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# Structure and Process of Channel Program Selections: Retailers Choice among Parity Trade Promotions

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**STRUCTURE AND PROCESS OF CHANNEL PROGRAM SELECTIONS:  
RETAILER'S CHOICE AMONG PARITY TRADE PROMOTIONS**

BY

**Amit Poddar**

A Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree  
of  
Doctor of Philosophy  
in the Robinson College of Business  
of  
Georgia State University

**GEORGIA STATE UNIVERSITY  
ROBINSON COLLEGE OF BUSINESS  
2007**

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## ACCEPTANCE

This dissertation was prepared under the direction of the candidate's Dissertation Committee. It has been approved and accepted by all members of that committee, and it has been accepted in partial fulfillment of the requirements for the degree of Doctor in Philosophy in Business Administration in the Robinson College of Business of Georgia State University.

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## Table of Contents

List of Tables .....	7
List of Figures .....	8
ABSTRACT .....	9
CHAPTER 1 .....	10
INTRODUCTION .....	10
CHAPTER 2 .....	21
LITERATURE REVIEW .....	21
Why Firms Promote? .....	22
Measuring Value of Trade Promotions .....	23
Trade Promotion Success Factors .....	26
Explaining Trade Promotions as a Power Game .....	28
Inefficiencies of Trade Promotion .....	30
Improving Trade Promotions .....	33
Identifying Problems with Trade Promotions .....	37
Slotting Fees Controversy .....	38
CHAPTER 3 .....	42
MODEL DEVELOPMENT AND HYPOTHESES .....	42
Behavioral Commitment .....	45
Antecedents to Behavioral Commitment .....	46
Calculative commitment .....	47
Loyalty commitment .....	51
Two forms of Loyalty Commitment .....	54
Interaction Effects of Calculative Commitment and Affective Commitment .....	57
CHAPTER 4 .....	70
RESEARCH METHODOLOGY AND DESIGN .....	70
Research Design .....	70
Solving Non-Orthogonality between Power and Calculative Commitment .....	73
Manipulations .....	79
Manipulating Power .....	79
Manipulating Calculative Commitment .....	80
Manipulating personal commitment (Commitment to salesperson) .....	80
Manipulating Organizational Commitment .....	81
Research Procedure .....	84
Pretest 1 .....	85
Pretest 2 .....	87
Main Study Survey Administration .....	88
Data Collection .....	90
Data Characteristics .....	95
CHAPTER 5 .....	100
DATA ANALYSIS AND RESULTS .....	100
Manipulation Checks Analysis .....	100
Panel vs Non Panel Data .....	108
Non Response bias .....	109
Scenario Realism .....	110



Hypothesis testing.....	111
Main and initial interaction effects .....	112
CHAPTER 6 .....	122
DISCUSSION AND CONTRIBUTIONS .....	122
Discussion of Results.....	122
Main Effect – Role of the Different forms of Commitments.....	122
Moderating Effect – Role of the Different forms of Commitments .....	123
Moderating Effect – Role of Power asymmetry on different forms of commitment .....	124
Research Contributions.....	124
Theoretical contributions .....	124
Methodological Contribution.....	127
Contributions to Practice.....	127
Future Directions .....	129
Limitations .....	129
Appendix A – Sample Scenario.....	131
Appendix B- Informed Consent Form .....	138
Appendix C – Advertisements Used.....	139
References.....	140

## List of Tables

Table 1: Experimental Design .....	72
Table 2: Manipulations used in the scenarios: power asymmetry .....	82
Table 3: Manipulations used in the scenarios – calculative commitment .....	83
Table 4: Manipulations used in the scenarios – loyalty commitment to organization.....	83
Table 5: Manipulations used in the scenarios – loyalty Commitment to Vendor Salesperson .....	84
Table 6: Changes made in Manipulations after First Pretest .....	86
Table 7: Break up of Respondents per Cell .....	93
Table 8: Number of respondents per method used .....	94
Table 9: Total sample frame .....	94
Table 10: Gender classification of respondent sample .....	96
Table 11: Work experience of respondent sample.....	96
Table 12: Industry classification of respondent sample.....	97
Table 13: Job profile classification of respondent sample.....	98
Table 14: Classification of respondent company size.....	99
Table 15: Scale items – reliability – calculative commitment.....	100
Table 16: Manipulation check - calculative commitment.....	101
Table 17: Scale items – reliability – loyalty commitment to organization.....	101
Table 18: Manipulation check- loyalty commitment to organization.....	102
Table 19: Manipulation check: calculative commitment towards vendor salesperson...	103
Table 20: Manipulation check: power of target vendor vis-à-vis the retailer.....	104
Table 21: Manipulation check: power of target vendor vis-à-vis the alternate vendor ..	105
Table 22: Manipulation check: power=dependence for target vendor -1 .....	106
Table 23: Manipulation check: power=dependence for target vendor -2 .....	106
Table 24: Manipulation check: power=dependence for alternate vendor.....	108
Table 25: Panel vs. non-panel difference test .....	109
Table 26: Early vs late respondents difference test .....	109
Table 27: Scenario realism score .....	110
Table 28: Scenario realism score - retail industry purchase manager .....	111
Table 29: Main effects regression equation - I .....	113
Table 30: Main effects regression equation - II.....	116
Table 31: Moderating effects regression: vendor less powerful.....	118
Table 32: Moderating effects regression: vendor more powerful.....	118
Table 33: Effects of different forms on commitment on behavioral commitment .....	119
Table 34: Hypotheses and results summary.....	121
Table 35: Main effects regression equation - comparing effects of different types of commitments.....	126

## List of Figures

Figure 1: Conceptual Model: Retailer Commitment Model .....	44
Figure 2: Manipulation of Power Asymmetry .....	80
Figure 3: Schematic Diagram of Survey Administration .....	90
Figure 4: Final Model with Results: Retailer Commitment Model .....	120

## **ABSTRACT**

### **STRUCTURE AND PROCESS OF CHANNEL PROGRAM SELECTIONS: RETAILER'S CHOICE AMONG PARITY TRADE PROMOTIONS**

By

AMIT PODDAR

13<sup>th</sup> June 2007

Committee Chair: Dr. Naveen Donthu

Major Department: Marketing

This research tried to explain the role of calculative commitment, loyalty commitment and power asymmetry on behavioral commitment in a business to business scenario. We specifically looked at the trade promotion scenario since retailers face more trade promotions than they can accept and extant research suggests that retailers always choose trade promotions that offer the greatest immediate benefit. This dissertation addressed the following managerial question, "How does a firm select a program (trade deal) when all its vendors offer the same short term economic incentives". We proposed that other aspects of retailer's relationship with its vendors determine / influence the program selection decision. First, incentives imbedded in channel relationships namely economic incentives (e.g., access to new products) and social incentives (e.g., affect toward vendor / salesperson) lead to a selection decision. Second, the power asymmetry the retailer has with the various vendors directly impacts decision making and also moderates the impact of the embedded economic / social incentives. We used commitment theory and an experimental design to test our model. We find that calculative commitment has the greatest impact on decision making followed by power asymmetry. We also find that loyalty commitment has the least impact. We also found that under high power asymmetry, calculative commitment has a bigger impact than loyalty commitment on behavioral commitment than under low power asymmetry when loyalty commitment has a bigger impact.

## **CHAPTER 1**

### **INTRODUCTION**

Economists have long tried to understand choice behavior of decision makers. Classical economists and decision theorists have used utility theory to explain the choice behavior of the rational decision maker (Stigler 1966). Classical utility theory has now been extended into expected utility theory where decision makers are thought to compute the expected utility of outcomes associated with each decision alternative and choose the decision alternative with the maximum expected utility (Puto 1987). However the main problem with expected utility theory has been its inability to account for context effects (Puto 1987).

This dissertation is an attempt to understand decision choice in a business to business purchase situation. Our specific goal is to understand how choices are made especially when short term utilities offered by the different choices are the same. Classical economic theory which is based on the rational man hypothesis has always held that if a person is rational, he will always prefer an option that offers better economic benefits. This view is especially true in a business to business purchase situation where purchase managers are supposed to make their decisions in a rational manner due to the principle of “justifiability”(Vyas and Woodside 1984) that exists in business settings. Justifiability means that all decisions that are made in a business setting have to be justifiable to outside third parties.

While the idea of rationality is quite accepted in the marketing and economic literature it has also faced strong challenges. Tversky and Kahneman (1981) in their work on prospect theory proved that perfectly rational people make seemingly irrational decisions depending on how a problem is framed. According to prospect theory people become risk averse in gains and risk seeking in losses. Therefore, even if the utility offered by two options is same, depending on how the utility is presented different decision outcomes can result.

Our focus in this dissertation is to understand the structure and process of this kind of decision making in a channel situation. In channel situations decision makers have to make a lot of difficult decisions involving considerable risk. Since our focus is not on decision framing, we make the assumption that decision makers do make rational choices when faced with differing options and they always choose options that offer better economic benefits than those that do not.

However channel members face lots of situations where the decision making is not so clear cut. Decision makers often have to choose between options that offer same economic benefits. For example in a retail scenario, there are many new products that vie for the same shelf space and offer the same margin and short term gain to the retailer. Similarly, when channel members seek new partners, prospective partners could offer the same benefits. When we look at trade promotions, it is possible that two vendors offer the same trade promotion but the retailer is forced to make a choice.

We try to understand what factors make buyers make a behavioral commitment to one party versus other especially when both options offer equal short term utilities. What is the structure of the decision calculus and what processes guides the decision making. We believe that commitment theory allows us to understand the structure of the decision process and the heuristic systematic model (HSM) allows us to explain the processes of decision process. According to commitment theory the behavioral commitment (or the choice) that is made by one channel member to another member can be predicted using an economic, psychological and sociological perspective (Iverson and Roy 1994). HSM theory (Eagly and Chaiken 1993) on the other hand predicts that the importance of these antecedents would vary depending on the structural relationships between the parties in the channel. Structural relationships are defined as the power asymmetries that may exist between the two parties in any channel relationship.

While this structure and process of the decision calculus can work in all kinds of channel situations, we specifically test it in the trade promotion context. We choose the trade promotion context because the likelihood of a retailer facing parity situations is much larger when dealing with trade promotions than in other channel contexts. For example, while it is true that sometimes channel members can be faced with the prospect of selecting a channel partner when most of them offer the same short term economic benefit, the likelihood of such an event occurring is quite small since the number of times new partners are selected in the lifetime of a firm is also quite small. On the other hand trade promotions decisions are made on a much more regular basis and thus the probability increases that managers would be faced with a parity situation very often.

Moreover, manufacturers can easily learn about and match the trade offers made by competitors.

From the industry's point of view understanding of trade promotion choice is a very important and relevant problem. The consumer packaged goods sector spends around \$75 billion on trade promotion (Dreze and Bell 2003) annually. According to latest figures consumer packaged goods companies spend as much as 16% of overall gross sales on trade promotions (Wellman 2005). The magnitude of this number becomes apparent when we compare it with the total money spent on advertising, which is only around \$37 billion. Trade promotion overall commands 55% of the total money spent on promotion (Wellman 2005). The rest of the money is spent on advertising (20%), traditional consumer promotions (15%) and 10% for account specific consumer promotions (Wellman 2005). The sheer amount of money spent demands that researchers spend an adequate amount of time in understanding trade promotions. However literature review suggests that the trade promotion area is seriously under researched compared to its share in the overall research on marketing mix budget.

The reasons for this apathy are many. First, trade promotions are considered by managers and some academics as a "cost of doing business" which leads them to not consider it as worthy of investigation. Second, and more importantly, trade promotion data is notoriously hard to collect, as companies consider trade promotion strategies as trade secrets and therefore loathe sharing them with researchers. These two factors have



ensured that most literature in trade promotions have used analytical modeling and simulation as the means of studying the trade promotion phenomenon.

Extant research has tried to answer questions like: why firms promote (Blattberg, Eppen, and Lieberman 1981; Lal 1990; Raju 1995; Varian 1980), tried to measure the value of trade promotions (Abraham and Lodish 1990; Blattberg and Levin 1987; Brown 1974; Chevalier and Curhan 1976; Goodman and Moody 1970; Kopp and Greyser 1987; Kruger 1987; Quelch 1983; Zerillo and Iacobucci 1995), tried to identify the factors that lead to successful trade promotions (Mitchel 1985; Quelch 1983) and explain how trade promotion success is defined (Hardy 1986). Researchers have also tried to understand the phenomenon of trade promotion by using game theoretic approaches (Kasulis et al. 1999; Rao, Arjunji, and Murthi 1995) and explained how trade promotion leads to inefficiencies due to the phenomenon of forward buying (Blattberg and Levin 1987; Buzzell, Quelch, and Salmon 1990; Lal, Little, and Villas-Boas 1996). In addition research has also offered suggestions about improving trade promotions using different kinds of promotions like EDLP (every day low pricing), scan backs, electronic forward buys, etc. (Ailawadi, Farris, and Shames 1999; Buzzell, Quelch, and Salmon 1990; Dreze and Bell 2003; Zerillo and Iacobucci 1995). Finally research has looked at the ill effects of trade promotions on long term franchise building (Mohr and Low 1993; Zerillo and Iacobucci 1995).

While a lot of ground has been covered in understanding trade promotions, it is miniscule when compared to research on consumer promotions and advertising. Moreover, as

indicated before, most of this research is analytical or simulations-based. Therefore there exists tremendous scope for adding to our knowledge of trade promotions, especially using empirical or experimental data. One particular area that is virtually untouched is choice behavior of retailers in choosing trade promotions. Several recent trends make this problem worth studying.

First, supermarkets in recent years have shown a tendency to get bigger with each passing year. Recent studies show that an average supermarket stores carry 30,000 SKU's (Boatwright 2001; Morton 2005) and super centers carry anywhere from 70,000 to 80,000 SKU's (Tarnowski 2006). Second, consolidation in the retail sector has meant that all manufacturers have become increasingly dependent on a few key retailers to get their products to the consumer. Combined with these two trends is the increasing competition in any product category. The combined effect of all these factors has led to an explosion in trade promotion deals on offer. Consumer price sensitivity and the willingness of retailers to use their market power have ensured that manufacturers are forced to offer more trade promotions by forgoing other forms of promotions.

However, this explosion in trade promotions has led to another greater problem which can be aptly described as a crisis of plenty. A retailer at any point in time can only accept a limited number of trade promotions, much less than the overall number of promotions on offer (Chevalier and Curhan 1976; Murry and Heide 1998). This happens due to the following two reasons: First, most trade promotions come with a rider. The manufacturer expects the retailer to perform some tasks in order to avail of the trade promotion.

Promotions of this type include shelf displays, cooperative advertising etc. Retailers only have limited ability and display space (Murry and Heide 1998) to take on tasks that involve coordination with numerous vendors, all of whom want the best support for their product and want to run “pay for performance” trade promotions.

Second, trade promotions which don't expect any effort on the part of the retailer (like off invoice, volume discounts etc) are based on the idea that the economic benefits induce the retailers to forward buy (Blattberg and Levin 1987). The retailer also understands the direct economic incentive and retail forward buying is a well documented phenomenon (Blattberg and Levin 1987; Buzzell, Quelch, and Salmon 1990) . Because the retailer forward buys and therefore locks up his capital as stock, he can only participate in a limited number of trade promotions even though theoretically the retailer may want to avail of all the trade promotions on offer.

Since the retailer can only accept a few trade promotions, he is forced to choose between the different offers that are available to him. Therefore understanding the choice mechanism of retailers becomes very important for the vendors as the increased consolidation of retail industry have meant that the vendors are increasingly dependent on the retailers agreeing to push their brands versus their competitors. However, very few researchers have looked at this problem in any detail.

The first research attempt in this direction was made by Heeler, Kearney, and Mehaffet (1973) who looked at the problem of new product selection by supermarkets. Their focus

was however on determining the decision process used by retailers (compensatory versus non-compensatory choice). The second attempt was made by Walters (1989) who conducted an empirical investigation to find out what determines the level of retailer trade support. He found empirical evidence to suggest that economic incentives contained in deals like advertising support, price reductions and product displays significantly affect retailer support of trade deals. The most recent attempt was made by Murry and Heide (1998) who studied the role of interpersonal relationships and economic incentives on retailer participation in trade promotions.

One common thread in the findings of these researchers has been that retailers always support that vendor who provides superior economic incentives. The following quote from an executive of Safeway as reported in Murry and Heide (1998) pg 61 brings out this issue very clearly “*Retailers don’t want more partners – we want more profits*”. However the issue doesn’t get solved here. The finding that the retailer will always prefer a vendor who offers better short term economic incentives is not surprising and every vendor also knows that. We must also keep in mind that for the vendor the easiest variable to manipulate in its marketing mix is the incentive. Vendors usually know what their competitors are offering in terms of the incentives. Therefore if a vendor knows what the competitor’s incentive is, and also knows that retailers always choose promotions with the highest short term payoff, then the easiest strategy for the vendor is to match the economic payoff.

Therefore our specific research question becomes, “What is the structure and process of channel program selections, especially when retailers are faced with parity trade promotions?” When retailers have equal economic benefits flowing from two vendors, what makes them make a behavioral commitment to one vendor versus the other? What factors lead to this kind of behavioral commitment?

As mentioned in the beginning of this chapter the same structure and process can also be applied to many other channel contexts. For example how does a manufacturer choose between two distributors when both offer same economic benefits, or how does a retailer choose a between two new products when both offer equal level of sales. In short, this research can be expanded to include all situations where there is parity in the options available and there is limitation in the ability to choose multiple options.

In this research commitment theory (Allen and Meyer 1990; Meyer and Allen 1984; Meyer and Allen 1991) is used to understand and explain the *structure* of the decision calculus. We propose that the behavioral commitment of the retailer is a function of the retailer’s affective, calculative and normative commitment with the key vendor. To explain the *process* of the decision calculus we use the heuristic-systematic model (HSM) (Eagly and Chaiken 1993). Using HSM we posit that the effect of these three types of commitment is moderated by the power asymmetry that exists between the retailer and the vendor (Brown, Lusch, and Nicholson 1995). These two theories combined explain our model of trade promotion selection.

As mentioned previously, theoretical research has so far not looked at the issue of parity promotions. This research would attempt to fill this gap in literature. Furthermore, this research would attempt to examine the impact of the various types of commitment individually as well as jointly. It can be argued that in real life, mechanisms like affective, calculative and normative commitment manifest themselves in different combinations (Bradach and Eccles 1989; Murry and Heide 1998). Therefore “theory tests should examine the effects of any one of the relevant mechanisms by explicitly controlling for the others” (Murry and Heide 1998). Also by explicitly controlling and jointly testing the impact of the various mechanisms we will be able to test for their relative importance in different power asymmetry situations. This will also allow us to test for the interaction between the various variables and how they impact trade promotion choice behavior.

This research will use experimental manipulation as a means of detecting the impact of the independent variables on behavioral commitment. The use of the experimental methodology in trade promotion research is rare because of the difficulty involved in manipulating the independent variables. Most of the research in channel choice has been conducted using the paramorphic (one describing the data rather than testing prior theory) (Heeler, Kearney, and Mehaffet 1973) approach. Even in channels research the use of experimental research has been rare (Gaski 1984).

Data collected using a survey method and analyzed with regression, for example, cannot provide the insights because of three basic problems. First common method bias may influence the responses of the respondents. The relationship between the independent and

dependent variables could be an artifact of asking the same respondent questions about both the independent and dependent variables. Second, while survey research can give the strength of the relationships it cannot conclusively prove the causal linkages between two variables. Only experiments where the independent variables are consciously manipulated by the researcher can provide support for causal linkages. Third, the beta weights obtained in a regression cannot be compared for strength as the correlations between the independent variables prevent us from interpreting the beta weights. One way to compare beta weights without any bias is when the independent variables are orthogonal to each other. Experimental manipulation would allow us to maintain the orthogonality of the independent variables thus we will be able to obtain pure beta weights that can give us a sense of the importance of the independent variables.

The rest of the paper is organized in the following fashion: In the next chapter we provide a comprehensive review of the trade promotion literature. This will be followed by a chapter where we develop the conceptual model and present the research hypotheses. The next chapter would deal with the methodology and analysis, describing in detail how we develop the manipulations and collected the data and describing the results of the study. We will discuss analyze the findings and implications of the study in the final chapter.

## CHAPTER 2

### LITERATURE REVIEW

There has not been too much work done in the trade promotion field in the last 30 years. Researchers have mainly focused their attention on *consumer promotions* which are deals that are offered by manufacturers directly to consumers or deals offered by retailers to consumers. In comparison *trade promotions* are deals that are offered to retailers by manufacturers. The reason for this lack of focus happens to be the general unavailability of data in the trade promotion field. In comparison the consumer promotion research has been greatly helped by the availability of scanner data.

The lack of focus is severe enough that in the last 30 years no comprehensive meta-analysis has been attempted on trade promotions research. Only two studies (Blattberg, Briesch, and Fox 1995; Raju 1995) have attempted to summarize promotions research. However, these studies looked at promotions as a whole, including both trade and consumer promotions. Moreover, both reviews were conducted over 10 years ago and a lot of research in the last 10 years has expanded our understanding of trade promotions. This literature review attempts to provide an up to date account of what is known about trade promotions.

The last 30 years have produced research on some very well defined lines. Our goal in the next few pages would be to enumerate these lines of thought, mention the major theoretical contributions and also present the empirical findings. For each major topic we



will elaborate on what the topic means in the context of trade promotions, why it has been deemed important and what empirical findings have emerged in that area.

