Segmenting McDonald’s: A Brand Mapping Approach

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Abstract

Segmenting is a fundamental strategy in Marketing and a means of gaining a competitive advantage for an organization. However, there has been little or no development in the methods of segmenting markets in recent times, and the implementation of segmentation is often ineffective. We forward a new consumer driven means of segmenting markets based on the associations held in memory by consumers of brands.

These associations are captured using mental maps (John et al, 2006). However, John et al’s (2006) approach then aggregates individual maps into a consensus map. This is at odds with a basic tenet of marketing - that markets are not homogeneous but heterogeneous. We therefore amend John et al’s (2006) methodology by developing a post hoc segmentation approach to produce internally coherent segments based on similarities/differences between individual brand map structures. This amounts to a new approach to market segmentation using brand associations which, importantly, directly influence attitudes and decision making (Keller, 1993). The resulting brand segment maps are presented and the segment differences discussed. Also, the practical usefulness of this approach is developed.

Introduction.

It has generally been accepted that consumers carry mental maps of brands in their memory. In the past, academic branding texts have conveyed this by using subjective mental maps of well known brands such as Nike (Peter and Olson, 1993), MTV and Rolex (Keller, 2008) and McDonald’s (Aaker, 1996). The latter is reproduced as Figure 1. The map illustrates a gestalt knowledge structure of McDonald’s; that consumers have an overall view of the brand and a pattern of linked associations that go to make up the whole. So for example, in addition to identifying McDonald’s brand associations, it illustrates how these associations are linked together and to the brand. It infers a sub-grouping of associations that relate associations of
Fun/Family and Kids directly to the brand and to each other. In addition it depicts indirect relationships (i.e. links to Fun/Family/Kids) such as Playground and Birthday Parties that link to the brand through other ‘closer’ associations.

**Figure 1. Hypothetical Brand Map of McDonald’s (Aaker, 1996).**

Apart from being intrinsically interesting, such maps depict brand associations which have in turn been identified as core to consumer decision making (Alba *et al.*, 1991). More specifically, “Consumers use brand associations to help process, organize and retrieve information in memory and to aid them in their purchase decisions” (Low and Lamb, 2000). As such, brand associations are a core component of any brand’s equity (Aaker, 1991; Keller, 1993). Consumer mapping is supported by the Associative Network model (ANM) of consumer learning which has been developed over some considerable time by cognitive psychologists (Anderson and Bower, 1973; Collins and Loftus, 1975; Wyer and Srull, 1989). From an ANM, consumer learning perspective, brands are those associations about a particular object that are held in a person’s memory (Keller, 1993). Memory of a brand is
made up of individual pieces of brand information or nodes. These nodes are linked together
in memory to form a more complex associative network (Anderson, 1983a). Importantly, the
associative network is dynamic. A brand node may be recalled from memory by a process
known as activation when one association stimulates the recall of another, linked node of
information from memory (de Groot, 1989). Moreover, such activation ‘spreads’ from an
association to another or others, producing a chain reaction and providing the “‘energy’ that
runs the cognitive machinery” (Anderson, 1983a, p. 86). For example, nodes such as ‘fast
food’, golden arches, burgers may well be brought to mind (stimulated recall from memory)
by the brand name McDonald’s through associative node spreading activation (Collins and
Loftus, 1975; Anderson, 1983b). Any association when stimulated has the potential to
activate other brand nodes that are linked to the brand and previously stored in memory. It is
postulated that it is this spreading activation process from a brand name to brand associations
recalled from memory which is portrayed within a concept map. The map therefore shows
the associations themselves and, equally importantly, the structure of the associations and the
way they are linked together in the minds of consumers.

The limitation of brand mapping as reflected in Figure 1 is that it is subjective, reflecting the
idealised view of a brand by one person – i.e. Aaker (1996). This limitation was removed
with the publication of a well tested method (in terms of reliability and validity) for the
efficient production of numerous brand concept maps and a single map that sums up all the
individual maps – a consensus brand map (John et al., 2006). The contribution of this paper
is to explore the wider potential of brand concept mapping for practicing brand managers; to
identify its ability to produce meaningful maps which reflect the associations specific
segments of a market have of a brand, to analyse the differences exposed and discuss the
wider practical implications of this.
2. Brand Concept Mapping

Empirical brand mapping has been carried out for some time but the methodology underpinning their construction has been built on established but ultimately cumbersome, qualitative research such as the ZMET approach (Zaltman and Coulter, 1995). This changed with a new brand concept mapping (henceforth BCM) methodology whose merits include a simple protocol for the development of maps and the ability to develop a consensus concept map from individual ones (John et al., 2006).

