The market-based assets theory of brand competition

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ABSTRACT

Kotler popularised the Segmentation, Targeting, Positioning (STP) theory of brand competition. This theory still dominates marketing textbooks. In this article we show how the discovery of scientific laws concerning how brands compete, grow, and decline clash with the STP theory. The contradiction between these empirical regularities and STP theory has led to the recent emergence of a new market-based asset view of brand competition. We show how this theory fits the now well-established empirical laws, and we discuss some promising areas for future research.

1. Introduction

Many disciplines have a central question. In business strategy research, the central question is along the lines of 'why do some firms earn more or less profits than their competitors?'. A candidate for marketing science's central question is 'why do some brands sell more or less than their competitors?'. The fact that rival brands can offer similar products, at similar prices, but sell vastly different volumes has long intrigued scholars, and also marketers and investors. Yet, the traditional view of brand competition that has dominated marketing education for sixty years fails to provide an adequate explanation for why some brands sell far more (or less) than others. Nor does this traditional view fit with several now well-documented empirical laws.

In this article we outline what has been the dominant Segmentation, Targeting, Positioning (STP) theory of brand competitiveness, popularised by many, especially Philip Kotler.[1] We show how STP theory does not predict, let alone fit with the empirical laws which describe how brands compete, grow, and decline. We present extensive evidence, that covers many countries and a vast number of product/service categories, that supports a market-based asset theory of brand competitiveness. In turn, this theory and evidence provides an explanation of why some brands are much bigger than others.

1.1. The beginnings of segmentation, targeting, positioning theory

The concept of marketers as "mixers" of demand-influencing activities entered the literature in the 1950s (Smith, 1956). It was in the 1960s that McCarthy's mnemonic checklist of the '4Ps' appeared. McCarthy's (1960) 4Ps then went on to feature in most, if not all university textbooks, particularly after being adopted by Philip Kotler.

Kotler's first edition of *Marketing Management* (1967) included lengthy coverage of the optimisation of the marketing mix, before individual chapters on decisions for each of the 4Ps. This optimisation material disappeared in later editions, and was replaced by chapters on segmentation, targeting and positioning, value creation, customer satisfaction and loyalty.

As a theory of brand competitiveness, the marketing mix is an extension of economics' 'perfect competition' model but with now four main types of demand driver, not just price. Under the 4P's view, brand competition is portrayed as a battle to identify and deliver the marketing mix that generates highest demand. Marketers are portrayed as optimisers, and use techniques such as marketing mix modelling and choice modelling to work out the most attractive and profitable marketing mix they can offer.

While it would be difficult to overstate the influence of the 4Ps even today, there were immediately rather obvious problems for the "best marketing mix wins" model. For example, even well-resourced corporations regularly launch carefully researched and consumer-tested new products and brands only to see them fail (Victory et al., 2021). Failure is even common for new product launches that have been judged 'winners' by consumers and industry experts (Victory and Tanusondjaja, 2023). Even with hindsight it is not always apparent what would have been the

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[1] We use the terms '4P's theory' and 'STP theory'. It can be argued that the 4 P's and Segmentation, Targeting and Positioning are not formalised theories, but they certainly serve as informal theories consistent with the broad idea that a theory is a set of ideas intended to help understand a phenomenon, in this case, how brands compete and succeed.

better marketing mix in terms of brand competitiveness. Even predicting which advertisements will perform better than others was then, and still is now, apparently beyond marketers' ability (Hartnett et al., 2016).

Contrary to the 4P's theory, and brand competition simulations based on it (e.g., BrandMaps, MarkStrat), sales and market share appear surprisingly resistant to changes in the marketing mix. Elasticities, especially for large brands, for both price (Bijmolt et al., 2005) and advertising (Sethuraman and Tellis, 1991) turned out to be remarkably low. In other words, the market showed little and a rather slow response to changes in the marketing mix. Advertising weight tests, for example, can show a near zero response even when ad spend is doubled (Hu et al., 2007; Hu et al., 2009).

Large-scale studies show that brand market shares tend to be quite stable over multi-year periods, including in fast-moving consumer goods markets (Dekimpe and Hanssens, 1995; Dunn et al., 2021) and also for retailers (KantarWorldPanel, 2021). Market share stability is also seen in durables markets such as cars (e.g., Knoema, 2023) and for services such as airlines (e.g., Statista, 2023c). This is not to say market share change does not happen, but rather when it does, it often occurs as small changes over a number of years.

1.2. Segmentation, targeting, positioning theory

Brand competitiveness appears to be more mysterious than the "best marketing mix wins". With this realisation, marketing textbooks quickly embraced the complexity in brand competition, along with rising page counts, proposing a theory of brand competition that emphasised segmentation, targeting and differentiation. Even Philip Kotler declared in a recent interview that no-one should read his original textbook because it did not contain his later theory (Kotler, 2023). The re-developed Kotlerian approach to marketing is best illustrated by a quote in Kotler and Keller (2021):

'A company discovers different needs and groups of consumers in the marketplace, targets those it can satisfy in a superior way, and then develops a value proposition and positions its offerings so the target customers recognize the benefits of its offerings. By clearly articulating its value proposition and positioning, companies can deliver high value and satisfaction, which lead to high repeat purchases and ultimately to greater company profitability' (p. 167).

Lynn describes (Lynn, 2012) this theory and its prevalence

'Almost any marketing textbook will tell you that the key to successful marketing can be summed up by the STP strategy—that is, segmentation, targeting, and positioning. This approach suggests that the mass market consists of some number of relatively homogeneous groups, each with distinct needs and desires. STP marketers attempt to identify those market segments, direct marketing activities at the segments which the marketers believe that their company can satisfy better than their competitors, and position their product offering so as to appeal to the targeted segments' (p. 353).

This line of logic is echoed in many other works on marketing management, strategic marketing, and global marketing, such as: Lamb et al., (2015 ch. 5), Pride et al. (2021 ch. 5), Iacobucci, (2021 ch. 4–5), Proctor (2020 ch. 8) and (Schlegelmilch, 2022 ch. 6).

We refer to this approach as Segmentation, Targeting, Positioning (STP) theory. Under this theory, marketers are told to try to serve different customers than competitors, and/or to fulfil different customer needs rather than compete 'head on'. Marketers are also urged not to compete on price, but instead to instil loyalty (i.e., repeat purchasing) to inure buyers to competitor marketing activities.

The STP theory is not in 'competition' with the 4P's framework but rather, the latter is more tactical while STP is more strategic in nature (Kotler, 1989). At face value STP theory fits the real world far better than the 4P's framework when applied on its own. This is because of the empirical observation that markets can support many rival brands

despite some brands having very similar marketing mixes. Similarly, unlike the 4Ps theory, STP theory fits with the observed evidence that many brands, even small ones, last many years, even decades (e.g., Pears Soap has been in the market for over 200 years). The STP theory of brand competition also fits better with the observation that there are typically mild reactions (stability in market share) when rival brands change their marketing mixes. While STP theory recognises brands do compete, the ideal way to compete under STP theory is portrayed as rather indirect. In other words, STP theory suggests brands can be thought of as analogous to village general stores, with each store serving its village, with little overlap in customer bases.

Ironically, STP theory can also appear to be somewhat anti-marketing, or at least anti-sales and anti-marketing departments. This is because the STP theory suggests brands position themselves to fill their niches, and then the battle should be over. Kotler (1989) even suggests that successful targeting will practically negate the need for on-going marketing because if done well, then the product should practically sell itself. This viewpoint reflects the prominent *absolute* perspective, in contrast to a recently introduced concept of brand competitiveness that suggests measurement and management of brands *relative* to other brands (see, Baumann et al., 2017; Winzar et al., 2018).

