Modeling customer's satisfaction behaviour through uninorms

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Abstract

During the last three decades, the focus of customer satisfaction research has shifted from *what* it was about the product or service that customers found satisfying to *how* and *why* customers became satisfied. This resulted into several models that try to explain the customer's satisfaction behaviour, among which the expectancy-disconfirmation paradigm is one of the most prominent models. This model identifies three elements which have an influence on the customer's satisfaction level: i.e. performance, expectation and disconfirmation. The customer evaluates the perceived product/service performance against a personal norm, which is mostly referred to as his product/service expectation. The expectation level is considered to have a direct proportional effect on the customer's satisfaction. The discrepancy between perceived performance and expected performance is called the expectancy disconfirmation and also has a direct proportional influence on the satisfaction level. Some authors believe that performance also has a direct influence on satisfaction, while others assume that performance only has an indirect influence through the disconfirmation process. Furthermore, it is most likely that customers perform the entire expectancy-disconfirmation process at a product/service attribute level first, followed by an aggregation to the overall satisfaction level. This aggregation, performed unconsciously by the customer, exhibits both reinforcement and compensation behaviour.

Measuring a customer's expectation directly can be a troublesome process. Several levels of expectation exist and it's not always clear which type of expectation a customer uses as his norm. Furthermore, post-consumption measurement of expectation can be biased because product/service experience influences a customer's pre-purchase expectation. However, uninorms can be used to model the expectancy-disconfirmation paradigm, which allows us to derive a proxy for the norm mathematically. It can be shown both theoretically and empirically that a close match exists between the uninorm's properties and the expectancy-disconfirmation paradigm. The uninorm is a fuzzy set aggregator with both reinforcement and compensation aggregation behaviour. Furthermore, the uninorm possesses a neutral element which has an important role in determining the aggregation behaviour. This neutral element is actually a proxy for the norm in the expectancy-disconfirmation process. The uninorm aggregator can be written mathematically as the combination of a generator function and its inverse. Every displaced generator function implies a new uninorm with a different neutral value. This allows us to build the uninorm mathematically for each customer individually, based on a single predefined generator function. The uninorm's neutral element then acts as the customer-specific norm in the modelled expectancy-disconfirmation process.

The usability of the uninorm-derived customer's norm seems very promising. It offers new insights into a company's performance and helps to predict loyalty among a company's customer base, without having to deal with the problems of a directly measured expectation.