

# HOW LENGTH OF PATRONAGE AFFECTS THE IMPACT OF CUSTOMER SATISFACTION ON REPURCHASE INTENTION

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## ABSTRACT

We studied the degree to which customer satisfaction and length of patronage influence repurchase intent. Based on a survey of customers of a performing arts center, we found that both higher customer satisfaction and longer length of patronage resulted in higher intent to repurchase. Interestingly the effect of customer satisfaction was greater for new customers. This implies that management should work harder to keep its new customers, since their increases in customer satisfaction pay off more in repurchase intent.

## INTRODUCTION

With the slowing growth of the size of the U. S. population and the move toward mature markets by many of today's industries, the 90's will see an even stronger focus on defensive marketing. As customer pools shrink, marketers scramble to maintain the base of customers they possess today. Since the 1970's marketing has moved from an environment in which companies looked to their competitors' customers and non-customers to increase their overall sales levels, to a world in which they must focus on their existing customer base.

Research by the U. S. Office of Consumer Affairs concluded that attracting new customers can cost as much as five times the amount of retaining an old one (Peters, 1988). Armed with such data, more marketers strive to maintain their customer base. It is the viewpoint of defensive marketing that marketing resources are better spent on existing customers (Fornell and Wernerfelt, 1987 and 1988).

With these economic changes, the late 1970's and 80's saw a new focus on the area of customer satisfaction. Today customer satisfaction is the devotion of an entire field of research, determined to further our understanding of the role consumer satisfaction plays in the purchase/repurchase process.

The positive relationship between satisfaction and repurchase intent is well established by

previous research (Howard, 1974; LaBarbera and Mazursky, 1983; Oliver, 1980). This paper is an effort to develop further the understanding of this relationship. In an analysis of customer loyalty the effect of time has been considered (DuWors and Haines, 1990); however, the definition of what constitutes loyalty has been questioned by many researchers. Still, the relationship between time, in terms of the number of repeat purchases, and repurchase intent is of significant interest whether it represents loyalty or inertia.

The length of time that a customer has used a product or service has been considered an important variable in better understanding why customers continue to purchase products (Jacoby and Chestnut, 1978). This study develops a model of the relationship between the length of time a customer has been a patron of a service, his/her customer satisfaction, and repurchase intent.

A discussion of the current research on these three variables follows. This discussion is concluded with the development of the model tested in this study.

## Satisfaction

The effect of customer satisfaction on post-purchase behavior has received the attention of an entire field of research. Customer satisfaction is quickly becoming the focus of many marketing organizations. It is used by many to gauge the success of defensive marketing strategies. "There is but little doubt that maximization of customer satisfaction is considered by most to be the ultimate goal of the market economy" (Pfaff, 1976).

Methods of measuring satisfaction vary significantly. Some researchers have linked quality to satisfaction, and have measured satisfaction in terms of product quality or quality outcome (LaTour and Peat, 1980; Olshavsky and Miller, 1972). Other studies have used complaining behavior as a measure of satisfaction (Summers and Granbois, 1977). The method used in this study involves a direct measure of satisfaction. Direct measurement of satisfaction

has been used in a variety of studies (LaTour and Peat, 1980; Oliver, 1977; Swan and Trawick, 1980; Westbrook, 1980). The method was chosen due to its ease of measurement and its history of reliability.

### **Length of Patronage**

The term 'length of patronage' is defined in this paper as the length of the time interval in which repeat purchases have been made continuously. The nature of this study allows customers to be grouped by the number of repeat purchases made by an individual. Repeat purchases have been labeled with many definitions. It has been suggested that repeat purchase is an objective measure of satisfaction (Andreasen, 1977). Often repeat purchase behavior has been related to brand loyalty, but many authors point out a distinction between the two, to stress the difference between loyalty and inertia.

Overall the importance of repeat purchases to a company is of great significance given the current focus of today's marketers on defensive marketing strategies. By looking at the number of repeat purchases we can classify customers by their 'length of patronage.'

### **Repurchase Intent**

Extensive research has involved understanding the elements that compose repurchase intent. A mass of satisfaction theory and research has delved into the relationship between satisfaction and repurchase intent. A review of literature on postpurchase satisfaction and its effect on repurchase can be found in New Dimensions of Consumer Satisfaction and Complaining Behavior (Robinson, 1979). There is a consensus between theory and research that a positive relationship exists between satisfaction and repurchase intent (Halstead, 1989; Howard and Sheth, 1969; LaBarbera and Mazursky, 1983; Oliver, 1980). This study hopes to further develop the understanding of this relationship.