### ***Why Firms Promote?***

The question that has most concerned researchers is why do firms offer trade promotions? After all trade promotions don't build long term franchises. The logic that has been offered is that firms offer trade promotions in the hope that some of it gets passed by the retailers as consumer price promotions and these price promotions encourage trial. This explanation of encouraging trial seems reasonable; however, it doesn't explain why firms who are in mature markets still have trade promotions (Raju 1995). The answer surprisingly has come mainly from the consumer promotions literature. Blattberg, Eppen, and Lieberman (1981) have argued that retailers use price promotion to shift inventory holding cost to the consumers, as consumers have lower holding costs.

Others (Raju, Srinivasan, and Lal 1990; Varian 1980) have argued that price discounts are a result of mixed strategy equilibriums where each firm chooses its prices from equilibrium probability distributions. Raju, Srinivasan, and Lal (1990) state that in a competitive market whenever one brand has lower brand equity than the rest, its competitors know that the weaker brand's customers can be lured away by price discounts and tries to do just that. To defend its turf the weaker brand has to use promotions to keep its customers; the result is that all brands end up promoting. They also conclude from their theoretical model that weaker brands tend to gain more from temporary price discounts. On the other hand when all competing brands have a high brand loyalty, there is a pure equilibrium and no one promotes.

Another interesting explanation for discounts is provided by Lal (1990) who says that many brands promote as a form of implicit collusion to prevent the encroachment of private brands. They come to this conclusion by studying the beverages market and find that the national brands fight off competition from the local brands by reducing their prices in alternate periods in an infinite horizon game.

### ***Measuring Value of Trade Promotions***

It is now well accepted that trade promotions lead to increased sales in the short run (Chevalier and Curhan 1976; Hanssens, Parsons, and Schultz 2001; Srinivasan et al. 2004) if not in the long run. However researchers and practitioners have often wondered if the increased sales gets translated into increased value captured by the firm (Zerillo and Iacobucci 1995) in terms of incremental revenue minus the cost of the promotion. The first researcher to bring this problem out in the open was Brown (1974). He contended that manufacturers were not able to evaluate the value of trade promotions because they were not trying hard enough and because of a common perception in industry circles that trade deals were an uncontrollable cost of doing business (Kopp and Greyser 1987) therefore not worth investigating.

However, researchers have also struggled to actually measure the profit impact of trade dollars (Mohr and Low 1993). Researchers and practitioners have long speculated that trade promotions may actually be value losers (Chevalier and Curhan 1976; Kruger 1987; Lucas 1996) and have wanted to know the long and short term impact of trade promotions (Kopp and Greyser 1987; Quelch 1983). It is believed that manufacturers

blame the retailers for taking advantage of trade promotions and not passing on benefits to the ultimate consumers (Chevalier and Curhan 1976). Manufacturers claim that trade promotions only increase the profits of retailers. Interestingly, retailers don't deny using trade promotions to shore up their profits (Kumar, Rajiv, and Jeuland 2001). According to researchers out of the \$75 billion dollars spent on trade promotions around 30% goes straight to the bottom line of the retailers (Kasulis et al. 1999). According to Abraham and Lodish (1990) only 16% of trade promotion deals are profitable for the manufacturer.

Chevalier and Curhan (1976) looked at the problem from the retailers point of view and surmised that the impact of promotions on profit for the retailer may not be clear because:

- a) Profit per promoted item may be less than the non promoted item
- b) Increased sales of promoted items can be offset by reduced sales of the non promoted items
- c) Forward buying may be present and
- d) Customers drawn to the store by the promotions may actually end up buying more products which may increase profits.

They also say that trade promotions may be favorable to retailers when they forward buy and not favorable to manufacturers when retailer promotions lead to reduced brand value. Similarly, promotions may be favorable to manufacturers and unfavorable to retailers when increased price cutting happens at the retailer level to prevent undercutting by their competitors.

Chevalier and Curhan (1976) while studying the trade promotions accepted by a retail chain came to the conclusion that trade promotions were quite profitable for the retailers. They however warned that if all the costs of trade promotions, like advertising, display set up, display rent etc were charged to promotions then the value of promotions might be negative. They also said that minus all expenses, the real benefits of trade promotions flowed to the retailers to the extent of forward buying that they indulged in.

Abraham and Lodish (1987) developed an expert based system called PROMOTER to determine the value of trade promotions. They took data commonly available with a company and tried to determine the base level of sales when there is no promotion. This allowed them to determine the impact of various types of trade promotions. They calculated the profitability of the different trade promotions by first calculating the incremental profit. Then they subtracted the total cost of the promotion which they classified as belonging to one of two types: the variable cost of the promotion and the fixed cost of the promotion. They point out that the incremental units sold due to a promotion can be different from the total units sold on promotion. This means that even though a lot of products get sold due to the promotion, the total incremental benefit might be less or even negative if the base level of the sales are actually equal to the promoted sales level. Their attempt was similar to the attempt of Goodman and Moody (1970) who developed a system to measure the effect of trade promotions on sales of the manufacturer. Lucas (1996) mentions two proprietary studies, the first of which found that companies spending more than 60% of their total budget on promotions generate a significantly lower return on investment than those which spend a majority of their

budget on above line advertising. The second study using retailer scanner data suggested that the impact of trade promotions is short term and has little impact on the underlying base sales.

Blattberg and Levin (1987) try a modeling approach to describe how retailers behave when offered trade promotions. They develop a model to (1) evaluate individual promotions, (2) to identify the best trade promotions for each size and in each geographical area, (3) to evaluate future promotional plans and (4) to develop trade promotion tactics. They make an important point that if promotions don't increase consumer sales then they merely shift the timing of the retailers purchase. Empirically they find that trade promotions do not pay out for the manufacturers, a finding also corroborated by Lucas (1996). It seems from the studies that the better the evaluation method, the more money the manufacturer seems to lose (Kruger 1987).

### ***Trade Promotion Success Factors***

Researchers have speculated about the likely factors that lead to successful trade promotions. Some of the research have been conceptual (Mitchel 1985; Quelch 1983) while others have used survey methodology (Hardy 1986) to elaborate on what constitutes key success factors. Hardy (1986) contended that to determine success, first the objectives of the promotion have to be specified. Only after that, can the significant antecedents to achieving those objectives be specified and tested. He lists the main objectives of trade promotion as:

- a) Achieving short term volume
- b) Achieving long term market share

c) Building Trade inventories

d) Increasing Consumer trials

He proposed that all these objectives can be predicted by promotion period, promotion cost, trade support, presence of competitive promotions, level of incentives, and the presence of consumer promotions alongside trade promotions. He found that achieving trade support to be the most critical factor for achieving the objectives of the firm, a point that has been raised by other researchers (Chevalier and Curhan 1976; Kopp and Greyser 1987). Hardy (1986) also did a qualitative study and found that in the view of managers, trade promotions succeeded only when there were high incentives, good trade support, good sales force support and there is absence of competitive activity. In his view, the reasons for unsuccessful trade promotions were build-up of inventory from previous deals, insufficient incentives, competitive promotions and lack of trade support.

Quelch (1983) made suggestions as to what can be done to improve promotion effectiveness. Among the important suggestions were 1) changing management orientation from a short term to long term, 2) changing the evaluation of salespeople from sales based to profit based, 3) improving promotion designs with different discount rates for leader vs. the follower brands and 4) changing the timing of promotions to prevent retailers from buying deal to deal.

Walters (1989) conducted an empirical investigation to determine the level of retailer trade support. He delved deeper into Hardy's (1986) assertion that trade support is the most critical factor for achieving success in trade promotions. Since there are lots of trade

promotions on offer at any point in time, retailers can offer significant support to only a small number of trade deals (Chevalier and Curhan 1976). Walter's found empirical evidence to suggest that economic incentives contained in deals like advertising support, price reductions and product displays significantly affect retailer support of trade deals. He also found that time since the last promotion in the same category also has an impact on the retailer support. He however didn't find any evidence to suggest that product related factors (like store sales rank of product category and product- sales rank in category), manufacturer's consumer promotions and the price elasticity of product in the deal had any significant impact on the trade support. This finding that consumer promotions had no impact on trade support is surprising since the conventional wisdom says that retailers would be more willing to provide trade support when deals are accompanied with consumer promotions. It also contradicts the findings of Hardy (1986) who found evidence that consumer promotions running simultaneously with trade promotions does have an impact on the success of trade promotions.

### ***Explaining Trade Promotions as a Power Game***

Researchers have tried studying trade promotions as a sort of prisoner's dilemma game. A prisoner's dilemma game in game theory means that there is one best strategy for a firm irrespective of what the competitor does (Rao, Arjunji, and Murthi 1995). This type of conceptualization has led to fatalistic views about trade promotion, namely, "it's a cost of doing business". This kind of view has in turn led to lessening focus on improving the productivity of trade promotion; with the result that it has become a self fulfilling prophecy. Rao, Arjunji, and Murthi (1995) have tried modeling trade

promotions as a series of competitive games and have hypothesized the actions of the actors depending on a series of promotion outcomes. For example they predict that if a promotion is profitable regardless of what the competition does, then it is a prisoner's dilemma game and both parties end up promoting. On the other hand if promotion is profitable only if competitor doesn't promote, then the game type is "battle of sexes" and it is not possible to go without promotions over a long period of time. They also empirically try to demonstrate that promotion activity seems to be independent of competitor actions. Meaning competitors don't necessarily choose their promotion actions after taking into account the actions of their competitors.

Kasulis et al.(1999) look at trade promotions as a result of power game between the manufacturer and the retailer. They look at the relative power between the two parties to hypothesize the use of different forms of trade promotions that have different objectives. They make a conceptual framework consisting of a two by two matrix (high-low) of retailer and manufacturer power. They propose that when the retailer is in a dominant power position we should observe promotions which shift channel profit from the manufacturer to the retailer. Examples of such promotions are bill backs, slotting fees, inventory financing etc. In the case when the supplier is more powerful than retailers the supplier sees little point in offering trade deals to the retailers. Instead they focus on doing consumer promotions that increase customer loyalty. In the symmetric case when both the retailer and supplier are strong he proposes that we should see a higher incidence of promotions like coop advertising, display advertising and calendar marketing agreements. Last in the weakly symmetric case where both the retailer and the supplier



are weak in market attractiveness where both the parties are in survival mode, they are likely to use promotions that result in temporary price cuts that are passed to the consumers. Kasulis et al. (1999) don't test their propositions as they claim (rightly) that data implied by their propositions are likely to be considered proprietary and very difficult to obtain using normal survey methodology.

### ***Inefficiencies of Trade Promotion***

Researchers have long been concerned that trade promotions adds costs that get passed on to the ultimate consumer. Buzzell, Quelch, and Salmon (1990) calculated that trade promotion adds 0.5% - 1.1 % to total retail prices. The key to calculating these costs is the fact that trade promotion (especially price promotion) has a very distinct impact on retailer behavior. Trade promotions lead to a phenomenon called forward buying, where retailers take advantages of lower prices to forward buy for later sales at normal prices (Blattberg and Levin 1987; Buzzell, Quelch, and Salmon 1990). The retailers have a motivation to forward buy till the savings from the lower prices are equal to the holding costs. Buzzell, Quelch, and Salmon (1990) calculated the holding costs to be around 30% which includes the handling, storage and capital charges. They also estimate that for the food industry, “increase in manufacturer and distributor costs constitutes around 2.5% of the total retail sales, including the costs of administering promotional programs” pg 141.

The point that Buzzell, Quelch, and Salmon (1990) make is that trade promotion leads to two bad effects: 1) It leads to distrust between the manufacturer and distributor which could lead to higher transaction costs (Williamson 1975) and 2) Forward buying leads to wasteful expense of storage and diversion which helps no one in particular.

Also the cost burden of trade promotions is not borne by everyone in equal measure. People who are classified as “cherry pickers” (bargain hunters) end up getting a lower price, while normal brand loyal consumers end up paying the higher prices (Buzzell, Quelch, and Salmon 1990). Therefore the loyal consumers end up subsidizing the non-loyal consumers, which is bad for the manufacturers in the long run. (Buzzell, Quelch, and Salmon 1990) suggest EDLPP (everyday low purchase price) as a possible solution to reducing the incidence of forward buying. In a similar vein Lucas (1996) mentions that United States retailer scanner data proves that the impact of trade promotion is short term and has a very little impact on the company’s base line sales volume. They also suggest that incremental volume mainly comes from brand switchers rather than loyalist, echoing the views of Buzzell, Quelch, and Salmon(1990).

Nelsin, Powell, and Stones (1995) develop a dynamic optimization model to demonstrate that a manufacturer’s optimal allocation of resources to advertising and trade promotions depends on the consumer response to retailer promotions, retailers inventory carrying cost and retailer pass-through behavior. They also hypothesize about a world in which there is no forward buying. They suggest that in a world without any forward buying, companies would be required to spend more on steeper trade promotions with lesser frequency. They assert that forward buying is a barrier that holds back effective use of trade promotion.

Till 1995 the literature had held that forward buying adds inefficiency to the channel system and the manufacturer is always worse off. All trade deals were considered unprofitable as the retailers forward buy and keep the promotion to themselves. Lal, Little, and Villas-Boas (1996) challenge this deeply held belief about the impact of forward buying on profits. They model the behavior of manufacturers, retailers and consumers and find that in equilibrium, manufacturers are better off with allowing forward buying than not allowing forward buying. The intuition behind their surprising result is that allowing retailers to forward buy reduces the intensity of competition (between manufacturers) which helps the manufacturer. They also mention that forward buying does lead to decreased income for the manufacturer as retailers always buy inventories at lower cost, but they are still better than the prices that would have resulted in the case when there is no forward buying and higher intensity of competition.

Having demolished the conventional wisdom that forward buying is always bad they do acknowledge that forward buying does have a negative impact on total channel costs. Forward buying creates serious logistical dysfunctions leading to excess storage of inventory which creates inventory storage costs. Furthermore, the boom and busts of inventory movement called the bullwhip effect, (Ailawadi, Farris, and Shames 1999) has an impact on the production schedules of the manufacturers who are unable to run their plants in a smooth manner which adds costs to the manufacturing process.

### ***Improving Trade Promotions***

Researchers have made considerable efforts to try and suggest ways in which trade promotion inefficiencies can be removed and better use can be made of trade dollars. Some of the most common suggestions has been EDLPP, Scan backs, electronic-forward buys etc. The research has concentrated on proving the effectiveness of the new suggested methods over the old ones. Buzzell, Quelch, and Salmon (1990) were possibly the first researchers to suggest a policy for EDLPP to reduce the costs of running trade promotions. They suggested that the retailer should purchase on an *as-needed* basis and should be offered a weighted average price reflecting both the deal price and the promoted price. They suggested that EDLPP would have three benefits. First it will prevent inventory buildup for both manufacturers and retailers, second it will reduce selling and administration expenses as retailers would spend less time negotiation trade deals and third it would lead to a more collaborative relationship between the retailer and the manufacturer as they will be freed from the zero sum game where one party wins only at the expense of the other. They also believed that following EDLPP leads to more pass through thereby leading to lower prices for the consumers.

Nelsin, Powell, and Stones (1995) mention decreasing pass-through, increasing promotion intensity and increased retailer warehousing ability (which allows forward buying) as reasons for the move towards EDLPP by manufacturers. They also say that consumer factors may be preventing a wholesale move towards EDLPP. They mention that consumer response to deals is still intact and it seems that media advertising is becoming less effective. Therefore these factors are having an opposing effect on adoption of EDLPP. It has been speculated that promotional elasticities might far exceed

the price elasticities, in that case the EDLP strategy becomes questionable (Blattberg, Briesch, and Fox 1995). Their advice to managers was to keep a higher shelf price and then offer discounts to generate more sales and profits.

Zerillo and Iacobucci (1995) offer some suggestions to improve the trade promotion benefits in the long run. They suggest that trade promotion deals should be structured with the following guidelines

- 1) No trade promotions to be allowed that does not require the retailer to add value to the overall channel. They basically suggest that pure price-off deals which don't involve any performance by the retailer should be discouraged.
- 2) Trade promotions should be designed to reward actions which tend to reduce the overall cost of the channel.
- 3) Shift the burden of performance proof to the retailers through the use of rebate plans.
- 4) In the case where there is no option but to use quantity discounts, the focus should be to provide quantity discounts on a retrospective basis (i.e. allotments made on past performance) Zerillo and Iacobucci (1995) claim that using such a system is more equitable and also stops practices like forward buying and diverting.

While quite a few authors had praised EDLPP as a solution for deal to deal forward buying, Ailawadi, Farris, and Shames (1991) claimed that EDLPP is a pretty strong medicine and may cause its own side effects. They also decry the tendency by manufacturers to blame trade promotions by stating that in the absence of trade

promotions they would have to charge much less than their current list prices, basically agreeing with the stand of Lal, Little, and Villas-Boas (1996). They, however, take a different view on how to improve trade promotion. They diagnose that the main problem with trade discounts is that they are linked to quantity bought. This encourages forward buying and creates problems with pass through. They suggest that the goal of the manufacturer should be to design trade promotions in such a way that it increases total channel profit. They suggest and demonstrate through an analytical model (consisting of one retailer and one supplier) that linking promotional allowances based on the list price charged by the retailer increases total channel profit. The intuition behind their thinking is that if the retailer is encouraged to charge a lower price (as the total allowance is dependent on the price charged to the consumer), then the total base demand would go up, which would help both the retailer and the manufacturer as the total channel profit increases. The only hitch with their proposal might be the Robinson-Patman act which prevents manufacturers from price discrimination when it reduces competition. However, in their paper they claim that manufacturers have described their suggestions as being consistent with the relevant provisions of the Robinson-Patman act.

Another problem that has plagued the effective implementation of trade promotion is retail pass through. This occurs due to a phenomenon called “retailer opportunism” (Kumar, Rajiv, and Jeuland 2001). Kumar, Rajiv, and Jeuland (2001) state that while the manufacturer would like the retailer to pass on the trade promotion money to the consumer as reduced prices every time, the retailer does not do so because of information asymmetry. The consumer has no way of knowing when the manufacturer has provided a

trade promotion. If the retailer never passes on a trade promotion, then the consumer can become suspicious and can take their business elsewhere. However, the retailer resolves this problem by occasionally charging a lower price when the trade promotion is on and charging a normal price on other occasions. Kumar, Rajiv, and Jeuland (2001) demonstrate through an analytical model that this actually is the optimal strategy for the retailer. This analytical finding is consistent with the findings of previous empirical findings of Walters (1989) and Curhan and Kopp (1987). They also suggest and demonstrate that when manufactures advertise their ongoing trade promotions directly to the consumers it can increase retail pass through thus reducing retailer opportunism.

The move towards eliminating forward buying has led to the creation and advocacy of a new type of trade promotion, the “scan back” which have increasingly become popular among manufacturers (Ailawadi 2001). The mechanism of the scan back is that the retailer is paid the promotion money only when the product is actually sold to the final consumer (which can be tracked by the scanned sales during the promotion period) and not on the amount of product bought. This effectively prevents any forward buying because if the retailer buys extra during the promotion period it is to the retailer’s disadvantage. This scan back scheme has been promoted as the panacea for trade promotion ills by the manufacturers. Dreze and Bell (2003) using an analytical model prove that when the terms of trade are identical (base size, deal size and deal duration) then manufacturers would always prefer scan back and retailers would always prefer off-invoice. Now considering that scan backs do have benefits in terms of reducing forward buying (which adds cost to the overall channel system) they suggest that the only way

manufacturers can convince retailers to consider moving to scan backs is to compensate them for the loss of profit opportunities caused by moving to scan backs. To prove that such a system is possible, Dreze and Bell (2003) devise a modified scan back (which they call a mimic scan back) which leaves the retailer weakly better off and the manufacturer strictly better off. Thus they create a sort of win-win solution for both parties. They propose that to create a mimic scan back, the manufacturer has to provide a smaller deal, but for a longer period of time and also lower the base price of the product. They also find empirical evidence for scan backs leading to more retail pass-throughs and lower retail prices consequently resulting in higher sales.

One way suggested for improving the practice of forward buying is by instituting a system of virtual forward buying, whereby trade promotions deliveries are made in a staggered manner so as to minimize the capital and storage costs. This method of virtual forward buying can lead to greater efficiency for both the manufacturer and the retailer while keeping intact the practice of forward buying (Poddar and Donthu 2007).

### ***Identifying Problems with Trade Promotions***

Managers and academics have long believed that trade promotions create more problems than they solve. Mohr and Low (1993) in a conceptual paper tried to summarize the main problems. According to them:

- 1) Trade promotions create adversarial trade relationships
- 2) Trade promotion spending fuels competitive retaliation
- 3) Trade promotions steals funds from advertising



#### 4) Trade promotions devalues the brand image/ consumer franchise

Zerillo and Iacobucci (1995) suggest that trade deals can have negative effects on the performance of the manufacturer in the short as well as long run. First, the payment of trade deals can increase the price of products in the marketplace, leading to an overall decrease in the demand. Second, the retailer seeing the increasing market price can actually enter the market with private brands thus the manufacturer may end up creating its own competitors. Third, due to the high inter retailer competition retailers may become more aggressive when it comes to demanding more trade deals and thus reduce the trust between the retailer and the manufacturer. Fourth, due to the high fluctuations in the market price, consumer may become more price conscious and become constant deal seekers. Finally as manufacturers dedicate more money towards trade promotions, their ability to create brand differentiation would decrease over time. This would have a long term impact on the ability to charge a premium from consumers for the brand.

Zerillo and Iacobucci's (1995) thoughts were along the lines of empirical findings by (Dodson, Tybout, and Sternthal 1978; Shoemaker and Shoaf 1977; Strang 1975).