2. Empirical observations on brand competition

Over the same decades that STP theory cemented itself as the dominant way to teach and practice marketing, empirical research has documented a number of empirical patterns and scientific laws concerning how brands grow, decline, and compete. Like the scientific laws discovered in other disciplines, they show that the real world is an unusual place that doesn't conform to intuitive theory. In this paper we present a subset of these empirical discoveries that relate to how brands compete, but that clash with STP theory.[2] That is, we examine some of the generalised empirical discoveries that contrast with the key precepts of the STP theory of brand competition, namely that segmentation, targeting and positioning is used to assemble the 4Ps in such a way that brands can.

a) serve particular customers better than rival brands,
b) as a result of differentiating the brand,
c) which increases customer satisfaction,
d) driving repeat-purchase.

In our examination of this issue, we specifically highlight examples of how retailing and consumer services brands exhibit these empirical patterns.

2.1. Observation #1: competing brands share customers

First reported for TV viewing in the science journal *Nature* (Goodhardt, 1966), and then later in brand purchasing (e.g., Ehrenberg, 1988), the existence of the Duplication of Purchase Law is an extremely inconvenient empirical regularity for the STP theory. This law-like pattern reveals all competing brands share their customers with all other brands in the category (Ehrenberg, 1988) and the degree of the customer sharing between competing brands in a category in any given period is simply proportional to the relative market shares or penetration (i.e., the % of buyers buying or using) of each brand. In other words,

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[2] There are also several other empirical discoveries which clash with the working of how brands compete posed by STP theory, but space constraints prevent proper coverage of them here. These discoveries include the Negative Binomial Distribution (NBD)/Ehrenberg's Law of Buyer Frequencies and the NBD-Dirichlet model of category and brand purchase propensities (see in, Driesener and Rungie, 2022; Ehrenberg et al., 2004; Goodhardt et al., 1984; Sharp et al., 2012).

the Duplication of Purchase Law demonstrates competing brands do not 'own' their customers. This is a certainly a picture of very direct competition, much different to the aim of avoiding competition by making the brand's positioning unique, then targeting the appropriate people.

The Duplication of Purchase Law can be expressed algebraically as.

$$b_{Y|X} = D \times b_Y$$

Where $b_{Y|X}$ is the percent of buyers of X who have also bought Y; D is the constant known as the duplication coefficient; and b_Y is the percent of the population who have bought Y.

Since the Duplication of Purchase Law was first described in the 1960s (Goodhardt, 1966; Goodhardt and Ehrenberg, 1969), thousands of studies by commercial marketing analysts, as well as academic researchers, have shown that even in quite short time periods many consumers are multi-brand buyers. This empirical regularity has even been observed in categories where extreme loyalty is often expected (e.g., Dawes, 2008, 2014). Multi-brand buying was previously interpreted as being due to some consumers changing their loyalties (i.e., preference), defecting from one brand and taking up another. For example, Kotler (1967, p. 235) presented a hypothetical brand switching table along with a discussion about how patterns in brand switching could be used to reveal how brands compete (see Table 1).

Unfortunately, the table presented in Kotler (1967) was made of hypothetical data and did not reflect actual buying behaviour. It showed patterns that would be expected under STP theory, but such a pattern rarely, if ever, appears in the real world. This example hypothesised that *zero* customers switch from Brand C to Brand A, but 10% of Brand A's customers switch to Brand C; and more customers switch from Brand B to Brand C than stay with Brand B. These switching patterns are highly infeasible, and violate the empirical patterns observed using the Duplication of Purchase Law.

Even the concept of switching turned out to be largely incorrect, although it is a more apt model in subscription markets like insurance where consumers tend to have smaller repertoires and greater sole brand loyalty (Sharp et al., 2002). In reality, consumers are multi-brand buyers and sole-brand loyalty is rare (e.g., Cannon et al., 1970), instead (repertoire) polygamous multi-brand loyalty is overwhelmingly the norm (e.g., Ehrenberg and Scriven, 1997; Zhang et al., 2017). This means consumers do have repertoires of brands which they show considerable loyalty to, but the loyalty they demonstrate is a very long way from being exclusive.

We now illustrate this empirical fact in Table 2 using data from retail banking in the United Kingdom, a product category not intuitively thought to be a repertoire (polygamous loyalty) market. The data was sourced from YouGov, who run a large, demographically representative survey panel in the UK (YouGov, 2023) comprising over one million consumers. We use two annual time periods, 2019 and 2022, to demonstrate the broad pattern of multi-brand loyalty, then examine the growth pattern of a new entrant, Monzo. Table 2 presents the 2019 data from the twelve leading retail banks, in penetration (size) order. The table shows the cross-bank usage. For example, looking at the row for Nationwide, 21% of consumers bank with it, and of those, 23% also bank with Santander, 22% bank with Halifax, while only 5% also bank with

the small brand Monzo. The Duplication of Purchase Law is plainly evident: these brands all share their customers with the other banks in the market, in line with the size of those other banks.

By reading across Table 2 from left to right, we see that sharing of customers declines in-line with brand size. That is, bank brands share more of their customers with the other bigger brands, and they share fewer of their customers with smaller brands. The correlation between brand penetration and the average proportion of other brand's buyers using the brand is near perfect (r = 0.98). The marketing implication is that brands – such as these retailing and consumer services brands - compete largely 'head on' against all their competitors, a very different conclusion than the STP theory of competition.

The Duplication of Purchase pattern is the norm but there can also be instances of brands that share more of their customers than expected. An example in Table 2 is Tesco Bank, where more Tesco Bank customers use any other bank (apart from Monzo). For example, 33% of Tesco Bank customers also bank with Nationwide, whereas the average rate of sharing of all brands with Nationwide is 24%. This deviation is also shown for Santander, where 28% of Tesco Bank customers also bank with Santander, compared to the average rate of sharing of 21%. These differences can exist, but the overwhelming pattern is sharing (competing) in line with brand size.

The Duplication of Purchase Law strongly suggests that brand growth will come from gaining some more cross-purchasing from *all* of one's competitors. Support for this pattern is shown from Table 2 to Table 3 for Monzo, a small brand with only 4% initial penetration. Monzo grew to a 9% penetration brand by 2022, and we can see in Table 3 it did so by getting more cross-purchasing from *every* other bank. For instance, we see Monzo went from having 5% of Nationwide customers also banking with it in 2019 to 8% in 2023, and 4% of Santander customers also banking with it in 2019, to 10% in 2023, and so on. In other words, Monzo grew by attracting customers 'across the board' from competitors. This growth pattern goes completely against the idea that brands must necessarily identify and target a segment. One could say there might have been a segment 'out there', waiting for a brand like Monzo to tap into, but that would mean that previously all the other banks had attracted some of the same segment, which again does not fit with STP theory.

The pattern seen in Tables 2 and 3 also goes against the idea that brands primarily grow by developing a unique positioning or value proposition. If these banks had grown to their current level based on unique value propositions or positioning, that implies they *each* would have customer bases that desire or respond to a specific value proposition. It is difficult, therefore, to see how a growing competitor would acquire customers from *all* of them. So, the evidence here, and in extensive past work using Duplication of Purchase analysis (e.g., Anesbury et al., 2021; Ehrenberg, 1988), suggests brands compete rather directly against all competitors rather than by targeting and creating semi-protected niches or sub-markets (see also Lynn, 2013).