### **The Model**

A model was developed to look at how repurchase intent is related to satisfaction and

length of patronage. The model was meant to aid marketing managers in their decisions for allocation of marketing dollars. Repurchase intent (RI) was considered the dependent variable and both satisfaction (Sat) and length of patronage (LoP) were considered as independent variables, to determine their influence on repurchase intent.

Sat and LoP --> RI

Satisfaction and Length of Patronage -->  
Repurchase Intent

To account for possible interactions between satisfaction and length of patronage a third independent variable was added to the model. This third independent variable was a multiple of the two independent variables, satisfaction and length of patronage (Sat \* LoP). The final model is summarized in the following equation.

Sat and LoP and (Sat \* LoP) --> RI

This model provided the means to observe the relationship between satisfaction, length of patronage, the interactive variable Sat \* LoP and the dependent variable repurchase intent.

## **METHODOLOGY**

### **Sample and Survey**

Season ticket holders to the Broadway Series of the Tennessee Performing Arts Center (TPAC) were mailed a survey containing questions on various demographic and psychographic characteristics. Respondents all purchased season tickets to a series of plays produced by this non-profit service. Of the 2000 surveys mailed 566 were returned and determined usable, providing a 28% response rate. Three questions were included in the survey to measure repurchase intent, satisfaction, and length of patronage.

### **Defining the Variables**

**Repurchase Intent (RI).** The intention of the customer to repurchase the service was measured by asking the respondent to rate their intent as a percentage from 0% to 100%. The actual question

follows.

What is the percentage chance that you will purchase season tickets next year? (circle one)  
 I-----I-----I-----I-----I-----I-----I-----I-----I-----I  
 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**Satisfaction (SAT).** Satisfaction was measured by having the respondents rate their satisfaction from 1 (very dissatisfied) to 5 (very satisfied). The question follows as it appeared in the questionnaire.

How Satisfied are you with this years Broadway Series? (circle one)  
 Very I-----I-----I-----I-----I Very  
 Dissatisfied 1 2 3 4 5 Satisfied

**Length of Patronage (LoP).** This variable measured the number of years a respondent had been a season ticket holder. Respondents were asked to circle the year. The actual question follows.

How many years have you been a Season Ticket holder? (circle one)  
 1 2 3 4 5 6 7 8 >8\_

We wanted to look at RI for various levels of satisfaction across the range of years as a season ticket holder. To do this we had to look at Repurchase Intent by cell (see Table 1). Repurchase intent was broken out by respondent, each of whom rated their satisfaction at a particular level and had been a customer for a specific number of years. Satisfaction levels "1" and "2", and years "8" and "greater than 8", were combined for tabular and graphical purposes because of the low number of observations in the patronage categories. However, the regression analysis results were tabulated with the data in its original form to provide the entire range of responses associated with each variable.

**RESULTS**

Table 1 lists the average repurchase intent broken down by satisfaction levels and length of patronage. An increasing trend can be seen for repurchase intent as both satisfaction and length of

patronage increase.

**Table 1**  
**Repurchase Intent by Satisfaction Level and Length of Patronage**

		Satisfaction Level				
		<u>1,2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>Avg RI</u>
Length of Patron- age	1	26%	57%	78%	84%	68%
	2	52%	62%	82%	78%	72%
	3	74%	74%	88%	94%	83%
	4	52%	79%	86%	94%	81%
	5	51%	83%	89%	98%	85%
	6	52%	85%	83%	99%	81%
	7	56%	94%	93%	98%	85%
>7		74%	89%	96%	100%	91%
Avg RI		56%	79%	87%	92%	81%

To determine the relationship between the three variables we ran a linear regression with repurchase intent as the dependent variable, and satisfaction and length of patronage as the independent variables. Table 2 lists the results of the regression.

Regression results are reported as actual regression weights. T-scores and significance are of primary interest. Both satisfaction and length of patronage are significant to the fourth decimal place. Although the coefficient of satisfaction is larger, the effect of length of patronage is statistically significant. A small R<sup>2</sup>, .312, was expected. The model represents only two variables and their effect upon repurchase intent.

