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**A METHODOLOGICAL INVESTIGATION OF THE JUSTER SCALE:
CONTEXTUAL REQUIREMENTS AND MUTUALLY EXCLUSIVE
BEHAVIOURS**

By

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ABSTRACT

The relatively poor performance of intention scales to forecast future purchase behaviour turned researchers' attention to testing probability scales and the 11 point Juster Scale has become a preferred instrument for this task. The scale has undergone considerable testing and has been implemented successfully in a variety of research environments including self-completion mail surveys, telephone surveys and Internet-based surveys. Nevertheless, several methodological challenges remain, each of which produce some variation in the scale's accuracy. In particular, the review of Juster Scale literature revealed that accuracy of the scale was not consistent across product categories. This raised concerns about the reliability of the scale with both the context of the scale as it is presented to respondents and the nature of samples used to test the scale cited as possible causes for inconsistency. The review also identified two areas of development for the Juster Scale. These were to examine whether the structure of the scale could improve its performance and a problem that researchers encountered when using the Juster Scale to forecast mutually exclusive behaviours.

The research carried out for this thesis aimed to address two of the four issues raised above. They were, one, to address the contextual requirements of the Juster Scale and, two, to resolve the problem that researchers encountered when using the Juster Scale to forecast mutually exclusive behaviours. Data required to address the two issues were secured by implementing two Internet-based surveys. One was carried out on the clientele of Vodafone New Zealand (Vodafone survey) and the other on a sample of the national population (New Zealand survey). The test products were WAP-capable mobile phones and the payment plans offered by mobile telephony companies. Purchase probability data for these products were obtained in separate treatments to produce the required comparisons.

The review of literature identified three factors that exhibited tendencies to alter context, namely, question order, the practice of testing the Juster Scale concurrently on product categories and respondent's interpretation of the question accompanying the Juster Scale. Prior to addressing these issues, it was necessary to standardise the contextual requirements of the Juster Scale. Investigation was undertaken by implementing the Juster Scale in separate treatments with and without providing

additional contextual inputs. Results showed that the Juster Scale implemented on its own without additional contextual information produced mean probability scores similar to when the scale was implemented after contextual information was provided.

The Juster Scale has also been successfully employed in the forecasting of mutually exclusive behaviour. The review of literature revealed two methods namely weighting and the Constant Sum Scale for the above purpose. However, no comparisons were previously made to test whether the forecasts made by these two methods were similar or not, and this became the second major objective addressed in the current research. Investigation was undertaken by implementing the two methods in separate treatments (Weighted-scores and Constant Sum Scale) in the New Zealand survey. Results produced were mixed hence it was not possible to conclusively establish one method's superiority. The topic remains open for further investigation to test a method that is best suited for collecting probability data of mutually exclusive behaviour.

The investigation on the contextual requirements of the Juster Scale concluded, at least for the test products (WAP-capable mobile phones) used in this research, that the Juster Scale is a robust forecasting instrument in a typical purchasing environment. However, contextual requirements of the Juster Scale were examined here for just one product. Future studies might investigate whether the results obtained here can be reproduced for other product categories.

Results from the investigation to resolve the problem researchers encountered when using the Juster Scale in forecasting mutually exclusive behaviours were not conclusive. This research, however, showed that the Constant Sum Scale was a better instrument to produce clear data, ready for analysis. Nonetheless, the topic remains open for more investigation. In any future research, selection of test products will be crucial. Frequently purchased products may not generate the necessary comparisons.

The major contribution of this thesis to the academic community is that the Juster Scale is successful in collecting probability data in a purchasing context. While the objective regarding mutually exclusive behaviour yielded less conclusive results, the research showed that either of the two methods compared (Constant Sum Scale and weighting process) could be used when respondents are confident about their behaviour.

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