The outcome of this law-like empirical pattern suggests that a brand's targeting and positioning is not affecting which other brands it competes more (or less) closely with. Direct tests comparing brands' image positioning using consumer perceptual maps to customer overlap shows the Duplication of Purchase Law followed by geographical location (where the brands are sold) explain inter brand competition, not each brand's image positions (e.g., Sharp et al., 2003; Sharp and Sharp, 1997). Together, these points begin to raise questions about how well STP theory explains brand competition. For marketers, including those involved with retailing and consumer services brands such as banks, this empirical evidence indicates that competition is very direct and 'head on'. Managers should recognise this fact when constructing their marketing strategy and plan to grow by targeting category buyers rather than by fulfilling a narrowly defined niche.

Table 1
Kotler's (1967) Hypothetical brand switching example.

		To:		
		Brand A	Brand B	Brand C
From:	Brand A	0.70	0.20	0.10
	Brand B	0.17	0.33	0.50
	Brand C	0.00	0.50	0.50

The hypothetical patterns of brand switching are at odds with the cumulative evidence of how customers are shared among competing brands. Table adapted from Kotler (1967, p. 235).

Table 2
Duplication of retail banking customers, UK 2019.

	% banking with:	% also banking with …											
		Nationwide	Santander	Halifax	Barclays	Lloyds	Natwest	HSBC	Tesco	RBS	First Dir	Co-op	Monzo
Nationwide	21		23	22	18	14	15	12	15	5	7	6	5
Santander	19	25		23	18	13	13	11	14	5	6	5	4
Halifax	19	25	23		21	15	15	14	17	6	7	5	4
Barclays	18	22	20	22		15	14	12	16	6	6	5	6
Lloyds	14	23	18	21	19		11	10	15	4	5	4	4
Natwest	14	22	18	20	18	12		10	13	4	5	4	6
HSBC	12	22	18	21	18	11	12		15	4	7	5	8
Tesco Bank	10	33	28	30	27	20	18	17		8	12	6	3
RBS	6	21	19	20	20	10	11	9	14		6	6	5
First Direct	5	27	23	25	19	12	13	15	22	6		5	6
Co-op	5	26	19	19	18	11	10	11	12	7	6		4
Monzo	4	26	22	18	24	15	19	23	9	7	8	4	
Average	**-**	**24**	**21**	**22**	**20**	**13**	**14**	**13**	**14**	**6**	**7**	**5**	**5**

All competing brands will share their customers with other brands and will do so broadly in-line with their brand's size (penetration) in the category. Data Source: YouGov BrandIndex UK 2023 © All rights reserved.

Table 3
Duplication of retail banking customers, UK, 2022.

	% banking with	% also banking with …											
		Nation	Halifax	Santan	Barclays	Natwest	HSBC UK	Lloyds	Tesco	Monzo	First D	RBS	Co-op
Nationwide	21		20	21	18	16	13	13	12	8	8	5	5
Santander	19	23	19		19	15	14	13	12	10	7	5	4
Halifax	18	23		20	20	16	14	15	14	8	8	6	4
Barclays	17	22	20	20		15	15	14	13	9	7	4	4
Natwest	15	22	20	19	18		13	11	11	11	5	4	4
Lloyds	14	21	20	18	18	12	11		12	8	6	4	3
HSBC	13	22	20	20	19	14		12	11	11	7	3	3
Tesco Bank	8	31	30	27	27	19	17	20		8	13	7	5
Monzo	8	23	19	25	21	21	18	14	8		8	4	4
First Direct	6	27	24	23	19	13	15	14	18	11		4	4
RBS	4	22	22	21	16	12	9	12	13	7	5		5
Co-op	4	25	19	17	17	13	11	11	10	8	6	5	
Average	**-**	**23**	**21**	**21**	**19**	**15**	**14**	**14**	**12**	**9**	**7**	**5**	**4**

Note: The row and column order are different in Table 2 (compared to Table 1) due to some banking brands growing or declining from 2019 to 2022. Data Source: YouGov BrandIndex UK 2023 © All rights reserved.

2.2. Observation #2: competing brands sell to similar customers

Another well-established empirical generalisation, that conflicts with STP theory, is that the brand user profiles of competing brands tend not to differ. In other words, the buyers of competing brands within a category look strikingly similar in terms of potential segmentation criteria such as demographics and lifestyle (e.g., gender, age, income).

This empirical regularity has been repeatedly documented, across a range of markets and segmentation variables. For example, a lack of brand-level segmentation has been observed across many consumer goods categories (e.g., Anesbury et al., 2017; Hammond et al., 1996; Uncles et al., 2012), as well as durables and services (Kennedy and Ehrenberg, 2001b). In relation to retailing, United Kingdom grocery retailers were found to sell to consumers with extremely similar demographics, attitudes and media use (Kennedy and Ehrenberg, 2001a). Sportswear brands were shown to have little differences in appeal across consumer segments in the UK, using both simple demographics and the sophisticated ACORN geodemographic targeting scheme (Dawes, 2009). Lynn (2007) found no meaningful segmentation differences between competing hotel and cruise ship brands. Lynn (2013, p. 92) later concluded in a study of quick service restaurants, 'most … time, energy and money should be devoted to mass marketing and not targeting subsets of consumers'.

The similarity of brand user profiles appears to hold in consumer panel data (e.g., Hammond et al., 1996) as well as survey data (Kennedy and Ehrenberg, 2001b). The cumulative empirical evidence, including those about retailers and other service providers, is in contrast to case studies highlighting the value in niche segments (see, Dibb and Simkin, 1991).

It should be said that a large body of work exists on the topic of segmentation – much of it concerned with how to *do* segmentation. A plethora of segmentation schemes and approaches have been examined in scholarly literature, such as segmenting by loyalty (Frank, 1967), values and lifestyles (Novak and MacEvoy, 1990), product involvement (Lockshin et al., 1997), benefits (Cermak et al., 1994), even astrological signs (Mitchell and Haggett, 1997). However, even segmentation proponents find results that are consistent with the finding that brand user profiles differ little. As Fennell et al. (2003, p. 223) wrote, after analysing 52 product categories looking for segments using dozens of potential segmentation variables, '[d]emographic and general psychographic variables … are not useful for predicting relative brand preference'.

The finding that competing brands' customers look similar, while surprising for many marketers, can be seen as good news. It suggests there are many people potentially available to purchase one's own brand, and an overwhelming majority of brands do not have to pigeonhole their activities and sell to a specific target segment. Instead, 'competition ultimately means selling successfully to the same potential customers' (Hammond et al., 1996, p. 48). This is not a bleak story for marketers, but rather an enabling one. Pairing this finding with knowledge about the key difference in brand performance metrics between large and small share brands is the size of the customer base (see later in paper), it becomes clear that the route to brand growth is to acquire people who purchase the category. This is the sustainable path

to brand growth, including for retailing and consumer services brands.

Kotler (2004, p. 10) asserts that not understanding one's target customers is a 'deadly sin' in marketing. The often-overlooked similarities in competing brands' customer bases, along with the regularities seen in the Duplication of Purchase Law (discussed above), are useful analysis approaches that help brands understand their customers. Additionally, they highlight how STP theory misleadingly says that brands should sell to different sorts of customers. Because competing brands share their customers with other brands, and these customers tend to have similar profiles, this logically calls into question the belief that customers need to perceive brands as being different in order to purchase them and develop loyalties. We next look at the evidence on perceived brand differentiation and how it contrasts to the rationale proposed from STP theory.

