

EQUITY THEORY IN CONSUMER-RETAILER EXCHANGES:
HOW FREE SAMPLES INFLUENCE
CONSUMER BEHAVIOR

by

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ABSTRACT

This paper studied how the equity theory applies to consumer-retailer exchanges and effects consumer behavior. Specifically, how cognitive dissonance and the norm of reciprocity play a role in consumer's purchasing decisions. The study observed how a free sample given to a customer in a frozen yogurt shop affects the ultimate purchase amount. The hypotheses in the study were based off of Adams (1963) methods of reducing cognitive dissonance. The hypotheses were that customers who take a sample from the retailer would purchase more yogurt because they are compelled by the norm of reciprocity; those customers who do not accept a sample will not sense inequity in the exchange and will not purchase more yogurt. These hypotheses were supported in the study and it was found that customers who accept a sample will purchase 15% than customers who do not take a sample. Implications for business managers are discussed.

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INTRODUCTION

Giving out free samples of a product is one of the most effective and popular promotional techniques. Over three-fourths of all packaged goods and service firms utilize sampling in their promotional mix (Donnelley Marketing Inc., 1994). It is easy to see why samples are so popular as research on the adoption rate of products found that between 20% and 60% of people who sample the product will end up purchasing it (Heiman, McWilliams, Shen, & Ziberman, 2001). In fact, for sampling in retail environments specifically, 82% of the people who sampled the product subsequently purchased it as a result (Eisman, 1993). This shows that sampling is may not be the same for every product and every situation; there are many exceptions to the findings of previous researchers. Since free samples are a cost directly taken out of revenue, it is imperative to know when and how sampling is the most effective.

The theory of cognitive dissonance, and specifically equity theory, offers a substantive explanation for why samples are effective in retail exchanges. Cognitive dissonance is a broad psychological theory that states when a person observes inconsistencies in social exchanges or within themselves, a state of cognitive dissonance exists (Cooper, 2007, p. 2). Cognitive dissonance is defined as psychological discomfort that arises when a person hold two or more contradictory beliefs (Festinger, 1957). Leon Festinger's (1962) theory of cognitive dissonance argues that humans strives for internal consistency and can experience cognitive dissonance is they perceive inconsistency. Furthermore, equity theory extends cognitive dissonance theory by arguing a person will be motivated to reduce

dissonance when they perceive inequity in an exchange. This theory has only recently been applied to marketing and buyer-selling exchanges—specifically in terms of price inequity and service inequity, and their effects on customer satisfaction. Bagozzi (1975) was one of the first to argue that marketing is fundamentally an exchange between customers and business, and as such, the equity theory can be applied to it. Further research has shown that price and service quality can act as inputs from the business and alter customer behavior depending on their perception of what is fair (Coney & Fisk, 1982). So far, there has been no research to my knowledge that examines how equity theory applies to the practice of promotional sampling. Previous research has not even studied the effects of multiple inputs by the seller. Manipulating seller input, through providing a free sample, would theoretically create imbalance in the business exchange and require the customer to act. However, some research shows that it might not be that simple. For instance, Oliver & Swan (1989) found that consumers consider an exchange with high perceived seller inputs and high consumer outcomes as a fair exchange. This is contrary to how the situation would work hypothetically, in which a fair exchange would be one that had equal seller and consumer inputs and equal seller and consumer outcomes. This caveat in generalizing the cognitive dissonance theory makes it a worthwhile subject to study further.

The purpose of this study is to determine if cognitive dissonance and equity theory are merely theoretical or if they can be used in marketing to influence or predict the actions of customers' reactions to promotions. To determine this, I will apply previous models of the cognitive dissonance theory to a retail exchange,

which includes free product sampling, as a seller input. Specifically, I will observe customers' behavior when offered free food samples in a retail store and analyze how they deal with the imbalance created in the exchange. Theoretically, the sample would create inequity in the exchange because the retailer then has higher inputs than the customer does, with their outcomes remaining equal (product received by the customer and cash received by the store). This situation would create cognitive dissonance and require the customer to act.