**Table 2**  
**Regression Results for Repurchase Intent Model**

Category	B	T	p <
Satisfaction	1.15	13.659	.0000
Length of Patronage	.30	9.333	.0000
(constant)	3.63	10.296	.0000

Overall F<sub>1,560</sub>=126.866 p < .0000 R<sup>2</sup> = .312

By looking at Figure 1 the relationship between satisfaction and repurchase intent is easily

Figure 1  
Average Repurchase Intent at Satisfaction Levels

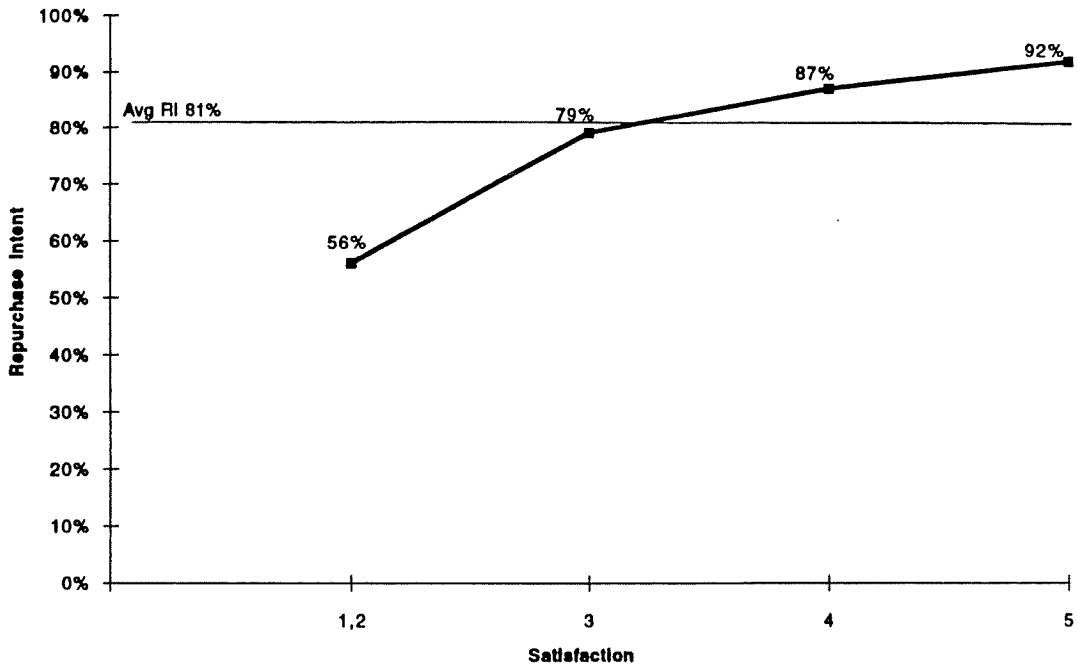
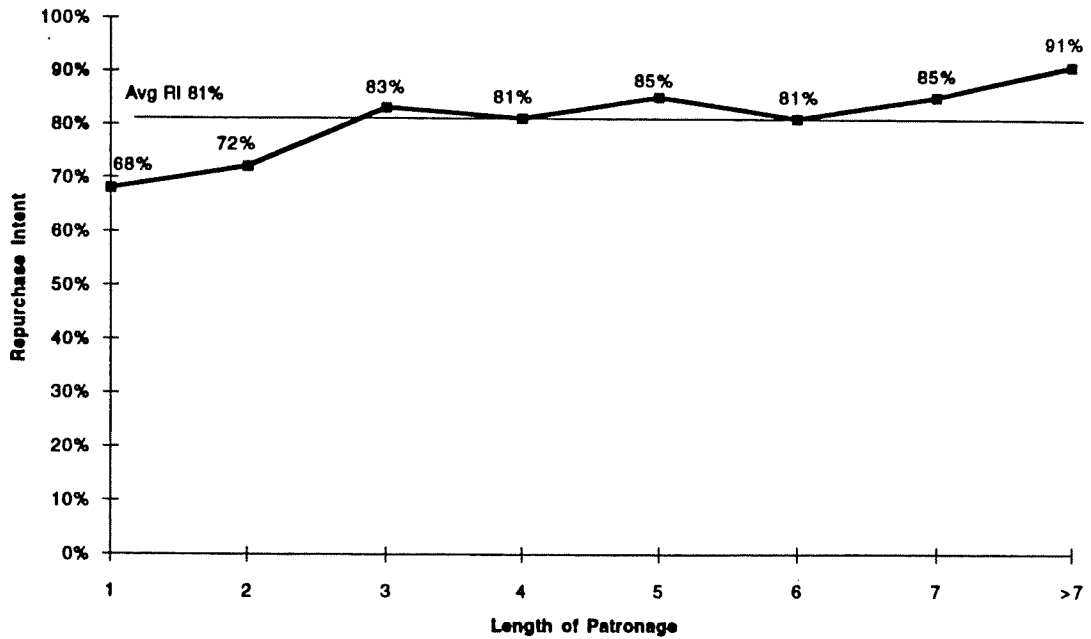


Figure 2  
Average Repurchase Intent by Length of Patronage



seen. The average repurchase intent is lowest for satisfaction level 1,2 (56%), increases as satisfaction increases, and is highest at satisfaction level 5 (92%).