2.3. Observation #3: competing brands are weakly differentiated

Past research investigating the perceived differentiation of competing brands has produced the finding that even loyal (regular) buyers of a brand are unlikely to perceive it as very different from competing brands. Even for the most successful (high share) brands in a market, very few brand users, only around one in ten, state that the brand they use is either 'different' or 'unique' (Romaniuk et al., 2007). This research included brands operating in packaged goods and durable categories (e.g., cars), in addition to retailers (e.g., supermarkets) and consumer service brands (e.g., banking). This discovery was originally made using Young & Rubicam's Brand Asset Valuator data (see, Romaniuk et al., 2007), and was later independently replicated in Kantar's BrandZ tracker (see, Hollis, 2011). The latter study tracked over 6000 brands over a 10 year period and revealed 'the proportion of people willing to endorse any brand as "different from other brands of (a specific category)" is low' (Hollis, 2011, p. 2).

This finding has been corroborated in other brand image data, which again shows striking similarities in the way that those who are familiar with a brand see *their* brand, and those that are familiar with another brand see *theirs* (Collins, 2002). Other research using brand image data shows that many customers do not uniquely associate the brands they buy, even the highly successful ones, with any particular image perception (Romaniuk and Gaillard, 2007). Indeed, extensive evidence shows that competing brands tend to *share* brand attributes with other brands far more than they stand out on any one particular image attribute (Collins, 2011; Dawes, 2011; Romaniuk, 2001). Moreover, buyer's brand image associations for brands appear to generally not be strongly held, as only around 50% of respondents attach the same attribute to a brand when they are re-interviewed (Castleberry et al., 1994; Dall'Olmo Riley et al., 1997; Rungie et al., 2005). These facts contrast with the idea that it is essential for a brand to build 'strong, favourable and unique brand associations' to be bought and to enjoy high loyalty (Kotler and Keller, 2015, p. 311), as per STP theory and related work (John et al., 2006; Keller, 1993). Keller (2014, p. 706) does discuss the idea that a brand can emphasise points of *parity* not just points of *difference*, but adds that to be in a strong position, a brand should achieve an advantage on those points of difference.

A corroborating picture about the role of differentiation is seen in new product research. A traditional saying is that "good marketing can't save a bad product" but nowadays most brands do not launch 'bad' products, their launches are well made and are pre-tested for consumer acceptance. Furthermore, new launches have often had the opportunity to lie in wait and learn how to create 'superior value' over the options available in the market. Some new launches might have this opportunity, but there are still many new product failures (Victory et al., 2021), including new private label products (Salnikova et al., 2020). Even many new launches voted 'Product of the Year', which are innovative in some way and are consumer-voted successes, end up being withdrawn (Victory and Tanusondjaja, 2023). These are seemingly not to do with offering poor value to consumers but rather likely due to their failure to

adequately build physical and mental availability. Indeed, recent evidence points to the importance of distribution (a component of physical availability) in new product success (e.g., Sinapuelas et al., 2015). Together, these results downplay the importance of building a position based on differentiation and superiority, and instead support the importance of building market-based assets, even when it comes to new products.

2.4. Observation #4: competing brands have similar satisfaction scores

Kotler and Keller (2021) state that offering products that are superior to competitors leads to satisfied customers, who then repeat-purchase, ensuring the ongoing success of the firm or brand. It seems a truism that offering great products or services should lead to customer satisfaction, and indeed having highly satisfied customers is desirable. However, the relationship between customer satisfaction, loyalty and brand competition is far from the simple picture painted in STP theory.

In this respect, STP theory is at odds with one of the best-known empirical laws of marketing: the Double Jeopardy Law. This law-like pattern shows bigger brands (with more customers) get a bit more loyalty, and small brands (with fewer customers) get a bit less. This pattern is described in more detail in the next section. Despite the clear patterns between big and small brands in terms of size and loyalty, there is generally *not* a clear relationship between a brand's satisfaction levels and its market share (e.g., Fornell, 1995).

Take the example of the satisfaction of retail banking brands in the United Kingdom (see Table 4). Data in Table 4 was supplied by a commercial research project. The banks have around a 6-fold difference in the size of their customer bases (i.e., 32%–5%). The banks with more customers also get similar, but slightly more loyalty, as shown by the average number of products customers have with the brand. However, the level of customer satisfaction these competing service brands receive has no relationship to either their size or loyalty. Instead, all brands have a score that is around 8. We conclude that (a) bigger brands do enjoy a bit higher loyalty, but also that (b) bigger brands don't get higher satisfaction, therefore (c) it is difficult to see how higher satisfaction scores can be assumed to lead to higher loyalty.

Furthermore, individual customers' satisfaction ratings are not consistent over time. Around half of a brand's customers provide a different satisfaction score six week after the initial measurement, despite not having another encounter with the brand over that time (Dawes et al., 2020). Similar instability in repeat rates for brand image attributes is seen in past research (Dall'Olmo Riley et al., 1997).

There is no doubt that satisfied customers are good to have, but satisfaction is not a metric that predicts brand loyalty, nor does it distinguish big brands from small brands. This is certainly at odds with the sentiment that 'satisfaction is the key to building customer loyalty' (Kotler and Keller, 2021, p. 448). This finding also undermines the STP

Table 4
Penetration and satisfaction of United Kingdom retail banking customers.

	% Banking with	Avg. # products	Satisfaction score
Halifax	32	1.7	7.9
Barclays Bank	29	1.8	7.8
Nationwide	26	1.8	8.3
Santander	24	1.6	7.7
Lloyds Bank	20	1.6	7.9
NatWest	15	1.6	8.1
HSBC	14	1.8	7.6
TSB Bank	8	1.3	8.2
Bank of Scotland	7	1.5	8.1
First Direct	6	1.5	8.7
Royal Bank of Scotland	5	1.6	7.9
Average	-	**1.6**	**8.0**

Brands that have more customers have little variation in either their loyalty or satisfaction scores. These results suggest that greater customer satisfaction is not a primarily driver in explaining how brands compete and grow.

viewpoint as to how brand growth and competition occurs. In this section we touched on the fact that firm's satisfaction scores often do not correlate with their size, or their brand loyalty levels. In the next section we further contrast the STP view, that sees loyalty as an outcome of brand positioning or superior value, with further extensive evidence on how buyer and brand loyalty develop.

2.5. Observation #5: competing brands have predictable loyalty

STP theory strongly implies that loyalty has to be earned (i.e., if some brands do better at earning it, they will be rewarded with high loyalty); which has a corollary that brands should be able to vary considerably in loyalty. Moreover, that in order for buyers to show loyalty towards a brand they must perceive it to offer superior value. The empirical evidence, however, again paints a different picture.

Psychological experiments and field studies have documented how quickly buyers adopt loyal behaviours, even to identical offerings. Tucker (1964) found buyers developed repeat-purchase loyalty for identical loaves of bread with the only difference between them being a letter such as L, M, P or H. Similarly, McConnell (1968) found consumers quickly developed loyalty towards three 'brands' of identical beer labelled only with alphabet letters. Other work has documented people develop loyalty towards university lecture seats and even toilet roll orientation (Sharp, 2017a). Therefore, not only do few people perceive competing brands to be differentiated (Romaniuk et al., 2007), they do not have to see them as differentiated to buy them, and re-buy them repetitively.

The other, very well-established fact about brand loyalty is that it is highly predicable from the size of the brand (as briefly mentioned in Observation 4). From as far back as the 1960's, researchers discovered that more popular TV presenters, newspapers, products or brands also enjoyed slightly higher loyalty, while the less popular alternatives also suffered from somewhat lower loyalty (Martin, 1973; McPhee, 1963). From these studies the term 'Double Jeopardy' was coined.