However, the long term effects of promotions still remains a debatable point (Blattberg, Briesch, and Fox 1995) as there are some researchers who have failed to find a long term negative impact of promotions (Johnson 1984; Neslin and Shoemaker 1989).

#### ***Slotting Fees Controversy***

Retailers and wholesalers frequently require that manufacturers pay some sort of fees before they agree to stock a new product (Bloom, Gundlach, and Cannon 2000). This

practice is called slotting fees. Therefore, although it is a form of trade promotion, its impact is not felt by mature products. According to Sudhir and Rao (2006) the amount of slotting fees varies from \$1.4 - \$2 million for a national level introduction of a single SKU. In 1990 the total value of slotting fees paid in the grocery industry only, was \$9 billion dollars. This amount was also estimated to be around 16% of new product introduction cost (Bloom, Gundlach, and Cannon 2000).

There has been a controversy on slotting fees, because researchers have not been able to agree as to what role slotting fees play in manufacturer-retailer relations. There are two main schools of thought who have held diametrically opposite views. The first school of thought is the “efficiency school”, which states that slotting fees actually increase efficiency in the system by:

1. Providing a signaling mechanism for manufacturers to advertise product quality. This argument is similar to the argument advanced for advertising, which also is supposed to act as a signaling mechanism for consumers to determine product quality.
2. Sharing risks between the retailer and the manufacturer. Since information asymmetry exists between retailer and manufacturer, an assumption is made that the retailer knows less than the manufacturer about the probability of success of the product. Therefore they share a disproportionate amount of risk during product introduction. Slotting fees helps maintain the balance by shifting the risk from the retailer to the manufacturer.

3. Helping efficient allocation of shelf space. In any retailer environment the demand for shelf space is always more than the supply and with retailers carrying a huge amount of SKU's (average over 30,000) new products can only come in by displacing an older product. Therefore slotting allowances actually end up helping the retailer make efficient use of shelf space. A corollary to that is, slotting allowances helps totally new products break into the shelf space, which in the normal case they would not have been able to do as they were untested in terms of marketplace performance. finally
4. Slotting allowances increase competition, thus reducing total retail prices. The efficiency school of thought is the favored one by retailers who want slotting fees to continue.

The other school of thought called “market power” argues that slotting fees are actually harmful and damages competition and overall consumer behavior by:

- a) Allowing retailers to use their market power to demand and obtain fees. They are thus able to demand more fees from smaller manufacturers.
- b) They undermine channel relationships, as manufacturers are bitter about being made to pay fees to get their product to the market.
- c) Allows a mechanism for price discrimination, when different manufacturers are made to pay differential fees, thereby increasing the costs disproportionately.
- d) Introduces unfair competition for certain manufacturers and retailers who unable to pay slotting fees just quit the market. And finally
- e) Slotting fees end up actually harming the consumer as the fees are ultimately passed on to the consumers in the form of higher list prices.

For an excellent review about slotting fees and the two schools of thought see Bloom et al.(2000). The argument about which school of thought is right is still unresolved. Bloom, Gundlach, and Cannon (2000) using a survey methodology found that retailers and manufacturers did not agree that slotting fees constitute a sort of signaling mechanism. They however did agree that slotting fees leads to shifting of risk from the retailer to the manufacturer. They found that both retailers and vendors agreed that slotting fees did benefit large manufacturers and lead to higher prices. Overall Bloom, Gundlach, and Cannon's (2000) research seemed to agree with the power school of thought. However a recent paper by Sudhir and Rao (2006) have challenged the findings of Bloom, Gundlach, and Cannon (2000) and have suggested that the efficiency theories may actually be right. They thus found support for the FTC's stand that slotting fees are not actually anti-competitive. From the above discussion it seems that the jury is still out on this issue.

## CHAPTER 3

### MODEL DEVELOPMENT AND HYPOTHESES

From the first two chapters we can see that the problem of choice is a very important issue that has not been tackled much in the B2B channels area, more so in the trade promotions area. This dissertation is an attempt to understand decision choice under different power asymmetry contextual situations especially when the short term utilities are the same. This choice behavior is important to understand on a theoretical level as most researchers, while admitting that choice behavior is based on both economic and non-economic factors have tended to pit economic factors against the non-economic factors (Murry and Heide 1998) in an attempt to explain behavior. Not surprisingly they have found economic factors to dominate the non-economic factors. This is especially true in a business to business setting and adds very little to our further theoretical understanding. Economists have long established that a rational economic party would always choose an option that offers a higher economic benefit versus one with a lower economic benefit. This dissertation acknowledges this economic fact and asks the follow up question about how decision making happens when the short term economic factors are the same.

As explained in the first chapter, retailers always face more choices in terms of trade promotions than they can accept. And since meeting the economic benefit offered by a trade promotion of a competitor is the easiest, we can be sure that there would be situations when a retailer would be required to choose from parity trade promotions offered by different vendors. This poses a particularly unique problem in the business to

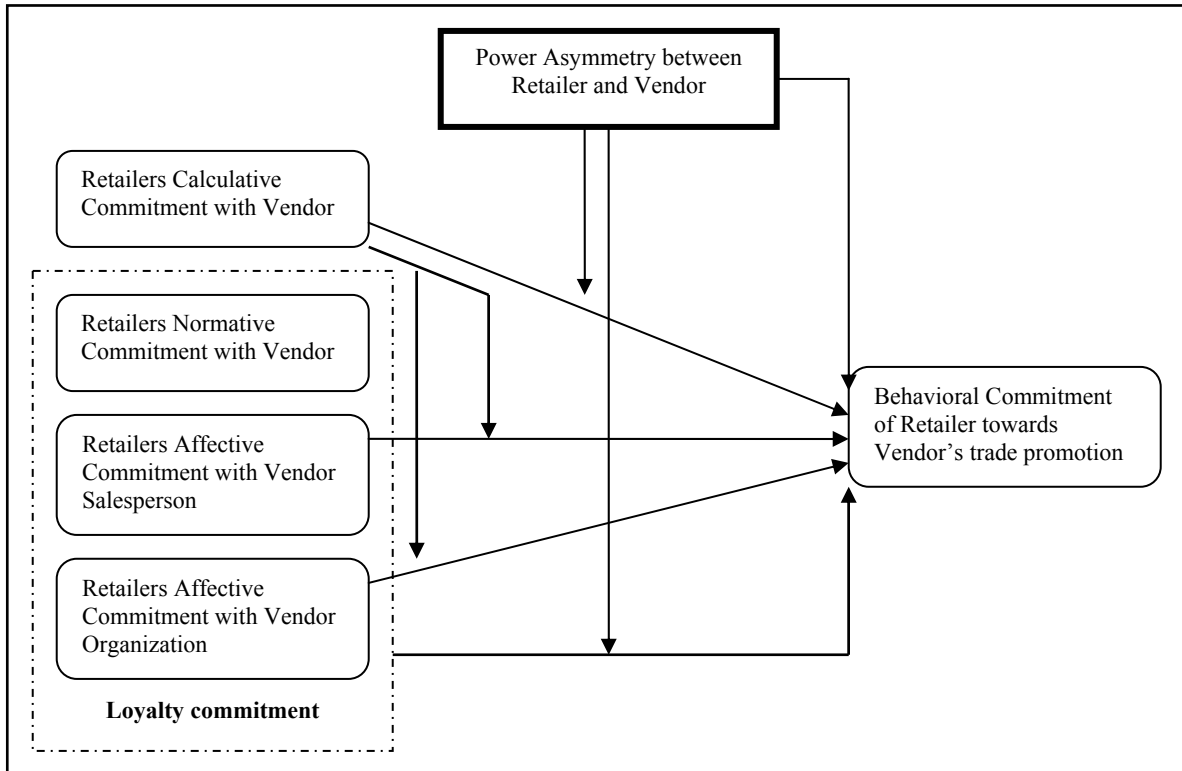
business buying scenario. Since business to business buying takes place in an organizational environment all decisions are subject to post decisional reviews by the organization. Therefore all choices made by decision makers have to be *justifiable* (Vyas and Woodside 1984). When a product offering has a higher economic utility its probability of getting selected is very high, however when the product offerings are equal in utility, the problem of justifiability reduces considerably and other extraneous factors can be expected to play a big role in decision choice.

When the retail buyer makes a choice among multiple vendors offering parity economic benefits in the trade deals, it can be said that the retail buyer is making a very strong behavioral commitment on behalf of the retailer. The retailer is making it known to the vendors whose promotions are not selected that even though their promotions matched the economic value offered by the winning promotion, they have decided to make a commitment to another party. This sort of behavioral commitment is very important to understand as it is bound to be much stronger than behavioral commitment that is based on pure economic benefit.

In this dissertation we use psychological, economic and sociological antecedents to develop a causal model of behavioral commitment (Figure 1). We posit that a strong behavioral commitment is explained by psychological constructs like affective commitment and moral commitment. On the other hand the calculative/instrumental commitment is a rational economic behavior that explains choice in terms of the long term cost-benefit calculation of making the commitment. The sociological perspective

explains the choice in terms of the structural dimension, namely the structural relationship between the two parties (Stern and Reve 1980) which have been operationalized as the power asymmetry between the parties.

**Figure 1: Conceptual Model: Retailer Commitment Model**



Commitment theory provides the structure of the decision process, while the heuristic-systematic model (Eagly and Chaiken 1993) explains the decision process. Both these theories combined allow us to understand the decision process that managers go through while deciding among parity options. Next, we will explain the literature on our dependent and independent variables and develop our hypothesis.

### ***Behavioral Commitment***

The construct *behavioral commitment* has generally been used more in the sales literature and has been conceptually defined as the “extent to which an employee plans to continue membership with the current employer” (Kim 1999). Other researchers have defined it as propensity to leave, intent to quit and attachment (Halaby 1986; Kim 1999; Mowday, Porter, and Steers 1982; Price 1997). In organization research it has been defined as the tendency of engaging in particular lines of work because of the cost of doing otherwise (Becker 1960). However Meyer and Allen (1984) have argued that this definition is more like their definition of continuance commitment. Overall researchers have struggled with developing a meaningful and precise definition for behavioral commitment (Kim and Frazier 1997). Anderson and Weitz (1992) define behavioral commitment as a willingness to make short term sacrifices, while Kumar, Sheer, and Steenkamp (1995) define it as willingness to invest in the relationship. Kim and Frazier(1997) on the other hand define it as the extent to which a distributor provides special help to its supplier in times of need.

As can be seen, there are numerous definitions of behavioral commitment and scholars have not been able to agree as to how behavioral commitment is actually different from the other dimensions of commitment. It therefore becomes important for us to define exactly what we mean by behavioral commitment. Previous researchers have not measured the actual behaviors, but have instead focused on willingness to make short term sacrifices and/ or investments (Kim and Frazier 1997).



In our research we try to get over the measurement problem by defining behavioral commitment as the attachment shown by a retailer to a particular vendor even when the particular vendor doesn't offer any additional economic benefits, compared to its competitors. We further posit that behavioral commitment causally follows attitudinal commitment which has strong foundation in motivational theory (Ajzen 1991).

According to the theory an individual's behavior is a function of the intention to perform that behavior. This intention is in turn determined by two basic factors: a) attitude towards performing the act and b) the perception of the individual regarding the totality of the normative pressures concerning the behavior. This theory conceptualizes behavior as a function of the attitudes towards that behavior. A similar model of commitment has been used previously by Wiener (1982) who proposed that instrumental motivation (calculative motivation) and commitment (normative and affective motivation) determine organizational intentions and behaviors.

### ***Antecedents to Behavioral Commitment***

There exist many antecedents to behavioral commitment. The easiest and the most logical antecedent is one which takes the economic perspective. In this perspective behavioral commitment occurs because the decision maker makes a cost benefit comparison of the decision problem (Iverson and Roy 1994). The decision maker takes into account the likely benefits of making the commitment versus the cost of not doing so. This type of economic perspective has been defined by scholars (Kim and Frazier 1997; Meyer and Allen 1984) as *calculative commitment*.

The other antecedent to behavioral commitment takes the psychological perspective. This perspective challenges the economic explanation by focusing on the affective responses that retail buyers make towards the vendors. It recognizes that decision makers are not always the rational cold hearted decision makers as they are made out to be. They also have likes and dislikes and the principle of bounded rationality (Rindfleisch and Heide 1997) ensures that decisions are not made taking into account all the information that is available to the retailer. Therefore non-economic factors like *affect for the salesperson* and *affect for the company* impact the decision making process.

The final antecedent to behavioral commitment is based on the sociological perspective. The political structure of the dyad (Stern and Reve 1980) determines the behavioral interaction between them and the attachment between firms is based on structural ties that exist between the two focal firms (Geyskens et al. 1996). *Power asymmetry* is a very close proxy for the structural ties that exists between two firms. As Kumar, Scheer, and Steenkamp (1995) remark that just knowing the level of interdependence and dependency asymmetry between two parties allows an observer to make general baseline predictions about the nature of their relationship even if the said observer knows nothing “about the particular history of the channel relationship, the orientation or identity of the partners or the actions each firm has recently taken” (pg 353).

### **Calculative commitment**

According to some researchers (Anderson and Weitz 1989) commitment is entirely cognitive and calculative. Calculative commitment (also known as continuance commitment) is generally believed to develop on the basis of an “economic rationale”

(Meyer and Allen 1984; Stevens, Beyer, and Trice 1978). It involves rational task oriented actions whose main goal is maintaining relationships due to a concern for instrumental gains. It is thought to be devoid of emotions and sentiments for the partner (Gilliland and Bello 2002). According to Gilliland and Bello (2002) calculative commitment is “the state of attachment cognitively experienced as a realization of benefits sacrificed and losses incurred if the relationship were to end”.

It is believed that calculative commitment develops on the basis of two factors: the magnitude and/or the number of investments that individuals make and the perceived lack of alternatives (Allen and Meyer 1990). The investments that individuals make are also called side bets (Becker 1960) in the commitment literature. Side bets are anything of value that an individual has invested in (e.g. time, effort, money) that could be lost or considered worthless to the individual if that individual were to cease being part of an organization (Meyer and Allen 1984). When employees of a firm spend time and effort in learning a job skill that is not transferable to another organization, the employee becomes committed to their firm. Allen and Meyer (1990) say that the employee is in effect betting that the effort s/he put in will pay off in the long run. And to collect the bet the employee requires continued employment in the organization. According to Becker (1960) the employees continued employment is positively related to the magnitude and number of side bets that the employees recognize. If employees cannot recognize the side bets as existing then continuance commitment does not exist.

The side bets in organizational setting are transaction specific assets (TSA's) (Heide 1994; Williamson 1975) which are assets that are not deployable in another relationship. In a channel setting a pledge can be thought of as representing a side bet (Gilliland and Bello 2002). In the retail setting the presence of an efficient consumer response system/ just in time inventory arrangements with a particular vendor could be side bet that prevents a retailer from discontinuing its relationship with that vendor. It is to be noted that side bets or the presence of TSA's in a retailer –vendor relationship is the exception rather than the rule. Retailers since they are dealing with hundreds, if not thousands of vendors cannot afford to create non-transferable assets with each of their vendors.

Continuance or calculative commitment also depends on the lack of alternatives. For an employee the lack of employment alternatives increase the perceived costs associated with leaving the organization (Allen and Meyer 1990; Farrel and Rusbult 1981).

Therefore if a retailer has only one major supplier who can provide a particular product then the commitment that the retailer shows towards that vendor can be called a calculative commitment. In this scenario calculative commitment appears to be very much like dependence (Emerson 1962).

It is important to note here that this kind of continuance is only one form of continuance commitment. It has been referred to in the literature as negative cognitive commitment or locked-in continuance commitment (Sharma, Young, and Wilkinson 2006; Stebbins 1970). It manifests itself when there are costs and penalties associated with switching firms.

The other form of calculative commitment has been called positive cognitive commitment. In literature this form of commitment is also labeled as “instrumental commitment”, “value based commitment” and “cognitive-instrumental motivation” (Caldwell, Chatman, and O'Reilly 1990). This type of value based commitment is based on a positive orientation towards a relationship and the calculus is forward looking (Sharma, Young, and Wilkinson 2006). It looks more at the benefits that the relationship would bestow in the future rather than the losses that might be incurred on leaving the relationship. Farrel and Rusbult (1981) explicate this type of calculative commitment in an employee setting, where the employee remains with the organization due to the likely rewards that s/he may encounter in the future namely the possibility of a promotion. Since in a trade deal scenario there is no relationship termination, we define and measure calculative commitment in the manner of instrumental commitment. In our study we will aim to hold negative calculative commitment constant so that it doesn't affect the manipulation of power asymmetry. At the same time we will manipulate positive calculative commitment so that it acts as an orthogonal factor to power asymmetry.

Since calculative commitment occurs when there is profit associated with continued participation, the general impact of calculative commitment on intention to continue the relationship is positive in nature. Therefore if retailers feel that a particular vendor's trade promotions are bound to increase in the future, that retailer would try to maintain and enhance his relationship with that vendor. However some researchers (Kumar, Hibbard, and Stern 1994) have suggested that calculative commitment has a negative impact on a

dealers desire to stay in the relationship as intermediaries high in calculative commitment always seek to develop alternatives to the suppliers. The intuition behind this counterintuitive argument is that since calculative commitment is based purely on economic or extrinsic concerns, this type of commitment is rather shallow or short lived. In the trade promotion context retailers thus are always looking for vendors who can ensure that their profit from trade promotions remains intact in the event that their preferred vendor decides to withdraw trade deals.

Also Meyer and Allen (1991) have hypothesized that calculative commitment is also least likely to correlate positively with performance. One reason for this kind of counterintuitive hypothesis is that since calculative commitment has been defined in a manner that is very close to dependence; as the dependence of a party increases that party tries to minimize it by using dependence balancing (Emerson 1962). However as we define calculative commitment to be conceptually and structurally different from dependence, we believe that calculative commitment has a net positive impact on trade promotion selection. We therefore hypothesize:

H1: Increased calculative commitment of the retailer with the target vendor would increase the overall behavioral commitment that the retailer demonstrates towards the target vendor's trade promotions.

### **Loyalty commitment**

According to Allen and Meyer (1990), there are basically three states of attitudinal commitment: Calculative, Affective and Normative. We must note that these are states and not types of commitment as people experience each of these psychological states to varying degrees. To classify them as types of commitment would mean that they are

mutually exclusive to each other. Becker (1960) has argued that affect plays a minimal role in the conceptualization of commitment. However most other researchers believe that affect plays a very important role in understanding commitment (Arndt 1979; Bennett and Gabriel 2001; Morgan and Hunt 1994). These researchers believe that the most common approach to organizational commitment is one where commitment is considered an affective or emotional attachment to the organization (Allen and Meyer 1990). Allen and Meyer (1990) define affective commitment as “an employee’s emotional attachment to, identification with and involvement in the organization”. In the channel setting affective commitment has been conceptualized as the level of unity present in the channel relationship (Morgan and Hunt 1994; Stern 1986). Affective commitment is basically conceptualized as commitment to the goals and values of an organization for its own sake apart from its pure instrumental worth. In terms of trade promotions it would mean an affect for the vendor after controlling for the value of trade deals offered by that vendor.

While affective commitment doesn’t flow from any instrumental worth, researchers have argued (Arndt 1979; Bennett and Gabriel 2001) that sometimes affective motives are much stronger and effective in developing longer lasting relationships than motives that are based on avoiding switching costs or lack of alternatives. According to Gilliland and Bello (2002) while a firm committed out of economic motives could readily break its relationship when a better deal is offered, a firm committed out of affect and obligation is less likely to do so. Therefore retailers who have affect for the vendors are less likely to look at trade deals offered by other vendors.

That leads us to define commitment which is based on obligation, also called moral commitment or normative commitment (Allen and Meyer 1990). Normative commitment refers to the feeling of obligation to stay with an organization or partner (Allen and Meyer 1990; Kumar, Hibbard, and Stern 1994). According to Allen and Meyer (1990) moral commitment is viewed as a belief about one's responsibility to an organization. Individuals exhibit commitment behaviors solely because they believe it is the right and moral thing to do. Individuals who feel normative commitment stay with an organization because they feel "*they ought to*", in contrast to calculative commitment where they feel "*they have to*" and affective commitment where "*they want to*".

The main problem with normative commitment is that it is not readily distinguishable from affective commitment when measured. These two types of commitment seem to have some overlap in terms of measurement, although both are independent of calculative commitment (Allen and Meyer 1990). Also it has been speculated that normative/moral commitment may be more prevalent and exist as a separate construct from affective commitment in cultures where there is greater focus on obligation (Sharma, Young, and Wilkinson 2006). Dawson, Young, and Wilkinson (1997) in (Sharma, Young, and Wilkinson 2006) state that commitment has different meanings and subsequently implications in China than in Europe. This is because of cultural and psychic differences across cultures (Ford 1984; Sousa and Bradley 2006). Gilliland and Bello (2002) merge the two concepts of affective and normative commitment together and call it loyalty commitment. According to them *loyalty commitment* is "the state of attachment to a



partner experienced as a feeling of allegiance and fruitfulness that is not simply based on economic motivations” In their study they find that firms find loyalty commitment to be more “descriptively accurate than commitment based on just friendship or obligation.” In our study we adopt the concept of loyalty commitment as articulated by Gilliland and Bello (2002) as a proxy for affective and normative commitment.