LITERATURE REVIEW

Cognitive Dissonance Literature

In order to understand how equity theory and cognitive dissonance impacts business exchanges, it is important to have a basic understanding of the theory in general. Leon Festinger, one of the pioneers of the cognitive dissonance theory, stated that humans strive to achieve internal consistency (1962). This internal consistency is achieved by balancing what one believes with ones actions. When actions and beliefs are not aligned, inconsistency exists, which Festinger (1962) defines as "dissonance." The foundational belief of this theory is that dissonance is psychologically uncomfortable; so much so, that it will motivate the person to act to try and reduce the cognitive dissonance.

The extension of cognitive dissonance theory to include equity theory derives from substituting "dissonance" with any other inconsistency a person experiences like hunger, frustration, or unfairness. The theory can then apply to any exchange where a person contributes something—input—and receives something else as an outcome (Swan & Oliver, 1989). In a social exchange, inconsistency or dissonance

would arise if there is an imbalance between the inputs and outcomes overall, and between participants in the exchange. Adams (1963) asserts that equity exists when the ratio of one's outcomes to inputs is assumed to be constant across participants in an exchange.

Beyond inequity, Festinger (1962) also stated that dissonance could arise because of social norms. Social norms, to be defined as such, must be shared by others and are sustained by others' approval or disapproval when norms are broken (Elster, 1989). Therefore, norms are internalized as beliefs or knowledge in the minds of community members. With this assertion, acting against those norms would create dissonance in the person's mind because they are acting independently of how they believe. One particular social norm that will be of importance to this study is the norm of reciprocity. Goulder (1960) was one of the first scholars to propose that reciprocity is a basic tendency of humanity. This norm obliges persons to return favors done to him by others, or retaliate against those who have harmed him/his interests (Ercolani, Gallucci, Perugini, & Presaghi, 2003). Reciprocity is driven by a belief in fairness; a belief that is held by most all of society (Goulder, 1960). This is what makes it a social norm and the violation of it compels a person to reciprocate in order to reduce cognitive dissonance. Adams (1963) presents these typical measures people take to reduce cognitive dissonance:

1. Increase inputs if they are low in relation to outcomes or the inputs of the referent
2. Decrease inputs if they feel they are high in relation to outcomes or the referent's inputs

3. Increase outcomes if they are low in relation to inputs or the referent's outcomes
4. Decrease outcomes if they are high in relation to inputs or the referent's outcomes
5. Leave the exchange
6. Psychologically distort the referent's inputs and outputs (rationalization)

These methods recognized by Adams (1963) show that reciprocity isn't the only way people reduce cognitive dissonance, it is simply the most common in social exchanges. People can mitigate dissonance in their mind by rationalizing or devaluing certain inputs or outcomes in an exchange.

Marketing Literature

The theories of cognitive dissonance and equity are not just applicable in social exchanges; researchers have found that they can be observed in business transactions as well. Bagozzi (1975) posits that exchange is a fundamental element of marketing. The nature of the exchange in marketing tends to be consistent, whereas general social exchanges can take many forms. Bagozzi (1975) states that consumer-salesperson exchanges are typically a certain type of exchange defined as "restricted exchanges". In restricted exchanges there is a great attempt to maintain equality, and less effort by one party to take advantage of the other. Furthermore, when equality is broken in these certain exchanges, it is more likely to create an emotional reaction (Levi-Strauss, 1969). Another difference in marketing exchanges is that parties are usually not equals as they are in social exchanges. This is because the exchange is usually between a customer and a salesperson or a customer and a

business (Oliver & Swan, 1989), rather than two friends or other equals. The customer and the business both have different power over each other, which makes it an unequal exchange. The customer has the purchasing power over a business and the business has the product or service utility that the customer is seeking. The sale and the product utility are the two desired outcomes by the business and the customer respectively. This makes equality more difficult to measure since outcomes are not in the same form.

