

# SALESPERSONS' SUSCEPTIBILITY TO INFORMATION OVERLOAD: SCALE DEVELOPMENT AND VALIDATION

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## SUMMARY

The sales management literature has long implied that salespeople can be overloaded with information. Otherwise why would sales managers change from a less costly general organizational structure to a more costly specialized structure? While the sales management literature offers these structural solutions, it offers less guidance regarding when to implement these solutions (cf. Weitz and Bradford 1999). The purpose of this manuscript is to offer preliminary evidence of the validity of an individual difference scale, Salespersons' Susceptibility to Information Overload (SSIO), designed to guide sales managers in determining when to change from a general to a specialized organizational structure.

Salespersons' Susceptibility to Information Overload (SSIO) is defined as the tendency of a sales person to experience adverse effects (i.e., increasing frustration and/or errors) due to exposure to an amount of information exceeding their ability to assimilate or process during a given unit of time. The theoretical basis of the construct is the information processing literature, wherein information overload is defined as a state evoked by a decision maker's exposure to an amount of information that exceeds their ability to assimilate or process during a given unit of time (Jacoby, Speller, and Kohn 1974). Manifestations of information overload are increasing errors and negative affect such as confusion or frustration (Jacoby et al. 1974; Keller and Staelin 1987). In marketing, the focus on information overload has been primarily by researchers investigating consumer decisions (e.g., Jacoby et al. 1974). Similarly, Salespeople make decisions in information rich environments and should be subject to information overload.

In a sales context, information overload should be manifest as negative affect (e.g., frustration) that is evoked when salespeople have to make decisions involving a large amount of information. Two sources of information are products and the sales process. Another manifestation of information overload should be increasing errors when salespeople are exposed to information exceeding their ability to process or assimilate. Thus information overload should be manifest in two dimensions, affect and errors.

## METHOD AND RESULTS

A survey method was used in two studies to purify and investigate the reliability and validity of the proposed SSIO scale. Study 1 used a web-based survey of insurance agents and Study 2 used a mail survey to contact insurance agents. Insurance agents were chosen because the industry trend of adding financial instruments to traditional lines should provide a context ripe for information overload.

A review of the literature resulted in an initial pool of 42 items designed to represent the two dimensions reflecting information overload, affect and errors. In order to investigate face

validity, the scales were subjected to reviews by two sets of judges. Items that were not agreed upon by a majority of judges were dropped from further analysis resulting in a reduced scale of 12 items.

Study 1 was used to further purify the scale. Using data obtained from the web based insurance agent sample, items that did not have item-to-total subscale correlations above .50 were deleted. Items that did not have statistically higher correlations with the dimensions to which they were hypothesized to belong in comparison with item correlations with remaining dimensions' total scores were also deleted (Bearden, Netemeyer, and Teel 1989). These analyses resulted in a final scale of 7 items (4 items for the affective dimension and 3 items for the errors dimension). Composite reliability scores were .86 and .85 for the affect and errors dimensions respectively, and .92 for the summed dimensions (Fornell and Larcker 1981; Gerbing and Anderson 1988).

Study 2 used confirmatory factor analysis to investigate the factor structure of the proposed scale. As hypothesized, one second order factor (SSIO) was found to be reflected by two first order factors, affect and errors. Conventional measures of model fit offer evidence that the data are consistent with this factor structure. The hypothesized model exhibited acceptable fit, as indicated by its non-significant chi-square ( $\chi^2 = 11.83$ ,  $df = 13$ ), CFI which was 1.00, and SRMR of .03 (Hu and Bentler 1999).

Study 2 also examined nomological validity and socially desirable responding. Evidence suggests that socially desirable responding did not significantly influence results. Evidence for the convergent and discriminant validity of the scale was provided by statistical methods and evidence from the nomological network. To investigate nomological validity, SSIO was compared to related constructs including need for cognition (Cacioppo, Petty, and Chuan 1984), adaptive selling (Spiro and Weitz 1990), polychronic attitude index (Kaufman, Lane, and Lindquist 1991), and role overload (Reilly 1982). SSIO behaved as theory predicted in relation to these variables.

## CONCLUSION

The main contribution of this study to the sales management literature is the preliminary validation of a measure termed salespersons' susceptibility to information overload. The scale is important because it can offer guidance as to when it becomes more efficient to use a strategy that reduces the information load of individual salespeople. Another contribution is the investigation of the influence of information overload on salespeople. While the sales management literature acknowledges that salespeople can be overwhelmed with information, little research investigates specifically what are the effects of being overwhelmed with information. Salespersons' susceptibility to information overload provides a means and direction for examining those effects and their consequences.

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