

## Development of a Measurement Model for Consciousness for Sustainable Consumption

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### **Abstract**

In recent years, the topics of sustainability and in particular sustainable or conscious consumer behavior have gained growing interest in both marketing research and practice (Prothero et al. 2011). In line with Elkington's (1997) triple bottom-line perspective of sustainability, it is important to include the interrelated social and economic dimensions. However, much of the research up to now has applied a one-dimensional operationalization of sustainability, focusing on environmental sustainability, for instance. While scales to measure each of the environmental, social and economic dimensions separately exist, validated scales for the measurement of this holistic sustainability perspective are rare. With regard to the increased relevance of a holistic understanding of sustainability that helps practitioners to develop strategic and managerial roadmaps based on a thorough understanding of consumer market segments and consumers' purchase behavior, a scale to measure consumers' consciousness for sustainable consumption needs to consider all three mentioned dimensions of sustainability (Simpson & Radford 2011). Hence, the present paper conceptualizes a three-dimensional scale of consumers' consciousness for sustainable consumption (CSC). Furthermore, the dimensionality and reliability of the CSC scale as well as its convergent and discriminant validity is tested empirically.

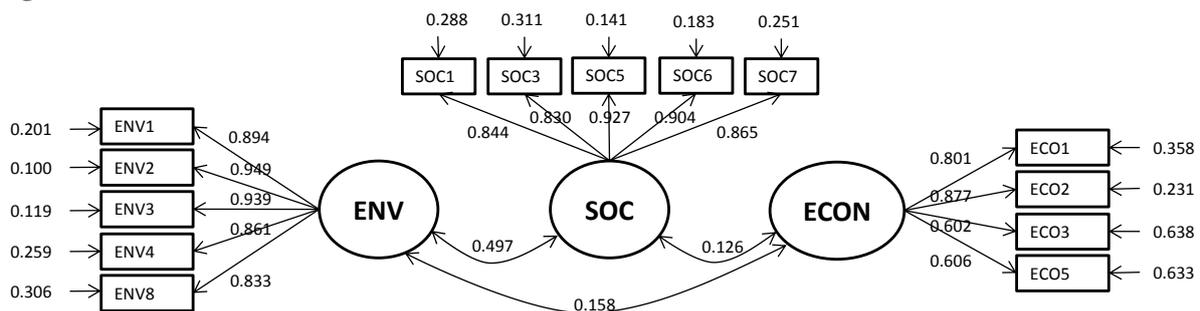
In the current study, three interrelated and yet distinct facets of sustainable consumption are distinguished: environmentally conscious (e.g. Schlegelmilch et al. 1996), socially conscious (e.g. de Pelsmacker & Janssens 2007) and economically conscious (e.g. Lastovicka et al. 1999) consumer behavior. We therefore hypothesize:

*H: Consumer's consciousness for environmentally (ENV), socially (SOC) and economically (ECON) sustainable consumption are interrelated but distinct dimensions of consumers' consciousness for sustainable consumption (CSC).*

For conceptualization of CSC we apply an expectancy-value approach (Mazis et al. 1975). This approach combines the strength of an expectation that an action leads to a specific consequence (belief component) with the value or the importance of this consequence for the individual (value component). In developing a valid measure of the three CSC dimensions, 22 items were formulated in a belief and in an importance manner. All items were selected according to expert ratings of face-validity. This scale was administered to 378 graduate and undergraduate students from three German universities.

In a first validation step, the three-dimensionality of the CSC scale was assessed by conducting an explorative factor analysis (EFA). Results indicate the hypothesized three dimensions of sustainability. Having discarded redundant items, Cronbach's Alpha prove the reliability of our 14-item scale ( $\alpha_{ENV} = .952$ ;  $\alpha_{SOC} = .942$ ;  $\alpha_{ECON} = .813$ ). In a second step, a confirmatory factor analysis (CFA) was performed to show convergent validity. The results reveal an adequate fit for the reduced model ( $\chi^2 = 266$  with 74 df; CFI = .957; RMSEA = .083; SRMR = .050) (see *Figure 1*) and demonstrate convergent validity of the CSC scale. In a final step, discriminant validity of the CSC scale was tested with three conceptually related constructs (New Environmental Paradigm, Attitude for Helping Others, Financial Self-Efficacy). The resulting model shows satisfying fit ( $\chi^2 = 561$  with 260 df; CFI = .954; RMSEA = .055; SRMR = .044) and all correlations meet the Fornell Larcker criterion.

**Figure 1: CFA for CSC scale (standardized solution)**



The empirical results provide support for the CSC measurement approach embedding individuals' importance and belief for sustainable consumption and integrating three interrelated but distinct environmental, social and economic consciousness for sustainable consumption dimensions. According to our findings, the expectancy-value model can be seen as a promising conceptual basis to assess consumers' sustainability consciousness. Moreover, our results suggest that sustainable consumption is anchored in consumers' minds as a multi-dimensional concept. Thus, there is a definite need for organizations to develop business strategies taking all dimensions into account.

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