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Abstract. Structural Equation Models (SEM) (Jöreskog, Sörbom 1979) are strictly related to consumer analysis, as they suit situations where a set of unobservable phenomena (called latent variables) can be described through sets of observable variables (called manifest variables). Among the methods for estimating SEM, in this paper we focus on PLS Path Modeling (Tenenhaus et al., 2005). However, in consumer analysis manifest variables are often expressed on an ordinal scale, as they represent judgments about some qualitative aspects. This yields incoherence with respect to the linearity hypothesis that underlie PLS Path Modeling. For this reason, it is worth to consider how PLS Path Modeling may be adjusted for the analysis of ordinal data, a topic that has found increasing interest in recent times (e.g. Jakobowicz, Derquenne, 2007; Lauro et al, 2008; Russolillo, 2010). After a review of the existing literature, in this work we propose a new approach, based on ordinal logistic regression (Agresti, 2002), aiming both at accounting for non linearity and at drawing a continuous scoring criterion for ordinal categories. Depending upon the causal relationships between manifest and latent variables (defining the so-called measurement model), we can incur in two alternative models: one (called reflective model) is defined as a set of simple regression models, each with ordinal response variable and continuous predictor, the other (called formative model) is defined by a multiple regression model with ordinal predictors. We address our main interest to the former case.

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Keywords