Figure 2 shows average repurchase intent for the sample separated by length of patronage. Again an upward trend can be seen. Repurchase intent is the lowest for customers who have held season tickets for only one year and highest for those customers who have been customers the longest.

**Table 3**  
**Regression Results for Repurchase Intent**  
**Model With Interaction Variable**

Category	B	T	p <
Satisfaction	1.447	8.178	.0000
Length of Patronage	.507	4.265	.0000
Sat * LoP	-.060	-1.838	.0665
(constant)	3.63	3.914	.0001

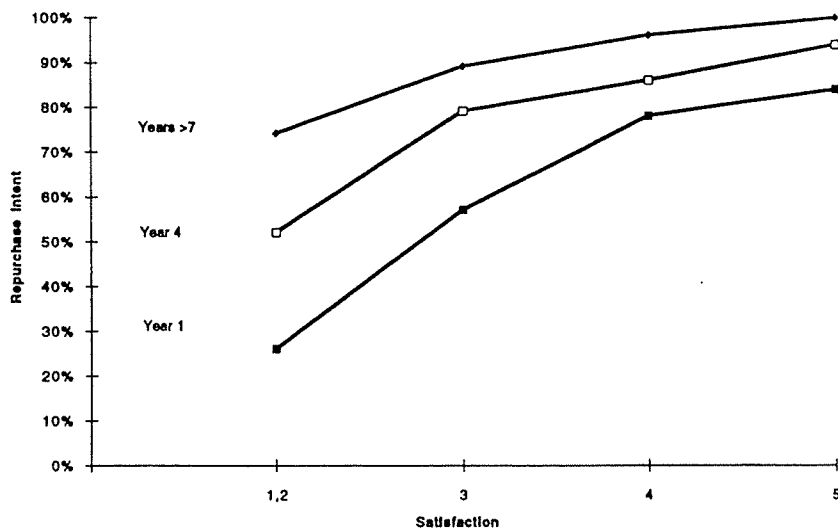
Overall  $F_{1,559}=86.712$   $p < .0000$   $R^2 = .312$   
 Nested  $F_{1,559}=4.718$   $p < .05$

To better understand the combined effect of satisfaction and length of patronage on repurchase intent a second regression was run which included an interaction term, the product of Sat and LoP. The results of this regression are contained in Table 3.

Interestingly the product of the two independent variables turned out to be negatively correlated with repurchase intent. Although the interaction was individually significant only at the .07 level, a nested F test comparing the interaction model with the noninteraction model was significant at the .05 level. Thus we concluded that the interaction model, as a whole, is significantly better.

The effect of satisfaction and length of patronage on repurchase intent can best be seen in Figure 3. This figure also shows why the interaction between Sat and LoP is negatively correlated with RI. The figure graphs average repurchase intent at varying satisfaction levels; however, the data is further broken out by looking at repurchase intent curves for differing lengths of patronage.

**Figure 3**  
**The Impact of Length of Patronage on Satisfaction's Effect on Repurchase Intent**



The three lines labeled Year 1, Year 4, and Years >7 show how repurchase intent increases with satisfaction levels for individuals who have been customers for different periods of time. The point of interest is the differing slopes of these lines. As the Year increases the slope of the satisfaction curve decreases. This inverse relationship exemplifies the negative correlation of the product, Sat \* LoP, with RI. As the length of patronage increases the effect of satisfaction of repurchase intent decreases.

### CONCLUSION

As expected from previous findings repurchase intent and satisfaction were found to be positively correlated. A positive relationship was also shown to exist between repurchase intent and length of patronage. However, the relationship between customer satisfaction and repurchase intent decreased with longer patronage.

The managerial implication is that attention to the customer satisfaction of new customers is critical, as customers who have been with the organization longer are apparently more forgiving of service which left them relatively dissatisfied. This may mean that new customers should be identified, and special programs instituted to cultivate them.