The protocol for constructing a BCM begins with asking consumers to identify those associations they think are relevant to an identified brand and then linking these associations together to produce their own brand map. When they have done this, respondents indicate the strength of the link between associations by using single, double or triple lines. These are shown herein as black, blue and red lines in descending order of association strength.

Respondents also add the direction of their feelings with regards theses associations from -1 (negative), 0 (neutral) to +1 (positive). This allows for strongly held negative and positive views to be recorded on the individual and consensus maps. To develop a consensus concept map from the individual maps, first and second order brand associations are classified as those that feature on the majority of individual maps. First order associations are those which are linked directly to the brand more often than not whilst the second order associations are those which link to the brand via the first-order associations. Tertiary associations are then included, based on their high frequency links to first and or second order associations (but not directly to the brand itself).

The research reported on herein uses an outwardly homogeneous group of consumers (namely 250 undergraduate students studying at an English University) to produce brand maps for McDonald’s.

The result of the BCM process is provided in the consensus map for McDonald’s shown in Figure 2.
In comparing the hypothetical map (Figure 1) with the one built on consumer research (Figure 2) it is apparent that the latter, ‘real’ map is more complex and less straightforward than the idealized one in Figure 1. Also, the actual, research-derived map reflects both positive and negative views of the McDonald’s brand, with two core associations that are strongly linked (shown as the thickest, black lines) being ‘unhealthy’ and ‘fast’. As it stands, the consensus map tells us that consumers hold very complex and at times conflicting set of associations that differs markedly from the clear cut structure as shown in Figure 1. This poses a question; is the brand incoherent or is the consensus map confounding more coherent ‘groups’ of consumer views about the brand. We consider this in terms of theory and mapping research next.

**Segmentation Using Brand Concept Mapping**

Segmentation is a key strategy for the implementation of a customer orientation and in the longer term, is a source of competitive advantage and improved profitability (Wong and
Saunders, 1993). The seminal works of Smith (1956) and Wind (1978) have directed marketers to expect that markets are not homogeneous, but need to be divided into subgroups which share common features and are different from other subgroups. This is at odds with John et al’s (2006) Brand Concept Mapping (BCM) approach, where individual brand maps are aggregated to produce a single consensus map, like the one illustrated in Figure 2.

Apart from being debatable in segmentation terms, in mapping terms too, aggregated maps constructed from an entire population have been shown to provide a poor reflection of some individual maps (Henderson et al, 1998).

Being able to segment using brand maps is of course only relevant if there is a practical use for the segments produced and doubts as to the effectiveness of segmentation in practice have surfaced (Dibb and Simkin, 2009). Part of the problem has been the incorrect usage of segmentation approaches for the strategy being followed by the organisation (Yankelovich and Meer, 2006). The brand mapping approach identified herein is not useful, for example, in targeting a direct selling approach. However, as it reveals how consumers perceive a brand, it offers insight for a brand’s communication strategy. It identifies which associations are core to the brand and also which secondary associations ‘reinforce’ these core associations in consumer memory. By focusing a communication strategy on building the positive associations and reducing the negativity of others, the overall image of the brand may be enhanced and, with it, overall brand equity (John et al, 2006).

To improve the BCM approach we therefore amend John et al’s (2006) methodology by developing a post hoc segmentation to produce internally coherent segments based on similarities/differences between individual brand map structures. A standard clustering method (Ward’s minimum variance method) is used to generate BCM segment maps, and some of the more interesting ones are supplied and discussed next. The discussion focuses on the differing communication tasks indicated by each segment.
Discussion of Selected Segments and Practical Implications

The segmentation process produced seven discrete sub-groups of respondents based on their associations and the way these linked together. These sub-groupings were then subjected to the aggregation process as recommended by John et al (2006) to produce the seven maps, a selection of which are supplied and discussed next. Clearly, as a non-representative sample of McDonald’s customers was used in this exploratory research, the discussion that follows must bear this caveat in mind.