This finding has been generalised over numerous markets including consumer packaged goods, durables, services, and for loyalty in terms of purchasing as well as brand attitudes (e.g., Ehrenberg and Goodhardt, 2002; Ehrenberg et al., 1990; Graham et al., 2017). An illustrative list of recent publications demonstrating the Double Jeopardy Law in diverse contexts is also shown later in the paper. Importantly for this *special issue*, Double Jeopardy has been documented in retailing and consumer services contexts, including in fast food retailing (e.g., Pleshko and Heiens, 2022), convenience stores (e.g., Pleshko and Souiden, 2007), retail banking (e.g., Mundt et al., 2006), and grocery retailers (e.g., Uncles and Ehrenberg, 1990; Uncles and Kwok, 2008).

The Double Jeopardy Law, probably the most famous of all empirical laws in marketing, can be expressed algebraically as:

$W = W_0/(1-b)$.

Where W is brand purchase frequency, W_0 is the constant estimated as the average of $W(1-b)$ for all brands, and b is brand penetration (Ehrenberg et al., 1990).

Double Jeopardy stands in stark contrast with STP theory that suggests brands can carefully accommodate a chosen target segment, satisfy it with superior value and enjoy high buyer loyalty - from a small portion of the market. By contrast, the Double Jeopardy Law (with its widespread empirical support) says that small brands will have predictably lower loyalty.

Market share is informed by the number of customers a brand has, and the behavioural loyalty these customers devote to the brand. The Double Jeopardy Law explains that higher market share is due overwhelmingly the size of the brand's customer base. For example, Driesener et al. (2017) show that toothpaste brands vary 20-fold in their penetration but less than two-fold in loyalty. Similarly, Colombo et al. (2000) examined brand-switching for cars, showing much larger differences in the number of buyers the car brands achieved but dramatically lower variation in the loyalty to those makes. The larger difference

in the size of the customer base, rather than the loyal competing brands receives, is also demonstrated in Table 4. There are some instances where brands have higher loyalty than is expected, but where this does happen the deviations tend to be predictable. For example, private labels often exhibit higher loyalty for their penetration level (e.g., Bound and Ehrenberg, 1997; Dawes, 2022), which is a symptom of the brand having exclusive but restricted distribution (i.e., only people who shop that store can buy the brand).

In turn, these findings show that sustainable brand growth comes from greatly enlarging the size of the customer base, with commensurately much smaller gains in loyalty. This is certainly a much different to the story about how loyalties emerge, as told through STP theory.

3. Moving to the Market-Based Asset Theory of Brand Competition

In summary, Kotler along with colleagues developed a model of how brands compete that is largely based around making competition indirect and gaining perceived value and loyalty (repeat-purchasing) advantages. STP theory encourages firms to find segments of customers, research what they want, selectively target, and make their brand appear different or unique at least partly via advertising.

In this paper, we have outlined an array of empirical discoveries and scientific laws (which are well documented across many categories, countries and other conditions), including many examples from retailing and consumer services contexts, that clash with the STP theory of brand competition. The collective interpretation of these empirical laws has led to a new theory of brand competition called the market-based asset theory. We now explain this theory, how it emerged, and how as any scientific theory must do, it fits with the known empirical laws.

The idea of market-based assets entered the marketing literature almost 30 years ago (Sharp, 1995; Srivastava et al., 1998). This concept was in line with the emerging strategy literature at the time, that views the firm as a bundle of resources and capabilities (Amit and Schoemaker, 1993; Wernerfelt, 1984, 1995). It was proposed that 'the role of marketing was concerned with the task of developing and managing market-based assets' (Srivastava et al., 1998, p. 16). That such intangible assets could have considerable financial value was uncontroversial, but much of the literature at the time had a different focus, such as how to lower the risk of launching new brands. For example, the 1980s marketing literature on brand equity near exclusively focussed on hypothetical brand extension experiments.

Sharp (2010) then introduced a market-based assets theory of brand competition. Importantly, this theory was based on the known empirical laws about consumer behaviour and brand performance. This theory was developed using an empirical first, empirical-then-theoretical approach (see, Barwise (1995); Bass (1995); Golder et al. (2022). In other words, Sharp's (2010) market-based assets theory is grounded in empirical laws and describes the mechanism of how brands compete and grow:

'*In the long run, brands essentially compete in terms of mental and physical availability. Even product innovation largely works (when it works) by enhancing mental availability and gaining further physical distribution. Building mental availability requires distinctiveness and clear branding, while brands seldom compete on meaningful differentiation. This means that marketing attention should be focused on building these assets so that a brand is easier to buy, for more people, and in more buying situations. No marketing activity, including innovation, should be seen as a goal in itself, its goal is to hold on to or improve mental and physical availability*' (p. 196).

Mental availability is defined as the propensity for a brand to be noticed, recognised and/or thought of in buying situations (Romaniuk and Sharp, 2004). Drawing on the Associative Network Theory of memory (e.g., Anderson and Bower, 1979; Teichert and Schontag, 2010), mental availability requires developing a breadth of relevant memories linked to a brand, to increase the size of the brand-related network in people's memories (Romaniuk, 2013). These memories

need to be anchored to the brand in memory (via direct branding and through a brand's Distinctive Assets). This conceptualisation represented a substantial pivot from brand equity theory, which stressed positive differentiating memories (i.e., asking what memories the brand elicits, rather than what elicits the brand (Keller, 2001)).

The importance of mental availability to brand competitiveness is also underscored by the fact that a variety of situations bring consumers into a category to purchase (Romaniuk, 2016; Vaughan et al., 2021). This fact makes it important for brands to link to multiple, relevant category situations. Brands that are linked to more of these relevant purchase cues in buyer's memory have a higher chance of being purchased than brands with fewer people having links to fewer cues. This conceptualisation also deviates away from simpler brand awareness metrics where only the link of the brand to the category name cue is measured (see, Bergkvist and Taylor, 2022). Moreover, consumers are 'cognitive misers', evoking and considering a far smaller subset of brands than exist and compete in most categories. It is reported that consideration sets are often small, two brands or less (Lapersonne et al., 1995; Shocker et al., 1991). This pattern is also demonstrated in retailing and services contexts like retail banking (e.g., Dawes et al., 2009; Honka et al., 2017). This means that even financial services brands (traditionally seen as being in highly 'rational' categories) with higher mental availability are thought of, considered, and bought, by more people.

Physical availability, on the other hand, is about how easy it is for people to purchase the brand (Romaniuk and Sharp, 2021; Sharp, 2010). Marketers build physical availability by winning distribution in stores and websites, gaining listings on menus, paying for search and display (e.g., on Google and Amazon), offering credit and various ways of paying, providing car parks, increasing opening hours and so on. The market-based asset of physical availability has a quality dimension as well as pertaining to quantity, that is, how easy is the brand to buy, *and* for how many buyers. This means in addition to having a relevant portfolio and gaining presence in places where people shop, it also includes gaining prominence in these locations (Nenycz-Thiel et al., 2016). Yavorsky et al. (2021) provide an illustrative example of how physical availability 'works' in the context of retail auto dealerships, whereby consumers were found to search only a limited number of dealers, and were very likely to buy a vehicle from the dealer geographically closest to them.

Put together, the market-based assets view presents a far less romantic view of the power of brands. Brands that are easier to buy, get bought by more people, more often (Sharp, 2017b). That is, they are known for more situations (mental availability), by more people, and are more widely available (physical availability). Big brands have greater physical and mental availability (Romaniuk, 2013), and these brands have larger marketing budgets to support their assets. In contrast to STP theory, the market-based asset theory says brands do sell to similar types of buyers and all brands compete head on and share buyers with each other as if they are direct substitutes.