Researchers have argued that since affective commitment is not based on instrumental gains, sometimes highly relational partners do forgo short term gains in anticipation of equitable treatment in the long run (Gilliland and Bello 2002; Ring and Van de Ven 1994). In the channel context it has also been argued (Kumar, Hibbard, and Stern 1994) that dealers with high affective commitment demonstrate higher willingness to stay as well as greater willingness to invest in the relationships. Therefore retailers are likely to prefer trade promotions from vendors for whom they have higher affective commitment. Kumar, Hibbard, and Stern (1994) also demonstrate that affective commitment has the strongest positive association with the beneficial consequences of commitment followed by moral commitment and only then by calculative commitment. We therefore hypothesize that:

H2: Increased loyalty commitment of the retailer with the target vendor would increase the overall behavioral commitment that the retailer demonstrates towards the target vendor’s trade promotions.

### **Two forms of Loyalty Commitment**

While the organization commitment literature has treated affective commitment as a unidimensional construct, some researchers have claimed that business to business relationships are much more complex. According to Tellefsen and Thomas (2005) there

are two distinct actors when we talk about an exchange partner: The partner's overall organization and the partner's sales representative. Therefore buyers develop relationships with the selling firms on two levels: loyalty to the selling firm (also called organizational commitment) and the loyalty to the salesperson (also called personal commitment) (Johnson, Barksdale Jr., and Boles 2001; Palmatier, Scheer, and Steenkamp 2007; Tellefsen and Thomas 2005).

According to Palmatier, Scheer, and Steenkamp (2007) researchers have not usually differentiated between the two loyalties when measuring loyalty to the firm, instead they have ended up measuring the two concepts as one. According to them this is a mistake and deceptive as the loyalty that the firm enjoys could be composed entirely of salesperson loyalty elements and if the salesperson were to ever defect, the loss of the salesperson "owned" loyalty can leave firms vulnerable. Palmatier, Scheer, and Steenkamp (2007) also claim that loyalty to the salesperson should be treated independently from the loyalty to the organization as the buyer could have more loyalty to salesperson than the selling firm (Johnson, Barksdale Jr., and Boles 2001).

As discussed in the earlier section the effect of organizational loyalty on behavioral commitment is well accepted by researchers (Kumar, Hibbard, and Stern 1994).

Researchers claim that loyalty to the selling firm generates positive financial outcomes for the selling firm (Palmatier, Scheer, and Steenkamp 2007; Zeithaml, Berry, and Parasuraman 1996) and commitment to the selling firm has a direct and negative impact of the customers intention to defect (Morgan and Hunt 1994). Similarly we would argue

that when the retailer believes that the vendor is interested in partnering with the retailer to increase sales through trade promotions rather than going directly to the consumer using consumer advertising it develops goal congruity between them and it would increase the behavioral commitment that the retailer shows towards the vendor.

Kumar, Scheer, and Steenkamp (1995) state that whenever affective commitment is felt to be high between two firms the bonds characterizing the channel relationship is going to be strong in both the business and personal arena. Johnson, Barksdale Jr., and Boles(2001) argue that buyer commitment to the salesperson should play an important role in the buyers decision making process. The reason provided is that the buyers generally have more contact with salesperson and that buyers may consider the salesperson to be synonymous with the vendor. Researchers have found that strong buyer- salesperson relations increases repurchase intentions (Jones, Mothersbaugh, and Beatty 2000) and buyer commitment to salesperson is negative related to buyer defection intentions (Johnson, Barksdale Jr., and Boles 2001). Also commitment to vendor salesperson has a positive impact on financial outcomes and sales growth of the buyer's firm (Palmatier, Scheer, and Steenkamp 2007).

In the trade promotion arena also researchers have argued for a similar effect. Murry and Heide (1998) hypothesize that interpersonal attachments are likely to increase the likelihood of retailer participation in trade promotion deals. They based their hypothesis on early work by Adams (1976)and Salancik (1977) who suggested that strong interpersonal relationships increase participation. The intuition behind this is that “strong

interpersonal relationships reflects prior selection and/or socialization between parties” (Murry and Heide 1998) and these processes end up aligning the goals of the parties, which for the retailer would mean an increase in bottom line performance from the trade promotion and for the vendor would be an immediate increase in sales.

From the above discussion we therefore hypothesize that:

H3: Increased personal commitment of the retailer towards the target vendor’s salesperson would increase the overall behavioral commitment that the retailer demonstrates towards the target vendor’s trade promotions.

H4: Increased organizational commitment of the retailer towards the target vendor would increase the overall behavioral commitment that the retailer demonstrates towards the target vendor’s trade promotion.

### **Interaction Effects of Calculative Commitment and Affective Commitment**

So far in the dissertation our main focus was on how calculative commitment and different types of affective commitment have an impact on the decision making process of the retailer. We have focused only on the main effects of each mechanism. However in real life these factors are likely to manifest themselves in different combinations (Murry and Heide 1998). Therefore in this section we will hypothesize about various interaction effects that are likely to occur.

It is important to note here that calculative commitment is an organizational level independent variable, meaning that calculative commitment has an impact on behavioral commitment of the retailer independent of the buyer’s personal viewpoint about the relationship. However the affection that the buyer feels towards the vendor’s salesperson

or the vendor could be due to the fact that the buyer gets a feeling that the vendor has goal congruity with the buyer (Murry and Heide 1998). The buyer may feel that the vendor helps meet the personal goals of the buyer, which could be the primary reason why he feels affect in the first place. Thus loyalty commitment could represent “utility in its own right and be a functional substitute” (Murry and Heide 1998) to calculative commitment. The buyer could use the two forms of loyalty commitment to actually minimize the impact of calculative commitment.

In other words if the buyer feels commitment to the vendor salesperson or to the vendor himself, he should discount the effect of any calculative commitment that may exist. The overall effect would be that the impact of calculative commitment would reduce in the face of high loyalty to the vendor salesperson or loyalty to the vendor organization.

Therefore we can hypothesize that:

H5a: Increased personal commitment of the retailer towards the target vendor’s salesperson would decrease the positive effect that calculative commitment has on the behavioral commitment of the retailer towards the target vendor’s trade promotions.

H5b: Increased organizational commitment of the retailer towards the target vendor would decrease the positive effect that calculative commitment has on the behavioral commitment of the retailer towards the target vendor’s trade promotions

### **Direct and Moderating Effects of Power Asymmetry**

Researchers have long suspected that power plays a very important role in explaining relationships in marketing channels. Brown, Lusch, and Nicholson (1995) in a pioneering

study claimed that in marketing channels, power and its usage can have a “pivotal impact” on working relationships. They also claimed that power plays a very important role in a very important aspect of relational exchange namely commitment. Other researchers have also come to the same conclusion. According to Boyle et al.(1992) a firms use of power in a channel setting does impact its partner’s views about relationalism in which as mentioned before, commitment plays a central role. This suggests that power could have a main effect on commitment towards the vendor’s trade promotion. Brown, Lusch, and Nicholson (1995) also suggested that there could also be moderating effects of power and especially power asymmetry on commitment and various channel performance measures.

To explain the role that power or power asymmetry may play in explaining retailer behavior we must review how the construct of power has been defined in the literature and what theory suggests could be its impact on our identified dependent measure. Emerson’s (1962) view has more or less dominated the conceptual and empirical explication of the power construct (Dwyer 1980). According to Emerson (1962) the power of actor A over actor B is the amount of resistance on the part of B, which can be potentially overcome by A. Emerson (1962) also linked power to the amount of dependence existing in the dyadic relationship, i.e. channel member A’s power over B is directly proportional to B’s dependence on A for scarce resources (Dwyer 1980) and inversely proportional to the availability of those resources outside the A-B relationship.

However this is not the only conceptualization of power that has been attempted.

According to French and Raven (1959) power of A over B is due to the various sources of power that exist due to the relationship between A and B. If B perceives that A has the ability to mediate rewards for B, then A has *reward power*. If B perceives that A has the ability to mediate punishment for B, then A has *coercive power*. If B perceives that A has a legitimate right to prescribe behavior (e.g. in a franchise situation) then A has *legitimate power*. If B identifies with A then A has *referent power* and finally if B perceives that A has some special knowledge or expertise then A has *expert power*. For an excellent review of how power has been conceptualized we refer readers to Gaski (1984).

However as mentioned before the dominant view in the literature has been that power is a function of the dependence levels and in this paper we stick to that view. Also most papers have tried to explain the impact of power using dependence as the proxy for power.

Researchers have used three different approaches to conceptualizing dependence. First is the sales and profit approach developed by El-Ansary and Stern (1972) where they claim, the greater the percentage of sales and profit contributed by the source firm to the target firm, the greater the target's dependence on the source. Most researchers have used this approach when operationalizing dependence (Anderson, Lodish, and Weitz 1987; Brown, Lusch, and Muehling 1983; Kale 1986). Kale (1986) also included the expectation of the target firm about the future sales contribution of the source firm as an influencer of current dependence levels. The second approach used to operationalized dependence is

the role performance approach (Frazier, Gill, and Kale 1989) mainly used by Frazier (1983). According to this approach how well a source firm carries out its role in channel performance determines the dependence of the target firm. The third approach to operationalizing dependence is one proposed by Heide and John(1988). According to them a target firm's dependence on a source firm is a function of the transaction specific assets invested by the target firm in the relationship which can't be redeployed profitably in another relationship. This operationalization is very similar to the concept of calculative commitment and the theory of side bets (Becker 1960).

We use the El-Ansary and Stern (1972) approach to conceptualizing dependence as it is the most widely used and offers us leeway in the way we can manipulate power asymmetry. The dependence approach as suggested by Heide and John(1988) is not used because of the lack of clarity as to how the operationalization is different from negative calculative commitment. Also it is much harder to operationalize in terms of dependence asymmetry.

Having given a brief overview of the way power has been defined it is our goal here to try and understand how power affects behavioral commitment in the context of trade promotions. Unfortunately the literature doesn't provide a clear-cut answer to this question (Frazier, Gill, and Kale 1989). From the literature we know that a target firms dependence on the source firm (in other word's the power of the source firm) is related positively to the source firm's level of control on the targets behavior (Anderson, Lodish, and Weitz 1987; Etgar 1976). Frazier (1983) finds that dependence is related positively to



inter-firm agreement on marketing strategy. On the other hand Brown, Lusch, and Muehling (1983) find that dependence is related negatively to the frequency of inter-firm agreements. According to Dwyer(1980) under asymmetrical distributions of power, weaker members of the dyad show less satisfaction and a negative attitude towards the rewards that may flow from a channel relationship. This is in consonance with the view of Gaski (1984) and Kumar, Sheer, and Steenkamp (1995) that the existence of power asymmetry produces dyadic conflict. It also reflects the views of Walker (1972) that application of power leads to dissatisfaction on the part of those who are subjected to it, as an asymmetrical power scenario produces asymmetrical negotiations where the powerful party always dominates the bargaining (Dwyer and Walker Jr. 1981).

According to Stern and Reve (1980) channel relationships that are asymmetric in dependence and power tend to be more dysfunctional and less trusting than symmetrical relationships. Also as the channel power asymmetry increases, the interests of the channel partners diverge (Kumar, Scheer, and Steenkamp 1995) and it reduces the “structural impediments inhibiting the more powerful firm’s opportunistic behavior” (Kumar, Scheer, and Steenkamp 1995). Therefore increasing interdependence asymmetry reduces the trust and commitment in the relationship as trust and commitment are not thought to flourish in an asymmetric relationship (Kumar, Scheer, and Steenkamp 1995). Emerson (1962) in his highly cited article also claimed that power asymmetry is inherently unstable as it encourages the use of power. Therefore the weaker party always undertakes “balancing operations” that reduce the power advantage. According to the bilateral deterrence theory (Kumar, Scheer, and Steenkamp 1995) the weaker party knows that stronger party can

take advantage of the situation therefore the weaker party tries to balance the power asymmetry. It does so by reducing its own dependence by increasing the alternatives available to it and/or by decreasing the value of its relationship with the partner. It can also strive to increase its partner's dependence by either increasing its own value to the partner or by decreasing the partner's alternatives (by say developing a monopoly over a technology or a product).

From the above discussion it can be hypothesized that in the trade promotion context when the target vendor is more powerful (retailer is more dependent) then it is possible that the retailer could try and reduce its power imbalance by preferring the alternate vendor, especially in situations when the short term economic value offered by both vendors is the same.

While most of the literature would tend to agree with the previous statement, there is no unanimity on the effect of power on behavioral commitment (Anderson, Lodish, and Weitz 1987; Etgar 1976; Frazier 1983). Relative power theory (Kumar, Scheer, and Steenkamp 1998) suggests that when a partner is less powerful then it would try to be as inoffensive as possible to the stronger party so as not to incite punitive actions from the stronger party. Therefore the weaker party would acquiescence to the stronger party. A similar effect is also proposed by the conflict spiral theory (Kumar, Scheer, and Steenkamp 1998) which proposes that when one party is clearly dominant, the less dominant party avoids punitive actions against the stronger party as it realizes that the gains from such actions is pretty low. Meaning, that increasing power asymmetry has a positive impact on behavioral commitment on the part of the weaker party. Therefore it is

possible that when the retailer is weaker than the vendor, the retailer would increase its behavioral commitment towards the target vendor's trade promotions. We believe that the later view is more likely to prevail especially in a trade promotion scenario due to the fact that a more dependent party knows that repeated attempts in dependence balancing could lead to retaliation from the less dependent party. The weaker party also knows that since the stronger party is less dependent on it, it increases the probability of punitive actions (Kumar, Scheer, and Steenkamp 1998). We therefore hypothesize

H6: When the target vendor is more powerful than the retailer, the retailer would increase its behavioral commitment to the target vendor's trade promotions.

While so far we have talked about the main effects of power asymmetry on behavioral commitment, in this section of the paper we will argue that power asymmetry also moderates the effect of calculative and loyalty commitment on behavioral commitment. Researchers (Brown, Lusch, and Nicholson 1995) have found that power asymmetry has a moderating impact on retailer commitment and performance. According to them, depending on the power asymmetry situation existing between the two parties' different sources of power (mediated vs. non-mediated power) is used by the one party and that has differential impact on commitment generated in the other party. For example, when the vendor is more powerful it is more likely to use mediated power that would lead to more calculative commitment in the retailer. On the other hand, when power is symmetric or when the retailer is more powerful, the generally accepted behavior is for the vendor to use non mediated power which increases normative-commitment and decreases instrumental or calculative commitment.

Recalling our discussion previously on calculative and loyalty commitment, we can say that while calculative commitment is considered fleeting in nature, loyalty commitment is considered more permanent. While intermediaries high in calculative commitment seek to develop alternatives, dealers with high affective commitment demonstrate a higher willingness to stay and invest in the relationship (Kumar, Hibbard, and Stern 1994). Kumar, Hibbard, and Stern (1994) also demonstrated that affective commitment to a supplier by an intermediary has the strongest possible association with the beneficial consequences of commitment followed by moral commitment and then only followed by calculative commitment. Literature seems to suggest that when power asymmetry is not taken into account, then affective or loyalty commitment has the greatest impact on behavioral commitment only then followed by calculative commitment. Therefore we propose that

H7: When the vendor is less powerful than the retailer then the retailer's loyalty commitment would be a stronger predictor of behavioral commitment towards the target vendor's trade promotions than the retailer's calculative commitment.

However, the previous discussion also suggests that it might not be the case always and that linkages between the different forms of commitment do vary across power asymmetry conditions (Kumar, Hibbard, and Stern 1994). Wiener (1982) has suggested that calculative commitment could make a stronger contribution to behavior especially in cultural climates where there is a higher value on individual need gratifications and rational thinking and less focus on the affective side of relationships.

Our goal here is to explain how buyers make the decision choice in the face of the persuasion attempts being attempted by the vendors to accept their trade promotions. We

use the Heuristic –Systematic model (Chaiken 1980; Eagly and Chaiken 1993) to hypothesize the effect of power asymmetry on the choice process. The HSM model helps researchers understand the choice process used by people. It tries to explain how people process information about given risks that are manifest in each decision (Griffin et al. 2002). This model is one amongst the family of dual-process theories that explain choice behavior (Chen, Duckworth, and Chaiken 1999).

The HSM model posits that there are two primary modes of information processing. Systematic processing is effortful and involves a comprehensive scrutiny of all relevant information to form judgments. It is a comprehensive analytical orientation to information processing where the perceivers scrutinize a great deal of information before making a judgment. Heuristic processing on the other hand is a cognitively less demanding process and requires fewer cognitive resources than systematic processing.

Heuristic processing involves the use of extrinsic cues like source expertise and other simple decision rules to formulate judgments and decisions (Eagly and Chaiken 1993; Mitra 1995). Heuristics are learned on the basis of peoples past experiences and observations. Thus people using heuristic process might make their choices based on the previous encounters or shared experiences like reputations to make a decision.

The key assumption of the HSM model is that people are cognitive misers (Eagly and Chaiken 1993; Taylor and Fiske 1978) who must be motivated to engage in systematic processing. People thus want to satisfy their goal related needs in the most efficient way

possible. This has also been labeled in the theory as the *least effort principle*, whereby people often shun systematic processing in favor of the less effortful heuristic mode. The next key principle of HSM is the *sufficiency principle*. The sufficiency principle states that people will always try and satisfy their motivational concerns and minimize their processing efforts (Griffin et al. 2002). What it means is that whenever people make a choice they are always concerned about whether the choice they made is the right one, at the same time if the choice is not important enough they do not want to spend much time and effort on the choice. People would like to make only that much effort to ensure that the choice that has sufficient validity.

Combining these two principles of *least effort* and *sufficiency* imply that people would engage in greater amounts of systematic processing when the less effortful heuristic mode does not provide sufficient judgmental confidence. When an issue is important enough it motivates people to increase the desired level of judgmental confidence in the decision. This level of confidence cannot be provided by heuristic processing thus people use systematic processing. Eagley and Chaiken (1993) state that every person has a *sufficiency* threshold and an actual confidence level, both of which lie in the judgmental confidence continuum. Whenever the actual confidence level is higher than the sufficiency threshold the sufficiency principle holds that systematic processing would cease to operate. Although systematic processing requires greater cognitive resources it is generally more effective in increasing subjective confidence than heuristic processing (Chen, Duckworth, and Chaiken 1999).

If people can be made to feel more accountable for their judgments or made to feel that the consequences of a wrong judgment are severe then their sufficiency thresholds go up and they can be expected to exhibit greater amount of systematic processing (Maheswaran and Chaiken 1991). In other words if the motivation for a decision is high enough the person would rather spend more effort in doing systematic processing than going to the default option which is heuristic processing (Chen, Duckworth, and Chaiken 1999). It is well accepted in literature that when people are highly motivated, they scrutinize message relevant information in detail and generate more message-relevant thoughts (Kardes 1988; Petty, Cacioppo, and Schumann 1983). According to Eagley and Chaiken (1993) among the many variables that increase motivation and foster more systematic processing are task importance, responsibility for message evaluation and accountability.

In the trade promotion scenario, when the retailer is faced with a more powerful vendor which he doesn't want to annoy, the retailer is motivated to think very carefully about the likely consequences of the decision and the sufficiency threshold is likely to go up. To ensure that a wrong decision is not made, the buyer is more likely to use systematic processing to increase the confidence level in his choice. Therefore the buyer is more likely to consider the costs and benefits of making the decision rather than relying solely on heuristics like reputation of the vendor (Maheswaran, Mackie, and Chaiken 1992) or the likeability of the vendor salesperson. A point to note here is that since the default action of any buyer is to use heuristic processing, when the vendor is less powerful, the retail buyer is not so much concerned about making a wrong judgment. Therefore he is

more likely to use heuristic processing to make the decision. This kind of effect was hypothesized in the previous hypothesis and also was based on previous empirical literature. In the scenario where the vendor is more powerful we can therefore hypothesize that:

H8: When the vendor is more powerful than the retailer then the retailer's calculative commitment would be a stronger predictor of behavioral commitment towards the target vendor's trade promotions than the retailer's loyalty commitment.



## CHAPTER 4

### RESEARCH METHODOLOGY AND DESIGN

This chapter describes the methodology used to test the hypotheses. This chapter constitutes of three main sections. The first section explains the research setting and research design, and the second section describes the operationalization of the measures used. The last section will provide insight in the data collection methods used and the sample characteristics.

#### *Research Design*

In our study the goal was to test the relationship between power asymmetry, two forms of loyalty commitment and calculative commitment on behavioral commitment. The goal was understanding the causal relationship between these variables. We used a scenario based experiment to test our hypotheses. According to Trochim (2001) to establish causality three conditions are required:

- a) Covariation: The independent and dependent variables must covary with each other and the changes in the independent variable must lead to changes in the dependent variable.
- b) Temporal precedence: The change in the presumed causal variable must precede the presumed effect.
- c) No Plausible alternative explanation: The presumed cause must be the only reasonable explanation for changes in the dependent variable.

Compared to all approaches, experimental methods are the strongest in determining causality in research, because of the strong internal validity of experiments (Trochim 2001). In an experiment we can effectively control for the effects of undesirable extraneous variables. Also, we can maintain the temporal precedence of the independent variables and manipulation of the independent variables allows us to observe the effects of those variables on the dependent variable. High Internal validity in experiments allow us to isolate the effects of the independent variables and allow us to measure their impacts more precisely (Cook and Campbell 1979). Finally, since the independent variables in an experiment are orthogonal to each other, the effects of each independent variable can be compared to each other.

Experiments by their very nature are intrusive in nature and are contrived in an artificial environment (Trochim 2001) therefore they are criticized for their lack of external validity that limits its generalizability. However since our goal in this study is not to report on how decisions are taken in real life but how our theory stands up to empirical scrutiny, we felt that an experiment was the appropriate research methodology.

