

## TOWARD A COMPUTER-SCORED ASSESSMENT OF MARKETING EXPERTISE

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### ABSTRACT

The AACSB expects business schools to establish learning goals and assess student performance relative to them. It is common to assess "marketing knowledge" with multiple choice tests. Unfortunately to date, no simple assessment of more complex marketing skills exists, though these may be even more relevant to marketing practice. The purpose of this research is to explore a measurement of one type of higher-level skills, "marketing expertise".

The inspiration behind this construct comes from work by Simon and Chase (1973). In their experiment, chess experts were shown to differ from novices in their recall of actual game patterns and their application of these patterns to identify good opportunities quickly, without wasting time on poorer ones. Marketing expertise is assumed here to be analogous to chess expertise. Marketing experts recognize patterns in a market and in their own organizations and apply knowledge of these patterns to identify the best opportunities more efficiently.

In marketing, expertise can be assessed with a short written case or business scenario. Students are asked about the attractiveness of various courses of action. The experts, applying meaningful patterns, would be expected to prioritize potential actions more accurately than the novices. To address the time-consuming grading and low levels of reliability that are typical of case write-ups, the goal of this research was to develop an objectively-scored measure of marketing expertise. Respondents can be given a short case and asked to rank possible actions. Responses are compared to an expert-based ranking, and a meaningful score can be created based on the similarity between the student's and experts' rankings.

Five different one-page caselets were written by the authors for this research, with two of the cases used on exams to assess marketing expertise among students in Introduction to Marketing courses. After an initial pilot study with unsatisfactory reliability, the instruments were revised by adding a set of six true-false questions to the four ranking questions, which

themselves were revised from five possible responses to three. After conducting the item

analysis, it was possible to identify one very good choice, one mediocre choice, and one very bad choice, within each set of ranking questions. The cases tested exhibited modest reliability, with the highest reliability reaching only .58, and one was dropped from further study. The instrument used here exhibits psychometric performance similar to a multiple-choice test, in terms of time spent and reliability. One might conclude that a reliable case instrument can be developed by lengthening it. To achieve a reliability of .70, an instrument of similar quality would be about two and a half times longer.

Additionally, the correlations between GPA and the final exam score and one case were examined, and were all fairly low. Analysis reveals that marketing expertise may have a moderate, but not large, relationship with marketing knowledge.

Finally, by comparing scores across groups on two different cases, it is possible to see if marketing expertise improved during the term. A series of regression analyses were conducted with the one case score as the dependent variable, experimental group as the independent variable (case on midterm, case on final), and the final exam scores and GPA as covariates. Using an alpha level of .10, we might conclude that a small improvement in marketing expertise can be achieved in one academic term with training. The observation that improvements in marketing expertise were not highly significant may be attributed to the poor reliability of the case that was used. But when statistical power is examined more carefully, the test probably has the power to detect a "modest" effect size if it existed.

Unfortunately, there was little or no improvement in ME over the period of study in this experiment. This could be evidence that some improvement in marketing expertise is possible, but any improvement is probably small, and therefore repeated training would need to occur over several

terms in order to see substantial improvements.

Further research is necessary to confirm and extend some of the findings presented here. Longer marketing expertise measures should be developed and used in experimental designs, to determine if

case skills can be improved. Although the low instrument reliability in this study limits the strength of the conclusions, it is hoped that the research provides a foundation and motivation for additional research in this important area.