Since the publication of *How Brands Grow* (Sharp, 2010), many studies have tested and extended the market-based assets theory's underlying laws about how brands compete in new contexts. Some researchers have conducted direct replications of the empirical laws that corroborate the existence of the market-based asset theory for brands in consumer packaged goods categories. For example, Steenkamp (2017) concluded:

"*Never in my 35 years of research have I encountered such a strong relation between two marketing metrics. Brands with a large market share have far more buyers than brands with a low market share. Market share increases depend on substantially growing the size of your customer base*".

An illustrative list of studies published since 2010 that test the underlying law-like patterns for market-based asset theory introduced above, are shown in Table 5. The patterns have been investigated in many contexts, including in consumer goods, retailers and stores, shopping baskets, private label brands, unbranded goods (e.g., fresh

Table 5
Illustrative summary of academic studies published since (2010)

Competing Brands Share Customers (Duplication of Purchase Law)
- Non-profit/charity brands (Faulkner et al., 2022)
- Music listening (Anesbury et al., 2022)
- Shopping baskets and department stores (Tanusondjaja et al., 2016; Tanusondjaja et al., 2022)
- Iranian e-brands (Naami et al., 2021)
- Luxury brand competition (Romaniuk and Sharp, 2016)
- Cross-category brand purchasing (Grasby et al., 2022)
- Customer mindset metrics (Mecredy et al., 2021)
- Healthy vs unhealthy food (Anesbury et al., 2018b)
- Fresh produce purchasing (Anesbury et al., 2020)
- Consumer goods categories with expected partitions (Anesbury et al., 2021)
- Cigarette purchases (Dawes, 2014)
- Consumer goods in Russia (Kennedy and McColl, 2012)
- Online and offline purchases (Dawes and Nenycz-Thiel, 2014)
- Private labels (Dawes and Nenycz-Thiel, 2013)

Competing Brands Have Similar User Profiles (Brand User Profiles Seldom Differ)
- CPG/grocery categories (Anesbury et al., 2017; Uncles et al., 2012)
- International brands vs local brands (Tanusondjaja et al., 2015)
- Healthy vs unhealthy food (Anesbury et al., 2018b)
- Fresh fruit purchasing (Anesbury et al., 2018a)

Competing Brands Have Predictable Loyalty (Double Jeopardy Law)
- B2B (Romaniuk et al., 2021)
- Fashion online auctions (Chowdhury et al., 2021)
- Using choice experiments to find Double Jeopardy patterns (Greenacre et al., 2015)
- Brand associations (Romaniuk, 2013; Stocchi, Driesener and Nenycz-Thiel, 2015; Stocchi et al., 2017)
- Average spend per buyer (Dawes et al., 2017)
- Customer mindset metrics (Mecredy et al., 2021)
- Stents for surgical procedures (i.e., industrial market) (McCabe et al., 2013)
- Wine varietals (Cohen et al., 2012)
- Cultural venue/event attendance (Trinh and Lam, 2016)
- Wine/butter purchase by country of origin (Trinh et al., 2019)
- Purchases in online supermarkets (Trinh et al., 2017)
- Healthy vs unhealthy food (Anesbury et al., 2018b)
- Fresh produce purchasing (Anesbury et al., 2020a)
- CPG brands in China (Kennedy and McColl, 2012)
- Private label brand image data (Nenycz-Thiel and Romaniuk, 2014)
- Online and offline purchases (Dawes and Nenycz-Thiel, 2014)

Competing Brands Have Predictable Loyalty (NBD/Ehrenberg's Law of Buying Frequencies)
- Blood donations (Faulkner et al., 2016)
- Shopping baskets (Martin et al., 2020)
- B2B/industrial purchases (Wilkinson et al., 2016)
- Cultural venue/event attendance (Trinh and Lam, 2016)
- Sporting event attendance (Trinh, 2018)
- Comparing buying for different ethnicities (Trinh et al., 2020)
- Wine/butter purchase by country of origin (Trinh et al., 2019)
- Fresh food category purchases (Anesbury et al., 2020b)
- Cigarette purchases (Dawes, 2014)

Several studies over the last decade continue to find the empirical regularities described in this paper in new contexts. This includes in durables, emerging markets, experiential purchases, and in attitude image data.

produce), luxury brands, wine, business-to-business and industrial goods, charities, music listening, and event attendance.

This is unusual in marketing, with an analysis showing that the vast majority of marketing theories are rarely exposed to more than a single test, usually only in terms of qualitative direction, and usually by the authors who propose the theory and hypotheses (see Kenworthy and Sparks, 2016).

4. Testing market-based asset theory: explaining variation in brand size

We now show how market-based asset theory helps us to better understand why some brands are far bigger than others, using several empirical examples. First, we use market-based asset theory to explain variation in brand size among competing brands within a market. Second, we investigate how market-based asset theory explains variation in

brand size across markets.

4.1. Variation in brand size within a market

In this section we present evidence on the role of mental and physical availability in underpinning brand size for two types of retailers. First, we examine the association between brand usage, awareness and advertising awareness for the largest 20 high street fashion retailers in the United Kingdom. Data were provided by YouGov (2023) for the analysis. We tabulate the proportion of respondents in 2022 who reported they were current customers of these fashion retailers, the proportions who were simply aware of the brand, and the proportion who were aware of advertising for the brand. While advertising awareness is not a mental availability measure per se (see, Romaniuk, 2013), advertising is a primary mechanism for building mental availability. Therefore, the higher awareness of a brand's advertising in the population is likely an indicator of higher mental availability for the brand.

We see in Table 6 a clear association between brand size and brand awareness. Overall, the correlation between awareness and brand size is positive and significant r = 0.44 (p < 0.05). For advertising awareness, we also see an overall positive association with this metric and brand size, again with some apparent exceptions such as Primark and Next which have low ad awareness for their size, however, the overall correlation between brand size and ad awareness is also positive and significant at r = 0.78 (p < 0.05). There are some exceptions to the broad pattern, such as River Island and Levi's having quite high awareness for their size, however Levi's has the benefit of being a long-standing clothing brand, sold in multiple stores, before it was a retailer. While this analysis between brand size and awareness is not causal, it is consistent with the concept that the market-based asset of mental availability underpins market share.

We now consider a second analysis using data for eight of the most popular Quick Service Restaurants (QSRs) in the United Kingdom. We again examine the association between brand size and advertising awareness. In this example, we use advertising awareness among three groups: current customers, former customers and those who have not bought the brand. The rationale for this approach is to identify if larger brands have more mental availability among *all* these three consumer groups. If larger brands have more mental availability even among those who do not buy them, this explicates the explanation for *why* those large

brands are large: when non-buyers purchase from the category, they are more likely to buy brands they are aware of (and whose advertising they are aware of). Data were provided by YouGov (2023). Note, we use advertising awareness, not brand awareness for this analysis because it is not possible to split out non-brand users who are aware or not brand aware in the YouGov dataset. The number of stores for each retailer were sourced from ScrapeHero (2023a).

There is again a strong, positive association between the size of a QSR brand and advertising awareness, as shown in Table 7. The correlation among brand size and ad awareness among each of the three customer groups is very high (r = 0.90, r = 0.93, and r = 0.89 among current, former and non-customers respectively). There is also a noticeable difference in the advertising awareness that larger brands achieve among former and non-customers compared to the smaller brands (e.g., McDonalds still receives 26% ad awareness among non-customers compared to 1% for Taco Bell). Awareness across infrequent (former customers)[3] and non-buyer groups is important given the role acquiring new and infrequent buyers in sustainable brand growth.