Multiple scholars (Oliver & DeSarbo, 1988; Oliver & Swan, 1989; Swan et al., 1984) found that in purchase transactions involving a salesperson or a business, a consumer will compare his inputs and outcomes to the inputs and outcomes of the business. Bagozzi (1986) extends this theory by arguing that buyers may also compare themselves with their partners in the exchange, other buyers, or some other agency. For example, Coney & Fisk (1982) found that consumers' satisfaction with an airline was affected by the knowledge that others had gotten a better price or experienced longer waiting times to board. So not only will consumers compare their inputs and outcomes with the businesses', but they will also compare their inputs and outcomes to other consumers. (Coney & Fisk, 1982)

Previous research has concluded that cognitive dissonance theory can be applied to explain consumer behavior even though the majority of it focuses on how manipulations in the income-outcome ratio affect customer satisfaction. Huppertz, Arenson, & Evans (1978) studied store patronage (as a consumer input) compared to service, and price (as a business input), and found consumer perceptions of both of these inputs affected their behavior. Huppertz's study proposed that equity

theory is a useful framework for understanding consumer behavior. Oliver & Swan (1989) further attested to this conclusion by finding that consumer's ratings of satisfaction and fairness in a purchase were dependent on their perceptions of inputs and outcomes.

This study will take the aforementioned frameworks and test to see if they still stand when an additional seller input is introduced. Previous research has determined that cognitive dissonance theory has a place in marketing, but falls short in defining to what extent. Since promotions are one of the five foundational elements of marketing, it would be beneficial to marketers to understand how promotions effect perceived equity in marketing exchanges and, ultimately, consumer purchasing habits.

EMPIRICAL STUDY

This study focuses on the effect of an additional seller input, a free sample, on consumer's likelihood to reciprocate. One area that lacks adequate research in this area is food samples in a retail environment. Bruce Lammers (1991) developed one of the first successful studies that found a correlation between food samples and immediate purchase, thus this study will be modeled after it. This study will be conducted in a frozen yogurt store where free samples are an industry standard and the purchase can be quantified (through weight of yogurt purchased). This will allow the researchers to draw a correlation between whether or not a customer took a sample and the amount of yogurt they purchased. It will also account for if a customer ended up buying the flavor they sampled and how many samples they took. Another reason for selecting the frozen yogurt store, is that is as close to a

controlled environment, absent of competing variables, that the researchers could find beyond performing a controlled experiment. Unlike many retail stores, there are products from competitors in the store and there is a very explicit and direct purchasing cycle. The research was done at different times on three different days to account for the effects of hunger or cravings for sweets that many people have after dinner time (see Table 1). From about 6:00-10:00 p.m. is the peak time for yogurt shops when most people come in after dinner. The observations took place during this time as well as the slower times around noon and early afternoon. This allowed the researchers to get a fuller, clearer picture of the effects during all times of the day.

TABLE 1. EMPIRICAL STUDY

	Time of day	Observations
Observation 1	11:00-1:00 p.m.	20
Observation 2	3:00-4:00 p.m.	12
Observation 3	8:00-10:00 p.m.	47

According to the equity theory, customers who take a sample will purchase more yogurt in order to reciprocate and create equity in the exchange. The specific exchange of concern in this study is between the consumer and the frozen yogurt shop. The consumers' referent is the shop, as well as other consumers visting with him/her. The shop's inputs in the exchange are the free samples and the yogurt purchased; the shop's outcomes are the sales revenue. The consumer's input is the money paid for the yogurt and the outcome is the actual yogurt. Consequently, the consumer is already at a disadvantage because the shop has one more input in the

exchange than the consumer does. This brings up the question of whether the customers will act to reduce cognitive dissonance associated with the inequity. Adapting the methods to reduce cognitive dissonance provided by Adams (1963), these are the possible actions customers may take.

H₁: Customers that believe that the store's inputs are higher than their own, will increase their own inputs by purchasing more in order to reduce cognitive dissonance and create balance in the exchange.

H₂: Customers that believe the store's inputs are higher than their own but do not increase their own inputs (by purchasing more) will purchase but rationalize the exchange by distorting inputs and outcomes.

H₃: Customers that believe the store's inputs are higher than their own but do not increase their own inputs (by purchasing more) will leave the exchange all together (not purchase anything) and psychologically distort inputs to reduce cognitive dissonance.

Since this study is just observational, it will not be able to tell if and how consumers distort inputs and outputs to justify the exchange but will just assume this is what is happening if a consumer's chooses not to reciprocate. Some ways a consumer could distort inputs and outputs is by considering the samples to be a mandatory part of selling yogurt, instead of considering it as a gift by the shop, which decreases the store's inputs. Consumer's could also distort their own inputs by considering their patronage of the store an input, and thus increase the value of the inputs. If customers feel that they are being charged too much for yogurt, they may already

feel their inputs are too high for the exchange and accept the sample as a way to increase the store's inputs to their own level.