We devised the experiment using a 2x2x2x2 between subjects factorial design. The study design include 2 Calculative Levels (high, null), 2 Organizational Commitment levels (high, null), 2 Personal Commitment levels (high, null), and 2 Power Asymmetry levels (Target vendor more powerful than the retailer, Target vendor less powerful than the retailer). Sixteen different scenarios were created, one each for all the different levels of manipulation. The scenario tried to provide a glimpse of a real world situation that

respondents might face in a purchasing managers role and they were asked to respond to the scenario in a manner similar to what they would in real life.

The research design is presented in Table 1.

**Table 1: Experimental Design**

Option	Power Asymmetry of Target Vendor with Retailer	Target Vendor A		
		Calculative Commitment	Loyalty commitment with Sales person	Loyalty commitment with organization
1	Vendor More Powerful	High	High	High
2	Vendor More Powerful	High	High	Low
3	Vendor More Powerful	High	Low	High
4	Vendor More Powerful	High	Low	Low
5	Vendor More Powerful	Low	High	High
6	Vendor More Powerful	Low	High	Low
7	Vendor More Powerful	Low	Low	High
8	Vendor More Powerful	Low	Low	Low
9	Retailer more Powerful	High	High	High
10	Retailer more Powerful	High	High	Low
11	Retailer more Powerful	High	Low	High
12	Retailer more Powerful	High	Low	Low
13	Retailer more Powerful	Low	High	High
14	Retailer more Powerful	Low	High	Low
15	Retailer more Powerful	Low	Low	High
16	Retailer more Powerful	Low	Low	Low

The scenario presented to the respondents was that the retailer is faced with two vendors who are providing an equal cash discount. The products being offered to the retailer are local brands that are perfectly substitutable with each other. What it means is that irrespective of what product is chosen, the overall sales of the retailer remain constant.

The retail buyer is asked to make a choice between giving the entire order to one vendor or distribute the order among the two vendors in any percentage he likes.

There was, however, one issue that needed to be resolved before we could test our hypotheses. The issue was how to separate out the effect of power and calculative commitment. As discussed before in the previous section, the way power has been measured (using dependence of party A over Party B) is somewhat similar to the way calculative commitment has been operationalized. Therefore if Party A is dependent on Party B for say X units, then party A also is likely to lose X units if it breaks its relationship and thus party A has X units worth of calculative commitment towards party B. From the discussion it seems that due to the way it has been operationalized, dependence (the proxy of power) and calculative commitment are not orthogonal to each other. To find the real impact of these variables we made sure that our manipulations of calculative commitment and power are conceptually separate from each other.

### ***Solving Non-Orthogonality between Power and Calculative Commitment***

First we acknowledge that the problem occurs due to the way power has been measured in literature. Most empirical papers have measured power in terms of percentage of sales contributed by a party (Frazier, Gill, and Kale 1989). The logic behind this approach is the “dependence” criteria. If vendor A contributes 20% of your sales then you are dependent on vendor A and the dependence can be measured as 0.2. Also since power is considered to be equal to dependence (Emerson 1962), researchers would say that

Vendor A has power of 0.2 over the retailer. Generally the availability of resources outside the relationship is not incorporated in the measurement.

Now the problem of non-orthogonality of power and calculative commitment can be explained by the following example. Suppose there are three parties, vendor A, vendor B and retailer C. Retailer C does business with both Vendor A and Vendor B. Let us assume that vendor A contributes 10% of retailer C's sales and vendor B contributes 20% of retailer C's sales. Therefore Vendor A has 0.1 power over retailer C versus Vendor B who has 0.2 power. From the above we can see that vendor B is more powerful and retailer C has more to lose by terminating its relationship with vendor B than with vendor A. Therefore retailer C will have more calculative commitment towards vendor B than vendor A. What we have demonstrated so far is that if power is measured or manipulated using only dependence then it also has an impact on the measurement of calculative commitment. Retailer C's use of calculative commitment towards vendor B will always be positively associated with vendor B's power over C. Therefore there is a confounding between these two variables.

Similarly, power by itself has no impact on behavior. Taking the same earlier example, even though vendor B is more powerful and contributes 20% of the entire sales of Retailer C, we can't predict whether Vendor B will be able to use power without considering the effect of countervailing power that Retailer C might have on vendor B. If for example Retailer C actually sells 50% of the entire sales of vendor B, then vendor B is more dependent on retailer C than vice versa. Therefore when understanding the effect

of power we have to look at the difference in power rather than the absolute level of power.

We solve this problem in the following manner. Let's take the same scenario with the same three parties. However this time we add some annual sales numbers also.

- i. Vendor A has sales of 100 billion
- ii. Vendor B has sales of 10 billion
- iii. Retailer C has sales of 10 billion

Now lets also assume that both vendor A and B make sales of 2 billion (20% of retailer sales) each through Retailer C. Therefore  $D_{ca} = P_{ac} = 0.2$  and  $D_{cb} = P_{bc} = 0.2$  (retailer C is dependent on A and B for sales of 20% each) (Emerson 1962).

Since the power of both the vendors on the retailer is the same we would expect that retailer C would behave the same towards both parties equally. However before making that kind of statement we have to also look at the asymmetry of power ( $P_{ac}-P_{ca}$  and  $P_{bc}-P_{cb}$ ) as that would be a better predictor of behavior than just power. Now  $P_{ca}=0.02$  (retailer C sells only 2% of the entire sales of vendor A and therefore vendor A is only dependent on retailer for a value of 0.02) and  $P_{cb} = 0.2$  (retailer C sells 20% of the entire sales of vendor B). Therefore the power asymmetry between vendor A and retailer C ( $P_{ac}-P_{ca}$ ) is 0.18 and the power asymmetry between vendor B and retailer C ( $P_{bc}-P_{cb}$ ) is zero.

Looking at the asymmetry of power we can say that Vendor A seems to have a asymmetrical relationship with Retailer C while Vendor B has a symmetrical relationship with Retailer C. We can thus make a logical conclusion that we are more likely to find the effects of power in the relationship between A and C rather than B and C. Since vendor A is much more powerful than retailer C especially when compared to vendor B, the retailer C is going to be more careful how it deals with vendor A rather than vendor B.

To understand the intuition behind the math, consider only the relationship between Vendor A and Retailer C. Vendor A's power over Retailer C is 0.2 and Retailer C's power over vendor A is only 0.02. In this scenario we can see very clearly Vendor A is more powerful than Retailer C. What we have done here is reduce the power that retailer C has over Vendor A. We could have very well gone the other way and instead of reducing the power of C over A, increased the power of Vendor A over Retailer C by increasing the dependence of Retailer C on Vendor A. However the effects of increasing dependence of C on vendor A are different from our preferred method. If we increase the dependence of retailer C, then retailer C also has more to lose and it increases the calculative commitment that retailer C feels towards Vendor A.

Now a doubt can be raised whether power still operates especially in situations where there is no danger of relationships being broken. This seems to be especially true in the trade promotion area, where even if a vendor's trade promotion is not accepted it doesn't imply that the vendor would break up the relationship.

Our answer to this doubt is that power still operates in such a scenario for two reasons. First, since power is the ability to influence even if there is no immediate relationship termination the weaker party knows that its dependence is more on the stronger party and rejecting the stronger party even though it offers equal economic benefits, would signal to the stronger party that the weaker party is not inclined to continue the relationship in the long run and may switch partners if another party comes along. And because the stronger party understands that it is stronger and is less dependent, repeated rejections would invite retaliation in the long run.

Second, although there is no immediate danger of relationship termination if there is asymmetry of power, it increases the probability of retaliation from the stronger party. In our scenario Vendor A does much more business than Retailer C, therefore has a larger punitive capability than Retailer C (Kumar, Scheer, and Steenkamp 1998). According to these researchers the existence of punitive capability with one party is also able to influence the actions of the weaker party.

The point to note in our manipulation is that Retailer C is equally dependent on both A and B and therefore the maximum “*calculative loss*” that retailer C can endure is also the same, meaning that if the retailer were to calculate the maximum loss that s/he might incur by breaking the relationship with either vendor, s/he would be indifferent between the two parties. Therefore the calculative commitment of the retailer is equal for both vendor A and B. However the power asymmetry is different and we will still get the impact of power.



Furthermore if vendor B wants to increase its power it has only the one option. It has to reduce its dependence on Retailer C by increasing sales to other retailers. Vendor B can also make retailer C sell more of its product, but if its overall sales don't increase then the power symmetry will hold and vendor C will not be better off.

Overall it seems that in the special case when the retailer is equally dependent on two vendors it is likely that the vendor with greater sales would be considered more powerful. Therefore in our trade dealing scenario, if P&G (one of the biggest consumer products companies) and another smaller vendor sells the same amount of products to a retailer then the retailer would consider P&G to be more powerful even though they are equally dependent on both.

In our experiment we create a scenario that has this kind of power imbalance between the vendor(s) and the retailer, so that the measurement of calculative commitment is not contaminated by manipulation of power asymmetry. In our manipulation, we also incorporate the idea about the lack of availability of resources outside the relationship in the instrument to strengthen the power manipulation. For example, in the scenario when the vendor is more powerful not only will power asymmetry will be to its advantage, but also it will be positioned as controlling a major market share. We can then manipulate calculative commitment in the manner that we had defined earlier, namely that calculative commitment looks more at the benefits that the relationship would bestow in the future rather than the losses that might be incurred on leaving the relationship.

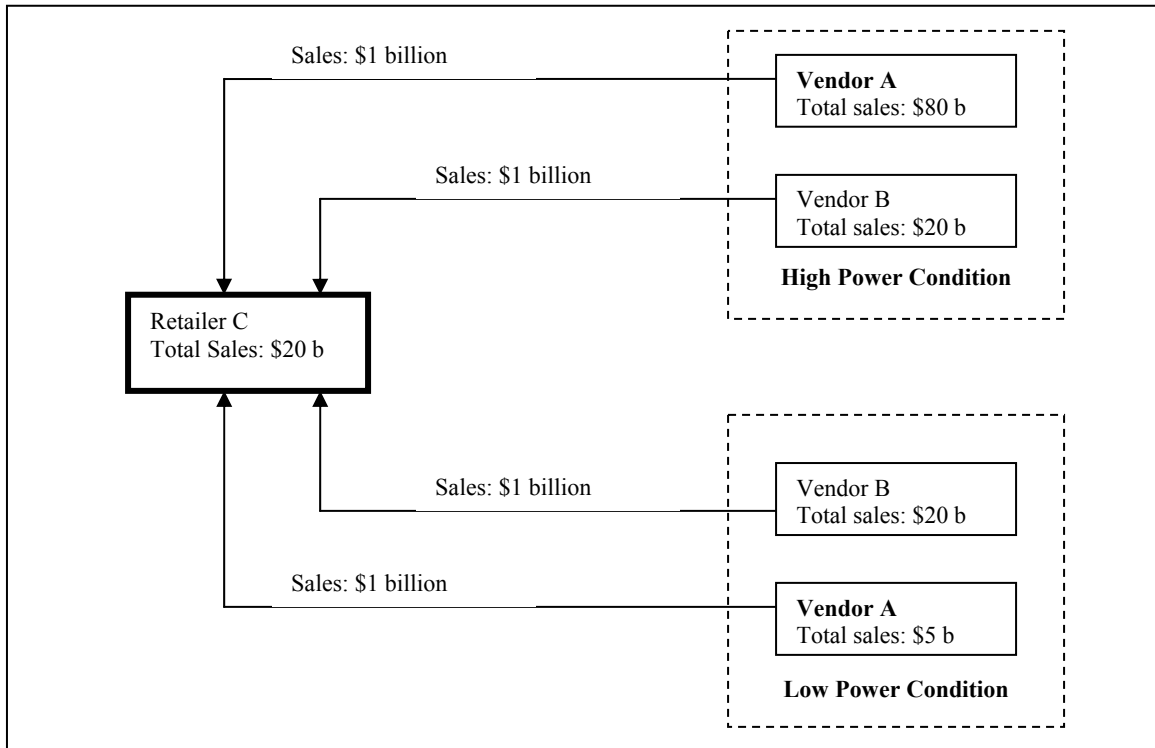
## **Manipulations**

The basic scenario as discussed before consisted of a situation facing a purchasing manager. The purchasing manager is supposed to place an order for 5 million cases of non branded bubble wraps. The purchase manger generally offers the deal to whichever vendor has the biggest trade deal. However, in this month both the vendors are offering the same trade deal. The purchasing manager has to decide, whether to split the offer or provide the entire order to one party. In the different scenarios we manipulated power, calculative commitment, affective commitment to salesperson and affective commitment to the vendor organization. In the next few pages we describe how we achieved the manipulation of the different constructs.

### **Manipulating Power**

We manipulate power asymmetry by having two extreme manipulations. The first case is when the target vendor is more powerful than the retailer and the second where the target vendor is less powerful than the retailer. Since the retailer is supposed to choose between the two vendors in the scenario we will have an alternate vendor who would be equally powerful as the retailer and who would serve as the control group. Figure 2 provides the schematic of how power asymmetry will be manipulated:

**Figure 2: Manipulation of Power Asymmetry**



### **Manipulating Calculative Commitment**

Calculative/instrumental commitment was manipulated by giving the user a high instrumental condition versus a null instrumental condition. A scenario that was used was that Vendor A (target vendor) is likely to give a year end bonus trade promotion for meeting yearly targets. Plus in the view of the retail buyer, vendor A is going to launch a new potential block buster product and it would introduce the product in only a few stores. We would keep vendor B's calculative commitment as null in both the cases to serve as control group.

### **Manipulating personal commitment (Commitment to salesperson)**

We manipulate the loyalty commitment of the retail buyer towards the salesperson by using the manipulations used by Murry and Heide (1998). The high personal commitment

factor used was: “The salesperson is a personal friend from your college days and had gone out of the way to help you even when he was not working with the target vendor” while the low factor was: “The salesperson is completely new to target vendor”. Since vendor B would act like the control group, Vendor B would always have “The salesperson is completely new” as its manipulation.

### **Manipulating Organizational Commitment**

We manipulate the organizational loyalty commitment of the retail buyer by using one item mentioned by Tellefsen and Thomas (2005). The high organizational commitment factor was manipulated by the following statement: “Your company has been involved in joint research and development with vendor A for the last 10 years and you personally spearheaded this initiative with vendor A. You also have tremendous personal respect for vendor A’s professionalism in business.”

The low manipulation was “You have started on the relationship with vendor A only in the last 10 years”. As in the manipulation of personal commitment, vendor B would always have “You have started on the relationship with vendor B only in the last 10 years”. All the manipulations used in the experiment are provided in Table 2 - 5. An example of the scenarios used is provided in appendix A.

**Table 2: Manipulations used in the scenarios: power asymmetry**

	Power Asymmetry	
	High	Low
Target Vendor	Acme Bubble Company is a very big and <b>powerful \$80 billion</b> dollar firm that you have been doing business with for the last <b>15</b> years which <b>controls almost 80%</b> of the entire production of bubble wraps in the world. Acme is considered a very powerful company since Acme literally sets the price for the entire global market for bubble wraps and hence Acme commands tremendous respect in the business world. Acme is also four times larger than your company in terms of revenue.	Acme Bubble Company is a small \$5 billion dollar firm that you have been doing business with for the last 15 years which controls only 5% of the entire production of bubble wraps in the world.
Alternate vendor	Simons Bubble Co, is a much smaller <b>\$20 billion</b> firm that has also been in the bubble wrap business for a long time.	Simons Bubble Co, is a much smaller <b>\$20 billion</b> firm that has also been in the bubble wrap business for a long time.

**Table 3: Manipulations used in the scenarios – calculative commitment**

	Calculative Commitment	
	<b>High</b>	<b>Low</b>
Target Vendor	<p>Acme Bubble Company Likely to launch a new improved product in the next few months and we might get exclusive distribution (our market research says that this will be a high margin blockbuster)</p> <p><b>Plus</b></p> <p>Acme in the past has provided year- end bonus trade promotions for meeting yearly targets</p>	-- Null--
Alternate vendor	-- Null --	-- Null --

**Table 4: Manipulations used in the scenarios – loyalty commitment to organization**

	Loyalty Commitment to Organization	
	<b>High</b>	<b>Low</b>
Target Vendor	<p>Your company has been involved in joint research and development with Acme for the last 10 years and you personally spearheaded this initiative with Acme. You also have tremendous personal respect for Acme’s professionalism in business.</p>	-- Null --
Alternate vendor	-- Null --	-- Null --

**Table 5: Manipulations used in the scenarios – loyalty Commitment to Vendor Salesperson**

	Loyalty Commitment to Vendor Salesperson	
	<b>High</b>	<b>Low</b>
Target Vendor	<p>You also really like Bob Jones who is the sales person from Acme and is a personal friend from your college days. You have been dealing with him even when he was not with Acme. Bob is also a great salesperson and in the past has gone out of his way to do favors for you.</p> <p>Plus</p> <p>Your friend Bob made a personal request that he needs this order.</p>	<p>Bob Jones is the new sales person from Acme and you find him to be a very competent and honest man.</p>
Alternate vendor	<p>The salesperson for Simons Bubble Co is Tom White who was recently appointed and you have found him to be a decent and honest man.</p>	<p>The salesperson for Simons Bubble Co is Tom White who was recently appointed and you have found him to be a decent and honest man.</p>

***Research Procedure***

The first step in our research was to ensure that the experiment would allow us to do the manipulations we wanted. For this we conducted two pretests. Both the pretests were conducted with working MBA students, as we felt that working MBA students could act as close proxies to our target respondent profile which was purchasing managers.

### **Pretest 1**

In our first pretest we choose two cells (cell 1 and cell 16) that contained all the manipulations. In cell 1, all the manipulations of power, calculative commitment, loyalty commitment to organization and loyalty commitment to sales person was HIGH. In cell 16 the manipulations of the above mentioned variables was low or neutral. The use of these two cells allowed us to test in a single setting whether the all the manipulations were working or not. 26 MBA students in a class room setting were recruited. All the respondents were explained that we were conducting a study of purchasing managers and that we wanted them to imagine themselves in the shoes of a purchasing manager and answer all the questions the way in which they think a real purchasing manager would behave. No other explanations were offered to the respondents. After all the respondents had completed answering the instrument, the respondents were debriefed and the purpose of the study was explained.

The data from the pretest was analyzed using SPSS 14. Since the focus of the pretest was only to test whether the manipulations worked, we did not check the effect of the independent variables on the dependent variable. The first pretest showed that the power manipulation was working properly. Respondents could see that vendor A was more powerful than Vendor B, however we felt that the power asymmetry differences could be increased even more. Respondents could not differentiate between the manipulations of calculative commitment ( $F=3.854$ ;  $\text{sig}=0.061$ ). Similarly the manipulations of loyalty commitment to organization were barely significant at the 0.5 alpha levels ( $F=4.20$ ;  $\text{sig}=0.052$ ). The manipulations of loyalty commitment to vendor salesperson worked.



To address the issue we rewrote the scenarios to make the manipulations stronger. To increase the power difference, we added the following line to power manipulation. “Acme is considered a very powerful company and controls 80% of the entire world market. They literally set the price for bubble wraps”. To increase organization commitment the following lines were added, “You have tremendous respect for Acme and you have personally spearheaded a project with acme”. Finally to increase calculative commitment, we added the following line “Acme might offer a year end bonus” The changes made can be seen in table 6.

**Table 6: Changes made in Manipulations after First Pretest**

Independent Variable	Original Manipulation	After Pretest
Power Assymetry	Acme Bubble Company is a very big and <b>powerful \$80 billion</b> dollar firm that you have been doing business with for the last <b>15</b> years which <b>controls almost 80%</b> of the entire production of bubble wraps in the world.	Acme Bubble Company is a very big and <b>powerful \$80 billion</b> dollar firm that you have been doing business with for the last <b>15</b> years which <b>controls almost 80%</b> of the entire production of bubble wraps in the world.  Acme is considered a very powerful company since Acme literally sets the price for the entire global market for bubble wraps and hence Acme commands tremendous respect in the business world. Acme is also four times larger than your company in terms of revenue.
Calculative Commitment	Likely to launch a new improved product in the next few months and we might get exclusive distribution (our market research says that this will be a high margin blockbuster)	Acme Bubble Company Likely to launch a new improved product in the next few months and we might get exclusive distribution (our market research says that this will be a high

		margin blockbuster) <b>Plus</b> Acme in the past has provided year- end bonus trade promotions for meeting yearly targets
<b>Organizational Commitment</b>	Your company has also been involved in joint research and development with Acme for last 10 years and you personally spearheaded this initiative with Acme.	Your company has been involved in joint research and development with Acme for the last 10 years and you personally spearheaded this initiative with Acme. You also have tremendous personal respect for Acme's professionalism in business.
<b>Personal Commitment</b>	You also really like Bob Jones who is the sales person from Acme and is a personal friend from your college days. You have been dealing with him even when he was not with Acme. Bob is also a great salesperson and in the past has gone out of his way to do favors for you.  Plus  Your friend Bob made a personal request that he needs this order.	You also really like Bob Jones who is the sales person from Acme and is a personal friend from your college days. You have been dealing with him even when he was not with Acme. Bob is also a great salesperson and in the past has gone out of his way to do favors for you.  Plus  Your friend Bob made a personal request that he needs this order.

## Pretest 2

To test whether the modified manipulations worked, we did a second pretest. This time we conducted the test with another batch of thirty seven executive MBA students. The cells selected for testing were Cell 7 and Cell 12. These cells were selected because in these cells the manipulation of loyalty commitment to vendor salesperson was kept

constant. Like the first pretest, the respondents were asked to imagine themselves in the role of purchasing managers and make their decisions accordingly. The respondents were also offered a raffle for participating in the survey. The total raffle amount was kept to a minimum (\$50). At the end of the survey a small debriefing was done.