In addition to larger QSR brands having higher advertising awareness than smaller brands, we also see a strong positive correlation between brand size and the number of stores, with a correlation of r = 0.44. We do note a marked deviation, whereby Subway appears to have many more stores than we would expect given its size (e.g., 2227 stores for 7% buying, compared to McDonalds' 1391 stores for 30% buying). This pattern occurs for Subway in other markets, and is attributable to it having smaller stores, with only a small proportion of stores with drive-through. Overall, this QSR data is again consistent with the market-based asset theory, that the principal underpinnings of brand size and growth are mental and physical availability.

4.2. Variation in brand size across markets

The market-based asset theory of brand competition not only explains the variation in market shares within a context (as we demonstrated above for fashion and QSR retailers), but also explains why global brands can have vastly different market shares in different countries. This is a phenomenon that looks rather odd from an STP theory and global brand management perspective.

Table 6
Brand size, awareness and ad awareness of fashion retailers, UK.

Brand	% Current Customer	% Brand Aware	% Ad Aware
Marks & Spencer	23	95	26
Primark	19	95	7
Next	14	93	9
Tu Clothing	11	70	10
George	10	86	8
H&M	10	91	10
TK Maxx	9	93	12
Matalan	8	90	9
F&F Clothing	8	71	8
ASOS	8	77	8
New Look	7	87	5
JD Sports	5	92	11
Zara	5	81	3
Clarks	4	89	4
Fat Face	3	73	3
Boohoo	3	73	7
River Island	3	91	3
Levi's	3	91	4
Joules	2	50	2
Peacocks	2	78	1
Average	**8**	**83**	**8**

Brands with more customers are known by more people. There is a strong positive correlation between the number of customers a brand has and brand size. Data Source: YouGov BrandIndex UK 2023 © All rights reserved.

Table 7
Store coverage and ad awareness of quick service restaurants, UK.

Brand	% Current Customer	# Stores	Ad Awareness		
			% Current Customers	% Former Customers	% Non-Customers
McDonalds	30	1391	60	40	26
KFC	11	1006	48	26	15
Dominos	8	1215	47	27	14
Subway	7	2227	29	13	8
Burger King	6	1092	30	12	7
Pizza Express	3	470	35	8	5
Papa John's	2	484	26	9	4
Taco Bell	1	132	20	5	1
Average	**9**	**1002**	**37**	**18**	**10**

Brands with more customers have tend to have more stores and have ads aware by more people. In other words, bigger brands have higher physical and mental availability than smaller sized brands in the market. Data Source: YouGov BrandIndex UK 2023 © All rights reserved.

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[3] The former customers of a QSR brand have likely not 'left' it or defected in that year, they simply have not purchased it for some time. For example, although not in the QSR category, past research of consumer goods brands shows 80% of brand buyers buy less than once a year (Dawes et al., 2022).

Consider the case of car brands, which are sold through dealers, therefore an excellent example of a retailing and consumer services context. We obtained 2022 market share information in three markets for three well-known car brands with global teams in charge of their positioning and brand strategy: Toyota, Kia and Subaru. We also sourced information on the number of dealerships each brand has in the three countries, being a measure of physical availability.[4] Metrics pertaining to mental availability were not publicly available, but some information on advertising spend was identified and is discussed later in this section.

The results are shown in Table 8. In Australia, Toyota is the market leader with 21%, whereas in the United States, it has far lower market share at 12% and in the UK it has only 6%. Similarly, Kia is considerably larger in Australia than in the UK (7% vs. 4%) and Subaru in the UK has only a fraction of the market share it has in the other two markets.

How can these across-country differences in market share occur if strong brands are 'superior' as per STP theory? The cars are essentially the same from one country to another. Toyota, Kia and Subaru have global model platforms. We verified that each brand offers approximately the same number of models in each country (for 2022 or as close a year as could be identified),[5] so the differences are not due to broader or narrower range in one country compared to another. Also, we verified that the relative prices of these car brands are quite similar in the three countries.[6] Therefore, these differences in market share across countries cannot be explained by the rationale of STP theory that brands will win if they provide consumers superior value.

Why do some brands have vastly different market shares across markets? Could the answer pertain to consumer preferences for locally manufactured product? Toyota did make vehicles in Australia, but drastically reduced its manufacturing operation in 2012 and shut it down in 2017. Subaru and Toyota do manufacturer in the United States, but this does not explain why one of them has four or five times the market share of the other in that country. Kia cars are all made in Korea. So, these market share differences are not due to 'buy local' preferences. Could Toyota's large share in Australia be because the big players, GM and Ford left Australia? Yes, that did help their competitors, but there are many other brands such as Hyundai, and Volkswagen, and Ford still has 15% market share. And this does not help us to understand why the market share differences occur between the other two markets.

Instead, the answer is that these brands are bigger in the countries where they have invested the most money in building mental and physical availability over decades. We see in Table 8 that in Australia, Toyota is the market leader (21% share), it has far more dealers (290) than any other, Kia has fewer (177) and Subaru less again (128). In the United States, Toyota has the largest market share of the three (13%) and has far more dealerships than Kia (781) or Subaru (639). Whereas in the United Kingdom, Toyota has far lower market share (6%) than in the other two countries, this is reflected in the fact that its dealership numbers are similar to Kia's (177 for Toyota, 187 for Kia). And Subaru has only 1% share in the UK, with less than half the dealers of the other two brands (73) whereas in the US and Australia it has not that many fewer than Kia.

In relation to building mental availability, in Australia (in 2020) Toyota was the number one spender in the category, Kia sixth and Subaru was not in the top ten spenders (Nielsen, 2020). In the United States, Toyota is the fourth biggest spender in the category, Kia ninth, Subaru tenth (Statista, 2023a). Although there is less publicly available information for these car brands in the United Kingdom, we see Toyota is not a major spender there (Digital Intelligence, 2019) unlike the other two markets, which is consistent with it having lower market share.

To sum up, where these brands have more mental availability and physical availability, they have much higher market share. This is a far better explanation than the STP theory of unique perceived brand differences.

5. Conclusion

'It doesn't matter how beautiful your theory is, it doesn't matter how smart you are. If it doesn't agree with [the] experiment, it's wrong.' - Professor Richard Feynman, Nobel Prize Winner.

In this paper we presented several known, law-like patterns in how brands compete and challenge that their existence would not be possible if STP theory is to be believed. The views that come from STP theory have been challenged in the past due to the lack of compelling evidence (Wright and Esslemont, 1994) and there has been no convincing evidence in the three decades since, despite many academics and marketers still accepting and practicing the mantra to segment, target and (differentiate their) position. The market-based asset theory presented in this paper challenges traditional marketing thinking and can provide marketing practitioners a clear framework about how brands compete and grow, based on empirical evidence.

Scientific theory is retained until it does not fit the known evidence. Over the past 50 years a considerable amount of evidence, from an array of sources/perspectives, has coalesced into a non-intuitive but coherent picture of how brands compete. In this article we have only had space to give a brief overview of this evidence and introduce the current theory that fits with this evidence. No doubt the market-based assets theory presented in this paper will be further adapted in light of evidence, and probably eventually replaced by another theory altogether. But today it stands as something rather unusual in the marketing literature in that the market-based assets theory of brand competition is a theory that fits with a catalogue of empirical laws that cover a very wide range of conditions, categories and countries. While this is the norm for science, it is new for marketing theory and signals the maturing of our discipline.

