazon.com. CL14. I consider myself to be highly loyal to Amazon.com. CL15. I often return to Amazon.com to buy products from it. CL16. I feel it is safer to buy products from Amazon.com. CL17. I say positive things about Amazon.com to other people.(*) CL18. I recommend Amazon.com to someone who asks my advice for purchasing various products. (*) CL19. I encourage friends and relatives to buy products from Amazon.com. (*) CL20. I consider Amazon.com my first choice to buy products.	McMullan & Gilmore (2003); * items developed by researcher
Perceived Price Fairness	PPF1. The price I paid was fair. PPF2. The price I paid was questionable. PPF3. The price I paid was justified. PPF4. The price I paid was honest. PPF5. The price I paid was unfair. PPF6. The price I paid was a "rip-off".	Darke & Dahl (2003)

Table 3.2 Scale Items Used in Pre-test (Continued)

Table 3.2 (Continued)

Constructs	Items		Sources
Satisfaction with Purchase	S1.	I am satisfied with my purchase decision.	Martin-Consuegra et al. (2007); Wang & Head (2001); Rai et al. (2002); Spreng et al. (1996)
	S2.	My choice was wise.	
	S3.	I think I selected the right retailer.	
	S4.	I am happy with my purchase decision.	
	S5.	I feel badly about my purchase decision.	
	S6.	I am satisfied with the purchasing process through Amazon.com.	
	S7.	Overall, I am satisfied with the purchase experience.	
	S8.	Overall, I am pleased with my purchase experience.	
Re-purchase Intentions	BI1.	I will continue to buy products from Amazon.com if I need the product in the future.	
	BI2.	I will continue to buy products from Amazon.com regardless of their pricing policy.	
	BI3.	I will continue to buy products from Amazon.com even if the prices are somewhat higher than those of Amazon.com's competitors.	
	BI4.	I will buy more products from Amazon.com in the next few years regardless their pricing policy.	
	BI5.	I will pay a higher price than competitors' charge due to the benefits I currently receive from Amazon.com.	
Self-protection Intentions	BI6.	I will ask Amazon.com for a refund for the price difference.	Zeithaml et al. (1996) * items developed by researcher
	BI7.	I will complain to Amazon.com's employees if I experience a problem with Amazon difference.ars.eg	
	BI8.	I will complain to Amazon.com's customer service about their pricing policy.	
	BI9.	I will stop buying products from Amazon.com.	
	BI10.	I will buy fewer products from Amazon.com in the next few years	
Revenge Intentions	BI11.	I will say negative things about Amazon.com n pricing policy to other people. (*)	
	BI12.	I will complain to other customers about Amazon.com's pricing policy.	
	BI13.	I will complain to external agencies, such as the Better Business Bureau, about Amazon.com's pricing policy.	
	BI14.	I will switch to Amazon.com's competitor after my experience with their pricing policy.	
	BI15.	I will complain about Amazon.com's pricing policy through online social networking channels such as Facebook. (*)	

3.3 Pilot Test

The modified measurement items based on the results of the pre-test were used in the pilot test. Although analysis of responses collected in pre-test provided preliminary assessment of face reliability and validity, in order to statistically assess the reliability and validity of all construct measures (customer loyalty, perceived price unfairness, overall satisfaction with purchase) and behavioral intentions, a pilot test was conducted. Hardcopy questionnaires were distributed to 218 undergraduate students age 19 or above and enrolled in a global consumer class at Auburn University. Questionnaires were distributed in a classroom setting and completed after class for extra credit as an incentive.

External validity was not secured by using a convenience sample of undergraduate students as they did not fully represent the population of interest for this study. However, the main purpose for the pilot study was to check construct reliability and validity of the measures as the generalizibility of the proposed conceptual model was not the focus of pilot test. Random assignment was used to assign the participants into 12 groups, with approximately 20 participants in each dynamic pricing/purchase scenario (see Table 3.1). Using random assignment increases the likelihood that the characteristics of the sample in each group are relatively equal and the underlying confounding variables (if any) are equivalent among all groups.

3.3.1 Sample

Pilot test participants were undergraduate students at Auburn University. One hundred fifty-seven questionnaires were received from 218 hardcopy survey requests (a 72% respondent

rate). After elimination of incomplete and invalid responses, a sample consisting of 134 responses was generated. Ninety two percent of the respondents were female students and 8% were male students. Sixty two percent of the respondents had purchased products from Amazon.com in the past. All demographic characteristics including age, ethnicity, school year, and academic curriculum are presented in Table 3.3.

3.3.2 Stimulus Development

Based on the results of pre-test, no modification was made to the 12 purchase scenarios. Therefore, the same set of scenarios including product images, product information, and magnitude and temporal proximity of price difference were used in the pilot test. The same procedure was used to collect data in the pilot test. Participants first answered questions regarding customer loyalty at the beginning of the experiment and then proceeded to one of the 12 purchase scenarios. A manipulation check items were presented to participants after measuring customer loyalty to assess whether or not the magnitude and temporal proximity of price difference were successfully manipulated in the pilot-test. Perceived price fairness, satisfaction with purchase, and behavioral intentions were measured after the manipulation check. Participants' demographic information was collected at the end of the experiment (see Appendix B).

Demographics		Frequency	Percent
Age	18	13	9.7
	19	44	32.8
	20	33	24.6
	21	25	18.7
	22	9	6.7
	23	6	4.5
	24	3	2.2
	27	1	0.7
Gender	Female	123	91.8
	Male	11	8.2
Purchase experience	Yes	83	61.9
	No	51	38.1
Ethnicity	Caucasian	121	90.3
	African American	8	6.0
	Hispanic	1	0.7
	Asian	1	0.7
	Other	3	2.2
School year	Freshman	36	26.9
	Sophomore	47	35.1
	Junior	35	26.1
	Senior	16	11.9
Academic curriculum	Business	7	5.2
	Education	3	2.2
	Engineering	1	0.7
	Human Sciences	104	77.6
	Liberal Arts	13	9.7
	Sciences and Math	1	0.7
	Other	5	3.7
Total		134	100.0

Table 3.3. Demographic Characteristics of Pilot Test Sample

3.3.3 Manipulation Check

A manipulation check was performed to test whether respondents correctly perceived the magnitude and temporal proximity of the price difference and also to remind respondents of the magnitude and temporal proximity of the price change in the scenario they read. Because the manipulation check was performed by asking participants to recall and categorize the price difference based on the magnitude and temporal distance, their response was used to verify the success of manipulation. The results indicated that for the manipulation of the magnitude of price difference, all participants successfully classified the magnitude and temporal proximity of price difference in all dynamic pricing scenarios. Therefore, all responses were used for data analysis in the pilot test and no modification was made to purchase scenarios.

3.3.4 Measures

The pilot test was conducted to validate the subscale items for each latent variable and the respective measurement models. Analyses with the pilot test data provide information regarding whether or not the items are legitimate indicators of each latent variable. With the pilot test data, the validity assessment of the measurement for each latent construct was evaluated by estimating the standardized factor loading of each item on the respective latent variable. The results guide the decision as to whether or not deletion of the items on each latent variable is necessary. To this end, exploratory factor analysis (EFA) was performed to check the measurement validity of each of the six latent constructs including customer loyalty, perceived price fairness, customer satisfaction, re-purchase, self-protect, and revenge intentions. Given the relatively small sample size (N = 134) of the pilot test, the overall measurement model fit of the

five latent variables including perceived price fairness, customer satisfaction, re-purchase, self-protect, and revenge intentions was not assessed. Because customer loyalty construct was used as a grouping variable in hypothesis testing, it was included in the assessment of overall measurement model fit, which was performed with main experiment data to cross-validate the measurement model with a much larger sample.

EFA was first conducted to determine whether or not the items properly manifest the customer loyalty constructs in this study. The customer loyalty measurement scale consists of 16 items adapted from McMullan and Gilmore's (2003) scale for customer loyalty and four items developed by the researcher. Although McMullan and Gilmore's (2003) scale for measuring customer loyalty was reported to have met the criteria for scale reliability, the new scale including four the additional items developed by the researcher may not retain the same level of reliability and validity. Therefore, both reliability and validity tests are required to determine whether items are reliable and load on respective dimensions of the customer loyalty construct.

The initial EFA results, with principle component analysis (PCA) as the extraction method and varimax with Kaiser Normalization as the rotation method, indicated that 19 of the 20 items showed satisfactory standardized factor loadings higher than 0.6 (see Table 3.4), a threshold suggested by Marsh and Hau (1999). According to the EFA output, customer loyalty was manifested by three components, indicating customer loyalty is indeed multi-dimensional (see Table 3.4). However, component 1 included items that describe both attitudinal and behavioral dimensions of customer loyalty toward Amazon.com. Component 2 had two items that measure a customer's evaluation of past experience with Amazon.com and decision choice based on past experience. Component 3 had two items that specifically depict a customer's commitment to Amazon.com. The results indicated that one item (buying products from

Amazon.com says a lot about who I am) in component 1 failed to meet the criteria with a factor loading of .543 and was dropped from the scale for the main experiment.

Cronbach's *alpha* is also used to assess scale reliability. The closer an *alpha* for a construct is to 1.0, the more likely all items measure the true score. Conventionally, Cronbach's *alpha* of .70 indicates an adequate scale and a cut-off of .80 or higher indicates good reliability for the scale items (Nunnally & Bernstein, 1994). Component 1 was reported with a satisfactory Cronbach's *alpha* value (α = .948) and thus, was retained for further analysis. Component 2 with only two items yielded a relatively low Cronbach's *alpha* value (α = .668) and was dropped from the scale. Although component 3 showed a satisfactory Cronbach's alpha value (α = .894), it had only two valid scale items. As at least three subscale items are needed for a good latent measure, component 3 was thus dropped from the scale for the main experiment. Thus, 15 items were retained for further analysis.

Components	Items	Factor Loadings	Reliability (α)
Attitudinal and behavioral loyalty toward seller (Component 1)	CL01. Amazon is a retailer that interests me.	.771	.948
	CL02. Amazon.com is exactly what I need from a retailer.	.791	
	CL03. I frequently purchase products from Amazon.com.	.751	
	CL06. I have truly enjoyed buying products from Amazon.com.	.702	
	CL07. Amazon.com is a retailer that I could talk about for a long time.	.747	
	CL08. I prefer buying products from Amazon.com.	.775	
	CL09. Amazon.com is more than a mere retailer to me.	.738	
	CL12.* Buying products from Amazon.com says a lot about who I am.	.543	
	CL13. I care about Amazon.com.	.716	
	CL14. I consider myself to be highly loyal to Amazon.com.	.793	
	CL15. I often return to Amazon.com to buy products from it.	.772	
	CL16. I feel it is safer to buy products from Amazon.com.	.672	
	CL17. I say positive things about Amazon.com to other people.	.737	
	CL18. I recommend Amazon.com to someone who asks my advice for purchasing various products.	.735	
	CL19. I encourage friends and relatives to buy products from Amazon.com.	.776	
	CL20. I consider Amazon.com my first choice to buy products.	.780	
Experience evaluation and decision choice (Component 2)	CL04.* Amazon.com as a choice of retailer has not worked out as well as I thought it would.	.828	.668
	CL05.* If I could do it over again, I'd choose a different retailer than Amazon.com.	.698	
Customer Commitment (Component 3)	CL10. * I would try a different retailer if the same product was less expensive.	.903	.894
	CL11. * I would try a different retailer if the other retailer offered better features.	.911	

Note: * items dropped for the main experiment

Table 3.4. Factor Loadings and Reliability of Customer Loyalty Measure (with 20 items)

A second EFA was conducted with the 15 retained items to assess whether all items load on meaningful component structure(s). According to the results of second EFA, customer loyalty was still multi-dimensional (see Table 3.5). Most items of component 1 describes behavioral dimensions of customer loyalty toward Amazon.com. Component 2 had three items that purely measure a customer's attitudinal loyalty toward Amazon.com. Two items (CL06 and CL13) failed to yield an adequate factor loading and were dropped from the scale, leaving a total of 13 items in the customer loyalty scale. Reliability assessment of the scale indicated that both components had met the reliability threshold of .60 (see Table 3.5).

However, the resulting factor structure is not consistent with the results of McMullan and Gilmore's (2003) customer loyalty development study where items were reported to load on distinctive components that describe either attitudinal or behavioral customer loyalty. The pilot test data show that component 1 in the current study had items depicting both attitude and behavior dimensions. Given all construct validity and reliability measures had met criteria for EFA analysis; the retained 13 items of customer loyalty scale were retained for the main experiment (see Table 3.5).

Components	Items	Factor Loadings	Reliability (α)
Attitudinal and behavioral loyalty toward seller (Component 1)	CL01. Amazon is a retailer that interests me.	.715	.830
	CL02. Amazon.com is exactly what I need from a retailer.	.626	
	CL03. I frequently purchase products from Amazon.com.	.712	
	CL06. * I have truly enjoyed buying products from Amazon.com.	.504	
	CL13. * I care about Amazon.com.	.551	
	CL14. I consider myself to be highly loyal to Amazon.com.	.641	
	CL15. I often return to Amazon.com to buy products from it.	.732	
	CL16. I feel it is safer to buy products from Amazon.com.	.652	
	CL17. I say positive things about Amazon.com to other people.	.790	
	CL18. I recommend Amazon.com to someone who asks my advice for purchasing various products.	.799	
	CL19. I encourage friends and relatives to buy products from Amazon.com.	.832	
	CL20. I consider Amazon.com my first choice to buy products.	.652	
Attitudinal Loyalty (Component 2)	CL07. Amazon.com is a retailer that I could talk about for a long time.	.751	.940
	CL08. I prefer buying products from Amazon.com.	.756	
	CL09. Amazon.com is more than a mere retailer to me.	.863	

Note: * items dropped for the main experiment

Table 3.5. Factor Loadings and Reliability of Customer Loyalty Measure (with 15 retained items)

In order to verify the dimensions of the other five latent constructs -- perceived price fairness, customer satisfaction, re-purchase, self-protection, and revenge intentions, another EFA was performed to determine the construct validity. The results of EFA indicated that all five constructs were uni-dimensional. For perceived price fairness, factor loadings of all six items were higher than .60 and the measurement was reliable with Cronbach's *alpha* at .906. Factor loadings for all eight items for customer satisfaction were also higher than .60 with a Cronbach's *alpha* value of .954. All factors of re-purchase intentions loaded higher than .60, with a Cronbach's *alpha* of .839. For self-protection intentions, four items yielded a factor loading higher than .60; one item (SI51) failed to meet the .60 threshold and was deleted from the measure for the main experiment. The revenge intention measure met the reliability threshold with a Cronbach's *alpha* of .849. Factor loadings for the five revenge intention items are all higher than .60 with a Cronbach's *alpha* value of .853 (see Table 3.6). After elimination of one item, the retained scale was used to measure perceived price fairness, customer satisfaction, re-purchase, self-protection, and revenge intentions for the main experiment.

Constructs	Items	Factor loadings	Reliability (α)
Perceived Price Fairness	PPF25. The price I paid was fair.	.844	.906
	PPF28. The price I paid was justified.	.859	
	PPF30. The price I paid was honest.	.832	
	PPF32. The price I paid was unfair.	.835	
	PPF34. The price I paid was questionable.	.823	
	PPF36. The price I paid was a “rip-off”.	.755	
Customer Satisfaction with Purchase	SA26. I am satisfied with my purchase decision.	.875	.954
	SA27. My choice was wise.	.888	
	SA29. I think I selected the right retailer.	.904	
	SA31. I am happy with my purchase decision.	.866	
	SA33. I feel badly about my purchase decision.	.761	
	SA35. I am satisfied with the purchasing process through Amazon.com.	.811	
	SA37. Overall, I am satisfied with the purchase experience.	.920	
	SA38. Overall, I am pleased with my purchase experience.	.935	
Re-purchase Intentions	PI43. I will continue to buy products from Amazon.com regardless of their pricing policy.	.838	.839
	PI46. I will continue to buy products from Amazon.com even if the prices are somewhat higher than those of Amazon.com’s competitors.	.751	
	PI48. I will buy more products from Amazon.com in the next few years regardless of their pricing policy.	.880	
	PI50. I will continue to buy products from Amazon.com if I need the product in the future.	.803	
	PI52. I will stop buying products from Amazon.com.	.620	

Notes: * items dropped for the main experiment

(Continued)

Table 3.6. Construct Factor Loadings and Reliability for Perceived Price Fairness, Satisfaction, and Behavioral Intentions

Table 3.6 (Continued)

Constructs	Items	Factor loadings	Reliability (α)
Self-protection Intentions	SI41. I will buy fewer products from Amazon.com in the next few years.	.775	.849
	SI45. I will ask Amazon.com for a refund for the price difference.	.807	
	SI47. I will complain to Amazon.com's employees about my experience with Amazon's pricing policy.	.815	
	SI49. I will complain to Amazon.com's customer service about their pricing policy.	.887	
	SI51.* I will search for additional product price information (e.g., at competitor's site/store) before purchasing products from Amazon.com in the future.	.322	
Revenge Intentions	RI39. I will say negative things about Amazon.com's pricing policy to other people.	.872	.853
	RI40. I will complain to other customers about Amazon.com's pricing policy.	.902	
	RI42. I will complain to external agencies, such as the Better Business Bureau, about Amazon.com's pricing policy.	.759	
	RI44. I will switch to Amazon.com's competitor after my experience with their pricing policy.	.672	
	RI53. I will complain about Amazon.com's pricing policy through online social networking channels.	.758	

3.4 Main Experiment

The main experiment was conducted to examine the validity of the proposed conceptual model and to test the hypothesized relationships between variables depicted in the model.