Generally it is clear that the segments differ in two broad ways. Firstly, some maps are more dense than others (i.e. they exhibit more core, secondary and tertiary associations with the McDonald’s brand). The same segments tend to also exhibit stronger associations in terms of the linkages, particularly between the brand and the core associations. Segment 3 is one such segment containing 9 core associations that are directly linked to the brand, 5 of which are strongly linked and with 24 associations in the overall map. Segment 7 by comparison has 5 core associations directly linked to the brand only 1 of which is strongly linked and with 15 associations in the overall map. It is thus possible to identify segments with ‘stronger’ brand maps (not necessarily always more positive) than others (see French and Smith (2010) for more detailed coverage of measuring concept map strength). From this we can conclude that, as brand equity is built on brand associations (Keller, 1993), McDonald’s equity varies across these segments.

Turning to the individual segments we are able to identify specific issues that brand managers could identify and use to communicate more meaningfully with the individuals in the group.
Figure 3. Segment 3: The Rough with the Smooth (17%) 

This segment reveals a dense brand map with clear ‘groupings’ of associations around happy meals and children; Arches and the ‘I’m loving it’ strapline (i.e. the brand’s properties); McDonald’s unhealthy association grouped with greasy, salt and obesity associations; its convenience grouped with fast, easy and with good service at a low price associations; its core association with burgers that are tasty and associated with other McDonald’s food products. Consumers in this segment appear to have a balanced view between the benefits and drawbacks of the brand but the unhealthy core association is strongly held and ‘reinforced’ by four other associations. Communicating the fact that burgers are low in salt and fat would be a means of enhancing the image of the brand overall.
Figure 4. Segment 5: I’m Lovin It (9%)

This is the most positive segment of all in that the strongest associations with the core brand are the tastiness of the food and its high level of service. There are some negatives but these associations are less strongly held, and in terms of unhealthy, less negatively perceived than other segments. A communication strategy that reinforces existing positive associations in this segment is suggested.

Figure 5. Segment 7: No Great Shakes (27%)

This is the largest segment but clearly also one which has a relatively limited number of
associations (compared to other maps) and which is dominated by the brand’s unhealthy image. The more positive elements of the brand are less strongly held so likely to be less influential. For example, there is no association between burgers, fries and tastiness. Most of the other associations appear to be neutral observations of the brand, its scope, its speed of service and brand properties (Arches and brand strapline). This segment represents a challenge to McDonald’s in that the mental maps of respondents are not very dense (relatively few associations) but most strongly associated, negatively, with unhealthy food. A communication strategy that built more positive associations (for example, on service to support the fast, cheap and easy associations) and strengthen the existing core associations would seem appropriate. As with other segments, a core but strongly held negative ‘unhealthy’ association is evident and needs addressing, possibly by focusing on one or several of the greasy, obesity, supersize associations that ‘support’ the core association.

**Conclusion**

This paper has explained how brand concept maps are constructed and, using a basic clustering approach, how brand concept map segments may be developed. The communication strategy and brand image building potential of this approach has also been considered using a sample of the brand maps developed. The segments offer a means for brand managers to better communicate with their actual and potential customers, talking about things which reflect the way they, the segment members, understand the brand. All segments have some common associations that may be addressed using an undifferentiated communication approach covering the whole market. Individual segments have different associations of the brand and will respond to more targeted messages and the use of a differentiated communication mix segmentation approach.

As BCMs are relatively straightforward to collect from the marketplace, their use by practicing brand managers to gain a better understanding of the mental maps that similar groups in the marketplace carry with them in their heads seems assured. Likewise, using
brand map ‘informed’ communication strategy to reinforce positive/offset negative
associations suggests a practical means for enhancing a given brand’s equity.

References


Robertson, T.S. and Kassarjian, H.H. (Eds.), *Handbook of Consumer Behaviour*, Prentice-
Hall, Englewood Cliffs, New Jersey, pp. 1–49.

Anderson, J. R. and Bower, G. H. (1973), *Human Associative Memory*, Erlbaum, Hillsdale,
New Jersey.

Cambridge, Massachusetts.


frequency as assessed through word association”, *Journal of Educational Psychology:


Branding Effects Using Consumer Associative Networks”, *European Journal of Operational
Research*, Volume 111, Number 2, pp. 306-327.