RESULTS

Over three days in the yogurt shop, the researchers observed 80 customers and recorded if they took a sample, how many samples they took, what flavors they sampled, and the final purchase amount. Qualitative observations were also made about the impact of groups or pairs going through the purchasing cycle together. It was found that customers who sampled yogurt bought an average of 11.85 ounces of yogurt and those that did not take a sample bought an average of 10.27 ounces of yogurt (Table 1). This difference is statistically significant ($\alpha=.05$), which means that customers will spend 15% more when they accept a sample. This difference supports hypothesis 1, which states that customers who believe a sample increases the business' inputs will reciprocate by purchasing more yogurt. Another interesting observation that supports this hypothesis is that every single customer that took a sample purchased yogurt. This suggests that most customers recognize the norm of reciprocity and would not likely take free samples without making a purchase. This does not necessarily mean hypothesis 3 is untrue, but that kind of behavior was not observed in this study.

TABLE 2. PURCHASE BEHAVIOR BY SAMPLE AND NON-SAMPLE GROUP

	Sample	No Sample
Mean (price)	\$5.48	\$4.76
Mean (ounces)	11.86	10.27

The number of samples each customer took was recorded, which allows for greater insight into the customers' behavior. A regression analysis was done with the dependent variable as the ounces purchased and the independent variable as the number of samples taken (results in Table 2). These results showed that with each sample taken, customers will purchase .560 more ounces of yogurt. One caveat to this is that only three sample cups were offered to customers, which limits the predictive component of the regression analysis.

TABLE 3. RESULTS OF REGRESSION ANALYSIS

	B	Standard Error	Significance
Constant	10.299	.420	
Samples Taken	.560 ^b	.241	.023 ^a

^aThis is significant with an alpha value of .05

^bThis model explain 6.6% of the variance in consumer behavior, $R^2=.066$

IMPLICATIONS FOR MARKETERS

The most important conclusion from this study is that offering a free sample to customers increases the sale amount by 15%; And each sample taken increases the sale amount by about 5% with a maximum of 3 samples. This means that most customers are sensitive to cognitive dissonance that is produced when they sense an exchange is unfair, compelling them to reciprocate.

With the results of this study, business owners can apply the equity theory to their marketing efforts to better influence and predict consumer behavior. Not only does this study help prove that samples are a successful promotional tool, it opens the door to improve other promotional tools. By viewing a purchase as a social

exchange, business owners can use norms, like reciprocity, to gain more insight into consumer behavior. If managers understand what compels a person to reciprocate, and purchase more, they can use those guidelines for adding any number of promotions to their marketing mix. As long as customers recognize they are in an exchange, this study proves that they are sensitive and aware of any additional inputs provided by the retailer. This study does not say with absolute certainty that every customer will reciprocate, but it does show that the majority of customers will. It also allows for a more in-depth picture of the give-and-takes of a business-consumer relationship.

IMPLICATIONS FOR FUTURE RESEARCH

One caveat to this study is that customers had to ask the retailer for sample cups, but it is widely known that they are available. The results of this study could change if samples were set out on a tray in plain view. This could make it seem as if samples were an obligatory part of the yogurt shop's business, and thus not feel like an unexpected gift anymore to the consumer. The unexpectedness of the sample is what creates inequity and compels customers to reciprocate.

Furthermore, these findings indicate a need for additional research in different retail environments. Future researchers should focus on retail stores that offer a different or unlimited number of samples in order to study the incremental impact of individual samples since this study can only analyze the results to a maximum of three samples. Other studies should also focus on how these results may change in a different retail environment or with products that have higher-involvement purchase decisions. A sample of a higher-involvement product may be

seen by customers to equalize the exchange because of the extra time and effort that goes into the purchase. Also, with food samples there are an array of different factors that can affect how much a customer will purchase such as time of day, hunger, craving, in addition to samples taken. Future research should also focus on experimenting in an environment with more competing factors for the customer's attention, such as competing products, where there isn't such a clear exchange between customer and retailer. This will allow researchers to project the effects of sampling more clearly into real-life marketing exchanges in other retail environments.

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