Data were collected from Auburn University, Auburn AL and Sam Houston State University, Huntsville TX, to increase the heterogeneity of the sample. A web-based questionnaire, including the scenario for experimental manipulation, manipulation check items, measures for customer loyalty, perceived price fairness, satisfaction with purchase, behavioral intentions, and demographic item, was used to conduct the main experiment with participants from Auburn University. An invitation to complete the questionnaire was e-mailed to 392 students enrolled in a marketing class at Auburn University. Each of the 392 students was randomly assigned to one of the 12 experimental treatments, one for each dynamic pricing/purchase scenario (see Table 3.1). A URL, including a consent form for the current study, was attached to the email invitation. Those who agreed to participate in this study were given an opportunity to enter a drawing for a $10 Starbucks ® gift card. The chance of winning was approximately one out of 20. A follow-up email reminder was sent to all 392 students three days after first contact to encourage respondent rate.

A paper questionnaire, exactly like the online questionnaire, was used to conduct to collect data from students attending Sam Houston State University. Questionnaires were randomly distributed to 300 students enrolled in different courses at Sam Houston State University in a class room setting. Participants completed questionnaires after class and returned completed questionnaires to course instructors. Respondents were compensated with extra course credit as an incentive for participation.

3.4.1 Sample

Participants were undergraduate students at Auburn University, located in Auburn, AL and Sam Houston State University, located in Huntsville, TX. Three hundred eighty-five questionnaires were received; 170 responses were received from 392 online survey requests (a 43% return rate) at Auburn University and 215 responses are received from 300 hardcopy survey requests (a 72% return rate) at Sam Houston State University. Of the 385 responses received, 370 responses were complete and valid. Approximately 62% of the respondents are female and 38% are male. Sixty eight percent of all respondents had purchased products from Amazon.com. Demographic characteristics of the sample are presented in Table 3.7.

3.4.2 Stimulus Development

Based on the results of the pre- and pilot tests, no modification was necessary for the 12 purchase scenarios. Therefore, the same set of scenarios and procedure followed in the pilot test was used to collect main study data. The same Participants first answered questions regarding customer loyalty at the beginning of the experiment. Participants then read one of the 12 randomly assigned purchase scenarios. The same set of questions and procedure were followed in the main experiment (see Appendix C and D).

Demographic Characteristics		Frequency			Percent		
		AU	SHSU	Total	AU	SHSU	Total
Age	18	2	12	14	1.4	5.4	3.8
	19	24	34	58	16.2	15.3	15.7
	20	25	43	68	15.5	20.3	18.4
	21	47	49	96	31.8	22.1	25.9
	22	24	29	53	16.2	13.1	14.3
	23	18	17	35	12.2	7.7	9.5
	24	3	12	15	2.0	5.4	4.1
	25	2	5	7	1.4	2.3	1.9
	26 or older	5	19	24	3.4	8.6	6.5
Gender	Female	107	121	228	72.3	54.5	61.6
	Male	41	101	142	27.7	45.5	38.4
Purchase experience	Yes	116	136	252	78.1	61.3	68.1
	No	32	86	118	21.6	38.7	31.9
Ethnicity	Caucasian	109	155	264	74.1	69.5	71.4
	African American	24	23	47	16.3	10.3	12.7
	Hispanic	1	8	9	0.7	3.6	2.4
	Asian	7	21	28	4.8	9.4	7.6
	Native American	0	5	5	0.0	2.2	1.4
	Other	6	11	17	4.1	4.9	4.6
School year	Freshman	5	34	39	3.4	15.3	10.5
	Sophomore	22	47	69	14.9	21.2	18.6
	Junior	63	73	136	42.6	32.9	36.8
	Senior	56	66	122	37.8	29.7	33.0
	Other	2	2	4	1.4	0.9	1.1
Academic curriculum	Business	140	131	271	94.6	59.0	73.2
	Education	2	7	9	1.4	3.2	2.4
	Engineering	2	0	2	1.4	0.0	0.5
	Human Sciences	0	10	10	0.0	4.5	2.7
	Liberal Arts and Sciences	3	52	55	2.0	23.4	14.9
	Criminal Justice	0	15	15	0.0	6.8	4.1
	Other	1	7	8	0.7	3.2	2.2
Total		**148**	**222**	**370**	**100**	**100**	**100**

Table 3.7.Demographic Characteristics of Main Experiment Sample

3.4.3 Manipulation Check

The manipulation check to test whether respondents correctly perceived the magnitude and temporal proximity of the price difference indicated that only two participants (.54%) failed to correctly classify the price difference as major or minor. Five participants (1.35%) categorized a price difference that occurred a month after purchase to be temporally close, indicating the failure of manipulation of temporal distance for these five respondents. These seven participants' were eliminated from the data set, resulting in a sample of 363 responses for future analysis.

3.4.4 Measurement Models

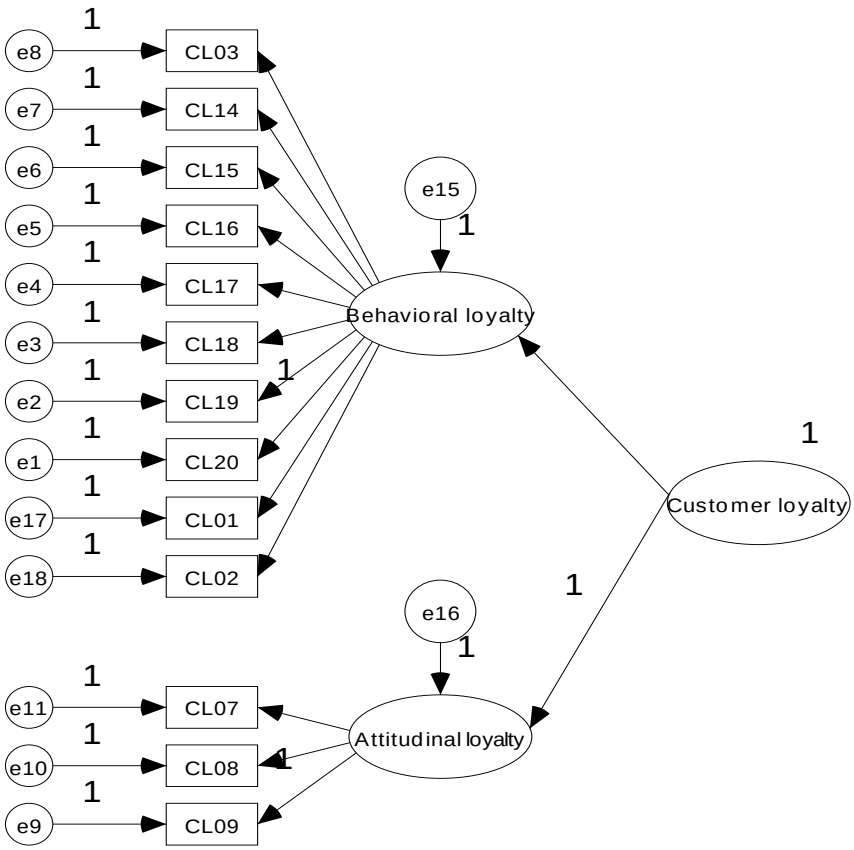
To validate the measurement models and further purify the measures before testing the hypothesized relationships between variables as illustrated in the conceptual model, confirmatory factor analysis (CFA) using the maximum likelihood method was conducted to assess the validity of the retained scale items for all latent constructs including customer loyalty, perceived price fairness, satisfaction with purchase, and behavioral intentions to determine whether or not the main experiment data fit the modified measurements models. Goodness-of-fit indexes, including model chi-square, goodness-of-fit (GFI), comparative fit index (CFI), normed fit index (NFI), incremental fit index (IFI), Tucker-Lewis index (TLI), and root mean square error of approximation (RMSEA), were used to assess the CFA results.

The chi-square should not be significant if there is a good model fit. However chi-square is very sensitive to sample size and a very large (or small) sample size will often yield a significant chi-square value that can result in the rejection of a correct model (Bagozzi & Yi, 1988; Bentler & Bonnet, 1980; Bollen, 1989). GFI should be equal to or greater than .90 to

accept a model, and a value above .95 indicates a good fit (Schumacker & Lomax, 2004). However, when degrees of freedom are large relative to sample size, GFI is biased downward except when the number of parameters is very large (Garson, 2009). Therefore, although both chi-square values and GFI are reported in this study, they are not the preferred fit measure. Other fit measures such as RMSEA, CFI, and TLI will be used as the primary criteria for the evaluation of model fit. A RMSEA, the discrepancy per degree of freedom, of .05 or less is considered to indicate a good fit of the model; those between .05 and .08 indicate an adequate fit; those greater than .08 indicate a poor fit (Browne & Cudeck, 1992; Schumacker & Lomax, 2004). CFI, NFI, IFI, and TLI should be equal to or greater than .90 to accept the model. Incremental indices of .94 or greater are considered to indicate a good fit (Hu & Bentler, 1999).

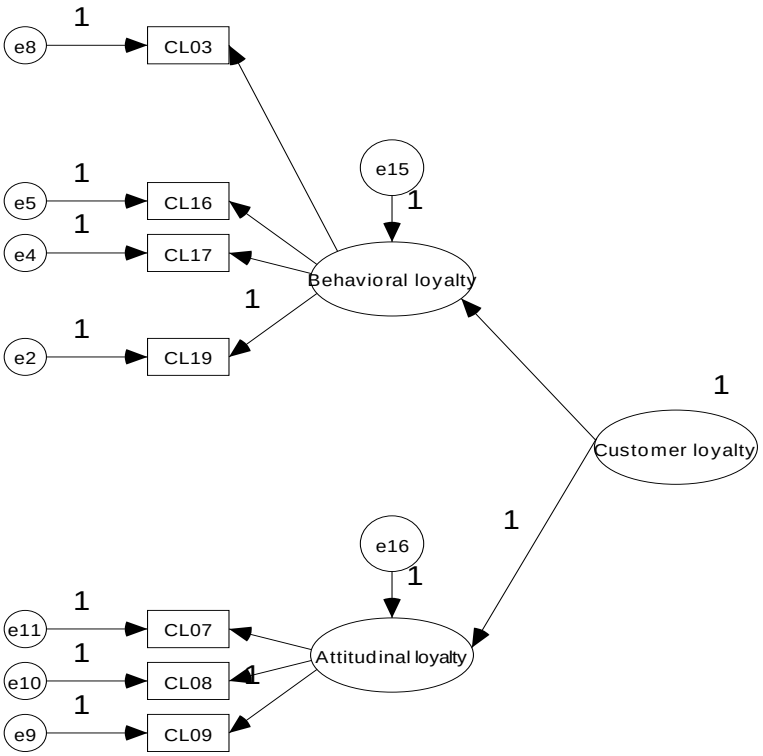
Because customer loyalty was not expected to have a linear relationship with other variables in the model, a separate CFA was conducted for the customer loyalty construct while the other five latent variables were pooled together when assessing measurement model fit. The results of the first CFA with the retained 13 items for customer loyalty measurement model (see Figure 3.1) indicated a poor model fit with χ^2 (64) = 448.76; $p < .001$; χ^2/df ratio = 7.012; GFI = .843; CFI = .890; NFI = .874; IFI = .890; TLI = .866; and RMSEA = .129. Thus, this measurement model was re-specified according to the initial CFA analysis results. After evaluating the modification indices, six items (CL01, CL02, CL14, and CL15, CL18, and CL20) were identified as the items causing fit problem due to their high error covariance, and were dropped from the scale. After elimination of these six items, the revised measurement of customer loyalty consisted of two components: component 1 with four items measuring only behavioral loyalty and component 2 with three items measuring only attitudinal loyalty (see Figure 3.2). The results of the second CFA indicated a good measurement model fit with χ^2 (13)

= 42.36; $p < .001$; χ^2/df ratio = 3.259; GFI = .971; CFI = .978; NFI = .969; IFI = .978; TLI = .965; and RMSEA = .079. These seven items (CL03, CL07, CL08, CL09, CL16, CL17, and CL19) were retained for testing hypotheses with the main experiment data.



Notes: χ^2 (64) = 448.76; $p < .001$; χ^2/df ratio = 7.012; GFI = .843; CFI = .890; NFI = .874; IFI = .890; TLI = .866; RMSEA = .129

Figure 3.1. Graphic Measurement Model for Customer Loyalty (with retained 13 items)

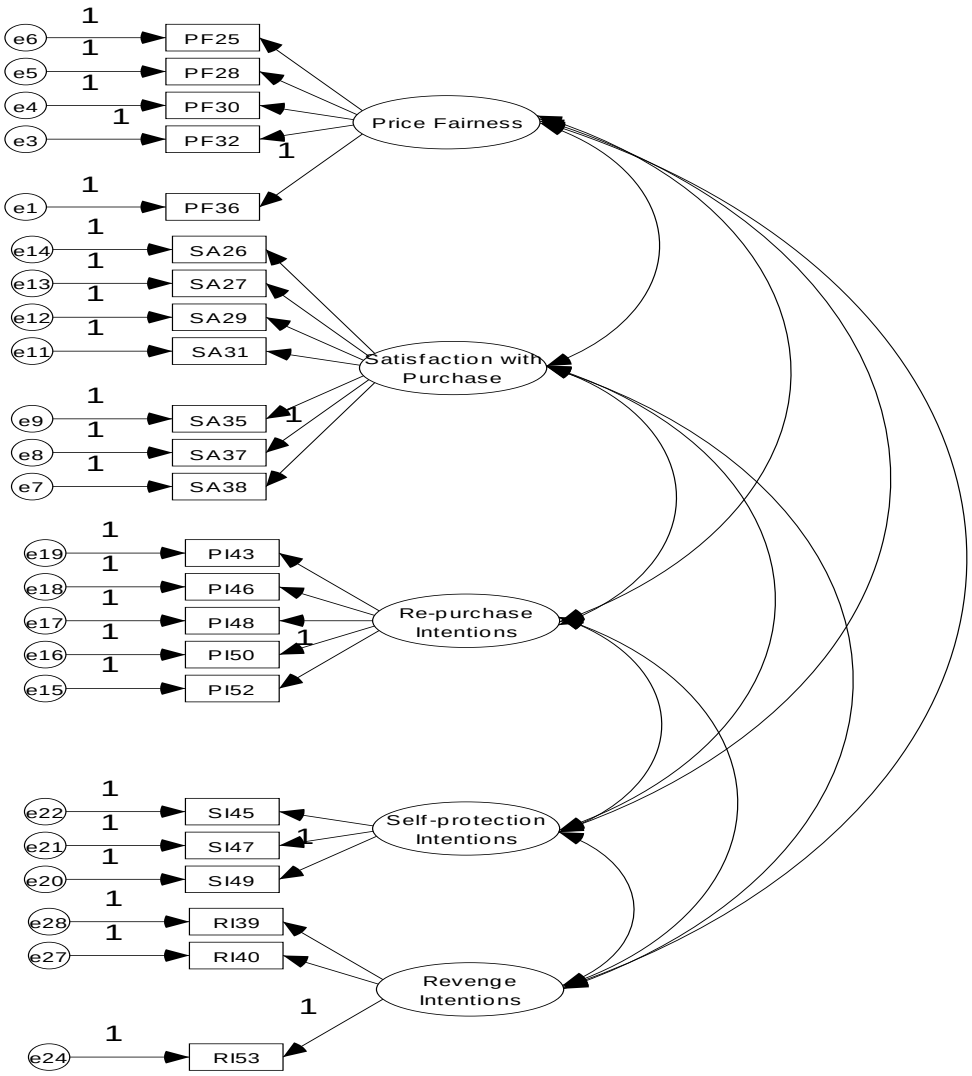


Notes: χ^2 (13) = 42.36; $p < .001$; χ^2/df ratio = 3.259; GFI = .971; CFI = .978; NFI = .969; IFI = .978; TLI = .965; RMSEA = .079.