Like the first pretest we only used the data collected from the pretest for manipulation checks. This time all the manipulations checks came out significant and we have subsequently used the same manipulations in our final study.

### **Main Study Survey Administration**

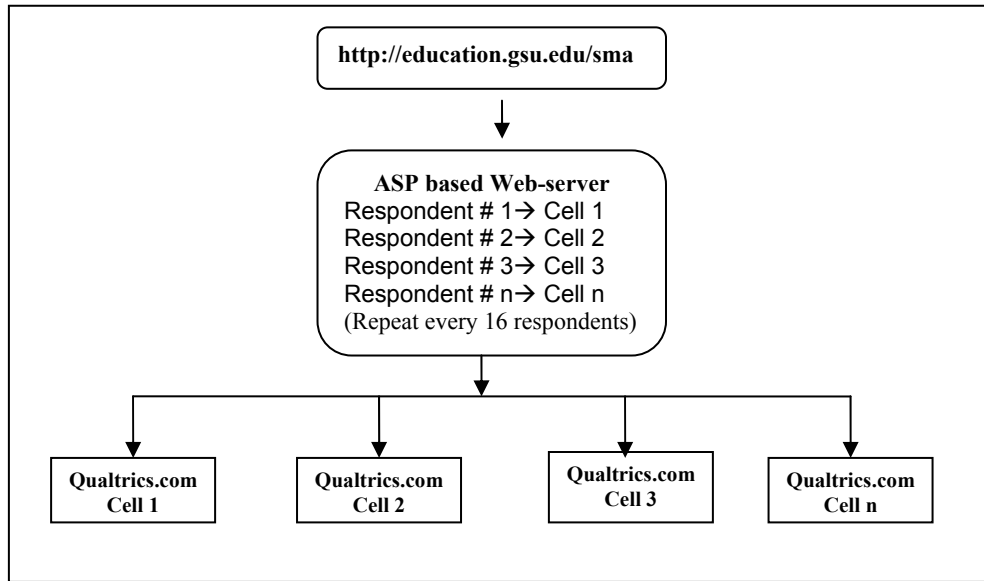
We decided to conduct the experiment electronically so as to enable purchasing managers from all over the country to participate and also enable automatic data entry. Another reason for deciding to use an electronic format was the expense of administering the instruments using a paper and pen format. While we had some concerns about the response rates obtained in online research, recent research suggests that there is not much difference between the response rates of online and offline surveys (Roster et al. 2007) therefore we decided to go ahead with this plan.

Since we had sixteen cells in all, we created sixteen versions of the instrument using a professional survey creation tool on the internet. We used qualtrics.com as our survey software. However the existence of the sixteen instruments created a problem. We could mail only one link to our respondents. And we had to somehow allocate the respondents to one of 16 conditions. To solve the problem we created two websites both hosted on

Georgia State University web servers. Hosting the initial web-pages on GSU web servers also allowed us to increase the legitimacy of the survey.

The first website was a simple link ([www.education.gsu.edu/sma](http://www.education.gsu.edu/sma)) that only served as a redirecting website. The respondents were automatically transferred from the first website to the second website which was based on asp programming. This second website hosted the first page of the survey, included the instructions and had a link to the IRB consent form (Appendix B). The website also performed a sorting function. It automatically allocated the respondents to one of the 16 instruments which were hosted on qualtrics.com web-servers. The allocation was done on a round-robin basis. The first respondent was allocated to the first condition, the second to the second condition and so on. The pattern repeated itself after 16 respondents. Figure 3 gives the schematic diagram of the data collection method. This method allowed us to allocate the respondents quite evenly amongst all the cells.

**Figure 3: Schematic Diagram of Survey Administration**



### **Data Collection**

To obtain maximum external validity for our research, we decided to exclusively target purchasing managers. Initially we wanted to target only purchasing managers who work in the retail industry to participate in our study. However we had to broaden our subject profile for two reasons. First, since the goal of this dissertation research was theory testing and the retail environment was only a context in which the theory was being tested we felt confident that purchasing managers in other sectors would also be able to identify themselves in such a scenario. The second reason for broadening the criteria was the non availability of a specific sampling frame constituting purchasing managers working in the retail industry.

We decided to collect around 30 respondents per cell (Cohen 1992), so as to have enough sample size to enable the experiment to provide us with usable and stable statistical values. Because we had 16 cells, our targeted sample size therefore was 480 respondents.

Obtaining 480 respondents, who were in the purchasing managers' role to participate in our experiment, was a difficult task and we used the following strategies to generate enough respondents. The effectiveness of the strategies is also provided along with the strategies used.

- 1) Three advertisements in the electronic newsletter; *Just in e-time* published by the Institute of Supply Chain Managers (ISM), which is the preeminent national association of supply chain managers. Effectiveness: Nil
- 2) Running a keyword targeted web based ad campaign. We used Google adwords to buy up specific keywords related to purchasing managers. The ads were shown in continental USA, whenever someone searched using those keywords in Google's search engine. The ads used are shown in Appendix C. Effectiveness: Nil
- 3) Corporate support. We contacted a well known retail company to support this research. The purchasing head agreed to participate in the research by distributing the web link to the all the purchasing managers in the company. Effectiveness: Low
- 4) Purchasing Managers Association support. Our initial goal was to convince ISM (Institute of Supply Chain Managers) to support the research. The first attempt to garner support failed. However we contacted all the affiliates at the state level. We were successful in convincing NAPM -Georgia, ISM – Seven counties,

NAPM – National Capital area, NAPM – Arizona, NAPM – Cincinnati and CAPM (Connecticut Association of Purchasing Management) to support the research. While NAPM-Georgia sent out emails to their members. The other associations only put the link to our survey along with a basic introduction on their main website. Effectiveness: Medium

- 5) We also used panel data sourced from a leading online panel company (zoomerang.com). We requested a B2B panel consisting of only purchasing managers. The role of the online panel company was limited to sending an email to the purchasing managers in their panel with a link to our survey. The survey was still hosted on our web servers. The incentive offered was a chance to win \$1000 USD. The incentive administration was handled by the panel management company. Effectiveness: High

Using all these strategies we managed to generate overall 547 responses. We had to delete 62 responses because of duplicate/ incomplete responses. In the end we were left with 485 usable responses. We were thus able to get around 30 respondents per cells. The break up of the responses in terms of the cells is given in Table 7. The break up of the initial number of respondents in terms of the method used is given in Table 8.

**Table 7: Break up of Respondents per Cell**

Scenario	Power of Target vendor	Calculative commitment	Loyalty commitment with sales person	Loyalty commitment with firm	# of respondents per cell
1	High	High	High	High	30
2	High	High	High	Neutral	32
3	High	High	Neutral	High	31
4	High	High	Neutral	Neutral	29
5	High	Neutral	High	High	31
6	High	Neutral	High	Neutral	29
7	High	Neutral	Neutral	High	30
8	High	Neutral	Neutral	Neutral	32
9	Low	High	High	High	27
10	Low	High	High	Neutral	32
11	Low	High	Neutral	High	30
12	Low	High	Neutral	Neutral	30
13	Low	Neutral	High	High	30
14	Low	Neutral	High	Neutral	31
15	Low	Neutral	Neutral	High	31
16	Low	Neutral	Neutral	Neutral	30
	<b>Total</b>				<b>485</b>



**Table 8: Number of respondents per method used**

<b>Method</b>	<b>Overall Response</b>
1) Advertisements in ISM Newsletter	2
2) Keyword based ad campaign	0
3) Corporate support	3
4) Purchasing Management Association support	159
5) Panel Membership	383
<b>Total</b>	<b>547</b>

Overall we can see that only the last two methods were effective. The total response rate was calculated using the following method. A total of 4959 supply chain managers were in the sample frame that was used. This sample frame is calculated by using Table 9

**Table 9: Total sample frame**

<b>Sample source</b>	<b>Total Members</b>
1) NAPM-GA	780
2) NAPM- Seven counties	139
3) NAPM- Arizona	500
4) NAPM - Cincinnati	540
5) NAPM – National Capital Area	400
6) CAPM (Connecticut Association of Purchasing Management)	600
5) Panel Membership	2000
<b>Total</b>	<b>4959</b>

The raw response rate for the study was slightly around 10%. However a better way of measuring the response rate would be to look at the number of people who initially went

to the main website and after reading the purpose of the study agreed to actually complete the study. This method is similar to the way how pen and paper survey research response rates are calculated in B2B research. In that method researchers initially pre-qualify respondents by calling a larger sample frame. People who agree to participate are then sent the instrument. Response rates are calculated as number of people who actually answer the survey with respect to the number of people who agreed to participate.

Similarly in our research while we did approach 4959 potential purchasing managers, not all managers saw the invitation (most associations only posted the link on their website). Of the 4959 managers approached, 1112 managers actually clicked on the link to the first page of the survey which explained the purpose of the study. Out of these 547 actually completed the instrument. And of these 547 only 485 responses were usable. Therefore our effective response rate according to this calculation is 43%.

### **Data Characteristics**

In this section we explain the demographic characteristic of the data. We collected data only from people who were in purchasing. We had good representation from both men and women in the data. Out of 485 overall respondents we had 54.2% males. The break up of the gender classification is given in table 10.

**Table 10: Gender classification of respondent sample**

<b>Classification</b>	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>
Male	263	54.2	54.8
Females	217	44.7	44.7
Missing Values	5	1.0	
<b>Total</b>	<b>485</b>	<b>100%</b>	<b>100%</b>

We also had a wide variety of experience represented in our sample. Respondents were asked to indicate the extent of their total work experience. They were asked to classify themselves in one of four groups. Overall it seems that most of our respondent sample had enough work experience to justify inclusion in our study. The work experience characteristics of the sample are provided in Table 11

**Table 11: Work experience of respondent sample**

<b>Classification</b>	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>
Less than 5 years	23	4.7	4.8
5 to 10 years	50	10.3	10.4
11 to 15 years	61	12.6	12.7
More than 15 years	346	71.3	72.1
Missing Values	5	1	
<b>Total</b>	<b>485</b>	<b>100%</b>	<b>100%</b>

We also asked the respondents to identify the industry that they represent. As can be seen our respondents come from a wide variety of industries. The industry profile of the sample is provided in table 12.

**Table 12: Industry classification of respondent sample**

<b>Classification</b>	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>
Retailing	51	10.5	10.6
Wholesale/Distribution	42	8.7	8.8
Utilities	13	2.7	2.7
Government	43	8.9	9.0
Health Services	36	7.4	7.5
Engineering/Research	10	2.1	2.1
Finance/ Banking / Insurance	9	1.9	1.9
Food Service	11	2.3	2.3
Service	8	1.6	1.7
Lodging	4	0.8	0.8
Transportation	29	6.0	6.0
Publishing	4	0.8	0.8
Communication	24	4.9	5.0
Construction	16	3.3	3.3
Education	29	6.0	6.0
Others	151	31.1	31.5
Missing Values	5	1.0	
<b>Total</b>	<b>485</b>	<b>100%</b>	<b>100%</b>

We also asked respondents to classify their job profiles. We used the most common designations used in the purchasing area. The job profiles covered in our data is given in Table 13.

**Table 13: Job profile classification of respondent sample**

<b>Classification</b>	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>
Purchasing Manager	125	25.8	26.1
Purchasing Agent	91	18.8	19.0
Purchasing	39	8	8.1
Purchasing Director	27	5.6	5.6
VP of Purchasing	9	1.9	1.9
Materials Manager	20	4.1	4.2
Materials Director	7	1.4	1.5
Buying Coordinator	11	2.3	2.3
Purchasing Supervisor	17	3.5	3.5
VP of Materials	1	0.2	0.2
Assistant Purchasing Agent	14	2.9	2.9
Buyer	68	14.0	14.2
Others	50	10.3	10.4
Missing Values	6	1.2	
<b>Total</b>	<b>485</b>	<b>100%</b>	<b>100%</b>

We also had responses from purchasing managers who work in both large and small companies. Table 14, gives the break up of the data in terms of the size of the company that the respondents work for.

**Table 14: Classification of respondent company size**

<b>Classification</b>	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>
Less than \$50 million	187	38.5	39.3
\$50 to \$499.99 Million	85	17.5	17.8
\$500 Million to \$4.99 Billion	79	16.2	16.6
\$5 to \$19.99 Billion	54	11.1	11.3
20 Billion Plus	70	14.4	14.7
Missing Values	10	2	
<b>Total</b>	<b>485</b>	<b>100%</b>	<b>100%</b>

Also 399 respondents out of the total 485 who completed the surveys voluntarily provided their email address to get access of the results. Overall by looking at all the demographic data we can be fairly confident that we have a balanced sample especially when we consider that this is a hard to reach segment. We therefore decided to go ahead with the analysis of the data.

## CHAPTER 5

### DATA ANALYSIS AND RESULTS

This chapter describes the data analysis used to test our hypothesis. This chapter contains two main sections. The first section describes the analysis of the manipulation checks.

The second section describes the analysis of the main hypotheses.

#### ***Manipulation Checks Analysis***

Before we started analyzing our data we did manipulation checks to ensure that our independent variables were behaving the way they were supposed to. No experimental study can work if the manipulation checks don't work out. We did four basic manipulation checks to ensure the integrity of our analysis.

Our first manipulated variable was calculative commitment. We had included two items in the instrument to check for the manipulation effect of calculative commitment. The means and the reliability of the items are given in table 15.

**Table 15: Scale items – reliability – calculative commitment**

	Mean	Std. Deviation	N	Cronbach's Alpha
Acme Bubble Co is more likely to financially benefit your company in the medium to long term.	4.52	1.515	482	0.809
Acme Bubble co is more likely to provide financial gains in the near future	4.51	1.410	482	

Since the overall reliability (correlation in this case) of the scale was above 0.7 which is the minimum recommended acceptable scale reliability (Nunnally 1978) we added up the scale items to form a composite measure of calculative commitment. This composite

measure was used for the manipulation check of calculative commitment. We used a simple t test to test for mean differences. As can be seen in table 16, the manipulation checks indicate that the manipulations were significantly different from each other. Overall respondents did rate the high calculative commitment condition as higher than the low calculative commitment condition.

**Table 16: Manipulation check - calculative commitment**

	Conditions	N	Mean	Std. Deviation	Std. Error Mean	T Value	Sig
Calculative commitment Total	High Calculative Commitment	240	9.6833	2.65596	.17144	5.456	0.00
	Low Calculative Commitment	242	8.3884	2.55357	.16415		

The second manipulated variable was loyalty commitment towards the organization. We had put two manipulation check items to test that loyalty commitment towards the organization was being manipulated in the right manner. The reliability (correlation) of the composite scale formed by the two items was 0.733 (table 17).

**Table 17: Scale items – reliability – loyalty commitment to organization**

	Mean	Std. Deviation	N	Chronbach's alpha
The relationship with Acme is more established and important than the relationship with Simmons	3.80	1.639	483	0.733
You are more likely to have a soft corner for Acme as compared to Simmons	4.13	1.686	483	



Like the earlier manipulation, we used a simple t-test to check for mean differences. As seen in table 18, we can clearly see that the manipulation worked. Respondents in high affect for the organization manipulation condition did feel differently from respondents in the low manipulation setting and the effect was significant.

**Table 18: Manipulation check- loyalty commitment to organization**

	Conditions	N	Mean	Std. Deviation	Std. Error Mean	T Value	Sig
Loyalty to organization Total	High Affect for Organization	240	8.5583	2.85726	.18444	4.735	0.00
	Low Affect for Organization	243	7.3128	2.92342	.18754		

The next manipulated independent variable that was tested was loyalty commitment to the vendor salesperson. This variable was tested using a non parametric measure, because of the way the manipulation was done. We manipulated the loyalty towards the salesperson in the scenario by showing that the retailer (the respondent in this case) has a friendship towards the salesperson of the target vendor. In our case the sales person of the target vendor was called Bob Jones. In the low Loyalty towards the salesperson condition, the respondent was supposed to identify both the target vendor’s sales person, “Bob jones” and the other vendor’s sales person “Tom white” as equal to each other. Therefore the manipulation would be considered workable if in the High “loyalty commitment to the salesperson” condition a majority of the respondents choose “Bob Jones” as “The vendor salesperson they are more likely to feel a strong liking for”. Similarly in the low “Loyalty commitment to the salesperson” condition, the majority of the respondents should chose “Both are same” as the preferred value.

Since the values were not collected as continuous variables and are non-parametric in nature we use chi-square tests for doing the manipulation tests. Table 19 below gives the values for the Chi-square tests.

**Table 19: Manipulation check: calculative commitment towards vendor salesperson**

Conditions	Choice	Observed N	Expected N	Residual	Chi-square	Df	sig
No affect for Salesperson	Bob Jones	29	80.3	-51.3	264.531	2	0.000
	Tom White	13	80.3	-67.3			
	Both are same	199	80.3	118.7			
	Total	241					
High affect for Salesperson	Bob Jones	136	80.7	55.3	94.645	2	0.000
	Tom White	14	80.7	-66.7			
	Both are same	92	80.7	11.3			
	Total	242					

It is very clear from the above table that when we manipulated loyalty towards the target vendor's salesperson (Bob Jones) it worked the way it was supposed to work. Also in the null condition majority of the people considered their affect for both the salespersons to be same.

The final variable that was manipulated was power difference between the target vendor and the retailer. In the manipulation we wanted three effects to take place.

- a) In the High Power condition – The target vendor must be considered more powerful than the retailer when compared to the low power condition.
- b) In The High Power condition- The target vendor must also be considered more powerful than the second alternate vendor.
- c) In all conditions the second vendor must be considered equally powerful to the retailer.

To fulfill all these conditions we had devised three tests to ensure that the power manipulation was working exactly as we planned.

The first manipulation check was done by asking the following question to all the respondents “Acme Bubble Co (target vendor) can be considered more powerful than your company”. Therefore if our manipulation works, respondents should agree to this statement in the high power situation compared to the low power situation. Table 20 gives the mean values and the t-test for both the situations.

**Table 20: Manipulation check: power of target vendor vis-à-vis the retailer**

	Choices Power	N	Mean	Std. Deviation	Std. Error Mean	T Value	Sig
Acme Bubble Co can be considered more powerful than your company	Vendor More Powerful	242	4.70	1.615	.104	15.904	0.00
	Vendor Less Powerful	241	2.54	1.369	.088		

As can be seen in the above table, when we manipulate the target vendor to be more powerful the mean is 4.70 while in the situation when the vendor is considered less powerful the mean is only 2.54. Since the scale is anchored on strongly agree (7)/strongly disagree (1). It means that when we manipulated the target vendor to be more powerful, the respondents agreed with the statement and when we manipulated the target vendor to be less powerful, the respondents disagreed with the given statement.

The second manipulation check was done by asking the following question “Acme Bubble Co (target vendor) can be considered more powerful than Simons Bubble Co (alternate vendor).” This question was asked as according to our manipulation, not only should the target vendor be considered more powerful than the retailer in the high power manipulation but also should be considered more powerful than the alternate vendor and vice-versa. Therefore the manipulation has worked if in the high power manipulation respondents agree to the statement and in the low power statement they disagree with the statement and this difference is significant. Table 21 gives the mean values and the t-test to check the validity of the manipulation.

**Table 21: Manipulation check: power of target vendor vis-à-vis the alternate vendor**

	Power	N	Mean	Std. Deviation	Std. Error Mean	T Value	Sig
Acme Bubble Co can be considered more powerful than Simons Paper Co.	Vendor More Powerful	242	5.64	1.559	.100	21.616	0.000
	Vendor Less Powerful	241	2.66	1.470	.095		

As clearly seen in the above table under high power manipulation, the target vendor is considered more powerful than the alternate vendor (mean 5.64) and in the low power situation the target vendor is considered less powerful than the alternate vendor.

The third manipulation check on power was done by utilizing Emerson’s (1962) power = dependence formulation. According to Emerson, power asymmetry exists when one party is more dependent on the other party. To ensure that we were following Emerson’s

guidelines with respect to how power was conceptualized and to make sure that our third condition “The second vendor is considered equally powerful to the retailer” we asked three manipulation check questions to all the respondents. Since the questions were asked in an agree/disagree format we use chi-square analysis to test that the manipulation is working the way it is supposed to be.

The first two manipulation checks are given in Table 22 and Table 23

**Table 22: Manipulation check: power=dependence for target vendor -1**

	Power		Observed N	Expected N	Residual	Chi-square	Df	Sig
<b>Your Company is more dependent on Acme than Acme is dependent on your company</b>	Vendor More Powerful	Agree	158	121.5	36.5	21.930	1	0.00
		Disagree	85	121.5	-36.5			
		Total	243					
	Vendor Less Powerful	Agree	29	120.5	-91.5	138.959	1	0.00
		Disagree	212	120.5	91.5			
		Total	241					

**Table 23: Manipulation check: power=dependence for target vendor -2**

	Power		Observed N	Expected N	Residual	Chi-square	Df	Sig
<b>Acme is more dependent on your Company than your company is dependent on Acme</b>	Vendor More Powerful	Agree	46	121.5	-75.5	93.831	1	0.00
		Disagree	197	121.5	75.5			
		Total	243					
	Vendor Less Powerful	Agree	198	120.5	77.5	99.689	1	0.00
		Disagree	43	120.5	-77.5			
		Total	241					

As can be clearly seen in table 22, we asked the respondents if they thought their company was more dependent on the target vendor than vice versa. If our manipulation works then respondents should agree to the statement in the high power situation and

disagree with the same statement in the low power situation. Table 22 suggests that respondents did exactly as we anticipated they would do.