Further research on these findings will provide great insight to this relationship. This model should be tested on other services, certainly outside the non-profit area, to better understand this relationship. Specifically we need to know whether or not the relationships found in this study are generalizable to other field contexts.

The relationship between customer satisfaction and repurchase intent is of great importance to marketing managers in all service industries and has been the focus of a large body of research. The purpose of this study has been to further build on the findings of previous research in hopes of furthering the understanding of customer satisfaction and its role in the purchase/repurchase process.

### REFERENCES

- Andreasen, Alan R. (1977), "A Taxonomy of Consumer Satisfaction/Dissatisfaction Measures," *Journal of Consumer Affairs*, 11, (Winter), 11-24.
- DuWors, Richard E. and George H. Haines (1990), "Event History Analysis Measures of Brand Loyalty," *Journal of Marketing Research*, 27, (November), 485-493.
- Fornell, Claes and Birger Wernerfelt (1987), "Defensive Marketing Strategy by Customer Complaint Management: A Theoretical Analysis," *Journal of Marketing Research*, 24, (November), 337-346.
- Fornell, Claes and Birger Wernerfelt (1988), "A Model for Customer Complaint Management," *Marketing Science*, 7, (Summer), 271- 286.
- Halstead, Diane (1989), "Expectations and Disconfirmation Beliefs as Predictors of Consumer Satisfaction, Repurchase Intention, and Complaining Behavior: An Empirical Study," *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, 2, 17-21.
- Howard, John A. (1974), *The Structure of Buyer Behavior: Theory and Application*, John V. Farley, John A. Howard, and L. Winston Ring, Eds. Boston: Allyn and Bacon, 9-32.
- Howard, John A. and Jagdish N. Sheth (1969), *The Theory of Buyer Behavior*, New York: John Wiley and Sons Inc.
- Jacoby, Jacob and R. W. Chestnut (1978), *Brand Loyalty: Measurement and Management*, Wiley and Sons, New York.
- LaBarbera, Priscilla A. and David Mazursky, (1983), "A Longitudinal Assessment of Consumer Satisfaction/Dissatisfaction: The Dynamic Aspect of the Cognitive Process," *Journal of Marketing Research*, 20, (November), 393-404.
- LaTour, Stephen and Nancy C. Peat (1980), "The Role of Situationally Produced Expectations, Others' Experiences and Prior Experience in Determining Consumer Satisfaction," *Advances in Consumer Research*, 7, Jerry C. Olson, ed. Ann Arbor, MI: Association for Consumer Research, 588-92.
- Oliver, Richard L. (1977), "Effect of Expectation and Disconfirmation on Post Exposure Product Evaluation: An Alternative Interpretation," *Journal of Applied Psychology*, 62, (April), 480-6.
- Oliver, Richard L. (1980) "A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions," *Journal of Marketing Research*, 17, (November), 460-469.
- Olshavsky, Richard W. and John A. Miller (1972), "Consumer Expectations, Product Performance, and Perceived Product Quality," *Journal of Marketing Research*, 9, (February), 19- 21.
- Peters, Tom (1988), *Thriving on Chaos*, New York: Alfred A. Knopf.
- Pfaff, Martin (1976), "The Index of Consumer Satisfaction: Measurement Problems and Opportunities," *Conceptualization and Measurement of Consumer Satisfaction and Dissatisfaction*, Ed. H. Keith Hunt, Cambridge, MA: Marketing Science Institute.
- Robinson, Larry M. (1979), "Consumer Complaint Behavior: A Review with Implications for Further

Research," *New Dimensions of Consumer Satisfaction and Complaining Behavior*, Ralph L. Day and H. Keith Hunt, eds. Bloomington, Indiana: School of Business, Indiana University.

Summers, John O. and Donald H. Granbois (1977), "Predictive and Normative Expectations in Consumer Dissatisfaction and Complaining Behavior," *Advances in Consumer Research*, 4, W. D. Perreault, ed. Ann Arbor MI: Association for Consumer Research, 155-8.

Swan, John E. and Frederick I. Trawick (1980), "Satisfaction Related to Predictive vs. Desired Expectations," *Retaining Concepts and Measures in Consumer Satisfaction and Complaining Behavior*, Ralph Day and Keith Hunt, eds. Bloomington, IN: School of Business, Indiana University, 7-12.

Westbrook, Robert A. (1980), "Intrapersonal Affective Influences on Consumer Satisfaction with Products," *Journal of Consumer Research*, 7, (June), 49-54.

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