Figure 3.2. Re-specified Graphic Measurement Model for Customer Loyalty (with retained 7 items)

A CFA was performed with main experiment data to validate the overall fit of the measurement model of 28 measured items to examine the other five constructs, including perceived price fairness, satisfaction with purchase, re-purchase, self-protection, and revenge intentions. The results indicated a poor model fit: χ^2 (340) = 1409.036; $p < .001$; χ^2/df ratio = 4.144; GFI = .756; CFI = .857; NFI = .820; TLI = .841; IFI = .857; and RMSEA = .093. In addition, an analysis of standardized residual covariances showed that several items (PF34, SA33, PI41, RI42, and RI44) were highly correlated with other items in the measurement model, resulting in standardized residuals above 2.5. Thus, these five items (PF34, SA33, PI41, RI2, and

RI44) were eliminated from the measurement model. The result of a second CFA with the retained 23 items (see Figure 3.3) yielded a good model fit: χ^2 (220) = 692.187; $p < .001$; χ^2/df ratio = 3.146; GFI = .837; CFI = .922; NFI = .901; IFI = .923; TLI = .911; and RMSEA = .077. No other items were found to be highly correlated with other items.



Notes: χ^2 (220) = 692.187; $p < .001$; χ^2/df ratio = 3.146; GFI = .837; CFI = .922; NFI = .901; IFI = .923; TLI = .911; RMSEA = .077

Figure 3.3. Graphic Measurement Model for Perceived Price Fairness, Satisfaction, and Behavioral Intentions (with retained 23 items)

The construct validity of a measurement model with latent variables is evaluated by both convergent and divergent validity. All constructs' composite reliability should be higher than .70 (Nunnally and Bernsten, 1994) and average variance extracted (AVE) should be higher than .50 (Fornell and Lacker, 1981) to demonstrate good convergent validity. Results of convergent validity testing indicated that both composite reliability and average variance extracted for all constructs met these criteria (Table 4.8).

Constructs	Items	Factor Loadings	Composite Reliability	AVE
Perceive Price Fairness	PPF25	.831	.871	.579
	PPF28	.869		
	PPF30	.777		
	PPF32	.639		
	PPF36	.660		
Satisfaction with Purchase	SA26	.841	.947	.722
	SA27	.809		
	SA29	.840		
	SA31	.863		
	SA35	.723		
	SA37	.930		
	SA38	.923		
Re-purchase Intentions	PI43	.816	.842	.519
	PI46	.658		
	PI48	.661		
	PI50	.763		
	PI52	.689		
Self-protection Intentions	SI45	.750	.749	.665
	SI47	.808		
	SI49	.883		
Revenge Intentions	RI39	.757	.899	.749
	RI40	.948		
	RI53	.880		

Table 3.8. Construct Composite Reliability and Average Variance Extracted (AVE) Results (with 23 items) for Perceived Price Fairness, Satisfaction, and Behavioral Intentions

The results of convergent validity assessment demonstrated that subscale items correlated with each other to an acceptable degree. Discriminant validity testing was performed to test whether the subscale items were better associated with their respective latent construct than with other latent constructs. Discriminant validity among the five latent constructs was assessed using the correlation methods suggested by Anderson and Gerbing (1988). Specifically, the correlations between each pair of latent constructs and their confidence intervals (plus and minus two standard errors around the correlation coefficients, all obtained from the results of CFA) were computed. Discriminant validity was assessed by examining whether the confidence interval around the correlation estimate between the two factors include 1.0 (Anderson and Gerbing, 1988). The results (see Table 4.9) showed that none of the confidence intervals for the correlation coefficients of pairs of construct specified in the CFA contained 1.0, demonstrating discriminant validity of the constructs.

			Correlation Coefficient	S.E.	Confidence Interval	
Price Fairness	<-->	Satisfaction	.768	.113	0.542	0.994
Price Fairness	<-->	Re-purchase Intentions	.613	.104	0.405	0.821
Price Fairness	<-->	Self-protection Intentions	.469	.136	0.197	0.741
Price Fairness	<-->	Revenge Intentions	.545	.108	0.329	0.761
Satisfaction with Purchase	<-->	Re-purchase Intentions	.693	.128	0.437	0.949
Satisfaction with Purchase	<-->	Self-protection Intentions	.460	.155	0.150	0.770
Satisfaction with Purchase	<-->	Intention to revenge	.608	.132	0.344	0.872
Re-purchase Intentions	<-->	Self-protection Intentions	.434	.116	0.202	0.666
Re-purchase Intentions	<-->	Revenge Intentions	.536	.093	0.35	0.722
Self-protection Intentions	<-->	Revenge Intentions	.675	.154	0.367	0.983

Table 3.9. Results of Discriminant Validity Testing for Perceived Price Fairness, Satisfaction, and Behavioral Intentions

CHAPTER 4

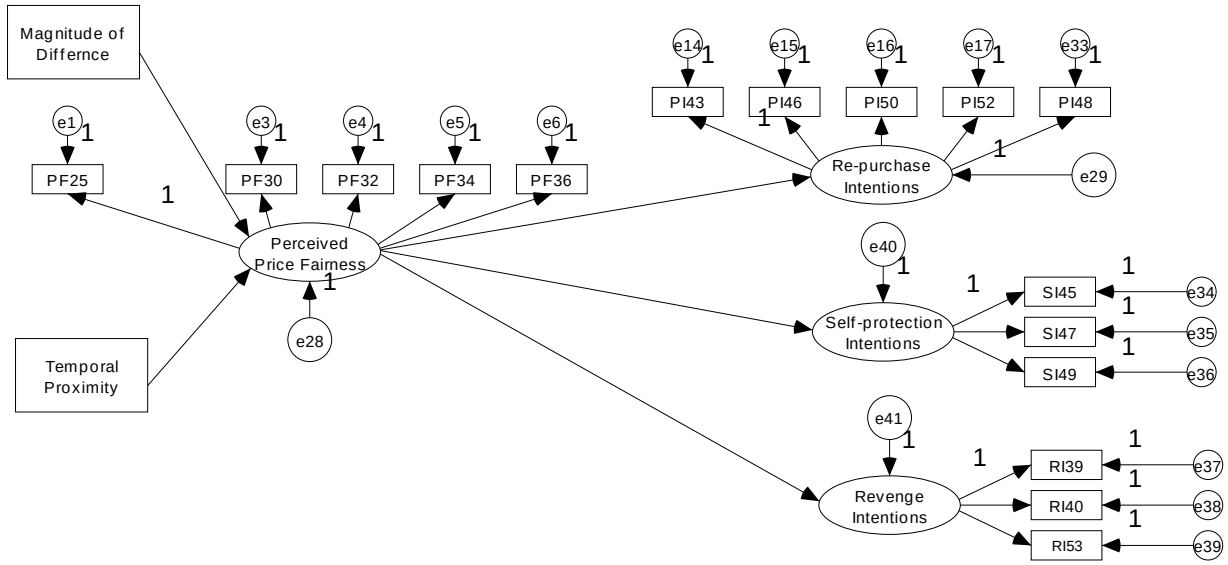
ANALYSES AND RESULTS

In this chapter, data from the main experiment is analyzed and results are presented in the order of data analysis procedures. Main experiment data analyses were conducted, using structural equation modelling (SEM). SEM was selected as the most appropriate statistical analysis strategy because it has the ability to reduce measurement error, test models with latent variables and multiple dependent variables, and assess the overall model fit across multiple groups. This chapter provides a step-by-step discussion of data analysis procedures and the results from the main experiment.

4.1 Structural Model Testing

Structural equation modeling (SEM) was performed to assess the structural model fit and test the hypothesized relationships between the constructs (see structural model, Figure 4.4). Magnitude and temporal proximity of price difference are exogenous variables. Perceived price fairness, customer satisfaction with purchase, and intentions to re-purchase, self-protect, and take revenge are endogenous variables. In order to test hypotheses H1a, H2a, H3b-H3d, a SEM was first conducted without the mediation effect of satisfaction with purchase (see Figure 4.1).

The result of first SEM indicated a good model fit with χ^2 (132) = 333.09; $p < .001$; χ^2/df ratio = 2.523; GFI = .908; CFI = .930; NFI = .901; IFI = .931; TLI = .919; and RMSEA = .065. Due to the relatively large sample size (N = 363), chi-square and GFI failed to meet the fit measure criteria with $p < .001$; however, CFI, NFI, IFI, TLI and RMSEA indicate a good model fit. The results of hypothesized relationships testing between constructs are presented in Table 4.1.



Notes: χ^2 (132) = 333.09; $p < .001$; χ^2/df ratio = 2.523; GFI = .908; CFI = .930; NFI = .901; IFI = .931; TLI = .919; RMSEA = .065

Figure 4.1. Graphic Structural Model without Mediating Effect of Satisfaction with Purchase

			Path Coefficients (*p*)	S.E.
Perceived Price Fairness	<---	Magnitude of Price Difference	-.398(***)	.134
Perceived Price Fairness	<---	Temporal Proximity of Price Difference	-.229(***)	.128
Re-purchase Intentions	<---	Perceived Price Fairness	.635(***)	.065
Self-protection Intentions	<---	Perceived Price Fairness	-.575(***)	.075
Revenge Intentions	<---	Perceived Price Fairness	-.654(***)	.079

Notes: *** significant at $p < .001$

Table 4.1. Path Coefficients of Hypothesized Relationships in the Structural Model without Mediation Effect of Satisfaction with Purchase

The results of hypothesis testing showed that both the magnitude (β = -.398, $p < .001$) and temporal proximity (β = -.229, $p < .001$) of price difference were negatively associated with perceived fairness of dynamic pricing. An ANOVA method was used to further assess whether cell means (see Table 4.2) for perceived price fairness were significantly different for major and minor, and temporally close and distant price differences. Given perceived price fairness was a latent construct and measured with 5 subscale items, a composite score was computed for perceived price fairness and used to execute the ANOVA analysis. The ANOVA results (see Table 4.3) indicated that respondents perceived a major price difference (M = 3.00) to be less fair ($p < .001$) than a minor price difference (M = 4.02). Similarly, a temporally recent price difference (M = 3.24) was perceived to be less fair ($p < .001$) than a temporally distant price difference (M = 3.87). Thus, both H1a and H2a were supported (see Figure 4.2).

Price Difference Conditions	Total		
	M	*SD*	*n*
Major Price Difference	3.00	1.30	170
Minor Price Difference	4.02	1.23	193
Temporally Close Price Difference	3.24	1.31	188
Temporally Distant Price Difference	3.87	1.22	175

Table 4.2. Descriptive Statistics for Perceived Price Fairness with Main Experiment (N = 363)

Hypothesis	Effect	*MS*	*F* (1, 362)	*p*	S.E.
H1a	Magnitude	94.39	59.268	.000***	1.36
	Error	.071			
H2a	Temporal Proximity	36.00	20.523	.000***	1.36
	Error	.071			

Table 4.3. ANOVA Results for Perceived Price Fairness with Main Experiment (N = 363)

The results of SEM also indicated that perceived price fairness was significantly associated with re-purchase (β = .635, p < .001), self-protection (β = -.575, p < .001) and revenge (β = -.654, p < .001) intentions. Specifically, when respondents perceived a price to be more fair, they reported increased re-purchase intention, and reduced self-protection and revenge intentions. Therefore, H3b, H3c and H3d were supported (see Figure 4.2).

Notes: *** significant at $p < .001$, ** significant at $p < .01$

Figure 4.2. Hypotheses Testing Results for the Conceptual Model without the Mediating Effect of Satisfaction with Purchase

4.2 Testing the Moderating Effect of Customer Loyalty

Although results of structural model testing indicated that both magnitude and temporal proximity of price difference had a negative impact on perceived price fairness, it was not clear whether loyal customers perceive price fairness differently than do non-loyal customers under each price difference condition (i.e., major vs. minor and temporally close vs. temporally distant price difference). That is, does customer loyalty moderate the effect of magnitude/temporal proximity of price difference on price fairness perceptions (see Figure 4.3)?

Respondents were divided into two groups (i.e., loyal vs. non-loyal customers) using median split procedure. Composite scores (scores calculated by averaging scores of the subscale items that belonged to the construct) for customer loyalty were computed. This score ranged from "1", indicating low customer loyalty, to "7", indicating high customer loyalty. Those who scored lower than the media (i.e., "4") were labeled as non-loyal customers while those who scored higher than the median were labeled as loyal customers. Those who were at median score were randomly assigned to either one of the two groups.

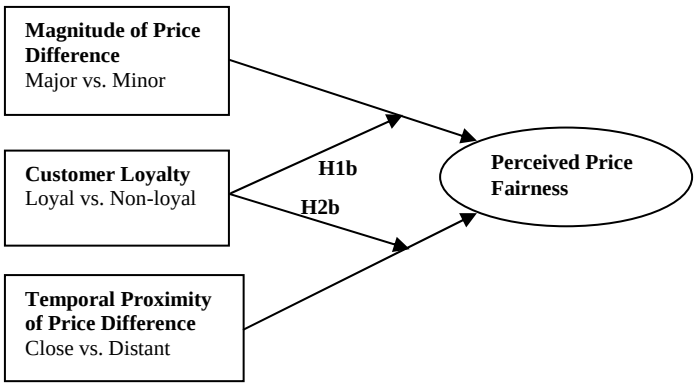


Figure 4.3. Structural Model Illustrating the Moderating Effect of Customer Loyalty

An ANOVA method was used to determine whether or not the perceived price fairness under a major/minor or a temporally close/distant price difference condition will differ between loyal and non-loyal customers. Composite scores (scores calculated by averaging scores of the subscale items that belonged to the construct) for perceived price fairness were used as cell means for the planned comparison (see Table 4.12). Separate ANOVA results for perceived price fairness evaluation revealed that both magnitude and temporal proximity of price difference had significant impact on perceived price fairness. The ANOVA results also indicated that while the interaction between magnitude of price difference and customer loyalty was significant, the interaction between temporal proximity and customer loyalty was not statistically significant (see Table 4. 4).

Price Difference Conditions	Loyal Customers			Non-loyal Customers		
	M	*SD*	*n*	*M*	*SD*	*n*
Major Price Difference	2.78	1.22	76	3.27	1.36	94
Minor Price Difference	4.24	1.24	95	3.81	1.19	98
Temporally Close Price Difference	3.03	1.23	94	3.44	1.36	94
Temporally Distant Price Difference	4.25	1.26	77	3.57	1.33	98

Table 4.4. Descriptive Statistics for Perceived Price Fairness

Effect	*MS*	*F* (1, 362)	*p*	*Partial η2*
ANOVA Analysis 1				
Magnitude (A)	89.69	1091.33	.02*	.967
Customer Loyalty (B)	19.81	233.40	.04*	.996
(A)X(B)	1.68	1.12	.004**	.098
Error	1.54			
ANOVA Analysis 2				
Temporal Proximity (A)	40.58	23.61	***	.043
Customer Loyalty (B)	27.31	15.89	***	.063
(A)X(B)	1.72	1.02	.313 (n.s.)	.034
Error	1.69			

Note: *** $p < .001$, ** $p < .01$, * $p < .05$

Table 4.5. ANOVA Results for Perceived Price Fairness

Two groups of planned comparisons, one for magnitude of price difference and the other for temporal proximity of price difference, were conducted to examine H1b and H2b. Following

the Bonferroni-adjusted t-test, the familywise *alpha* for the planned comparisons for perceived price fairness was set at .05, which allowed an *alpha* level of .025 (= .05/2) for each planned comparison. Comparison group one assessed the moderating effect of customer loyalty on the impact of magnitude of price difference on perceived price fairness. The planned comparisons were made between the minor price difference/loyal customer group and minor price difference/non-loyal customer group, and between the major price difference/loyal customer group and major price difference/non-loyal customer group. Comparison group two addressed the moderating effect of customer loyalty on the impact of temporal proximity of price difference on perceived price fairness. Thus, the planned comparisons were made between temporally distant price difference/loyal customer group and temporally distant price difference/non-loyal customer group, and between temporally close price difference/loyal customer group and temporally close price difference/non-loyal customer group. For both H1b and H2b to be supported, results of comparison groups 1and 2 should be significant, indicating the moderating effect of customer loyalty.

According to the results (see Table 4.6), this prediction was supported as customer loyalty significantly affected the impact of magnitude and temporal proximity of price difference on perceived price fairness, indicating the moderating effect of customer loyalty. The impact of magnitude/temporal proximity of price difference on perceived price fairness was moderated by customer loyalty in that when the price difference was minor or temporally distant, respondents who were loyal to Amazon.com perceived a higher level of price fairness than non-loyal respondents. However, when the price difference was major or temporally close, respondents loyal to Amazon.com perceived the price difference as less fair than non-loyal respondents. Therefore, based upon the planned comparison results, both H1b and H2b were supported.