5.1. Current theory limitations and future research directions

We show from the multiple empirical observations how the market-based assets theory is a far better theory to describe how brands compete than the widely believed STP theory. The empirical regularities presented throughout this paper, which support the market-based assets theory, will no doubt surprise and challenge some readers, but '[n]ew ideas are stimulated by unexpected findings' (East and Ang, 2017, p. 339). Many results highlighted in this paper may seem incorrect or strange initially, but these results are expected outcomes under the market-based assets theory.

Table 8
New vehicle sales car brand market share & number of dealerships.

Brand	% Market Share			# Dealerships		
	Toyota	Kia	Subaru	Toyota	Kia	Subaru
Australia	21	7	3	290	148	128
United States	13	5	4	1270	781	639
United Kingdom	6	4	<1	177	187	73
Average	**13**	**5**	**4**	**579**	**372**	**280**

Market leadership in one market does not guarantee leadership in another. The market shares (share of new vehicle sales) of Toyota, Kia and Subaru vary considerably across these three markets.

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[4] Dealership figures were obtained from these sources: US (ScrapeHero, 2023b, 2023c, 2023d); Australia (Pricemycar.com, 2023a, 2023b, 2023c); UK (CarMagazine.co.uk, 2023; Statista, 2023b).

[5] Sources for the car model information were: US; (Car Sales Statistics, 2023; Kia USA, 2023; Toyota USA, 2022); Australia (CarExpert, 2023; Kia Australia, 2023; Toyota Australia, 2023); UK (Kia UK, 2023; Subaru UK, 2022; Toyota UK, 2023).

[6] Sources for car pricing information were: US (Kia Australia, 2023; Subaru US, 2022; Toyota Australia, 2023); Australia (Kia Australia, 2023; Subaru Australia, 2022; Toyota Australia, 2023); UK (Kia UK, 2023; Subaru UK, 2022; Toyota UK, 2023).

Theory takes time to be developed and the market-based assets theory is no exception. Few marketing theories are put to the test multiple times (Kenworthy and Sparks, 2016). However, repeated theory tests are needed to advance our discipline. An abundance of studies demonstrate the underlying law-like patterns for the market-based assets theory (see Table 5) but more testing is required. The market-based asset theory will continue to evolve as more evidence comes to light. Below we present some areas of future research to continue to clarify, test and continue to extend the market-based asset theory of brand competition.

Overlap in mental and physical availability

Sharp (2010) gave zero coverage of the idea that mental and physical availability should ideally overlap. Yet overlap is obviously of great importance. For example, the returns from a brand attaining physical availability *in* a store will be poor if most of the shoppers do not notice or recognise the brand. For retailers themselves, there can be little return from building mental availability in the brains of shoppers who cannot easily purchase from them (e.g., do not live near the store or have the app on their phone).

The inter-relationship between mental and physical availability is best illustrated using evidence from consumer migration (Bronnenberg et al., 2012). This research examined the brand choices among consumers who moved state within the United States. It found 60% of purchase differences across those who moved compared to those who did not were resolved immediately after moving, meaning that more than half of migrants' brand choices homogenise with the local population after moving. However, the remaining (40%) in purchase disparity closes slowly and remains substantial even over 50 years. This shows mental availability seemingly lingers for decades. This demonstrates the importance to have overlapping mental and physical availability because although local brands have stronger physical availability, it is not enough on its own to change purchase behaviour quickly.

An extreme non-linear relationship has been observed between distribution (a component of physical availability) and market share in multiple categories (e.g., Hirche et al., 2021; Reibstein and Farris, 1995; Wilbur and Farris, 2014). That is, brands with low physical availability are inevitably small, while many brands with high physical availability are big but many are also small. This association has also been observed over time for a single brand that rapidly gained and lost share and distribution (Farris et al., 1989). These findings suggest that while high physical availability is an essential requirement for high market share, it does not guarantee it. Many brands with low market share vary greatly in their physical availability, some are in few stores, while some are in nearly all stores, and yet irrespective of this their sales are low. It might be that these brands are high priced or low quality with limited appeal, but it could also suggest that these brands are lacking mental availability. This issue is highlighted earlier in Table 7, where Subway has around two times the number of outlets than the most popular brand (McDonalds) but Subway's advertising has around half the awareness of McDonalds. Although the advertising awareness measure used in this example is not a true measure of mental availability (see, Romaniuk, 2013), it does start to build a picture of these market-based assets in action.

The lack of overlap in physical and mental availability potentially explains why many very small brands can have unusually low repeat-purchase rates (Franke et al., 2017; Scriven et al., 2017). The degree to which lack of overlap impedes a small brand's growth potential is a very interesting area for research. Addressing it could potentially answer the marketing question of whether or not a new (small) brand should launch gradually in select regions or launch nationally. While there are advantages to moving quickly to secure national distribution, an issue to resolve is whether the firm has the budget and capability to build sufficient mental availability at scale. More research is needed to quantify how quickly mental and physical availability can be built, and the returns of mental and physical overlap for brand launches.

Far away from new brands are old, dying brands. There are examples of revivals of old dying brands that have lost physical availability but that still hold considerable mental availability (see, Sharp, 2010). This also suggests promising areas of research: (a) brand revivals, (b) whether marketers sometimes unwittingly kill off their own brands, and (c) how resistant are brands when management fails to support them and under what conditions.

Measuring mental and physical availability

To ensure the ongoing development of this theory, measurement is vital. Work has begun in developing and testing measures of both mental and physical availability (e.g., Nenycz-Thiel et al., 2016; Romaniuk, 2013; Romaniuk and Sharp, 2021). Romaniuk (2023) has recently provided an in-depth discussion and recommendations on how to do brand tracking in light of market-based asset theory. While advancements have been made there is much research to be done, especially in using metrics to describe how these market-based assets respond to marketing initiatives. This includes examining how mental availability metrics change in response to advertising (see, Vaughan et al., 2021), or studies examining the sales response to changes in physical availability (e.g., Tan et al., 2018).

How to set spend and forecast investments for mental availability

Changes in physical availability near entirely affect only the buyers who buy this week,[7] which means that the full effect shows immediately in this week's sales figures (at least for those sales on that website or store). In contrast, expenditure on mental availability typically involves publicity or advertising that reaches buyers who just bought last week, or won't buy the category for many months, or who are even years away from becoming a category buyer. This fact makes optimising spend on physical availability a textbook managerial economics case of setting spend where marginal revenue equals marginal return. By contrast, investments in mental availability are far less straightforward. How much to spend/invest on mental availability depends on a forecast of the brand's potential or at least likely future. If the brand's future is dour then low expenditure might well be the best choice. If the category is likely to grow or the brand has potential to gain physical availability, then substantial investment in mental availability may be warranted. Some studies have begun to test the theory's normative predictions, showing the benefits of spreading advertising spend rather than bursts of expenditure (Gijsenberg and Nijs, 2019, p. 248).

Recent evidence has shown the long-term implications of ceasing advertising. This research shows brands that stop broad-reach advertising tend to decline in sales and market share by the end of the first year (Hartnett et al., 2021; Phua, Hartnett, Beal, Trinh, & Kennedy, In Press). This result is consistent with the idea that brands must build and maintain mental availability to maintain their competitive position amongst rivals. Much research is needed on how to make such forecasts to help guide advertising budgets.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

The authors do not have permission to share data.

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[7] Increasing physical availability, such as opening a store, may also favourably affect mental availability.

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