We also asked the same question in a reverse manner as seen in table 23 to check that the response to the first manipulation check was a true understanding of the situation. In this question we asked if the respondents thought that the target vendor was more dependent on their company than vice versa. The manipulation now works if the respondents disagree with the statement in the high power manipulation and agree to the statement in the low power condition. As can be seen in table 23 we find full support for our manipulation here.

Our final manipulation check concerned how the alternate vendor is perceived by the respondents. The alternate vendor was named Simmons Bubble Company and our manipulation intended Simmons' to be considered equally powerful to the retailer. And since power is defined as equal to dependence, we asked if the respondents considered Simmons to be equally dependent on the retailer as the retailer is dependent on Simmons. We expected that respondents would agree to the statement in both the High Power and Low power manipulation situation. As can be seen in Table 24, we found support for our manipulation.

**Table 24: Manipulation check: power=dependence for alternate vendor**

	Power		Observed N	Expected N	Residual	Chi-square	Df	Sig
<b>Your company is equally dependent on Simmons as Simmons is dependent on your company</b>	Vendor More Powerful	Agree	167	121.5	45.5	34.078	1	0.0
		Disagree	76	121.5	-45.5			
		Total	243					
	Vendor Less Powerful	Agree	152	120.5	31.5	16.469	1	0.0
Disagree	89	120.5	-31.5					
Total	241							

From the above discussion we can see that all our manipulations worked exactly as we intended them to. However before going on to hypothesis testing we wanted to do some more tests to ensure the validity of our results.

### **Panel vs Non Panel Data**

As mentioned earlier we collected data from two basic sources. While we obtained some data from purchasing managers who were reached via their associations, a large chunk of the data was obtained from a panel. It is possible that that since the panel consists of people who have agreed to answer surveys in return for some personal gain there might exist some bias in terms of their responses. We wanted to make sure that the bias should not be affecting the results of this study. Since we had a reasonable number of responses from non panel members we were able to test if there was any difference in how the panel members respond versus the non-panel members. We therefore conducted a simple t-test of their responses to our dependent variable. The results are shown in table 25.

**Table 25: Panel vs. non-panel difference test**

Dependent variable	Panel	N	Mean	Std. Deviation	Std. Error Mean	T-Value	Sig
Behavioral commitment: Percent order to the target vendor	Yes	349	59.9513	22.60367	1.20995	0.231	0.817
	No	132	59.4318	20.21155	1.75919		

As can be seen from table 25 there is no significant difference between the means of the panel and the non panel members. Therefore we can be confident of merging the responses of the both these groups when analyzing our data.

**Non Response bias**

Good research demands that we test for non- response bias in our sample. The accepted method for testing for non-response bias is by dividing the data into early and late responses and looking at the mean differences between the two groups (Armstrong and Overton 1977). The results of the test are provided in table 26

**Table 26: Early vs late respondents difference test**

Dependent Variable	Phase	N	Mean	Std. Deviation	Std. Error Mean	T-Value	Sig
Behavioral commitment: Percent order to the target vendor	Early Respondents	283	60.3110	21.76589	1.29385	0.599	0.549
	Late respondents	198	59.0909	22.25491	1.58159		

As we can see from table 26 the two groups are not very different from each other in terms of their response to our final dependent variable.



## Scenario Realism

We conducted another test to look at the scenario realism. Since the study was aimed at understanding the behaviors of purchasing managers and we had asked them to imagine themselves in a scenario devised by us. We wanted to know how likely it was that such a scenario happened in real life business situations. We had an item in the instrument which asked the following question “In your opinion how often does the scenario described above occurs in practice (meaning two vendors who offer the same trade deal and you are forced to make a choice)”. The choices were anchored on **very often (7)** to **very rarely(1)**.

Table 27 gives the descriptive scores on this item by all the respondents in the sample.

**Table 27: Scenario realism score**

	N	Minimum	Maximum	Mean	Std. Deviation
In your opinion how often does the scenario described above occurs in practice (meaning two vendors who offer the same trade deal and you are forced to make a choice)	479	1	7	4.35	1.729

From the table we can see that the mean score (4.35) is more than 3.5 which is the mid point value. Therefore the scenario is not totally unknown to the respondent population. However to ensure greater external validity we ran the same analysis for all respondents who work in the retail sector, since the scenario was based in the retail sector. The results of the analysis can be seen in table 28. We get similar mean scores as compared to the overall sample. Therefore we can be reasonably sure about the validity of our experimental scenario as being relevant to practicing managers.

**Table 28: Scenario realism score - retail industry purchase manager**

	N	Minimum	Maximum	Mean	Std. Deviation
In your opinion how often does the scenario described above occurs in practice (meaning two vendors who offer the same trade deal and you are forced to make a choice)	51	1	7	4.20	1.662

a Please check the industry which best describes the company you work in = Retailing

Since all of the checks were successful, we feel confident about going for hypothesis testing. In the next section we discuss the methods used for testing our hypotheses and the results of our study.

### ***Hypothesis testing***

We used dummy coded regression to test all our hypotheses. According to (Pedhazur 1997) dummy coded multiple regression is considered a more comprehensive and general approach to data analysis because all variables are viewed from the same frame of reference. It is even more appropriate when the attempt is to explain or predict a dependent variable (Pedhazur 1997). Further more multiple regressions provide us with path coefficients that tell us about the strength of the antecedent variables. Pedhazur (1997) also suggest using multiple regression over anova when cell frequencies in a factorial design are unequal and disproportionate. Although some researchers disagree and claim that ANOVA is robust to violations of unequal cell size (Lindman 1974)

In our study the goal was to look at the how the antecedent variables were influencing the dependent variable. Furthermore since some of our hypotheses hypothesized about the

strength of antecedent variables as compared to others in different situations, we considered multiple regression as the appropriate technique to use.

### **Main and initial interaction effects**

The first goal was to test the main effects of our independent variables. Our main and only dependent variable was behavioral commitment of the retailer towards the target vendor and it was operationalized as the percent of the order provided to the target vendor. Hypothesis 1 through 4 and 6 were tested by regressing behavioral commitment on power asymmetry, calculative commitment, loyalty commitment to salesperson and loyalty commitment to firm. Hypotheses 5a and 5b were tested by including an interaction term in the equation. We included an interaction term so that we could test for the moderation effect (Sharma, Durand, and Gur-Arie 1981) of calculative commitment on loyalty to the organization and loyalty to the salesperson. The following overall model was tested:

$$Y = a_1 + b \cdot x_1 + c \cdot x_2 + d \cdot x_3 + e \cdot x_4 + f \cdot (x_2 \cdot x_3) + g \cdot (x_2 \cdot x_4) + e_{\text{error}} \text{ ---- (i)}$$

Where:

Y = Retailer's behavioral commitment to the target vendors trade promotion

x1= Power asymmetry between the retailer and the target vendor

x2= Retailer's calculative commitment towards the target vendor

x3= Retailer's personal commitment to the target vendors salesperson

x4 = Retailer's organizational commitment to the target vendor

Table 29 provides the results of the main regression equation

**Table 29: Main effects regression equation - I**

Model	Dependent Var: Behavioral Commitment (% order to Target vendor)	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	52.048	2.460		21.155	.000
	Power (x1)	-9.046	1.869	-.206	-4.839	.000
	Cal_Commit (x2)	15.680	3.240	.357	4.839	.000
	Loy_Salesp (x3)	5.500	2.641	.125	2.083	.038
	Loy_Org (x4)	7.283	2.641	.166	2.758	.006
	Cal_Commit x Loy_sales	-3.322	3.740	-.066	-.888	.375
	Cal_Commit x Loy_org	-4.347	3.740	-.085	-1.162	.246
	R = 0.373	R <sup>2</sup> = 0.139				

From table 29 we can see that many of the hypotheses were supported. The main model explained 13.9% ( $R^2$ ) of the overall variance in the dependent variable. Hypothesis H1 which concerned the effect of calculative commitment of the retailer on the behavioral commitment shown by the same retailer would be supported if  $c$  is positive and significant. As can be seen from table 29, calculative commitment does have a positive and significant impact. ( $B=15.680$ ; sig 0.00) on behavioral commitment. We therefore find support for hypothesis H1.

In this equation we did not test the combined effect of loyalty commitment on behavioral commitment. Instead this equation tests for the separate effects of the two forms of loyalty commitment. Hypothesis H3 and H4 would be confirmed if loyalty commitment towards the vendor salesperson (**d**) and loyalty commitment towards the organization (**e**) have a positive and significant effect of behavioral commitment. As can be seen from table 29, Loyalty to vendor salesperson has a positive and significant effect ( $B=5.5$ ;

sig=0.038) therefore we find support for hypothesis H3. Loyalty to vendor organization also has a positive and significant effect (B=7.283; sig=0.006). Thus we find support for H4 also.

Hypotheses H5a and H5b were about testing the interaction effect of *loyalty commitment to vendor salesperson* and *loyalty commitment to vendor organization* with calculative commitment. According to the two hypotheses the effect of calculative commitment on behavioral commitment decreases in the presence of the two variables. Therefore if **f** and **g** (equation - i) have negative signs and are significant we would have support for hypothesis H5a and H5b respectively.

From the table we see that both these hypotheses are not supported. For H5a (B=-3.322; sig= 0.375), increased personal commitment of the retailer towards the target vendors salesperson does decrease the positive effect that calculative commitment has on behavioral commitment, since the beta value is definitely negative, however the effect is not strong enough and it is not significant.

Similarly for H5b (B= - 4.347; Sig= 0.246), increased organization commitment of the retailer towards the target vendor does decrease the positive effect that calculative commitment has on behavioral commitment since the beta value is again negative, however the effect is not strong enough and therefore not significant.

Hypothesis H6 was formulated to explain the effect of power asymmetry on behavioral commitment. According to Kumar, Scheer and Steenkamp's (1998) relative power theory,

the weaker and more dependent parties always agree with the stronger party to prevent punitive action. Anecdotal evidence also suggests that when vendors are more powerful, the retailers increase the behavioral commitment to that vendor's trade promotion. However our study found very contrary evidence. From Table 29 we can clearly see that while power does have a significant impact on behavioral commitment ( $B = -9.046$ ;  $Sig = 0.00$ ) the direction of the effect is opposite to the one we had hypothesized. Therefore we fail to find support for Hypothesis H6.

Even though our hypothesis failed, we know that this directional effect was actually hypothesized by Emerson (1962) who theorized that because power asymmetry is inherently unstable, the weaker parties always undertakes balancing operations for reducing the power advantage. A similar effect was also hypothesized by bilateral deterrence theory (Kumar, Scheer, and Steenkamp 1995) whereby the weaker party tries to balance power asymmetry. Our study actually provides empirical proof for both the theories.

Hypothesis H2 was formulated to test the effect of loyalty commitment of the retailer on the behavioral commitment shown by the same retailer. This loyalty commitment variable was a comprehensive construct not divided into its two facets of loyalty to the organization and loyalty to the salesperson. To test hypothesis H2 we had to do some data manipulation.

We start by recoding x3 and x4 and creating another variable m1. Where m1 = 1 when both x3 and x4 = 1 and m1=0 when both x3 and x4 =0. What this recoding means is that the retailer has high overall loyalty commitment to the target vendor when both organizational commitment and loyalty commitment to salesperson are high and that there is no loyalty commitment only when personal commitment to salesperson and organizational commitment are both absent. We would ignore situations where only one of the two types of loyalty commitment is high. We will thus consider only the extreme conditions to test the hypothesis. The regression equation that would be estimated is:

$$Y = a_2 + b_1 * x_1 + c_1 * x_2 + d_1 * m_1 + e_{\text{error}} \text{ ----- (ii)}$$

Where:

x1 = Power asymmetry between the retailer and the target vendor

x2= Retailer's calculative commitment towards the target vendor

m1= Retailer's Loyalty commitment to the target vendor

The results of the regression are presented in table 30.

**Table 30: Main effects regression equation - II**

Model	Dependent Var: Behavioral Commitment (% order to Target vendor)	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	56.762	2.635		21.539	.000
	Power (x1)	-12.219	2.658	-.277	-4.597	.000
	Cal_Commit (x2)	8.892	2.658	.201	3.346	.001
	Loyalty_Commit (m1)	9.052	2.658	.205	3.406	.001
	R =0.396	R <sup>2</sup> =0.157				

As can be seen in table 30, loyalty commitment has a significant and positive effect (B=9.052; Sig=0.00) on behavioral commitment. We therefore find support for H2.

Hypothesis H7 and H8 (where the aim is to test the moderating effect of power asymmetry on behavioral commitment), were tested by dividing the data into two subgroups, one where the vendor is more powerful and another where the retailer is more powerful. Two regressions were carried out with the dependent variable as behavioral commitment and the independent variables being calculative commitment and overall loyalty commitment. The different beta weights obtained enable us to test both the hypotheses. The equations in standardized form would be

$$Y_1 = \beta_1 * x_2 + \beta_2 * m_1 + e_{\text{error}} \text{ ---- (iii)}$$

$$Y_2 = \beta_3 * x_2 + \beta_4 * m_1 + e_{\text{error}} \text{ ---- (iv)}$$

Where

$x_2$  = Retailer's calculative commitment towards the target vendor

$m_1$  = Retailer's overall loyalty commitment to the target vendor

and

Equation (iii) is estimated for the group where the target vendor is less powerful than the retailer and

Equation (iv) is for the group where the target vendor is more powerful than the retailer.

The table 31 and table 32 provide the results of the two regressions.



**Table 31: Moderating effects regression: vendor less powerful**

Model	Dependent Var: Behavioral Commitment (% order to Target vendor)	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	57.930	3.175		18.245	.000
	Cal_Commit	7.307	3.699	.178	1.976	.051
	Over_loyalty	8.241	3.699	.201	2.228	.028
	R=0.265	R <sup>2</sup> = 0.07				

**b Power = Vendor Less Powerful**

**Table 32: Moderating effects regression: vendor more powerful**

Model	Dependent Var: Behavioral Commitment (% order to Target vendor)	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	43.438	3.289		13.206	.000
	Cal_Commit	10.405	3.841	.237	2.709	.008
	Over_loyalty	9.777	3.840	.222	2.546	.012
	R= 0.327	R <sup>2</sup> = 0.107				

**b Power = Vendor More Powerful**

Researchers (Burns and Bush 2006; Green, Tull, and Albaum 1988) suggest that when we want to make a statement about which independent variable has a bigger impact on the dependent variable, we should compare the beta weights ( $\beta$ ) rather than the unstandardized coefficients.  $\beta$ -coefficients have the advantage of being directly comparable in relative importance of their effects on Y (Green, Tull, and Albaum 1988). These are regression coefficients that we get if we were to convert all independent and dependent variables to z-scores before doing the regression. It implies the effect that one standard deviation increase in the independent variable has on the standard deviation in

the predicted variable, while keeping all other variables constant in the regression model (Chen et al. 2006).

Looking at table 31, we see that  $\beta_2 > \beta_1$  and while the standardized beta weight  $\beta_2$  is significant at  $\alpha=0.05$  levels;  $\beta_1$  is significant at  $\alpha = 0.1$  level ( $\beta_2=0.201$ ; sig = 0.028 and  $\beta_1=0.178$ ; sig=0.051). Therefore when the vendor is less powerful than the retailer, it seems that the retailer's overall loyalty commitment is a stronger predictor of behavioral commitment than the retailer's calculative commitment which agrees with our hypothesis (H7).

Similarly for H8 (table 32) we see that  $\beta_3 > \beta_4$  and all the standardized beta weights are significant ( $\beta_3=0.237$ ; sig=0.008 and  $\beta_4=0.222$ ; sig=0.012). Therefore again as before it seems that when the vendor is more powerful than the retailer, the retailers calculative commitment is a stronger predictor of behavioral commitment than the retailers overall loyalty commitment, giving support to H8.

**Table 33: Effects of different forms on commitment on behavioral commitment**

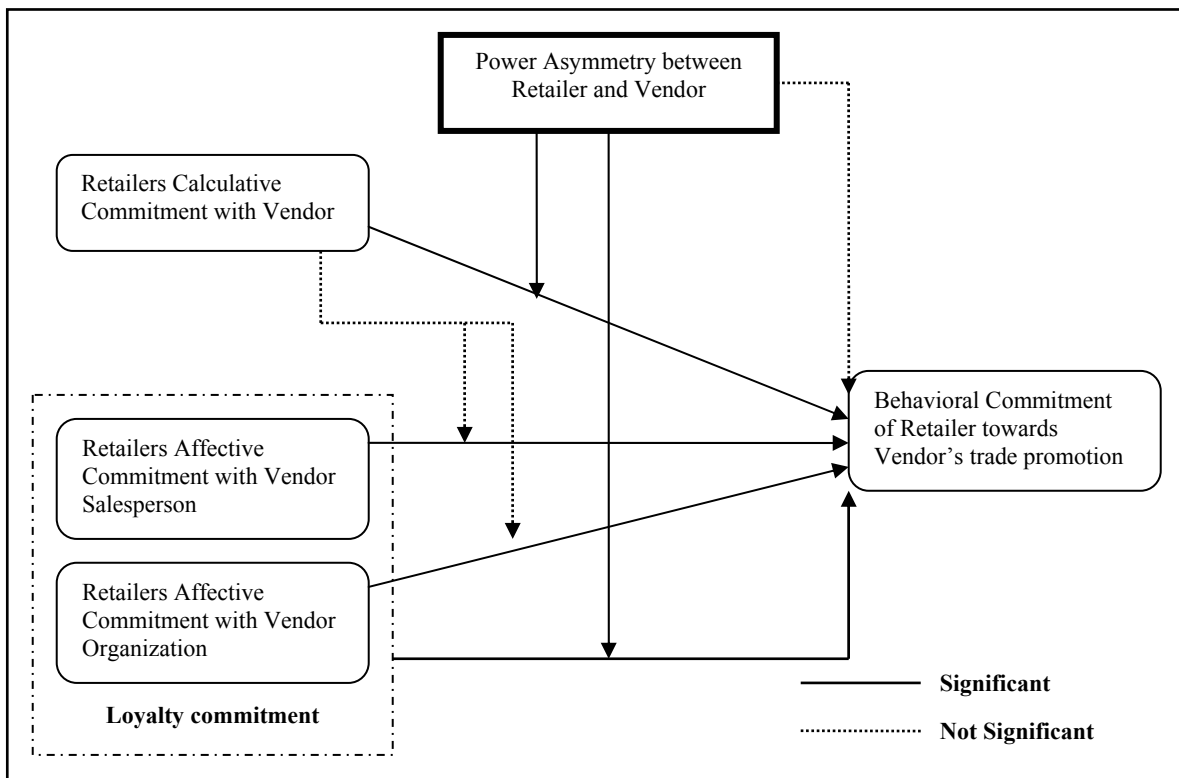
Dep: Behavioral Commitment	High Power Asymmetry ( $\beta$ )	Low Power Asymmetry ( $\beta$ )
Calculative Commitment	<b>0.237</b>	0.178
Loyalty commitment	0.222	<b>0.201</b>

We find that under different power asymmetry conditions the effects of calculative commitment and loyalty commitment on behavioral commitment are different (table 33) and flip in terms of their strength. This is exactly as hypothesized by using the HSM

model and allows us to claim that under low power situations loyalty commitment is a stronger predictor than calculative commitment and under high power situation, calculative commitment is a stronger predictor than loyalty commitment.

The complete summary of the hypotheses and the results are provided in figure 4 and table 34 .

**Figure 4: Final Model with Results: Retailer Commitment Model**



**Table 34: Hypotheses and results summary**

Hypothesis	Result
H1: Increased calculative commitment of the retailer with the target vendor would increase the overall behavioral commitment that the retailer demonstrates towards the target vendor's trade promotions.	<b>Supported</b>
H2: Increased loyalty commitment of the retailer with the target vendor would increase the overall behavioral commitment that the retailer demonstrates towards the target vendor's trade promotions.	<b>Supported</b>
H3: Increased organizational commitment of the retailer towards the target vendor would increase the overall behavioral commitment that the retailer demonstrates towards the target vendor's trade promotion.	<b>Supported</b>
H4: Increased personal commitment of the retailer towards the target vendor's salesperson would increase the overall behavioral commitment that the retailer demonstrates towards the target vendor's trade promotions.	<b>Supported</b>
H5a: Increased organizational commitment of the retailer towards the target vendor would decrease the positive effect that calculative commitment has on the behavioral commitment of the retailer towards the target vendor's trade promotions	<b>Partially Supported</b> <i>Direction as hypothesized, <math>\beta</math> Not significant</i>
H5b: Increased personal commitment of the retailer towards the target vendor's salesperson would decrease the positive effect that calculative commitment has on the behavioral commitment of the retailer towards the target vendor's trade promotions.	<b>Partially Supported</b> <i>Direction as hypothesized, <math>\beta</math> Not significant</i>
H6: When the target vendor is more powerful than the retailer, the retailer would increase its behavioral commitment to the target vendor's trade promotions.	<b>Not Supported.</b> <i>Significant effect but in opposite direction</i>
H7: When the vendor is less powerful than the retailer then the retailer's loyalty commitment would be a stronger predictor of behavioral commitment towards the target vendor's trade promotions than the retailer's calculative commitment.	<b>Supported</b>
H8: When the vendor is more powerful than the retailer then the retailer's calculative commitment would be a stronger predictor of behavioral commitment towards the target vendor's trade promotions than the retailer's loyalty commitment.	<b>Supported</b>

## CHAPTER 6

### DISCUSSION AND CONTRIBUTIONS

This chapter consists of four main parts. In the first part we will discuss the results obtained from the study. We will also discuss the implications of the results and compare it with previous research. In the second part we will discuss the contributions of this study in terms of theory, methodology and practice. The third part of this chapter would discuss in brief the future directions for extending this research and finally we will discuss the weakness of this study and possible ways in which they could be rectified/improved upon in future studies.