Variables	Source[a]	*MS*	*F* (1, 362)	*p*
Magnitude of Price difference				
	Comp. 1	12.19	6.67	.008**
	Comp. 2	3.2	2.68	.003**
	Error[b]	1.54		
Temporal Proximity of Price difference				
	Comp. 3	8.72	5.31	.010*
	Comp. 4	13.79	7.76	.007**
	Error[b]	1.69		

a. Comp. 1 = comparison between the loyal and non-loyal customer groups under the major price difference;
Comp. 2 = comparison between the loyal and non-loyal customer groups under the minor price difference;
Comp. 3 = comparison between the loyal and non-loyal customer groups under the temporally close price difference;
Comp. 4 = comparison between the loyal and non-loyal customer groups under the temporally distant price difference

b. The MS for the error was taken from the ANOVA models including the main effects of the customer loyalty, magnitude and temporal proximity of price difference, and their interaction effect.

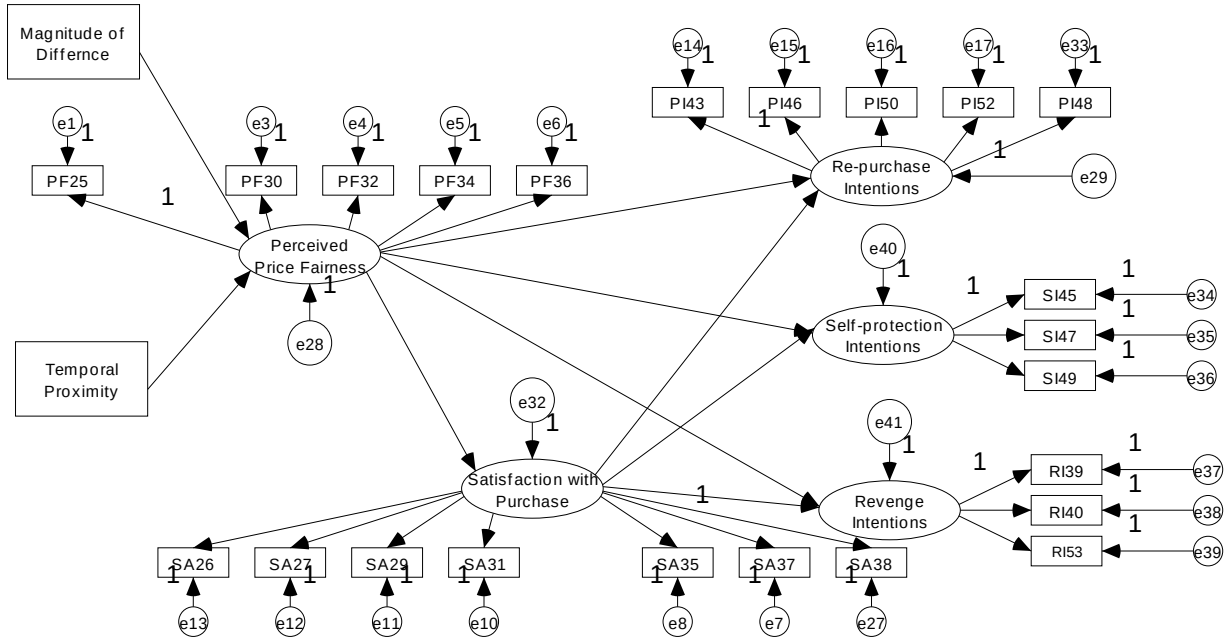
** $p < .01$, $p < .05$

Table 4.6. Planned Comparison Results for Perceived Price Fairness

4.3 Testing the Mediating Role of Customer Satisfaction with Purchase

The fourth objective for this present study was to examine whether or not satisfaction with purchase mediates the relationship between perceived price fairness and behavioral intentions. Although the results of initial structural model testing (see Figure 4.2) indicated that perceived price fairness had significant impact on all three dimension of consumer behavioral intentions, including re-purchase, self-protection, and revenge intentions, it was not clear whether customer satisfaction mediates the influence of perceived price fairness on consumer behavioral intentions.

To assess the mediation effect of customer satisfaction, another SEM was performed as a follow-up test of the initial SEM (see Figure 4.1). Specifically, satisfaction with purchase was incorporated in the second SEM model to measure both direct and indirect relationships between perceived price fairness (Figure 4.4) and behavioral intentions. Path coefficients and their respective significance levels were assessed to determine whether customer satisfaction with purchase mediates the relationship between perceived price fairness and intentions to re-purchase. If the direct impact of perceived price fairness on behavioral intentions becomes non-significant after satisfaction is incorporated into the conceptual model it can be concluded that satisfaction fully mediates the relationship between perceived price fairness and behavioral intentions.



Notes: χ^2 (268) = 830.44; $p < .001$; χ^2/df ratio = 3.110; GIF = .828; CFI = .906; NFI = .908; IFI = .906; TLI = .914; and RMSEA = .076

Figure 4.4. Graphic Structural Model with the Mediating Role of Satisfaction with Purchase

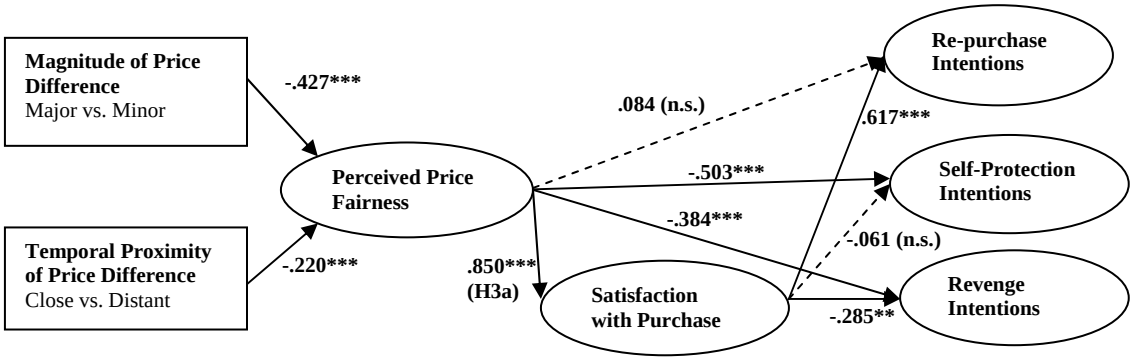
The SEM results showed that both the magnitude (β = -.427, p < .001) and temporal proximity (β = -.220, p < .001) of price difference were still negatively associated with perceived price fairness. Perceived price fairness was positively associated with satisfaction with purchase (β = .850, p < .001). Although the results of the initial SEM analysis showed that perceived price fairness was positively associated with re-purchase intentions, without customer satisfaction in the model (β = .635, p < .001), this direct relationship became non-significant (β = .084, p = .451) when satisfaction with purchase was included in the model. Thus, H4a was supported, indicating that satisfaction with purchase fully mediates the relationship between perceived price fairness and re-purchase intentions. By contrast, although the path coefficients for both H3c and H3d were not as strong as when satisfaction with purchase was not incorporated in the model, perceived price fairness still directly impacted self-protection (β = -.503, p < .001) and revenge (β = -.384, p < .001) intentions. Thus, H4b and H4c were only partially supported in that satisfaction did not fully mediate the relationship between perceived price fairness and self-protection and revenge intentions. The results of the second SEM also indicated that satisfaction with purchase was positively associated with respondents' re-purchase (β = .617, p < .001) and revenge (β = -.285, p < .01) intentions but failed to show a significant impact on self-protection intentions (β = -.061, p = .604) (see Figure 4.5).

The second structural model (showing the mediation of satisfaction with purchase) was also shown to have an adequate model fit with χ^2 (268) = 830.44; p < .001; χ^2/df ratio = 3.110; GIF = .828; CFI = .906; NFI = .908; IFI = .906; TLI = .914; and RMSEA = .076.

			Path Coefficients (*p*)	S.E.
Perceived Price Fairness	<---	Magnitude of Price Difference	-.427***	.139
Perceived Price Fairness	<---	Temporal Proximity of Price Difference	-.220***	.134
Satisfaction with Purchase	<---	Perceived Price Fairness	.850***	.059
Re-purchase Intentions	<---	Perceived Price Fairness	.084(.451)	.106
Self-protection Intentions	<---	Perceived Price Fairness	-.503***	.134
Revenge Intentions	<---	Perceived Price Fairness	-.384***	.130
Re-purchase Intentions	<---	Satisfaction with Purchase	.617***	.092
Self-protection Intentions	<---	Satisfaction with Purchase	-.061 (.604)	.110
Revenge Intentions	<---	Satisfaction with Purchase	-.285**	.109

Notes: *** significant at $p < .001$, ** significant at $p < .01$

Table 4.7. Path Coefficients of Hypothesized Relationships in the Structural Model



Notes: *** significant at $p < .001$, ** significant at $p < .01$

Figure 4.5. Hypotheses Testing Results for the Conceptual Model with the Moderating Role of Satisfaction with Purchase

CHAPTER 5

DISCUSSION OF FINDINGS

This study examines the role of the magnitude and temporal proximity of price differences on perceived fairness of dynamic pricing. It also researches the impact of perceived fairness of dynamic pricing on customers' overall satisfaction with purchase and their behavioral intentions. Moreover, the moderating role of customer loyalty on the impact of magnitude and temporal proximity of price differences on perceived fairness of dynamic pricing, and the mediating effect of customer satisfaction on the relationship between perceived price fairness and behavioral intentions are examined explicitly. Discussion of findings was developed based on results of data analyses and insights from the theoretical framework and extant literature.

The pre-test, exposing respondents to the purchase scenarios presenting the price manipulations, revealed consumers' negative reactions to the disadvantaged price differences encountered. Even though respondents were only asked to respond to the clarity and wording, they made comments (some of the responses are quite intense) questioning the fairness of such price discrepancies. For example, in the scenario where a major price discrepancy (i.e., friend paid 30% lower for the same backpack) occurred in a short period of time (i.e., within the same day of purchase), one participant said, "The fair price should be the lower price because it does not seem fair to charge two people different prices in the same day." Even in the scenario where the price discrepancy was minor (i.e., friend paid 5% less for the same backpack), one participant

perceived the price difference to be unfair and said, “It would be fair for everyone to pay the same price unless someone has a coupon, etc. I don’t understand why they got 5% off. It is not much but I don’t understand why.” Such responses indicated that when a disadvantageous price discrepancy is brought to customers’ attention, regardless of the magnitude of this price difference (minor or major), it does trigger negative feelings and emotions that may influence how customers perceive the price fairness of a seller, and possibly, future behaviors.

These responses further suggest guidelines for dynamic pricing. For example, one participant said, “If my friend was a more ***frequent buyer***, then his discount can be justified. If not, I feel as though it was unfair (for price of the backpack to drop by 30% in a month)”, showing that some customers may perceive a disadvantaged price discrepancy to be justifiable under certain conditions. Consistent with these unsolicited responses from participants, the results of this study showed that magnitude and temporal proximity of price differences impact price fairness perceptions of loyal customers differently than those of non-loyal customers.

5.1 Magnitude of Price Difference and Perceived Price Fairness

Dynamic pricing, charging customers different prices for essentially the same product, impacts customers’ perceptions of price fairness because it violates the rule set forth by both equity theory (Adams, 1965) and distributive justice (Homans, 1961) that both parties involved in an exchange relationship should receive equal outcomes. The results of this study show that with increased magnitude of price discrepancy (e.g., from a 5% to 30% price difference), respondents perceived a significantly lower level of price fairness (β = -.43, p < .001), confirming the conjecture put forth by Xia et al. (2004) that a disadvantaged price inequality triggers negative price fairness judgments. It is also consistent with findings of Haws and

Bearden (2006) that a higher price paid relative to other customers induces strong negative fairness judgments. The results of cell mean comparison for perceived price fairness indicated that respondents perceived a major price discrepancy to be less fair than a minor price discrepancy. This may be explained that a major price discrepancy signals a higher level of inequality than a minor price difference and thus, is more likely to trigger a stronger feeling of have been treated unfairly by the seller.

Additionally, the results indicate that customer loyalty moderates the impact of price difference magnitude on price fairness perceptions. By comparing cell means of perceived price fairness between loyal and non-loyal respondents groups under major and minor price difference conditions, it was found that loyal respondents perceived a major price difference to be less fair than did non-loyal respondents. This finding is consistent with the conjecture that under some conditions (e.g., a major disadvantaged price discrepancy) when loyal customers feel their relationship with the seller has been compromised for the seller's benefit (e.g., for more profits), they report stronger negative fairness judgments (Xia et al., 2004) more than non-loyal customers. By contrast, the results of this study indicated that loyal respondents perceived a higher level of price fairness than did non-loyal respondents when the price discrepancy was minor. This finding is consistent with the findings of Martin et al. (2009) and also confirms the findings about the buffer power of customer loyalty to sustain certain level of challenge under specific conditions such as a minor disadvantaged price discrepancy (Huppertz et al., 1978).

Martin et al. (2009) examined customers' ratings of price fairness after a major price increase but failed to find a moderating effect for customer loyalty because loyal customers didn't perceive a major price change to be less fair than non-loyal customers in their study. There are several potential reasons for Martin et al.'s failure to identify a moderating effect for loyalty.

First, Martin et al.'s (2009) study was a regular price increase whereas this present study focuses on a disadvantaged price discrepancy in dynamic pricing. A regular price increase applies to all customers, but a price discrepancy occurring in dynamic pricing can be customized to an individual customer. Customers may perceive an individual level price discrepancy as more discriminating and unacceptable as manifested by participants' unsolicited comments in the pre-test. Second, Martin et al. (2009) asked respondents to think of a preferred lunch item and imagine a price increase (from $7.00 to $10.00) for the lunch item. The new price may not have been perceived by respondents (i.e., students) as a major price difference because a normal lunch meal can typically range from $7 to $10, depending on the item selected. Their manipulation check, simply asking participants "What is the new price for the blue plate special?", did not actually examine whether participants perceived the price increase to be a major increase.

In contrast, price manipulation and purchase scenarios are better executed in the present study where respondents' perceptions of the two levels (i.e., 5% and 30% lower) of price differences are examined to ensure the success of manipulation. The three product stimuli (shown in photos in the current study) convey specific product information such as product features and brand name that delivers a more true-to-life experience to respondents in experimental settings than thinking of a favorite lunch item. In the current study, all participants within each product group are exposed to identical product information, a strategy to control intervening factors such as variation of personal experience and preferences. This strategy also allows the researcher to conclude that the variance of dependent variables is mainly due to the impact of independent variables other than intervening factors. Respondents demonstrate a clear understanding of the fair price for the product stimuli in all experiments through their responses to the pre-test scenarios, thereby confirming the success of the price manipulation.

5.2 Temporal Proximity of Price Difference and Perceived Price Fairness

The results of the present study showed that temporal proximity of price difference was negatively associated with perceived price fairness (β = -.22, p < .001), validating propositions put forth by construal level theory (Liberman & Trope, 1998) that past events at different temporal distances are viewed differently. Whereas temporally distant events are viewed in more abstract terms, events that are temporally close are viewed in more concrete terms (Liberman & Trope, 1998; Haws & Bearden, 2006). Thus, a temporally close price difference becomes more salient and influential in the eyes of customers than price discrepancies occur over a longer period of time (Haws & Bearden, 2006) when making price fairness judgments. Specifically, respondents in the present study perceived a significantly lower level of perceived price fairness when a price discrepancy happens within a short period of time (i.e. same day) than when a price discrepancy happens one month after purchase.

Although Haws and Bearden (2006) found that price difference magnitude does not affect fairness perceptions after a month delay, results of the present study indicated that the impact of a much higher price paid relative to other customers is not always mitigated by temporal proximity. Not only did respondents perceive a disadvantaged price difference that occurred within the same day to be less fair than a price discrepancy that occurred one month after purchase, but they also reported less fairness for a major price discrepancy than for a minor price discrepancy regardless of temporal proximity. This finding may explain why iPhone buyers vented their anger about being charged an unfair price after Apple dropped for the price for a 8GB iPhone from $599 to $399 (just over 30%) approximately two months after its launch (Blakely, 2006).

Additionally, the results of this study show that customer loyalty also moderates the impact of temporal proximity of price differences on perceived price fairness. Overall, temporal proximity has a stronger impact on a loyal customers' (β = -.27, p < .001) price fairness perceptions than on those of non-loyal customers (β = -.24, p < .001). By comparing cell means of perceived price fairness between loyal and non-loyal customer under temporally close and distant conditions, it was found that loyal customers perceived a temporally close price difference to be less fair while a temporally distant price difference to be more fair than did non-loyal customers. This finding supports the findings of previous study that loyal customers are willing, to some extent, to set aside their own interests to maintain their relationship with the retailer (Crosby & Taylor, 1983; Gilliland & Bello, 2002). The results also demonstrated that customer loyalty has certain level of buffer power so that loyal customers perceive a temporally distant price difference to be more fair than non-loyal customers. However, this buffer power is not strong enough to sustain a challenge from a temporally close price difference because such a difference is salient and more influential. It is very likely that loyal customers view a temporally close price difference as a seller's betrayal of their relationship (Haws & Bearden, 2006).

