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## **Re-Examination of Maximization: Psychometric Assessment and Derivation of a Short Form of the Maximization Scale**

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This paper provides a psychometric assessment of the 13-item maximization scale developed by Schwartz and colleagues (2002), with the goal of reexamining its factor structure, reliability, and validity. The psychometric properties of several proposed revised versions of the scale are also investigated. The analyses reveal that a shorter, 6-item version of the scale performs better than the original scale and should be considered for use in future studies. Clarification of the conceptual underpinnings of the maximization construct and development of a more psychometrically sound version of the scale should enhance its use among behavioral researchers across several of the social science disciplines.

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# Re-Examination of Maximization: Psychometric Assessment and Derivation of a Short Form of the Maximization Scale

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## EXTENDED ABSTRACT

The purpose of this paper is to develop a revised and more psychometrically sound version of the Maximization Scale (Schwartz et al. 2002) that would enhance the use of the scale among behavioral researchers across several of the social science disciplines. The research presented in this paper is based on an analysis of both pre-existing datasets and new data. The pre-existing data consist of 12 pre-existing datasets, representing a total of over 5,800 respondents, were obtained from several authors, across several disciplines, in both the U.S. and overseas, who have used the Maximization Scale in their research. The new data were collected in three studies: (1) a questionnaire administered to academic researchers (n=8) regarding the content validity of the Maximization Scale; (2) a survey among a general population sample (n=40) regarding readability of the individual scale items; and (3) an experiment in the domain of financial decision making among a sample of adult participants (n=176) that tested both the new and original versions of the scale.

In this paper we conduct four sets of analyses. In *Analysis 1* we examine 10 pre-existing datasets containing the Maximization Scale in order to confirm the factor structure of the scale, assess its internal consistency and dimensional purity, and reduce the number of items. Based on these analyses we conclude that some of the scale's psychometric properties are unsatisfactory. In *Analysis 2* we employ both pre-existing data (10 datasets) and new data (n=48) in order to develop revised versions of the Maximization Scale (9-item, 6-item, and 3-item versions). In the process of revising the Maximization Scale, we follow a set of rules and procedures consistent with past work (Richins 2004; Smith, McCarthy, and Anderson 2000; Stanton et al. 2002), which rely on internal, external, and judgmental criteria. Next, we evaluate the discriminant and nomological validity of the newly developed revised scales by relating them to existing constructs—anticipated regret (Schwartz et al. 2002), subjective happiness (Lyubomirsky and Lepper 1997), satisfaction with life (Diener et al. 1985), and optimism (Scheier, Carver, and Bridges 1994). In *Analysis 3* we cross-validate the three shorter versions of the scale employing 12 pre-existing datasets. We use both internal and external criteria in order to confirm their dimensionality, reliability and validity. Finally, in *Analysis 4* (n=176) we experimentally examine the revised scales' predictive validity and look into the relationship between consumers' maximizing tendencies, as measured by the revised Maximization scales, and their information processing and

choices in an investment decision context. In this study we also measure several additional traits that are expected to be related to maximization to see whether maximization can predict consumers' decision-making beyond these other related variables. We measure regret, happiness, satisfaction with life, and optimism, mentioned above, as well as depression (Cole et al. 2004), perfectionism (Hewitt and Flett 1990), and need for cognition (Cacioppo and Petty 1982).

Based on results from our analyses of reliability, predictive, and nomological validity, and model fit, we conclude that the revised 6-item Maximization Scale exhibits superior psychometric properties as compared to the other versions of the scale we tested, namely, the original 13-item scale and the 9-item, and 3-item scales. The 6-item scale possesses good internal consistency and superior model fit as compared to the other two scale versions. Furthermore, it possesses good validity: its nomological net is similar to that of the original 13-item scale and its validity correlations, i.e. correlations with related traits, are more consistent with our predictions and past literature than those of both the 9-item scale and the original scale. The 6-item scale's predictive validity, as indicated by its capacity to distinguish between the decision-making processes of maximizers and satisficers in an investment decision making context, was also superior to that of the other two scale versions.

In this paper we also define and examine the three dimensions of maximization and conclude that the scale consists of three sub-dimensions—'high standards', 'alternative search', and 'decision difficulty', which converge on a higher-order latent construct. In our analysis we examine not only consumers' summed maximization scores, but also their scores on the three scale sub-dimensions. Our results suggest that the three dimensions of maximization might be differentially predictive of various consumer traits and behaviors. Therefore, we recommend that future researchers examine not only consumers' maximization scores but also their sub-dimension scores.

Past research has found a clear tendency for maximizers to report being significantly less happy, less satisfied with life and with their choices, and more depressed than satisficers (Iyengar, Wells, and Schwartz 2006; Schwartz et al. 2002). Our results build on these findings and suggest that the real problem with maximizing is not having high standards (as this dimension was not correlated with depression, satisfaction with life, or happiness), but rather, having high standards in a world of limitless alternatives, which demands extensive search and creates decision difficulty. It seems that the source of maximizers' psychological trouble is the need to search extensively and make difficult decisions, and not their tendency to set high standards for themselves.

The present research contributes to the existing literature on maximization in several important ways. First, we reduce the Maximization Scale length by more than half (from thirteen to six items), while improving its psychometric properties. There is growing interest in the maximization construct on behalf of researchers in areas such as social psychology, positive psychology,

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and consumer psychology. The shorter revised Maximization Scale proposed in this paper will provide these researchers with a measure of the construct that is brief, yet reliable and valid. Second, we show that the revised 6-item scale possesses very high predictive validity, since it was uniquely capable of differentiating between the information processing and decision making patterns of maximizers vs. satisficers in an investment decision-making situation, after controlling for several other related constructs. Third, we assess the Maximization Scale's dimensionality, and define and examine the three scale sub-dimensions. Our results suggest that the three dimensions are related to different traits, and researchers should examine people's scores on the three maximization sub-dimensions in addition to their summed maximization scores.

Having a shorter, yet more valid and reliable instrument with which to measure people's tendency to maximize should enhance research efforts examining how consumers' tendencies to maximize or satisfice during the choice process affect their decisions and choices and ultimately their happiness and well-being.

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