

**A Comparison of Consumer Based
Measures of Brand Equity
(A Replication and Extension Study)**

University of South Australia

School of Marketing/Marketing Science Centre

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Marisa Maio Mackay (B Bus)

**Examined by
Professor Patrick Barwise,
London Business School, UK
and Associate Professor Manoj K Agarwal,
School of Management, Binghamton University, USA**

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ABSTRACT

The brand equity concept has been of particular interest to marketing and financial academics, and practitioners since the corporate takeovers of the late 1970s and early 1980s. Since this time there has been a multitude of articles written about the conceptualisation and operationalisation of brand equity. To date, however, there has been little consensus on what brand equity means and how a firm can best measure the value of a brand, and hence evaluate marketing interventions in terms of their ability to enhance brand value. The research field currently consists of a myriad of unrelated studies.

In 1992 Agarwal and Rao carried out one of only a few studies to date that has attempted to *consolidate* the existing research on brand equity. Their research explored the ability of a selection of consumer based measures of brand equity to predict individual choice and market share, and the relationship between these measures. The measures were based on the stages through which a consumer supposedly passes, from initial awareness through to purchase (ie the Hierarchy of Effects model). The Agarwal and Rao study analysed one fast moving consumer good (chocolate bars) in a laboratory setting. The underlying assumption in the study was that individual choice and market share were indicators of brand equity.

This thesis is a replication and extension of the Agarwal and Rao research. The replication and extension applied the measures to three different product categories in a real field setting, where brand equity measures were compared to real market share. The product categories were fuel retail outlets, telecommunication providers, and bank credit cards. Given that two of these product categories belong to subscription markets, some modifications were made to the measures. Some additional measures were also included. The overall objective of this thesis was to assess if the findings of this research concurred with the results of the Agarwal and Rao study.

One of the key findings of the Agarwal and Rao study was that all ten measures except brand recall were convergent. In this thesis most of the measures were also found to be convergent across the three product categories. In terms of estimating individual choice, all of the measures in the Agarwal and Rao study, except recall (M1), and value for money (M4) yielded a 40 percent or more level of accuracy in predicting choice using the simple maximum utility rule. In this thesis all of the measures collected across the three product categories yielded accuracy levels of 50 percent or more in estimating choice. In other words, no one measure explained all of

the variation in individual choice in any of the four product categories, which is to be expected given that there is always a high degree of variation at the individual level.

In both the Agarwal and Rao study and this thesis, the measures also appeared to correlate highly and positively with market share. In the Agarwal and Rao study the only exceptions were M1 (recall) and M5 (quality of brand name). In the fuel retail product category M1 (recall) was the only measure that did not correlate with market share, while in the credit card product category all of the Agarwal and Rao measures used correlated with market share in the predicted direction. This information could not be collected for the telecommunications product category.

Overall, the results generally concurred with the Agarwal and Rao findings. In other words, most of the measures were found to be convergent across the three product categories and were found to estimate market share and individual choice. In this regard, this thesis has contributed to establishing confidence in the Agarwal and Rao findings. It is in fact a wide ranging empirical confirmation of their laboratory study. More specifically, it has helped to establish that most of the measures appeared to be measuring the same construct and have some predictive ability. Additionally, this thesis has helped to establish the reliability of the measures since most of the measures behaved consistently across the product categories.

As previously mentioned, the relationship between the measures used in the Agarwal and Rao study were largely based on the hierarchy of effects model. The measures used to capture the various stages through which a consumer passes, however, could by no means be exhaustive. For this reason, this thesis also included additional measures that represented the preference and choice intention stages. The comparative performance of these measures, however, was not conclusive.

For example, the 'like' and 'regard' for a brand, measures did not perform as expected, that is they did not correlate with the other measures. The conjoint measure of choice intention correlated with some, but not all of the other measures. These measures, however, were used for one product category only. To further explore their potential use as consumer based measures of brand equity, based on their performance as indicators of choice and market share, would require further replication.

While it was not directly within the scope of this thesis, one cannot fail to also recognise the contribution of the results of this thesis to the school of thought that purports that brand equity is just a reflection of brand size. In concurring with many of the Agarwal and Rao results, this thesis lends weight to the argument that many of

the existing brand equity measures are just a reflection of brand size. More specifically, in concurring with many of the Agarwal and Rao results it raises the question: is brand equity a separate construct or just a reflection of brand size? Perhaps the Agarwal and Rao study and subsequently this thesis has served only to reify a concept, which actually adds nothing new to marketing theory.

In summary, this thesis has contributed to brand equity research in two key ways. Firstly and foremost, it has served to add confidence to the results of the Agarwal and Rao study, which is one of the first studies to have compared the convergent and predictive validity of a selection of consumer based measures of brand equity. In supporting many of the Agarwal and Rao's results it has given confidence in the measures, in terms of their reliability and convergence, and their predictive validity. This means that researchers and practitioners alike will be able to have more confidence in selecting from a range of consumer based measures of brand equity, which can be collected at a low cost.

Although somewhat ironically, in supporting the Agarwal and Rao study, this thesis has also highlighted the debate about the existence of brand equity: does brand equity deserve to exist as a separate concept or are many of the existing measures of brand equity just a reflection of brand size? This thesis was not designed to answer the question about whether or not brand equity exists. It has, however, highlighted that future research should be directed at revisiting the conceptualisation of brand equity to determine if it deserves to be considered as a separate concept. Only if it is found that brand equity deserves to be a separate concept, should the issue of measuring brand equity be pursued.