5.3 Perceived Price Fairness, Satisfaction with Purchase, and Behavioral Intentions

The results of this study confirm the findings of previous studies that perceived price fairness and customer satisfaction are highly correlated and that fairness perceptions are important indicators of consumer satisfaction (Anderson & Sullivan, 1993; Anderson et al., 1994; Cronin et al., 2000; Zeithaml, 1988; Fornell, 1992). Perceived price fairness is positively associated with customers' satisfaction with purchase (β = .85, p < .001). This finding is also

consistent with findings of Martin-Consuegra et al. (2007) and Bei and Chiao (2001) who found perceived price fairness to be strong indicator of customer satisfaction.

Previous price fairness studies have found that perceived price fairness is positively associated with customers' intentions to re-patronize the seller (Blinder, 1991; Kahenman, Knethch, & Thaler, 1986a, 1986b), the results of this study indicate that perceived price fairness has a significant direct impact on re-purchase intentions (β = .635, p < .001). However, such a direct impact is fully mediated by satisfaction with purchase. Specifically, when satisfaction with purchase was incorporated into the analysis, price fairness perceptions were positively associated with satisfaction with purchase (β = .85, p < .001) and satisfaction was positively associated with re-purchase intentions (β = .62, p < .001). The inclusion of satisfaction with purchase into the analysis rendered the direct relationship between perceived price fairness and re-purchase intentions non-significant (β = .084, p = .451) thereby confirming the full mediation effect of satisfaction. Customers evaluate a purchase based on a complex combination of various factors including price fairness. Although re-purchase intentions can be attributed to perceived price fairness to certain extent, many other factors such as product variety, brand/store image, and customer service may also contribute to the formation of re-purchase intentions. If a seller fails to deliver a satisfactory purchase experience to its customers by managing all those factors well, providing fair prices alone is not likely to increase customers' intentions to re-purchase.

The results of this study showed interesting patterns with regard to the two negative behavioral intentions – self-protection and revenge. Adams' (1965) concluded that "the presence of inequity will motivate the perceiver to achieve equity or to reduce inequity; and the strength of motivation to do so will vary directly with the perceived magnitude of inequity experienced" (p. 283). The results of this study confirms this postulate by showing that perceived price fairness is

negatively associated with customers' self-protection (β = -.58; p < .001) and revenge (β = -.65, p < .001) intentions. This finding is also consistent with Xia et al.'s (2004) conjecture that when customers perceive a disadvantaged price discrepancy to be less fair, they are likely to take actions to restore the equality either emotionally by complaining to the seller, or financially by asking for a refund, or both. Furthermore, when a strong negative emotion accompanies the perception of negative price fairness judgments due to a major disadvantaged price discrepancy, complaining or asking for a refund may become insufficient to ease offset their feelings. Hence, revenge actions may be employed by customers to get back at the seller. Such actions may include, but are not limited to, spreading negative word-of-mouth, switching to competitors, and seeking for legal actions. Respondents indicated the likelihood for them to take revenge actions against the seller by spreading negative word-of-mouth through different channels in this study.

The results show that satisfaction with purchase partially mediates the relationship between perceived price fairness and self-protection and revenge intentions. Even though perceived price fairness still has significant impact on self-protection and revenge intentions, the direct impact of perceived price fairness on these two negative behavioral intentions were not as strong when satisfaction with purchase was incorporated in the model (self-protection: β = -.503, p < .001; revenge: β = -.384, p < .001), suggesting that when consumers are satisfied with purchase, the impact of negative price fairness perceptions on self-protection and revenge intentions can be mitigated to certain extent. Additionally, results of structural model testing indicate that satisfaction with purchase is positively associated with re-purchase intentions (β = .62, p < .001) but negatively associated with revenge intentions (β = -.29, p < .001). However, satisfaction with purchase has no significant impact on self-protection intention (β = -.061, p = .604), suggesting that when customers realize a disadvantaged price difference and perceive the

price paid to be unfair, they will take actions to protect their interests regardless of whether or not they are satisfied with the purchase (Xia et al., 2004). That is, customers will ask for an explanation and/or a refund for the difference anyway if they perceive the price difference to be unfair.

By contrast, customer satisfaction was found to be negatively associated with revenge intentions in the present study, suggesting that a positive evaluation of purchase experience will reduce the likelihood for consumers to engage in actions that bring damage to the seller. Sometimes, taking certain revenge actions may require customers' own effort or expense (Xia et al., 2004) not required of self-protection actions. Xia et al. (2004) suggested that customer will engage in actions to "get back" at the seller as a means to cope with negative feelings such as anger and outrage that often accompany their negative price fairness judgments. For example, in this study, respondents indicated that they will spread negative word-of-mouth about the seller's price unfairness through different media and/or social network channels such as communication with friends and relatives, Facebook, and personal blogs. Satisfaction with purchase indicates positive evaluations of purchase experience. It is likely that positive evaluation will reduce the likelihood for consumers to engage in revenge actions given effort required for taking such actions. Moreover, results of revenge actions, even though are likely to bring damages to the seller, may not directly bring monetary benefits to consumers. By contrast, results of self-protection are often directly associated with consumers' monetary interests (e.g., refund). Thus, it is more likely for consumers to engage in actions that may re-establish equality without taking too much of their own effort.

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

Research on consumer-based price fairness perceptions within the context of dynamic pricing has been scarce. Findings of the present research provide insights into the formation of price fairness perceptions in the context of dynamic pricing by empirically testing the impact of perceived price fairness on customer satisfaction and behavioral intentions. While some of the findings confirms and validates those of previous studies, other findings seem to contradict findings of previous studies. These discrepancies, together with other findings of this study shed light on formation of price fairness perceptions in dynamic pricing and the impact of such perceptions on satisfaction and behavioral intentions.

This study contributes to the literature on price fairness through (1) integrating two strong antecedents (i.e., magnitude and temporal proximity of price difference to and two dimensions of outcomes (i.e., satisfaction with purchase and behavioral intentions) of price fairness perceptions in one conceptual model, (2) incorporating a previously overlooked factor (i.e., customer loyalty) in the examination of price fairness perceptions, and (3) identifying two types of under-investigated negative behavioral intentions (i.e., self-protection and revenge intentions) which may cause a seller long-term damage. A discussion of theoretical and practical implications, limitations of this study, and future study recommendations follows.

6.1 Theoretical Implications

Because there is little (if any) variation among products for which different prices are charged to different customers in dynamic pricing, customers see their transactions highly comparable and therefore and may see a price discrepancy as less fair than when transactions are less comparable (Xia et al., 2004). These results provide empirical evidence that paying a higher price for the same product induces negative price judgments among customers. More importantly, both the magnitude and the temporal proximity of price difference are strong predictors of perceived price fairness of the seller in the context of dynamic pricing. Findings of this study not only validate the application of equity theory (Adams, 1965), distribution justice (Homans, 1961), and temporal construal level theory (Liberman & Trope, 1998) in price fairness research but also extend the application of theory to price fairness perceptions in dynamic pricing situations.

Despite previous research suggesting that loyal customers tend to view the seller more preferably than non-loyal customers with respect to price increases (Berry, 1995; Bolton et al., 2003), the findings of this study provide evidence that loyal customers do respond to a disadvantaged price discrepancy differently than non-loyal customers. Yet, the differences of their responses are much more complex. The buffer power of customer loyalty is only confirmed when the disadvantaged price difference is minor or temporally distant. That is, loyal customers perceive a minor/temporal distant price difference to be more fair than non-loyal customers. The negative impact of a slight disadvantage or a minor challenge can be moderated by a strong long-term relationship between the seller and customers (Crosby & Taylor, 1983; Gilliand & Bello, 2002). In the meanwhile, loyal customers believe that they are entitled with benefits including

receiving a fair price due to their close relationship with the seller (Xia et al., 2004). A major or a temporally close disadvantaged price discrepancy signals to loyal customers that the seller has betrayed their long-term relationship and failed to convey the perception of fairness in setting prices. Therefore, a major or a temporally close price difference is perceived as less fair by loyal customers than by non-loyal customers.

Consistent with previous research regarding the role of price fairness perceptions on customer satisfaction (Zeithaml, 1988; Anderson & Sullivan, 1993; Anderson et al., 1994), findings of this study show that perceived fairness is different from and positively associated with satisfaction with purchase. Although previous research also suggests perceived price fairness is positively associated with re-purchase intentions (Blinder, 1991; Kahenman, Knethch, & Thaler, 1986a, 1986b), the results of this study provide an alternative view regarding the relationship between perceived price fairness and re-purchase intentions. Perceived price fairness indirectly impacts consumers' re-purchase intentions via its impact on satisfaction with purchase. That is, satisfaction with purchase may mitigate the impact of negative price fairness perceptions on re-purchase intentions. Or, put it in other words, price fairness perception does not predict re-purchase intentions independently. Therefore, satisfaction with should be incorporated when examining consumers' re-purchase intention in dynamic pricing because the impact of perceived price fairness on re-purchase intentions is indirectly manifested through the mediation effect of satisfaction between these two factors.

Furthermore, previous price fairness research rarely focuses on different dimensions of customer behavioral intentions other than re-purchase intentions even though Xia et al. (2004) suggest that negative price fairness judgments may lead consumers to engage in actions to protect their own interests and sometimes to take actions at their own costs to get back at the

seller. The results of this study provide empirical evidence that price fairness perceptions can lead to multiple behavioral intentions. More importantly, results of this study show that perceived price fairness is negatively associated with customers' self-protection and revenge intentions, the two behavioral intentions with the potential to harm the seller with both revenues and reputation of fairness. Because customers may be motivated to take different actions to restore equity or equality based on the magnitude of inequity experienced (Adams, 1965), more attentions should be drawn to consumers intentions to take negative actions that may harm the seller to fully understand the consequence of dynamic pricing.

6.2 Managerial Implications

Although dynamic pricing is attractive because it has the potential to maximize a seller's profit, the results of this study indicate that charging different prices for the same product can trigger negative price fairness judgments which lead to negative behavioral intentions. Furthermore, control of the magnitude and the timing of price manipulation are important as customers are more likely to perceive a major/temporally close price difference as less fair than a minor/temporally distant price difference. In light of this finding, sellers should use caution when applying dynamic pricing in setting merchandise prices. It may be convenient for a seller to track consumers spending/purchase history to gauge the highest price each individual customer is willing to pay the same product, and then change merchandise prices accordingly. Given the broad population of consumer, the variance of willingness to pay may range from minor to major individual price difference. However, regardless of consumers' willingness to pay a certain price for the same product (those who purchased and later complained about the price difference accept the price at the time of purchase), their fairness perceptions of dynamic pricing are

influenced by the magnitude and temporal proximity of the price difference. That is, although customers might have accepted the price at the time of purchase, they may still perceive the price to be less fair when a disadvantaged price discrepancy is discovered. The level of negative price fairness perceptions depends on the magnitude of price difference with a major price discrepancy triggering strong negative price perceptions. Therefore, a seller may choose to manipulate prices with small variations to reduce or avoid negative price fairness judgments.

Given that the findings of this study suggest a temporally recent price difference will trigger strong negative price fairness judgments, sellers may consider avoiding changing the price for the same product to the disadvantage of those who already purchased the products within a short period of time. Both iPhone and Amazon's cases have provided evidence of the negative outcomes of a significant price difference or a price difference incurring within a short period of time.

More importantly, because loyal customers perceive the fairness of dynamic pricing differently than non-loyal customers, seller should set prices accordingly based on loyal customers' responses to disadvantaged price differences at different magnitude and temporal distance. First, sellers should avoid (1) charging a much higher price to loyal customer for the same product than non-loyal customers and (2) changing the price for the same product to the disadvantage of loyal customer who just purchased the product within a very short period of time (e.g., within the same day) in dynamic pricing because a major/temporally close price difference will lead to stronger negative fairness perceptions for loyal customers than for non-loyal customers. To benefit from their long-term relationship with customers, sellers may consider minor or temporally distant price changes that are more acceptable for loyal customers than for non-loyal customers.

Additionally, respondents' comments and questions collected in the pre-test may reflect a rather prevalent a lack of knowledge about dynamic pricing. For instance, one participant asked, "Why the price (for the Garmin ® GPS navigator) went down (needs) to be stated." Another participant responded, "Explain why he got 5% off the backpack" although a brief statement at the end of each scenario clearly explains that "this price discrepancy is due to Amazon's practice of charging different buyers different prices for the same product". According to Bolton et al. (2003), consumers tend to over-attribute price differences to profit, but fail to take into account the full range of vendor costs. Therefore, sellers need to clearly communicate to customers both cost structures and pricing procedures as well as the value of their products or services. With a better communication, sellers make clear to their customers differences in value and/or benefits offered so that dynamic pricing can be linked with customized or differential products and/or service, a method through which customers can make a more acceptable and reasonable justification of sellers' dynamic pricing motivations (Haws & Bearden, 2004).

However, customers' negative fairness judgments of a disadvantaged price discrepancy do not suggest that a one-price-fit-all policy be used by sellers. Given that customers' satisfaction with a purchase will mediate the impact of price fairness perceptions on re-purchase intentions, sellers may minimize any negative impact of a disadvantaged price discrepancy on behavioral intentions by delivering a satisfactory purchase experience through other strategies such as better customer service or more exciting product selections that add value to purchase. As it may be easier for customers to complain about their experience or ask for a refund than to take actions to revenge against the seller, they may not be as motivated to take certain revenge actions such as seeking for legal actions or switching to competitors given costs and effort often involved in taking such actions as suggested by Xia et al. (2004). However, some revenge

actions such as spreading negative word-of-mouth does not require as much effort and can be a method frequently used by customers to harm the seller. Therefore, sellers need to proactively approach customers' price fairness concerns to minimize negative customer reactions by, for example, providing other benefits (e.g. quality customer service, frequent buyer program, better and larger selection of products) to minimize customers' intentions to spread negative word-of mouth or switch to competitors.

6.3 Limitations

While findings of the present study provide new insights to consumer-based fairness perceptions of dynamic pricing, these findings should be interpreted with caution given the limitations of this study. First, a convenience sample of college students was employed in all phases (i.e., pre-test, pilot test, and main study) of the present study. Although the main study data are collected from two universities, one located in southeast and the other located in southwest U.S., to increase the heterogeneity of the sample, the generalizability of the findings to all consumers in the U.S. is still limited. The majority (73%) of the main experiment respondents is business major students and the sample is predominately 62% female respondents. Respondents of this study were not fully representative of the national consumer as college students are younger, better educated, and less diversified in terms of income level, brand/product preferences, etc. than a diverse national sample.

Second, although two different levels of price difference magnitude and temporal proximity and three types of products are used in the 12 purchase scenarios, respondents may have different reaction if other products, price levels, and temporal distances are used. Furthermore, the experiments used in this study are designed to depict the purchase of three

types of goods in an online shopping setting. The results of this study may differ in a traditional store setting, a purchase for other types of product such as apparel or personal care and health items, or in a service-oriented context such as the purchase of a flight ticket or hotel reservation, where dynamic pricing finds more popular applications.

Third, although scenario-based experiments can provide good internal validity by controlling intervening factors, they may lack external validity and generalizability given the limitation discussed above. The researcher uses a manipulation check to reinforce the price difference in each scenario; seven respondents fail to grasp the correct manipulated information in the scenario. Even for those who responded correctly to the manipulation check items, their responses with respect of the perceived fairness of the seller's price, satisfaction, and behavioral intentions may differ under more actual purchase circumstances.

In the main experiment, data was collected using web-based questionnaire from Auburn University student sample while hard copy questionnaires was used to collect data from Sam Houston State University students sample. Although the same purchase scenarios and items were used at both sites, this inconsistency of data collection method might cause internal validity issues.

6.4 Recommendations for Future Study

To better understand customers' response to a disadvantage price discrepancy as the result of dynamic pricing, it is essential to explore the key antecedents of price fairness perceptions in the context of dynamic pricing. To this end, this research tests the proposed conceptual framework to explain the formation of consumers' price fairness perceptions in the present study. The magnitude and temporal proximity of price change are two key predictors of

buyers' fairness perceptions of dynamic pricing. Additionally, customer loyalty moderates the impact of the magnitude and temporal proximity of price change on price fairness perceptions. Satisfaction with purchase and behavioral outcomes are also integrated in the conceptual framework. Yet, findings of the present research need to be verified with a sample group more representative of consumer population.

Although three types of product were used as questionnaire stimulus, the current study did not examine participants' responses by product. It may be that consumers' reaction to dynamic pricing will vary as some products/service are inherently subject to price fluctuation whereas other may be more stable in pricing. An examination across product types will add to the understanding of perceived fairness of dynamic pricing.

