An Investigation of Deviations in Brand Image Data

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I declare that this thesis presents work carried out by myself and does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any university. Nor does it, to the best of my knowledge, contain any materials previously published or written by another person except where due reference is made in the text. All substantive contributions by others to the work presented are clearly acknowledged.

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Research Abstract

For many decades brand image, a well-known marketing concept, has been the subject of much academic research and interest. Brand image is defined as 'the sum of a customer's perceptions about a brand generated by the interaction of the cognitive, affective, and evaluative processes in a customer's mind' (Lee et al. 2014, p. 8). Within the marketing literature there is an extensive body of research illustrating how to conceptualise (e.g., Biel 1992; Bird et al. 1970; Dobni & Zinkhan 1990; Gardner & Levy 1955; Keller 1993) and measure (e.g., Barnard and Ehrenberg 1990; Dolnicar et al. 2004; Driesener and Romaniuk 2006; Plumeyer et al. 2019; Winchester and Fletcher 2000) brand image. Nonetheless, there are still significant knowledge voids. In particular, the literature over-emphasises researching different methods and approaches for the measurement of brand image. By comparison, studies focusing on understanding recurring patterns, deviations and thus, results' interpretation for brand management in the marketplace, are far more limited. This is problematic because it can lead companies to make un-informed decisions and poor marketing choices.

To address this issue, this thesis undertook research on brand image results with an emphasis on known patterns and deviations, analysing 70 pre-existing data sets covering different product categories, multiple time periods and multiple countries. The analysis is an extensive differentiated replication (Lindsay & Ehrenberg 1993) of Romaniuk and Sharp (2000)'s seminal work '*Using known patterns in image data to determine brand positioning'.* Romaniuk and Sharp (2000) introduced a method for analysing brand image data that controls for known marketing patterns to identify deviations from expected results. This thesis also builds on the arguments by Collins (2002), who proposed that once prior knowledge and known patterns are accounted for, there are no unexpected results in brand image data – i.e., deviations are mostly explained by logical brand characteristics such as highly advertised or well-known features. In replicating and extending the work of Romaniuk and Sharp (2000) and exploring the validity of Collin's statements (2002), this thesis documents how often deviations in brand image data occur and the explanations for these deviations. It also compares the effect of different loyalty levels (measured as a brands purchase frequency) and different demographics.

This thesis is the first to conduct a large-scale analysis into brand image results interpretation using the Multiple Sets of Data (MSoD) approach. To execute the MSoD approach, the Tableau analytical software program was utilised. This is a significant methodological contribution of this thesis, as a new data preparation and analysis approach based on Romaniuk and Sharp (2000) was conceptualised using Tableau. This thesis illustrates that Tableau has the potential to facilitate an increase in analytical options for the evaluation of brand image beyond prior studies.

The first component of the analysis to answer the research questions entailed documenting how often deviations from expected results occurred. Four different benchmarks were considered to identify deviations (5, 10, 15, & 20 percentage points from expected values). It was found that at a 5pp benchmark deviations occurred on average 35% of the time across all 70 data sets. The percent of values which deviated was greatly reduced when increasing the benchmark (deviations incidence was 14% at the 10pp benchmark, 6% at the 15pp benchmark and 3% at the 20pp benchmark). From these results, using 10pp from expected values is considered the most suitable benchmark to extract deviations in brand image data. Using the selected benchmark to further investigate deviations, this thesis found that deviations were not significantly different when comparing light and heavy users. It was also found that the demographic profile of participants in relation to gender has little effect on deviations in brand image.

To investigate the brand image insights propositioned by Collins (2002), possible explanations behind why deviations occurred were also investigated in this thesis. This thesis exhibited a more structured approach to analysing brand image deviation data to reduce 'noise' and isolate the few deviations of interest. After three independent researchers coded the deviations, an average of 93% of all deviations were found to be explainable and only 7% of the deviations were deemed unexplainable or unexpected. Of the explainable deviations, 44% were explainable through a widely accepted feature or common knowledge. 32% were due to an objective brand feature and 17% were explainable through recurrent advertising. This outcome broadly validates the conclusions by Collins (2002), albeit through this large-scale empirical exercise. One key main takeaway from the results is that most deviations from established patterns in

brand image data are not surprising. Given the finding that surprising deviations are rare, they are worth further investigation.

This thesis has benefits both theoretically and practically. As an academic contribution, the replication and extension this thesis provides extensively documents and explains deviations in brand image data. This thesis expands the Romaniuk and Sharp (2000) method and provides empirical evidence that largely supports Collin's (2002) claims on the predictability of brand image results. Moreover, the findings from this thesis further the understanding and interpretation of deviations in brand image data. These outcomes address issues in brand image measurement literature, particularly the scarce attention to patterns and deviations. The results of this thesis also yield managerial benefits and contribute to the field of marketing practice. Firstly, as this thesis is the first to analyse and collate many brand image data sets, it will be beneficial for companies to refer to this study when analysing their own brand image results. It is hoped that doing so will assist companies to further understanding about how their brands are performing and what specific areas need improvement. Additionally, the Tableau method and large-scale data analysis conceptualised for this thesis could be used as a blueprint for marketers to follow, as there is no evidence in the literature of Tableau currently being used for this specific purpose. This ground-breaking approach to brand image data analysis will allow marketers to extract more strategically relevant information from their data, revamping the value of this type of marketing analytics.