

# Chapter XXII

## Expectation–Confirmation Theory: Capitalizing on Descriptive Power

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### ABSTRACT

*Expectation-confirmation theory (ECT) posits that satisfaction is determined by interplay of prior expectations and perception of delivery. As such, there are many applications in research and practice that employ an ECT model. The descriptive power allows independent investigations manipulating either of the components and a format to examine just why clients are satisfied (or not) with a particular product or service. However, the use of ECT can be impeded by a seeming lack of analysis techniques able to handle the difficulties inherent in the model, restricting information system (IS) researchers to limit the model to less descriptive and analytical accuracy. This chapter provides an overview of ECT applications in IS research and demonstrates how polynomial regression analysis (PRA) allows for a more robust set of models.*

### INTRODUCTION

The concept behind Expectation-Confirmation Theory (ECT) is simple. Prior to any event, you have an expectation. If that expectation is met

in a positive fashion, then you are satisfied. If that expectation is met in a negative fashion, you are dissatisfied. It is this elegant simplicity that makes ECT such a powerful explanatory tool. Customers make a purchase, if the product

meets or exceeds performance expectations, the customer is satisfied. If a client enters a contract with a service provider and the client's expectations are exceeded in a positive way, the client is satisfied with the service. If a manager makes a hire and the employee outstrips performance expectations, the manager is satisfied with the employee. If the product, service, or employee fails to meet expectations, then the customer, client, or manager is dissatisfied.

Researchers apply the theory in a multitude of contexts where satisfaction is a variable of interest, either as the dependent, mediator, or moderator variable. This is valuable because the resulting level of satisfaction in a transaction may serve as an indicator of further behavior. It seems only logical that customers are more likely to return after satisfactory transactions, clients will return only if satisfied with previous service, managers will rate the work of employees more highly if satisfied with their performance. However, logic and simplicity have yielded to a debate in the research arena about modeling and testing of models that employ ECT. This is often due to the two component considerations of ECT: prior expectations and posterior perceptions. There are concerns about the measurement of any gap between these components, the true relationships of each unique component to satisfaction, and the binds of analytical methods regarding gap measures.

In this chapter, we will expand on the description of ECT to highlight these and other problems. We will describe several issues that have been raised in the literature and describe how many of the analysis problems can be avoided using individual component scores and polynomial regression analysis (PRA). In addition, we will illustrate an approach that overcomes many of the methodological difficulties in a personnel setting.

## **BACKGROUND**

The origin of Expectation-Confirmation Theory dates back many decades. Military experts have long believed that the fulfillment of expectations lead to positive changes in morale (Spector, 1956). General models of satisfaction have considered a discrepancy between an individual standard and outcome as influential (Locke, 1969). Satisfaction with job performance is considered a function of expectation and deviation from expectation (Ilgen, 1971). In the consumer arena, experiments to test the impact of discrepancies go back to the middle of the previous century (Cardozo, 1965), though more current thought that relates the resulting satisfaction of a discrepancy to future behavior is usually pegged to later work (Oliver, 1980). In each of these, and subsequent, studies, the primary consideration is that both the expectations prior to an event and the subsequent evaluation after the event combine to determine satisfaction with the event. The event in question can be any number of items, but usually concern some kind of product, service, or performance consumption.

Figure 1 shows a basic model of Expectation Confirmation Theory. The four main constructs in the model are: expectation, performance, disconfirmation, and satisfaction. Expectations serve as the comparison anchor in ECT – what consumers use to evaluate performance and form a disconfirmation judgment (Halstead, 1999). Expectations reflect anticipation (Churchill & Suprenant, 1982). They are predictive over product attributes at some point in the future (Spreng, MacKenzie & Olshavsky, 1996). Performance is an evaluation by the individual after the event, such as a perception of product quality. If a product meets or outperforms expectations (confirmation) post-purchase satisfaction will result. If a product falls short of expectations (disconfirmation) the consumer is likely to be dissatisfied (Spreng, et al., 1996). Typically, disconfirmation is often measured directly, or as a difference score between expectation and performance components. How-

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