Moreover, the present study incorporate only one consumer characteristic, customer loyalty, in examining the formation of price fairness perception. Other consumer characteristics need to be considered in future studies. For example, Xia, Kukar-Kinney, and Monroe (2010) found that consumers' effort inputs are an important determinant of fairness perceptions. Additionally, although loyal vs. non-loyal customers constitutes a legitimate segmentation of consumer groups, individual consumers may still hold varied characteristics within each group. Thus, examining formation of price fairness perceptions, using segmentation methods with other characteristic such as product involvement and price sensitivity, may add depth to the extant price fairness research.

While relationships between variables illustrated in the conceptual model are tested in this study, future studies may examine the price fairness perceptions issues explored in this study with other products or service under more realistic circumstances to extend the knowledge of perceived price fairness formation and its impact on consumer satisfaction and behavioral

outcomes. Additional contextual factors such as transaction characteristics (e.g., presence of reference price, competition) and other consumer characteristics (e.g. price consciousness) may also be examined in future studies, as suggested by other researchers (Xia et al., 2004; Bolton and Alba, 2006). Moreover, it would be meaningful to empirically test whether or not sellers' can influence customers' fairness perceptions of dynamic pricing through delivering a satisfactory purchase experience or an active communication program that can educate customers about the varying costs of selling the same products/services to different customers. More importantly, findings of this study need to be cross validated with a sample that is representative of a seller's target market to maximize generalizability.

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APPENDIX A

Pre-test Instrument

Part I: Please read and answer the following questions carefully.

For **statements 1 through 20**, please indicate your level of agreement with each of the statements using the scale below (Circle the number that best describe your response to each statement) when the name "Amazon.com" is mentioned to you:

		Strongly Disagree			**Neither Disagree or Agree**			**Strongly Agree**
1.	Amazon.com is a retailer that interests me.	1	2	3	4	5	6	7
2.	Amazon.com is exactly what I need from a retailer.	1	2	3	4	5	6	7
3.	I frequently purchase products from Amazon.com.	1	2	3	4	5	6	7
4.	Amazon.com as a choice of retailer has not worked out as well as I thought it would.	1	2	3	4	5	6	7
5.	If I could do it over again, I'd choose a different retailer than Amazon.com.	1	2	3	4	5	6	7
6.	I have truly enjoyed buying products from Amazon.com.	1	2	3	4	5	6	7
7.	Amazon.com is a retailer that I could talk about for a long time.	1	2	3	4	5	6	7
8.	I prefer buying products from Amazon.com.	1	2	3	4	5	6	7
9.	Amazon.com is more than a mere retailer to me.	1	2	3	4	5	6	7
10.	I would try a different retailer if the same product was less expensive.	1	2	3	4	5	6	7
11.	I would try a different retailer if the other retailer offered better features.	1	2	3	4	5	6	7
12.	Buying products from Amazon.com says a lot about who I am.	1	2	3	4	5	6	7

13. I care about Amazon.com.	1	2	3	4	5	6	7
14. I consider myself to be highly loyal to Amazon.com.	1	2	3	4	5	6	7
15. I often return to Amazon.com to buy products from it.	1	2	3	4	5	6	7
16. I feel it is safer to buy products from Amazon.com.	1	2	3	4	5	6	7
17. I say positive things about Amazon.com to other people.	1	2	3	4	5	6	7
18. I recommend Amazon.com to someone who asks my advice for purchasing various products.	1	2	3	4	5	6	7
19. I encourage friends and relatives to buy products from Amazon.com.	1	2	3	4	5	6	7
20. I consider Amazon.com my first choice to buy products.	1	2	3	4	5	6	7

Part II: Purchase Scenarios

You are about to read a purchase scenario describing the purchase of a specific product from Amazon.com. This scenario is hypothetically developed for the purpose of this study and thus, may not depict the actual business practice of Amazon.com. Please carefully read the scenario and complete the questions on the following pages.

Product I – The North Face ® Daypack with Laptop Compartment

Scenario 1 – Recent and Major Price Change

You wanted a new The North Face® Daypack with laptop compartment and have decided exactly what model and color you will buy (as shown in the picture below). You purchased the backpack for **$94.95 from Amazon.com** with your own money. **Later the same day**, your friend told you that he just bought the same backpack for **$66.45 (30% lower) from Amazon.com**. Later, you learned this price discrepancy is due to **Amazon**'s practice of charging different buyers different prices for the same product.

Laptop Compartment Dimensions:	16" x 11.5" x 2"
Size:	20.75" x 13.5" x 7"
Weight:	2 lbs , 6 oz
Capacity:	2197 cu. in.
Material:	420D Nylon / 1680D Ballistics
Warranty:	Lifetime guarantee against defects in materials and workmanship
Linear inches:	41.25"

Scenario 2 – Recent and Minor Price Change

You wanted a new The North Face® Daypack with laptop compartment and have decided exactly what model and color you will buy (as shown in the picture below). You purchased the backpack for **$94.95 from Amazon.com** with your own money. **Later the same day**, your friend told you that he just bought the same backpack for **$89.95 (5% lower) from Amazon.com**. Later, you learned this price discrepancy is due to **Amazon**'s practice of charging different buyers different prices for the same product.

Scenario 3 – Distant and Major Price Change

You wanted a new The North Face® Daypack with laptop compartment and have decided exactly what model and color you will buy (as shown in the picture below). You purchased the backpack for **$94.95 from Amazon.com** with your own money. **One month later**, your friend told you that he just bought the same backpack for **$66.45 (30% lower) from Amazon.com**. Later, you learned this price discrepancy is due to **Amazon**'s practice of charging different buyers different prices for the same product.

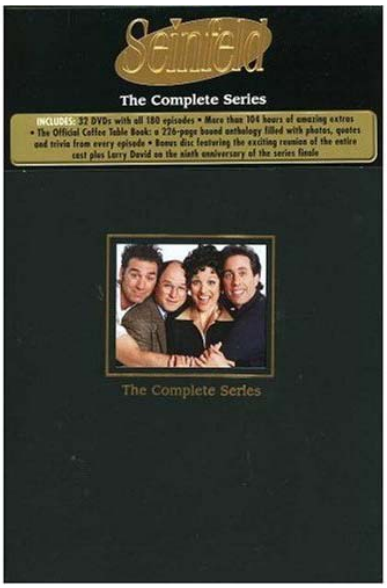
Scenario 4 – Distant and Minor Price Change

You wanted a new The North Face® Daypack with laptop compartment and have decided exactly what model and color you will buy (as shown in the picture below). You purchased the backpack for **$94.95 from Amazon.com** with your own money. **One month later**, your friend told you that he just bought the same backpack for **$89.99 (30% lower) from Amazon.com**. Later, you learned this price discrepancy is due to **Amazon**'s practice of charging different buyers different prices for the same product.

Product II – Seinfeld - The Complete DVDs Series

Scenario 5 – Recent and Major Price Change

You wanted complete series of DVDs for "Seinfeld" and have decided exactly what version you will buy (as shown in the picture below). You purchased the DVDs for **$158.99 from Amazon.com** with your own money. **Later the same day**, your friend told you that he just bought the same set of DVDs for **$109.99 (30% lower) from Amazon.com**. Later, you learned this price discrepancy is due to **Amazon**'s practice of charging different buyers different prices for the same product.



Features 32 DVDs with all 180 episodes
More than 104 hours of amazing extras
The Official Coffee Table Book: a 226-page bound anthology filled with photos, quotes, and trivia from every episode
Bonus disc featuring the reunion of the cast plus Larry David on the ninth anniversary of the series finale
Packaged in a handy collector's case that will look great on your shelf
Documentaries for all nine seasons
Inside looks
Not That There's Anything Wrong With That (bloopers)
In the vault (deleted scenes)
Yada Yada Yada (commentaries)
"Sein-Imation"

Scenario 6 – Recent and Minor Price Change

You wanted complete series of DVDs for "Seinfeld" and have decided exactly what version you will buy (as shown in the picture below). You purchased the DVDs for **$158.99 from Amazon.com** with your own money. **Later the same day**, your friend told you that he just bought the same set of DVDs for **$150.25 (5% lower) from Amazon.com**. Later, you learned this price discrepancy is due to **Amazon**'s practice of charging different buyers different prices for the same product.

Scenario 7 – Distant and Major Price Change

You wanted complete series of DVDs for "Seinfeld" and have decided exactly what version you will buy (as shown in the picture below). You purchased the DVDs for **$158.99 from Amazon.com** with your own money. **One month later**, your friend told you that he just bought the same set of DVDs for **$109.99 (30% lower) from Amazon.com**. Later, you learned this price discrepancy is due to **Amazon**'s practice of charging different buyers different prices for the same product.

Scenario 8 – Distant and Minor Price Change

You wanted complete series of DVDs for "Seinfeld" and have decided exactly what version you will buy (as shown in the picture below). You purchased the DVDs for **$158.99 from Amazon.com** with your own money. **One month later**, your friend told you that he just bought the same set of DVDs for **$150.25 (5% lower) from Amazon.com**. Later, you learned this price discrepancy is due to **Amazon**'s practice of charging different buyers different prices for the same product.

Product III – Garmin® nüvi 260W 4.3-Inch Widescreen Portable GPS Navigator

Scenario 9 – Recent and Major Price Change

You have wanted a new Garmin ® GPS navigator and have decided exactly what model you will buy (as shown in the picture below). You purchased the GPS Navigator for **$129.99 from Amazon.com** with your own money. **Later the same day**, your friend told you that he just bought the same GPS navigator for **$90.99 (30% lower) from Amazon.com**. Later, you learned this price discrepancy is due to **Amazon**'s practice of charging different buyers different prices for the same product.

Product Features

GPS system preloaded with City Navigator North America NT

4.3-inch touch screen display with 2D/3D mapping perspective

Turn-by-turn directions with voice guidance and text to speech

Rechargeable lithium-ion battery makes it convenient for navigation by car or foot

Includes JPEG picture viewer, world travel clock with time zones, currency converter, measurement converter, calculator and more

Technical Details

Brand Name: Garmin

Model: Nuvi 260w

Receiver Description: 12 channel

Connectivity Technology: USB

Display Size: 4.3 inches

Native Resolution: 480 x 272

Battery Average Life: 5 Hours

Map Type: North America

MP3 player: Y

Scenario 10 – Recent and Minor Price Change

You have wanted a new Garmin ® GPS navigator and have decided exactly what model you will buy (as shown in the picture below). You purchased the GPS Navigator for **$129.99 from Amazon.com** with your own money. **Later the same day**, your friend told you that he just bought the same GPS navigator for **$123.50 (5% lower) from Amazon.com**. Later, you learned this price discrepancy is due to **Amazon**'s practice of charging different buyers different prices for the same product.

Scenario 11 – Distant and Major Price Change

You have wanted a new Garmin ® GPS navigator and have decided exactly what model you will buy (as shown in the picture below). You purchased the GPS Navigator for **$129.99 from Amazon.com** with your own money. **One month later**, your friend told you that he just bought the same GPS navigator for **$90.99 (30% lower) from Amazon.com**. Later, you learned this price discrepancy is due to **Amazon**'s practice of charging different buyers different prices for the same product.

Scenario 12 – Distant and Minor Price Change

You have wanted a new Garmin ® GPS navigator and have decided exactly what model you will buy (as shown in the picture below). You purchased the GPS Navigator for **$129.99 from Amazon.com** with your own money. **One month later**, your friend told you that he just bought the same GPS navigator for **$123.50 (5% lower) from Amazon.com**. Later, you learned this price discrepancy is due to **Amazon**'s practice of charging different buyers different prices for the same product.

Note: Participants were randomly assigned to one of the 12 purchase scenarios.

Part III: Please answer the following questions based on the scenario you were given.

21. Which of the following statements is true, based on the scenario you just read?
    a. I paid **5%** more than my friend for the same backpack.
    b. I paid **10%** more than my friend for the same backpack.
    c. I paid **20%** more than my friend for the same backpack.
    d. I paid **30%** more than my friend for the same backpack.
22. In the scenario you just read, the difference between the price you paid and the price your friend paid is **MAJOR/MINOR** (circle one).
23. Which of the following statements is true, based on the scenario you just read?
    a. The difference between the price I paid and the price my friend paid occurred within **the same day** as I purchased the backpack.
    b. The difference between the price I paid and the price my friend paid occurred **one week** after I purchased the backpack.
    c. The difference between the price I paid and the price my friend paid occurred **one month** after I purchased the backpack.
24. In the scenario you just read, the difference between the price you paid and the price your friend paid occurred within a relatively **SHORT/LONG** (circle one) period of time.

Part IV: Please read and answer the following questions carefully based upon the purchase scenario you were given.

For **statements 25 through 38**, please indicate your level of agreement with each of the statements using the scale below (Circle the number that best describe your response to each statement):

	Strongly Disagree			**Neither Disagree or Agree**			**Strongly Agree**
25. The price I paid was fair.	1	2	3	4	5	6	7
26. The price I paid was questionable.	1	2	3	4	5	6	7
27. The price I paid was justified.	1	2	3	4	5	6	7
28. The price I paid was honest.	1	2	3	4	5	6	7
29. The price I paid was unfair.	1	2	3	4	5	6	7
30. The price I paid was a “rip-off”.	1	2	3	4	5	6	7
31. I am satisfied with my purchase decision.	1	2	3	4	5	6	7
32. My choice was wise.	1	2	3	4	5	6	7
33. I feel badly about my purchase decision.	1	2	3	4	5	6	7
34. I think I selected the right seller.	1	2	3	4	5	6	7
35. I am happy with my purchase decision.	1	2	3	4	5	6	7
36. I am satisfied with the purchasing process through the seller.	1	2	3	4	5	6	7
37. Overall, I am satisfied with the purchase experience.	1	2	3	4	5	6	7
38. Overall, I am pleased with my purchase experience.	1	2	3	4	5	6	7

For **statements 39 through 53**, please indicate your likelihood of each statement using the scale below (Circle the number that best describe your response to each statement):

	Very Unlikely			**Neither Unlikely or Likely**			**Very Likely**
39. I will buy products from Amazon.com if I feel there is a need for the product in the future.	1	2	3	4	5	6	7
40. I will continue to buy products from Amazon.com regardless its pricing policy.	1	2	3	4	5	6	7
41. I will continue to buy products from Amazon.com even if the prices are somewhat higher than those of Amazon.com's competitors.	1	2	3	4	5	6	7
42. I will buy more products from Amazon.com in the next few years regardless its pricing policy.	1	2	3	4	5	6	7
43. I will pay a higher price than competitors' charge for the benefits I currently receive from Amazon.com	1	2	3	4	5	6	7
44. I will complain to Amazon.com's customer service about their pricing policy.	1	2	3	4	5	6	7
45. I will ask Amazon.com for a refund for the price difference.	1	2	3	4	5	6	7
46. I will buy fewer products from Amazon.com in the next few years.	1	2	3	4	5	6	7
47. I will stop buying products from Amazon.com	1	2	3	4	5	6	7
48. I will say negative things about Amazon.com's pricing policy to other people.	1	2	3	4	5	6	7
49. I will switch to a competitor after my experience with Amazon's pricing policy.	1	2	3	4	5	6	7
50. I will complain to other customers about Amazon.com's pricing policy.	1	2	3	4	5	6	7
51. I will complain to Amazon.com's employees if I experience a problem with Amazon's pricing policy.	1	2	3	4	5	6	7
52. I will complain about Amazon.com's pricing policy through online social networking channels such as Facebook, Twitter, and MySpace and/or the media (circle all you will use).	1	2	3	4	5	6	7
53. I will complain to external agencies, such as the Better Business Bureau, about Amazon.com's pricing policy.	1	2	3	4	5	6	7

Part V: Please read and answer the following questions carefully.

54. I am _____ years old.

55. What is your gender?

- Male
- Female

56. What is your ethnicity?

- ☐ AFRICAN AMERICAN/BLACK
- ☐ ASIAN AMERICAN
- ☐ CAUCASIAN/WHITE
- ☐ HISPANIC
- ☐ NATIVE AMERICAN
- ☐ OTHER _____ (SPECIFY)

57. What is your year in school?

- ☐ FRESHMAN
- ☐ SOPHOMORE
- ☐ JUNIOR
- ☐ SENIOR
- ☐ OTHER _____ (SPECIFY)

58. What is your academic curriculum?

- ☐ BUSINESS
- ☐ EDUCATION
- ☐ ENGINEERING
- ☐ HUMAN SCIENCES
- ☐ LIBERAL ARTS
- ☐ SCIENCES AND MATHEMATICS
- ☐ OTHER _____(SPECIFY)

Note: The same set of questionnaire is used for all 12 purchase scenarios.

Part VI: Please read and answer the following questions carefully.

59. According to your experience, what is a comparatively fair price for The North Face backpack/a set of DVDs for "Seinfeld"/a GPS navigator (as shown in the scenario) at a major retailer (e.g. Amazon.com) as shown in the scenario you were given?