#### *Discussion of Results*

As discussed in the previous chapter we found full or partial support for most of our hypotheses. However we did get some surprises which were contrary to our hypotheses. The interesting part was that these non supported results actually gave support to alternate theories. In this section we will first discuss the main effects and then the results for the interaction effects. And finally we will discuss how this study compares with previous studies and how it adds to our understanding of the phenomenon under study.

#### **Main Effect – Role of the Different forms of Commitments**

In this research we tested the main effects of two different kinds of commitment on behavioral commitment. In the case of calculative commitment we found support for the view that calculative commitment, especially instrumental or forward looking calculative commitment has a positive impact on behavioral commitment. We therefore could clarify

and add insight to the controversy whether calculative commitment has a positive or negative impact on behavior (Kumar, Hibbard, and Stern 1994). Since in this research we were able to keep negative cognitive commitment or locked-in continuance commitment (Sharma, Young, and Wilkinson 2006; Stebbins 1970) as constant through the use of experimental techniques, we could tease out the effect of this variable. It is pertinent to note here that calculative commitment as defined in literature is so alike to the definition of dependence that the effects that are hypothesized are also similar to the ones for dependence balancing as theorized by (Emerson 1962).

We also found support for the main effect that loyalty commitment has on behavioral commitment. This result was expected as most scholars do believe that loyalty has a very important effect on behavior (Morgan and Hunt 1994). Kumar, Hibbard, and Stern (1994) had claimed that affective commitment does have a big impact on dealers willingness to invest in relationships. Our research gives credence to the findings of these scholars.

### **Moderating Effect – Role of the Different forms of Commitments**

We had hypothesized that personal commitment and organizational commitment actually reduce the positive impact of calculative commitment. We did not find support for our hypothesis. Although we did see that the direction of the effect was as hypothesized, it was not a strong enough effect. In simple terms it means the different forms of loyalty commitment cannot substitute or replace the strong effect that calculative commitment has on decision making.

### **Moderating Effect – Role of Power asymmetry on different forms of commitment**

An interesting finding of this research is the role played by power asymmetry in determining the effect the different forms of commitment has on behavioral commitment. Kumar, Hibbard, and Stern (1994) had demonstrated that affective commitment has the strongest positive association with the beneficial consequences of commitment followed by moral commitment and only then by calculative commitment.

We found that Kumar, Hibbard, and Stern (1994) may be right only when the vendor is considered less powerful. On the other hand when the vendor is more powerful, calculative commitment seemed to have a bigger impact. Therefore this study added to our understanding of how commitment works on relationships in different scenarios.

### ***Research Contributions***

#### **Theoretical contributions**

This research makes four theoretical contributions to the marketing literature. First it explains organizational buyer behavior in a dynamic setting where vendors strive to match incentives. Previous literature on trade promotion selections (Murry and Heide 1998) assumed that vendors don't match incentives, therefore their results found that higher incentives lead to better acceptance. This paper did not make that assumption. It assumed that vendors would always match incentives knowing that retailers use that as the primary decision maker. This paper explored how decisions are made even after parity is reached in immediate economic benefits.

The second interesting contribution of our study is the differential impact of the two types of loyalty commitment in business relationships. While Kumar, Hibbard, and Stern (1994) had talked only about the composite effect of affective commitment on behavior, in this research we were able to dissect the effect into its two components. We were able to individually show the effects of loyalty commitment to the selling firm (also called organizational commitment) and loyalty commitment to the salesperson (also called personal commitment) on behavioral commitment. We can see from table 35 that organizational commitment has a bigger effect than personal commitment on behavior. It would seem that companies/vendors who want to increase behavior commitment to themselves would do better if they spend more time and effort developing organizational commitment rather than developing personal commitment to their salespersons. It is not to say that personal commitment is not important. However power differences, calculative commitment, and organizational commitment play a more important role.



**Table 35: Main effects regression equation - comparing effects of different types of commitments**

Effect Ranking	Dependent Var: Behavioral Commitment (% order to Target vendor)	Unstandardized Coefficients		Standardized Coefficients
		B	Std. Error	Beta
	(Constant)	52.048	2.460	
2	Power	-9.046	1.869	-.206
1	Cal_Commit	15.680	3.240	.357
4	<b>Loy_Salesp</b>	<b>5.500</b>	<b>2.641</b>	.125
3	<b>Loy_Org</b>	<b>7.283</b>	<b>2.641</b>	.166
	Cal_Commit x Loy_sales	-3.322	3.740	-.066
	Cal_Commit x Loy_org	-4.347	3.740	-.085
	R = 0.373	R <sup>2</sup> = 0.139		

It can be seen that calculative commitment plays the most important role, followed by power asymmetry, loyalty to organization and finally loyalty to vendor salesperson. This gradation of importance by itself is an important contribution to the marketing literature.

The third contribution of this study is that it used two theories to explain the behavior of retailers under parity situations. While we used commitment theory to explain main effects, we used the Heuristic Systematic Model borrowed from the CB literature to explain the interaction effects. This research found support for the Heuristic –Systematic model (Chaiken 1980; Eagly and Chaiken 1993) a choice theory which was originally applied only in the consumer behavior area. We find that the HSM model does stand up to empirical examination and is able to explain the behavior of purchasing managers in a B2B setting. This research study opens the path for the use of this interesting theory in more B2B research studies.

Finally this research clarifies contradictory hypothesis proposed by different theories thereby helping in theory building. This study clarifies the role that power asymmetry, calculative commitment and loyalty commitment play in decision making. It was able to find strong support for some theories while proving that other theories may be applicable only in certain circumstances.

### **Methodological Contribution**

This research proposes a new way of testing power effects simultaneously, without confounding its effects with calculative commitment. The use of the experimental methodology allows us to make statements about causality much more strongly than by using any other method.

### **Contributions to Practice**

This research also makes contributions to managerial practice. First, it provides an answer to executives that is not obvious. It explores and answers questions about how decisions are made when parity conditions occur.

It also has a normative component in that it tells managers what to do in situations when competitors match their offers, instead of constantly trying to outmatch the competition by increasing incentives as that helps only the retailer. For example, it makes it clear that if the vendor is more powerful it may make sense for vendors to develop calculative commitment in the retailers rather than spending time and effort in developing

relationship between the vendor salesperson and the retail buyer. This can be done by offering more exclusive deals to the retailers, giving year end deals etc.

It also shows that if the vendor is less powerful it may make more sense to develop loyalty commitment by doing more product development projects, including the retail buyer in product development etc. The goal is that the retail company should feel loyalty/affect for the vendor organization. They should get pride in being associated with the vendor. This goes beyond the relationship based on personalities or only economic benefits.

This research has a diagnostic element as it explains to managers why retailers choose to make behavioral commitments to their competitors and not them even when they match the competitor on all the economic criteria.

Finally it has public policy implications. This research clarifies that power does not tip the scale against the weaker party. This research suggests that if everything else remains equal, a weaker party would actually be preferred over a stronger party. It also tells the weaker party what strategy is likely to work for them namely cultivating loyalty commitment in the vendor rather than calculative commitment.

It clearly tells the smaller vendor that it is not likely to lose out always especially if they match the initial economic benefit. Under some circumstances and with certain strategies it can emerge a winner.

### ***Future Directions***

This research being theoretical in nature, but set in a very practical business setting can be extended to understand many interesting business phenomenon. For example, the dissertation's theoretical insights could be used to test the role of power and commitment in different setting where there is likelihood of parity situations occurring, like hiring and promoting employees, hiring new vendors, discontinuing old products etc. Also the theoretical insights can be used to clarify the conceptual confusion in the literature between power and calculative commitment.

Future research could also use other methods such as survey research to examine the external validity and reliability of the experimental findings. Respondents could be asked to recount their actual behaviors when they have faced parity situations. Such a study would provide a good insight into how decisions are made in complex business situations.

This research explored how and why retailers choose trade promotions in general. Future research could explore why certain types of trade promotions are chosen by retailers even though they only offer future gains which are uncertain (choosing long term promotions over short term promotions).

### ***Limitations***

This research has certain limitations which must be noted while interpreting the results.

First, this research used a scenario based experimental method which is a simplistic representation of the real world. Real world scenarios are much more complex and such simplistic models might not work in real life. However, a role playing scenario allowed us to improve the internal validity of the research model. The unfortunate side effect of high internal validity is that external validity is sacrificed. Therefore the generalizability of the findings are limited in nature.

Second, the scenario used in the experiment was based in a retail scenario and retail industry constitutes only a small subset of the overall B2B universe. Therefore more research needs to be undertaken to increase the generalizability of the findings in other sectors.

Third, the answers provided by the respondents are self reported scores on hypothetical scenarios. The scores are not reflective of how the same respondents might have behaved in actual scenarios that they might have encountered in their real lives. These answers reflected intentional behaviors and not actual behaviors.

Finally, the research used a sample of respondents that were not truly a randomized sample. Part of the sample was from a panel while the other part was randomized.

Although we tested for the equivalence of the two samples in strict terms we cannot claim that there was no bias associated with our sample.

## **Appendix A – Sample Scenario**

The following scenario is an example of Vendor more powerful than retailer, High Calculative commitment with Target Vendor, High loyalty commitment with vendor salesperson and High loyalty commitment with organization.

**Cell 1**

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## **Purchasing/Procurement Personnel Survey**

### **Thank you for your interest and participation in this study**

This study is part of a research project being conducted by the Marketing Department at Georgia State University, Atlanta to better understand the attitudes and perceptions of purchasing/procurement managers.

On the survey, there is no right or wrong answer to any question. We simply want to understand how you are likely to respond to a **hypothetical** situation. Your responses will be held in strict confidentiality. No individual's answers will ever be reported in such a way as to identify that individual.

### **INSTRUCTIONS**

- Your responses are very important to our research. Incomplete surveys will substantially reduce our ability to conduct a good and workable research study, so we kindly request your responses to all the questions in the surveys.
- Please note that your responses will be analyzed with other respondents as a group. You will not be personally identified. Hence, your open and candid responses are highly appreciated.
- If you have any questions regarding this study, please contact:

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## **Purchasing /Procurement Personnel Survey**

For the purpose of this exercise assume that you are the purchasing manager for a **\$ 20 billion** retail chain responsible for purchasing non branded bubble wrap. The majority of the business comes from just two vendors. For the last three years you have been purchasing approximately **equal** amounts of bubble wrap from each vendor (**1 billion dollars each**).

The first vendor: Acme Bubble Company is a very big and **powerful \$80 billion** dollar firm that you have been doing business with for the last **15** years which **controls almost 80%** of the entire production of bubble wraps in the world. Acme is considered a very powerful company since Acme literally sets the price for the entire global market for bubble wraps and hence Acme commands tremendous respect in the business world. Acme is also four times larger than your company in terms of revenue. Your company has been involved in joint research and development with Acme for the last 10 years and you personally spearheaded this initiative with Acme. You also have tremendous personal respect for Acme's professionalism in business.

You also really like Bob Jones who is the sales person from Acme and is a personal friend from your college days. You have been dealing with him even when he was not with Acme. Bob is also a great salesperson and in the past has gone out of his way to do favors for you.

The second vendor, Simons Bubble Co, is a much smaller **\$20 billion** firm that has also been in the bubble wrap business for a long time. You have been doing business with them for the last 3 years. Since Simmons total revenue is exactly equal to your company, you can say that Simmons is equally dependent on you as you are on Simmons. The salesperson for Simons Bubble Co is Tom White who was recently appointed and you have found him to be a decent and honest man.

These bubble wraps are an important part of your product portfolio and you definitely need to stock them to satisfy your customers. This is the **last month** of the financial year and you are supposed to order 5 million cases of bubble wraps (**worth \$50 million**). You generally give the order to the company that offers the biggest trade promotion. Invariably one company always has a cash promotion going on and you give the order to that firm. However this month, you have been told by your assistant that both Acme and Simmons are running trade promotions and both firms have the same amount of trade promotion on offer. It's totally up to you to decide how to divide the order or give the order to only one firm. **Irrespective of whose product you choose, the overall economic benefit to your firm is the same as these are generic products.**

You have asked your assistant to make a side by side comparison of the two offers. In the next page you would find the confidential report submitted by your assistant.



To: The Purchasing Manager

From: Assistant Purchasing Manager

Sub: **Confidential**

Comparison of trade promotion offers for purchase of Bubble wrap

Total Order size: **50 million dollars** (5 million cases)

Our Turnover this year: <b>\$20 Billion</b>	<b>Acme Bubble Co</b> (recently named the most powerful wrap company in America)	<b>Simons Bubble Co</b>
<b>Approximate Global Market Share</b>	<b>80%</b>	<b>20%</b>
Total sales to our Firm (avg last 3 years)	<b>\$1 billion</b>	<b>\$1 billion</b>
Total Yearly Turnover	<b>\$80 billion</b>	<b>\$20 billion</b>
Trade deal	Cash Discount	Cash Discount
Offer	\$1 per case	\$1 per case
Sales Person	Mr. Bob Jones	Mr Tom White
Note	Your friend Bob made a personal request that he needs this order	
Note About Company	Joint research and development program in progress for last 10 years	
<b>Other important information</b>	Likely to launch a new improved product in the next few months and we might get exclusive distribution (our market research says that this will be a high margin blockbuster) <b>Plus</b> Acme in the past has provided year-end bonus trade promotions for meeting yearly targets.	--

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You have to decide on whose trade offer to take and to what extent. Since the trade deals are same in monetary value and the overall sales are also going to be the same, you are free to decide on the split or even to give the complete order to one party, without concern that the audit department might raise an issue. This being the last month of the fiscal year you can not really say “let me accept trade promotion of one company this month and take the other next month”.

At this point, read the situation again and then make your decision as to what you would normally do in real life if you are faced with a situation like this. Once your have decided, answer questions regarding your choice on the next page.

**Please answer to the best of your abilities: There is no right or wrong answer.**

1. What percentage of the order would you provide to each firm? (You may provide the entire order to one company or split the order between the 2 companies).

Company Name	% order size
Acme Bubble Co	_____ %
Simons Bubble Co	_____ %
Total	100 %

Briefly explain the rationale behind your decision

---



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2. For how much additional trade promotion (Number of cents over \$1 per case) from the “loosing company” would you be willing to change your order and place equal (50% each) order from both companies?  
 For example, if in the above question you had decided that you would give Simons Bubble Co 90% and Acme Bubble Co 10% of the order; what amount of additional trade promotion (Number of cents over \$1 per case) from **Acme** would make you place equal order (50% Acme Paper Co and 50% Simmons)

(Current Trade Promotion in dollars: \$ 1 per case)

Additional Amount in Cents per Case: \_\_\_\_\_ Cents

3. Please ✓ your agreement / disagreement with the following statements

**Your Company** is **more** dependent on **Acme** than Acme is dependent on your company  agree  disagree

**Acme** is **more** dependent on **your Company** than your company is dependent on Acme  agree  disagree

Your company is **equally** dependent on Simons as Simons is dependent on your company  agree  disagree

**State the extent of your agreement or disagreement with the following statements (please circle)** **Strongly disagree** **Strongly agree**

4. Acme Bubble Co can be considered more powerful than your company 1 2 3 4 5 6 7

5. Acme Bubble Co can be considered more powerful than Simons Paper Co. 1 2 3 4 5 6 7

6. Acme Bubble Co is more likely to financially benefit your company in the medium to long term. 1 2 3 4 5 6 7

7. Acme Bubble co is more likely to provide financial gains in the near future 1 2 3 4 5 6 7

8. The relationship with Acme is more established and important than the relationship with Simmons 1 2 3 4 5 6 7

9. You are more likely to have a soft corner for Acme as compared to simmons 1 2 3 4 5 6 7

10. Which vendor's salesperson you are more likely to feel a strong liking for (**choose only one option**)

Salesperson Name	Please ✓
Bob Jones	a. <input type="checkbox"/>
Tom White	b. <input type="checkbox"/>
(Both are same)	c. <input type="checkbox"/>

11. In your opinion how often do you think the scenario described above occurs in practice (meaning two vendors who offer the same trade deal and you are forced to make a choice)

Very Rarely					Very Often		
1	2	3	4	5	6	7	

State the extent of your agreement or disagreement with the following statements (please circle)	Strongly disagree					Strongly agree	
12. Acme Bubble Co is likely to keep promises it makes to our firm	1	2	3	4	5	6	7
13. Acme Bubble Co is likely to be always honest with us.	1	2	3	4	5	6	7
14. We are likely to believe the information that Acme Bubble Co provides us	1	2	3	4	5	6	7
15. Acme Bubble Co is likely to be genuinely concerned with our business needs.	1	2	3	4	5	6	7
16. When making important decisions, Acme Bubble Co is likely to consider our welfare as well as its own	1	2	3	4	5	6	7
17. We trust that Acme Bubble Co is likely to keep our best interests in mind	1	2	3	4	5	6	7
18. Acme Bubble Co is likely to be trust worthy	1	2	3	4	5	6	7
19. We might find it necessary to be cautious with Acme Bubble Co.	1	2	3	4	5	6	7

20. Please mention the extent of your total work experience

a. <input type="checkbox"/>	Less than 5 years	c. <input type="checkbox"/>	11 years – 15 years	
(Please ✓)	b. <input type="checkbox"/>	5 years to 10 years	d. <input type="checkbox"/>	More than 15 years

21. Which job title best describes your current position in the company (circle only one)

- |                        |                       |                           |
|------------------------|-----------------------|---------------------------|
| 1. Purchasing Manager  | 6. VP of Purchasing   | 10. Purchasing Supervisor |
| 2. Purchasing Agent    | 7. Materials Manager  | 11. VP of Materials       |
| 3. Purchasing          | 8. Materials Director | 12. Asst Purchasing Agent |
| 4. Purchasing Director | 9. Buying Coordinator | 13. Buyer                 |
| 5. Other               |                       |                           |

22. Please check the industry which best describes the company you work in (circle only one)

- |                            |                              |                    |
|----------------------------|------------------------------|--------------------|
| 1. Retailing               | 7. Engineering/Research      | 12. Transportation |
| 2. Wholesale/ Distribution | 8. Finance/Banking/Insurance | 13. Publishing     |
| 3. Utilities               | 9. Food Service              | 14. Communications |
| 4. Government              | 10. Service                  | 15. Construction   |
| 5. Health Services         | 11. Lodging                  | 16. Education      |
| 6. Other                   |                              |                    |

23. Please indicate the size of your company in terms of annual turnover (circle only one)

- |                         |                          |                         |
|-------------------------|--------------------------|-------------------------|
| 1. Less than 5 million  | 5. 50 to 99.99 million   | 9. 1 to 4.99 billion    |
| 2. 5 to 9.99 million    | 6. 100 to 199.99 million | 10. 5 to 9.99 billion   |
| 3. 10 to 24. 99 million | 7. 200 to 499.99 million | 11. 10 to 19.99 billion |
| 4. 25 to 49.99 million  | 8. 500 to 999.99 million | 12. 20 billion plus     |

24. Email address: \_\_\_\_\_

25. Gender -----  Male/  Female (Please ✓)

## Appendix B- Informed Consent Form

Georgia State University  
Department of Marketing

### Informed Consent Form

**Title:** Trade promotion choice study

**Principal Investigator:** Amit Poddar

- I. **Introduction/Background/Purpose:** Research has shown that retail buyers face more trade promotion choices than what they can accept. The purpose of the study is to understand how retail buyers make choices especially when faced with parity economic benefits
- II. **Procedures:** This exercise would not take more than 20 minutes. You will be asked to respond to some hypothetical situations that would be presented to you.
- III. **Risks:** The research involves no risk to you or your company.
- IV. **Benefits:** The research adds to our knowledge of understanding choice behavior. By participating you would be helping develop new knowledge which would help future managers. Also since we would be sharing the findings of this research with all the participating managers, you would be free to use the findings in your own business environment.
- V. **Voluntary Participation and Withdrawal:** Participation in research is voluntary. You have the right to refuse to be in this study. If you decide to be in the study and change your mind, you have the right to drop out at any time.
- VI. **Confidentiality:** We will keep your records private to the extent allowed by law. We will not be collecting your name or the name of your company. No facts that might point to you will appear when we present this study or publish its results. You will not be identified personally in the research findings. The email addresses collected will not be sold or shared with any third party and will be used solely for the purpose of sharing the findings of the survey
- VII. **Contact Persons:** Call *Amit Poddar at 404 - 651-1931 if you have questions about this study*. If you have questions or concerns about your rights as a participant in this research study, you may contact the Institutional Review Board (IRB) at Georgia State University which oversees the protection of human research participants. Susan Vogtner in the office of research compliance can be reached at 404-463-0674.

## Appendix C – Advertisements Used

Advertisements used in search advertising using Google adwords program.

<p><b><u>Purchasing Manager Study</u></b> Participate in this Research Survey By Georgia State University <a href="http://education.gsu.edu/sma">education.gsu.edu/sma</a></p>	<p><b><u>Purchasing Manager Study</u></b> Improve your purchasing! Take part in study by Ga State. Free report! <a href="http://education.gsu.edu/sma">education.gsu.edu/sma</a></p>
<p><b><u>How do you choose vendors</u></b> if two vendors offer the same deal Take part in Purchase Study at GSU <a href="http://education.gsu.edu/sma">education.gsu.edu/sma</a></p>	<p><b><u>Improve your Purchasing</u></b> Purchase Managers. Take part in this study today. Get free report! <a href="http://education.gsu.edu/sma">education.gsu.edu/sma</a></p>

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