60. If possible, how can the purchase/price scenario you just read be more true to your experience so that it is clearer and easier to understand?

61. Please list all questions that are confusing and/or hard to understand.

Question No.	Suggestions for revisions
e.g. #15	The question will be more clear if …

(Use back if necessary)

APPENDIX B

Pilot Test Instrument

Part I: Please read and answer the following questions carefully.

For **statements 1 through 20**, please indicate your level of agreement with each of the following statements using the scale below **when the name "Amazon.com" is mentioned to you** (Circle the number that best describes your response to each statement):

		Strongly Disagree			**Neither Disagree or Agree**			**Strongly Agree**
1.	Amazon.com is a retailer that interests me.	1	2	3	4	5	6	7
2.	Amazon.com is exactly what I need from a retailer.	1	2	3	4	5	6	7
3.	I frequently purchase products from Amazon.com.	1	2	3	4	5	6	7
4.	Amazon.com as a choice of retailer has not worked out as well as I thought it would.	1	2	3	4	5	6	7
5.	If I could do it over again, I'd choose a different retailer than Amazon.com.	1	2	3	4	5	6	7
6.	I have truly enjoyed buying products from Amazon.com.	1	2	3	4	5	6	7
7.	Amazon.com is a retailer that I could talk about for a long time.	1	2	3	4	5	6	7
8.	I prefer buying products from Amazon.com.	1	2	3	4	5	6	7
9.	Amazon.com is more than a mere retailer to me.	1	2	3	4	5	6	7
10.	I would try a different retailer if the same product was less expensive.	1	2	3	4	5	6	7
11.	I would try a different retailer if the other retailer offered better features.	1	2	3	4	5	6	7
12.	Buying products from Amazon.com says a lot about who I am.	1	2	3	4	5	6	7

13. I care about Amazon.com.	1	2	3	4	5	6	7
14. I consider myself to be highly loyal to Amazon.com.	1	2	3	4	5	6	7
15. I often return to Amazon.com to buy products from it.	1	2	3	4	5	6	7
16. I feel it is safer to buy products from Amazon.com.	1	2	3	4	5	6	7
17. I say positive things about Amazon.com to other people.	1	2	3	4	5	6	7
18. I recommend Amazon.com to someone who asks my advice for purchasing various products.	1	2	3	4	5	6	7
19. I encourage friends and relatives to buy products from Amazon.com.	1	2	3	4	5	6	7
20. I consider Amazon.com my first choice to buy products.	1	2	3	4	5	6	7

Part II: Purchase Scenarios

You are about to read a purchase scenario describing the purchase of a specific product from Amazon.com. This scenario is hypothetically developed for the purpose of this study and thus, may not depict the actual business practice of Amazon.com. Please carefully read the scenario and complete the questions on the following pages.

Product I – The North Face ® Daypack with Laptop Compartment

Scenario 1 – Recent and Major Price Change

You wanted a new The North Face® Daypack with laptop compartment and have decided exactly what model and color you will buy (as shown in the picture below). You purchased the backpack for **$94.95 from Amazon.com** with your own money. **Later the same day**, your friend told you that he just bought the same backpack for **$66.45 (30% lower) from Amazon.com**. Later, you learned this price discrepancy is **due to Amazon's practice of charging different buyers different prices for the same product**.

Laptop Compartment Dimensions:	16" x 11.5" x 2"
Size:	20.75" x 13.5" x 7"
Weight:	2 lbs , 6 oz
Capacity:	2197 cu. in.
Material:	420D Nylon / 1680D Ballistics
Warranty:	Lifetime guarantee against defects in materials and workmanship
Linear inches:	41.25"

Part III: Please answer the following questions based on the scenario you just read.

21. Which of the following statements is true, based on the scenario you just read?

    a. The price paid by my friend is **5%** lower than the price I paid for the same backpack/DVDs/GPS.

    b. The price paid by my friend is **10%** lower than the price I paid for the same backpack/DVDs/GPS.

    c. The price paid by my friend is **20%** lower than the price I paid for the same backpack/DVDs/GPS.

    d. The price paid by my friend is **30%** lower than the price I paid for the same backpack/DVDs/GPS.

22. In the scenario you just read, the difference between the price you paid and the price your friend paid is:

    MAJOR / MINOR (circle one).

23. Which of the following statements is true, based on the scenario you just read?

    a. The difference between the price I paid and the price my friend paid occurred within **the same day** as I purchased the backpack/DVDs/GPS.

    b. The difference between the price I paid and the price my friend paid occurred **one week** after I purchased the backpack/DVDs/GPS.

    c. The difference between the price I paid and the price my friend paid occurred **one month** after I purchased the backpack/DVDs/GPS.

24. In the scenario you just read, the difference between the price you paid and the price your friend paid occurred within a relatively:

    SHORT / LONG (circle one) period of time.

Part IV: Please read and answer the following questions carefully **based upon the purchase scenario you just read**.

For **statements 25 through 38**, please indicate your level of agreement with each of the statements using the scale below (Circle the number that best describes your response to each statement):

	Strongly Disagree			**Neither Disagree or Agree**			**Strongly Agree**
25. The price I paid was fair.	1	2	3	4	5	6	7
26. I am satisfied with my purchase decision.	1	2	3	4	5	6	7
27. My choice was wise.	1	2	3	4	5	6	7
28. The price I paid was justified.	1	2	3	4	5	6	7
29. I think I selected the right seller.	1	2	3	4	5	6	7
30. The price I paid was honest.	1	2	3	4	5	6	7
31. I am happy with my purchase decision.	1	2	3	4	5	6	7
32. The price I paid was unfair.	1	2	3	4	5	6	7
33. I feel badly about my purchase decision.	1	2	3	4	5	6	7
34. The price I paid was questionable.	1	2	3	4	5	6	7
35. I am satisfied with the purchasing process through the seller.	1	2	3	4	5	6	7
36. The price I paid was a “rip-off”.	1	2	3	4	5	6	7
37. Overall, I am satisfied with the purchase experience.	1	2	3	4	5	6	7
38. Overall, I am pleased with my purchase experience.	1	2	3	4	5	6	7

For **statements 39 through 53**, please indicate your likelihood to take actions described below **based upon the scenario you just read** (Circle the number that best describes your response to each statement):

1 = VERY UNLIKELY; 2 = UNLIKELY; 3 = SOMEWHAT UNLIKELY; 4 = NEITHER UNLIKELY NOR LIKELY; 5 = SOMEWHAT LIKELY; 6 = LIKELY; 7 = VERY LIKELY

	Very Unlikely		**Neither Unlikely or Likely**				**Very Likely**
39. I will say negative things about Amazon.com's pricing policy to other people.	1	2	3	4	5	6	7
40. I will complain to other customers about Amazon.com's pricing policy.	1	2	3	4	5	6	7
41. I will buy fewer products from Amazon.com in the next few years.	1	2	3	4	5	6	7
42. I will complain to external agencies, such as the Better Business Bureau, about Amazon.com's pricing policy.	1	2	3	4	5	6	7
43. I will continue to buy products from Amazon.com regardless of their pricing policy.	1	2	3	4	5	6	7
44. I will switch to Amazon.com's competitor after my experience with their pricing policy.	1	2	3	4	5	6	7
45. I will ask Amazon.com for a refund for the price difference.	1	2	3	4	5	6	7
46. I will continue to buy products from Amazon.com even if the prices are somewhat higher than those of Amazon.com's competitors.	1	2	3	4	5	6	7
47. I will complain to Amazon.com's employees about my experience with Amazon's pricing policy.	1	2	3	4	5	6	7
48. I will buy more products from Amazon.com in the next few years regardless of their pricing policy.	1	2	3	4	5	6	7
49. I will complain to Amazon.com's customer service about their pricing policy.	1	2	3	4	5	6	7
50. I will continue to buy products from Amazon.com if I need the product in the future.	1	2	3	4	5	6	7
51. I will search for additional product price information (e.g., at competitor's site/store) before purchasing products from Amazon.com in the future.	1	2	3	4	5	6	7
52. I will stop buying products from Amazon.com.	1	2	3	4	5	6	7

53. I will complain about Amazon.com's pricing policy through online social networking channels such as: (**rate your likelihood to take the action first, then check what social network channels you will use**) a. Facebook b. Twitter c. MySpace d. Other media/social network (Please specify)	1	2	3	4	5	6	7

Part V: Please read and answer the following questions carefully.

39. I am _____ years old.

40. What is your gender?

- Male
- Female

41. Have you ever purchased products from Amazon.com before?

a. Yes

b. No

42. What is your ethnicity?

- ☐ AFRICAN AMERICAN/BLACK
- ☐ ASIAN AMERICAN
- ☐ CAUCASIAN/WHITE
- ☐ HISPANIC
- ☐ NATIVE AMERICAN
- ☐ OTHER _____ (SPECIFY)

43. What is your year in school?

- ☐ FRESHMAN
- ☐ SOPHOMORE
- ☐ JUNIOR
- ☐ SENIOR
- ☐ OTHER _____ (SPECIFY)

44. What is your academic curriculum?

- ☐ BUSINESS
- ☐ EDUCATION
- ☐ ENGINEERING
- ☐ HUMAN SCIENCES
- ☐ LIBERAL ARTS
- ☐ SCIENCES AND MATHEMATICS
- ☐ OTHER _____(SPECIFY)

Note: The same set of questionnaire is used for all 12 purchase scenarios (see Appendix A).

APPENDIX C

Main Experiment Instrument (Auburn University)

0%

Survey - Scenario 1

Part I: Please read and answer the following questions carefully.

Please indicate your level of agreement with each of the following statements **when the name "Amazon.com" is mentioned to you**:

1. Amazon.com is a retailer that interests me.

- Strongly Disagree
- Disagree
- Somewhat Disagree
- Neither Disagree Nor Agree
- Somewhat Agree
- Agree
- Strongly Agree

2. Amazon.com is exactly what I need from a retailer.

- Strongly Disagree
- Disagree
- Somewhat Disagree
- Neither Disagree Nor Agree
- Somewhat Agree
- Agree
- Strongly Agree

3. I frequently purchase products from Amazon.com.

- Strongly Disagree
- Disagree
- Somewhat Disagree
- Neither Disagree Nor Agree
- Somewhat Agree
- Agree
- Strongly Agree

4. Amazon.com as a choice of retailer has not worked out as well as I thought it would.

- Strongly Disagree
- Disagree
- Somewhat Disagree
- Neither Disagree Nor Agree
- Somewhat Agree
- Agree
- Strongly Agree

5. If I could do it over again, I'd choose a different retailer than Amazon.com.

- Strongly Disagree
- Disagree
- Somewhat Disagree

- Neither Disagree Nor Agree
- Somewhat Agree
- Agree
- Strongly Agree

6. I have truly enjoyed buying products from Amazon.com.

- Strongly Disagree
- Disagree
- Somewhat Disagree
- Neither Disagree Nor Agree
- Somewhat Agree
- Agree
- Strongly Agree

7. Amazon.com is a retailer that I could talk about for a long time.

- Strongly Disagree
- Disagree
- Somewhat Disagree
- Neither Disagree Nor Agree
- Somewhat Agree
- Agree
- Strongly Agree

8. I prefer buying products from Amazon.com.

- Strongly Disagree
- Disagree
- Somewhat Disagree
- Neither Disagree Nor Agree
- Somewhat Agree
- Agree
- Strongly Agree

9. Amazon.com is more than a mere retailer to me.

- Strongly Disagree
- Disagree
- Somewhat Disagree
- Neither Disagree Nor Agree
- Somewhat Agree
- Agree
- Strongly Agree

10. I would try a different retailer if the same product was less expensive.

- Strongly Disagree
- Disagree
- Somewhat Disagree
- Neither Disagree Nor Agree
- Somewhat Agree
- Agree

○ Strongly Agree

11. I would try a different retailer if the other retailer offered better features.

○ Strongly Disagree
○ Disagree
○ Somewhat Disagree
○ Neither Disagree Nor Agree
○ Somewhat Agree
○ Agree
○ Strongly Agree

12. Buying products from Amazon.com says a lot about who I am.

○ Strongly Disagree
○ Disagree
○ Somewhat Disagree
○ Neither Disagree Nor Agree
○ Somewhat Agree
○ Agree
○ Strongly Agree

13. I care about Amazon.com.

○ Strongly Disagree
○ Disagree
○ Somewhat Disagree
○ Neither Disagree Nor Agree
○ Somewhat Agree
○ Agree
○ Strongly Agree

14. I consider myself to be highly loyal to Amazon.com.

○ Strongly Disagree
○ Disagree
○ Somewhat Disagree
○ Neither Disagree Nor Agree
○ Somewhat Agree
○ Agree
○ Strongly Agree

15. I often return to Amazon.com to buy products from it.

○ Strongly Disagree
○ Disagree
○ Somewhat Disagree
○ Neither Disagree Nor Agree
○ Somewhat Agree
○ Agree
○ Strongly Agree

16. I feel it is safer to buy products from Amazon.com.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Disagree Nor Agree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

17. I say positive things about Amazon.com to other people.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Disagree Nor Agree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

18. I recommend Amazon.com to someone who asks my advice for purchasing various products.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Disagree Nor Agree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

19. I encourage friends and relatives to buy products from Amazon.com.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Disagree Nor Agree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

20. I consider Amazon.com my first choice to buy products.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Disagree Nor Agree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

Please check all questions on this page to make sure you read and answered them all before proceeding to next page.
However, you are NOT forced to answer all questions.

17%

Survey - Scenario 1

Part II: Purchase Scenario

You are about to read a purchase scenario describing the purchase of a specific product from Amazon.com. This scenario is hypothetically developed for the purpose of this study and thus, may not depict the actual business practice of Amazon.com. Please carefully read the scenario and complete the questions on the following pages.

Scenario 1 – The North Face ® Backpack

You wanted a new The North Face® Daypack with laptop compartment and decided exactly what model and color you will buy (as shown in the picture below). You purchased the backpack for **$94.95 from Amazon.com** with your own money. **Later the same day**, your friend told you that he just bought the same backpack for **$66.45 (30% lower) from Amazon.com**. Later, you learned this price discrepancy is **due to Amazon's practice of charging different buyers different prices for the same product**.

Laptop Compartment Dimensions:	16" x 11.5" x 2"
Size:	20.75" x 13.5" x 7"
Weight:	2 lbs , 6 oz
Capacity:	2197 cu. in.
Material:	420D Nylon / 1680D Ballistics
Warranty:	Lifetime guarantee against defects in materials and workmanship
Linear inches:	41.25"

Part III: Please answer the following questions based upon the scenario you just read.

21. Which of the following statements is true, based upon the scenario you just read?

- ○ My friend paid 5% less than I did for the same backpack.
- ○ My friend paid 10% less than I did for the same backpack.
- ○ My friend paid 20% less than I did for the same backpack.
- ○ My friend paid 30% less than I did for the same backpack.

22. In the scenario you just read, the difference between the price you paid and the price your friend paid is:

- ○ MAJOR
- ○ MINOR

23. Which of the following statements is true, based upon the scenario you just read?

- ○ The difference between the price I paid and the price my friend paid occurred within the same day as I purchased the same backpack.
- ○ The difference between the price I paid and the price my friend paid occurred one week after I purchased the same backpack.
- ○ The difference between the price I paid and the price my friend paid occurred one month after I purchased the same backpack.

24. In the scenario you just read, the difference between the price you paid and the price your friend paid occurred within a relatively:

- ○ SHORT period of time
- ○ LONG period of time

Please check all questions on this page to make sure you read and answered them all before proceeding to next page. However, you are NOT forced to answer all questions.

Back Next

Survey Software powered by Flui

33%

Survey - Scenario 1

Part IV: Please read and answer the following questions carefully based upon the purchase scenario you just read.

For **statements 25 through 38**, please indicate your level of agreement with each of the statements:

Please check all questions on this page to make sure you read them all before proceed to next page.

25. The price I paid was fair.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Disagree Nor Agree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

26. I am satisfied with my purchase decision.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Disagree Nor Agree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

27. My choice was wise.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Disagree Nor Agree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

28. The price I paid was justified.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Disagree Nor Agree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

29. I think I selected the right retailer.

- ○ Strongly Disagree

- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Disagree Nor Agree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

30. The price I paid was honest.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Disagree Nor Agree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

31. I am happy with my purchase decision.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Disagree Nor Agree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

32. The price I paid was unfair.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Disagree Nor Agree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

33. I feel badly about my purchase decision.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Disagree Nor Agree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

34. The price I paid was questionable.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Disagree Nor Agree

- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

35. I am satisfied with the purchasing process through Amazon.com.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Disagree Nor Agree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

36. The price I paid was a "rip-off".

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Disagree Nor Agree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

37. Overall, I am satisfied with the purchase experience.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Disagree Nor Agree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

38. Overall, I am pleased with my purchase experience.

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither Disagree Nor Agree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

Please check all questions on this page to make sure you read and answered them all before proceeding to next page.
However, you are NOT forced to answer all questions.

Back Next

50%

Survey - Scenario 1

Part V: Please read and answer the following questions carefully based upon the purchase scenario you just read.

For **statements 39 through 53**, please indicate your likelihood to take actions described below **based upon the scenario you just read**:

39. I will say negative things about Amazon.com's pricing policy to other people.

- Very Unlikely
- Unlikely
- Somewhat Unlikely
- Neither Unlikely Nor Likely
- Somewhat Likely
- Likely
- Very Likely

40. I will complain to other customers about Amazon.com's pricing policy.

- Very Unlikely
- Unlikely
- Somewhat Unlikely
- Neither Unlikely Nor Likely
- Somewhat Likely
- Likely
- Very Likely

41. I will buy fewer products from Amazon.com in the next few years.

- Very Unlikely
- Unlikely
- Somewhat Unlikely
- Neither Unlikely Nor Likely
- Somewhat Likely
- Likely
- Very Likely

42. I will complain to external agencies, such as the Better Business Bureau, about Amazon.com's pricing policy.

- Very Unlikely
- Unlikely
- Somewhat Unlikely
- Neither Unlikely Nor Likely
- Somewhat Likely
- Likely
- Very Likely

43. I will continue to buy products from Amazon.com regardless of their pricing policy.

- Very Unlikely
- Unlikely
- Somewhat Unlikely

- ○ Neither Unlikely Nor Likely
- ○ Somewhat Likely
- ○ Likely
- ○ Very Likely

44. I will switch to Amazon.com's competitor after my experience with their pricing policy.

- ○ Very Unlikely
- ○ Unlikely
- ○ Somewhat Unlikely
- ○ Neither Unlikely Nor Likely
- ○ Somewhat Likely
- ○ Likely
- ○ Very Likely

45. I will ask Amazon.com for a refund for the price difference.

- ○ Very Unlikely
- ○ Unlikely
- ○ Somewhat Unlikely
- ○ Neither Unlikely Nor Likely
- ○ Somewhat Likely
- ○ Likely
- ○ Very Likely

46. I will continue to buy products from Amazon.com even if the prices are somewhat higher than those of Amazon.com's competitors.

- ○ Very Unlikely
- ○ Unlikely
- ○ Somewhat Unlikely
- ○ Neither Unlikely Nor Likely
- ○ Somewhat Likely
- ○ Likely
- ○ Very Likely

47. I will complain to Amazon.com's employees about my experience with Amazon's pricing policy.

- ○ Very Unlikely
- ○ Unlikely
- ○ Somewhat Unlikely
- ○ Neither Unlikely Nor Likely
- ○ Somewhat Likely
- ○ Likely
- ○ Very Likely

48. I will buy more products from Amazon.com in the next few years regardless of their pricing policy.

- ○ Very Unlikely
- ○ Unlikely
- ○ Somewhat Unlikely
- ○ Neither Unlikely Nor Likely
- ○ Somewhat Likely
- ○ Likely

○ Very Likely

49. I will complain to Amazon.com's customer service about their pricing policy.

○ Very Unlikely
○ Unlikely
○ Somewhat Unlikely
○ Neither Unlikely Nor Likely
○ Somewhat Likely
○ Likely
○ Very Likely

50. I will continue to buy products from Amazon.com if I need the product in the future.

○ Very Unlikely
○ Unlikely
○ Somewhat Unlikely
○ Neither Unlikely Nor Likely
○ Somewhat Likely
○ Likely
○ Very Likely

51. I will search for additional product price information (e.g., at competitor's site/store) before purchasing products from Amazon.com in the future.

○ Very Unlikely
○ Unlikely
○ Somewhat Unlikely
○ Neither Unlikely Nor Likely
○ Somewhat Likely
○ Likely
○ Very Likely

52. I will stop buying products from Amazon.com.

○ Very Unlikely
○ Unlikely
○ Somewhat Unlikely
○ Neither Unlikely Nor Likely
○ Somewhat Likely
○ Likely
○ Very Likely

53. I will complain about Amazon.com's pricing policy through online social networking channels such as:

Facebook	Select
Twitter	Select
MySpace	Select
Other social networking channels	Select

Please check all questions on this page to make sure you read and answered them all before proceeding to next page. However, you are NOT forced to answer all questions.

67%

Survey - Scenario 1

Part VI: Demographics

Please fill out your demographic/personal information.

1. Age

Select

2. What is your gender?

- [ ] Male
- [ ] Female

3. Have you ever purchased products from Amazon.com before?

- [ ] Yes
- [ ] No

4. What is your ethnicity?

- [ ] African American/Black
- [ ] Asian American
- [ ] Native American
- [ ] Hispanic
- [ ] Caucasian/White
- [ ] Other, please specify:

5. What is your year in school?

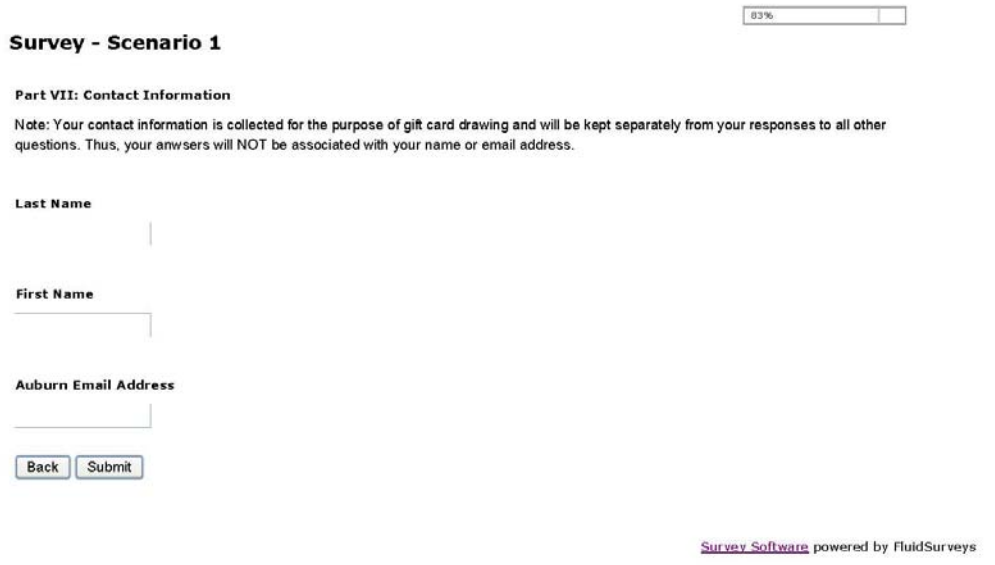
- [ ] Freshman
- [ ] Sophomore
- [ ] Junior
- [ ] Senior
- [ ] Other, please specify:

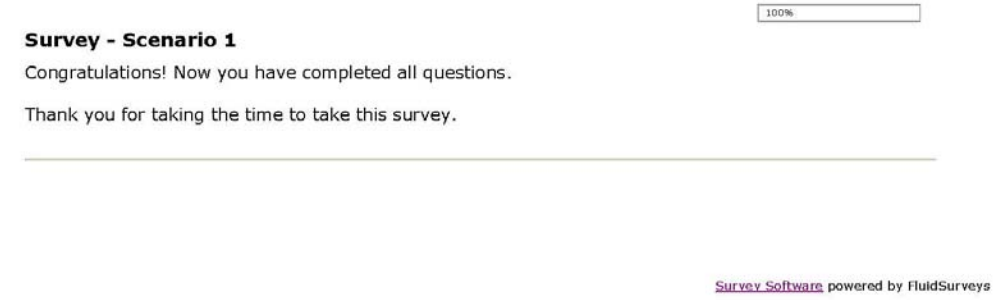
6. What is your academic curriculum?

- [ ] Human Sciences
- [ ] Sciences and Mathematics
- [ ] Education
- [ ] Liberal Arts
- [ ] Engineering
- [ ] Business
- [ ] Other, please specify:

7. Do you want to be entered into a drawing for a $10 Starbucks gift card?

- ○ Yes
- ○ No





Note: The same set of questionnaire is used for all 12 purchase scenarios (see Appendix A).

APPENDIX D

Main Experiment Instrument (Sam Houston State University)

Part I: Please read and answer the following questions carefully.

For **statements 1 through 20**, please indicate your level of agreement with each of the following statements using the scale below **when the name "Amazon.com" is mentioned to you** (Circle the number that best describes your response to each statement):

		Strongly Disagree			**Neither Disagree or Agree**			**Strongly Agree**
1.	Amazon.com is a retailer that interests me.	1	2	3	4	5	6	7
2.	Amazon.com is exactly what I need from a retailer.	1	2	3	4	5	6	7
3.	I frequently purchase products from Amazon.com.	1	2	3	4	5	6	7
4.	Amazon.com as a choice of retailer has not worked out as well as I thought it would.	1	2	3	4	5	6	7
5.	If I could do it over again, I'd choose a different retailer than Amazon.com.	1	2	3	4	5	6	7
6.	I have truly enjoyed buying products from Amazon.com.	1	2	3	4	5	6	7
7.	Amazon.com is a retailer that I could talk about for a long time.	1	2	3	4	5	6	7
8.	I prefer buying products from Amazon.com.	1	2	3	4	5	6	7
9.	Amazon.com is more than a mere retailer to me.	1	2	3	4	5	6	7
10.	I would try a different retailer if the same product was less expensive.	1	2	3	4	5	6	7
11.	I would try a different retailer if the other retailer offered better features.	1	2	3	4	5	6	7
12.	Buying products from Amazon.com says a lot about who I am.	1	2	3	4	5	6	7

13. I care about Amazon.com.	1	2	3	4	5	6	7
14. I consider myself to be highly loyal to Amazon.com.	1	2	3	4	5	6	7
15. I often return to Amazon.com to buy products from it.	1	2	3	4	5	6	7
16. I feel it is safer to buy products from Amazon.com.	1	2	3	4	5	6	7
17. I say positive things about Amazon.com to other people.	1	2	3	4	5	6	7
18. I recommend Amazon.com to someone who asks my advice for purchasing various products.	1	2	3	4	5	6	7
19. I encourage friends and relatives to buy products from Amazon.com.	1	2	3	4	5	6	7
20. I consider Amazon.com my first choice to buy products.	1	2	3	4	5	6	7

Part II: Purchase Scenario

You are about to read a purchase scenario describing the purchase of a specific product from Amazon.com. This scenario is hypothetically developed for the purpose of this study and thus, may not depict the actual business practice of Amazon.com. Please carefully read the scenario and complete the questions on the following pages.

Scenario – The North Face ® Backpack

You wanted a new The North Face® Daypack with laptop compartment and have decided exactly what model and color you will buy (as shown in the picture below). You purchased the backpack for **$94.95 from Amazon.com** with your own money. **Later the same day**, your friend told you that he just bought the same backpack for **$66.45 (30% lower) from Amazon.com**. Later, you learned this price discrepancy is **due to Amazon's practice of charging different buyers different prices for the same product**.

Laptop Compartment Dimensions:	16" x 11.5" x 2"
Size:	20.75" x 13.5" x 7"
Weight:	2 lbs , 6 oz
Capacity:	2197 cu. in.
Material:	420D Nylon / 1680D Ballistics
Warranty:	Lifetime guarantee against defects in materials and workmanship
Linear inches:	41.25"

Part III: Please answer the following questions **based upon the scenario you just read**.

21. Which of the following statements is true, based on the scenario you just read?

    a. My friend paid **5% less** than I did for the same backpack.

    b. My friend paid **10% less** than I did for the same backpack.

    c. My friend paid **20% less** than I did for the same backpack.

    d. My friend paid **30% less** than I did for the same backpack.

22. In the scenario you just read, the difference between the price you paid and the price your friend paid is:

    MAJOR / MINOR (circle one).

23. Which of the following statements is true, based on the scenario you just read?

    e. The difference between the price I paid and the price my friend paid occurred within **the same day** as I purchased the same backpack.

    f. The difference between the price I paid and the price my friend paid occurred **one week** after I purchased the same backpack.

    g. The difference between the price I paid and the price my friend paid occurred **one month** after I purchased the same backpack.

24. In the scenario you just read, the difference between the price you paid and the price your friend paid occurred within a relatively:

    SHORT / LONG (circle one) period of time.

Part IV: Please read and answer the following questions carefully **based upon the purchase scenario you just read**.

For **statements 25 through 38**, please indicate your level of agreement with each of the statements using the scale below (Circle the number that best describes your response to each statement):

	Strongly Disagree			**Neither Disagree or Agree**			**Strongly Agree**
25. The price I paid was fair.	1	2	3	4	5	6	7
26. I am satisfied with my purchase decision.	1	2	3	4	5	6	7
27. My choice was wise.	1	2	3	4	5	6	7
28. The price I paid was justified.	1	2	3	4	5	6	7
29. I think I selected the right retailer.	1	2	3	4	5	6	7
30. The price I paid was honest.	1	2	3	4	5	6	7
31. I am happy with my purchase decision.	1	2	3	4	5	6	7
32. The price I paid was unfair.	1	2	3	4	5	6	7
33. I feel badly about my purchase decision.	1	2	3	4	5	6	7
34. The price I paid was questionable.	1	2	3	4	5	6	7
35. I am satisfied with the purchasing process through Amazon.com.	1	2	3	4	5	6	7
36. The price I paid was a “rip-off”.	1	2	3	4	5	6	7
37. Overall, I am satisfied with the purchase experience.	1	2	3	4	5	6	7
38. Overall, I am pleased with my purchase experience.	1	2	3	4	5	6	7

Part V: For **statements 39 through 53**, please indicate your likelihood to take actions described below **based upon the scenario you just read** (Circle the number that best describes your response to each statement):

1 = VERY UNLIKELY; 2 = UNLIKELY; 3 = SOMEWHAT UNLIKELY; 4 = NEITHER UNLIKELY NOR LIKELY; 5 = SOMEWHAT LIKELY; 6 = LIKELY; 7 = VERY LIKELY

	Very Unlikely			**Neither Unlikely or Likely**			**Very Likely**
39. I will say negative things about Amazon.com's pricing policy to other people.	1	2	3	4	5	6	7
40. I will complain to other customers about Amazon.com's pricing policy.	1	2	3	4	5	6	7
41. I will buy fewer products from Amazon.com in the next few years.	1	2	3	4	5	6	7
42. I will complain to external agencies, such as the Better Business Bureau, about Amazon.com's pricing policy.	1	2	3	4	5	6	7
43. I will continue to buy products from Amazon.com regardless of their pricing policy.	1	2	3	4	5	6	7
44. I will switch to Amazon.com's competitor after my experience with their pricing policy.	1	2	3	4	5	6	7
45. I will ask Amazon.com for a refund for the price difference.	1	2	3	4	5	6	7
46. I will continue to buy products from Amazon.com even if the prices are somewhat higher than those of Amazon.com's competitors.	1	2	3	4	5	6	7
47. I will complain to Amazon.com's employees about my experience with Amazon's pricing policy.	1	2	3	4	5	6	7
48. I will buy more products from Amazon.com in the next few years regardless of their pricing policy.	1	2	3	4	5	6	7
49. I will complain to Amazon.com's customer service about their pricing policy.	1	2	3	4	5	6	7
50. I will continue to buy products from Amazon.com if I need the product in the future.	1	2	3	4	5	6	7
51. I will search for additional product price information (e.g., at competitor's site/store) before purchasing products from Amazon.com in the future.	1	2	3	4	5	6	7
52. I will stop buying products from Amazon.com.	1	2	3	4	5	6	7

53. I will complain about Amazon.com's pricing policy through online social networking channels such as: (**rate your likelihood to take the action first, then check what social network channels you will use**) a. Facebook b. Twitter c. MySpace d. Other media/social network (Please specify)	1	2	3	4	5	6	7

Part VI: Please read and answer the following questions carefully.

39. I am _____ years old.

40. What is your gender?

- Male
- Female

41. Have you ever purchased products from Amazon.com before?

h. Yes

i. No

42. What is your ethnicity?

- ☐ AFRICAN AMERICAN/BLACK
- ☐ ASIAN AMERICAN
- ☐ CAUCASIAN/WHITE
- ☐ HISPANIC
- ☐ NATIVE AMERICAN
- ☐ OTHER _____ (SPECIFY)

43. What is your year in school?

- ☐ FRESHMAN
- ☐ SOPHOMORE
- ☐ JUNIOR
- ☐ SENIOR
- ☐ OTHER _____ (SPECIFY)

44. What is your academic curriculum?

j. BUSINESS

k. EDUCATION

l. CRIMINAL JUSTICE

m. HUMANITIES AND SOCIAL SCIENCES

n. ARTS AND SCIENCES

o. OTHER _____(SPECIFY)

Note: The same set of questionnaire is used for all 12 purchase scenarios.