Winning Hearts, Minds and Sales:
How Marketing Communication Enters the Purchase Process
in Emerging and Mature Markets

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Abstract
Consumers differ in the way their minds and hearts respond to marketing communication. Recent research has quantified effectiveness criteria of mindset metrics, such as brand consideration and liking, in the purchase process for a mature market. This paper develops and illustrates our conceptual framework of how mindset effectiveness differs between an emerging market and a mature market. We propose that the responsiveness, stickiness and sales conversion of mindset metrics depend on the regulative, cultural and economic systems that provide structure to society. In particular, we focus on regulative protection, collectivism and income. First, we propose that a lack of regulative protection leads consumers to be more attentive to, and thus more aware of, marketing communication. Second, we propose that consumers living in a collectivist culture are less responsive to advertising in their consideration and liking of the advertised brand. Finally, we propose that lower income among consumers reduces the sales conversion of brand liking.

We examine our predictions empirically with data for the same brands during the same time period in Brazil and the United Kingdom. First, we find that brand liking has a higher responsiveness to advertising, a higher stickiness and a higher sales conversion in the U.K. than it does in Brazil. Thus, the advice to focus on the emotional brand connection is more appropriate in the analyzed mature market versus the emerging market. In contrast, knowing the brand is more important to purchase in Brazil and is more responsive to advertising. These first findings establish an intriguing research agenda on winning hearts and sales in emerging and mature markets.
Keywords: emerging market, institutional context systems, consumer mindset metric, brand attitudes, marketing-attitude responsiveness, attitude-sales conversion, econometric models, hierarchical linear model
“Marketing principles are universally applicable, and the marketer’s task is the same whether applied in Dimebox, Texas or Katmandu, Nepal” (Cateora & Hess, 1966, p. 4).

“Consumers in emerging markets are more likely to talk about any kind of online advert than their counterparts in mature markets” (Mindshare, 2011).

1. Introduction

Both the opportunities and the threats of increasing globalization have created an urgency for companies to succeed in international markets (Burgess & Steenkamp, 2006; Chao, Samiee, Sai, & Yip, 2003). Companies from mature markets strive to win hearts and sales in emerging markets, which will account for most of the economic growth in the coming decades (ibid). For example, General Motors and Peugeot struggled to obtain a share of the Chinese market (Biziouras & Crawford 1997; Engardio, Kripalani, & Webb, 2001), at least in part due to cultural misunderstandings (Chen, 2001). At the same time, brands from emerging markets, such as Lenovo and Haier, struggle to succeed in mature markets (Pukthuanthong & Roll, 2009) at least in part because they lack a strong emotional connection with their customers (Lindstrom, 2011; Wang, 2008). The opening quotes illustrate the clash between views that marketing principles are universally applicable and observations of different consumers’ responsiveness to marketing communication. Is it truly the case that, in emerging markets, “building consumer hearts and minds” (Kotler & Pfoertsch, 2010) translates into higher sales? Can systematic differences in emerging versus mature markets help us predict how marketing communication enters the purchase process and converts into sales? These are the questions that guide us in this paper.

Despite considerable research on emerging markets, important knowledge gaps remain on whether and how marketers can influence consumer perceptions, attitudes and intentions – all of which we refer to as the “consumer mindset”. While some researchers find that cognitive decision processes are universal across consumers (e.g., Aaker & Maheswaran, 1997; Douglas & Craig, 1997), they leave open the possibility of substantial differences in the
extent to which the process components influence purchase and the power of marketing to affect this process. Such issues are largely unanswered in cross-cultural marketing research, which has focused on country-of-origin effects, consumer perception of local versus global brands (e.g., Batra, Ramaswamy, Alden, Steenkamp, & Ramachander, 2000; Ozsomer, 2012; Steenkamp, Batra, & Alden, 2003) and the content of advertising appeals (e.g., Aaker & Williams, 1998; Han & Shavitt, 1994). Though important, these factors do not address a more general question. Should brand managers focus on moving the needle on different aspects of the consumer mindset in emerging versus mature markets? Recent conceptual papers hint that this may be the case. For example, Burgess and Steenkamp (2011), and Cayla and Arnould (2008) highlight cultural differences in the importance of individual versus group decision making as a key reason for different branding strategies in emerging versus mature markets. What is currently missing is a conceptual model and empirical approach to analyze these differences and provide guidance to marketers aiming to increase brand sales in emerging and mature markets.

We propose that marketing effectiveness differs in the extent to which consumers (1) become aware of marketing communication, (2) are open to change their minds and hearts and (3) change their buying patterns accordingly. These properties may differ from consumer (group) to consumer (group) within a country, but also should systematically differ among consumers from a mature versus an emerging market. If this is the case, conceptual arguments and findings regarding consumer attitudes and behavior based on mature markets may not hold in emerging markets. Key examples include the mandate that brands should be romantic and mysterious ‘love marks’ (Roberts, 2005), and the finding that brand liking is very responsive to advertising and converts strongly into sales (Hanssens, Pauwels, Srinivasan, & Vanhuele, 2010). Based on the three “pillars of institutions” in institutional context theory (Burgess & Steenkamp, 2006; Scott, 2001), we propose that differences in
regulative, cultural and economic systems reduce the generalizability of such findings. We analyze the extent of consumer protection as the regulative factor. As a key cultural difference, we focus on Hofstede’s (1980) individualism/collectivism dimension and incorporate income level as the economic factor. Differences among these three systems translate into specific propositions on the marketing responsiveness and sales conversion of consumer mindset metrics.

Our contributions are twofold. First, we provide a unifying conceptual framework to translate consumer differences into observable criteria of market-level mindset metrics. Second, we empirically demonstrate the proposed differences in a longitudinal hierarchical linear model estimated on a unique dataset containing marketing, sales and consumer mindset metrics in Brazil and the U.K. As an initial test of our framework, this empirical study provides novel insights on how marketing enters the purchase process in a major emerging and a major mature country market.

The remainder of this paper moves from the research background to our conceptual framework and hypotheses. Next, we proceed with the empirical analysis that tests hypotheses on the level of market-aggregate metrics for Brazil and the U.K. After reporting the results, we broaden the specific findings into more general insights on how to advance research and help brands thrive in emerging and mature markets.

2. Research Background and Conceptual Development

We base our conceptual framework on the three “distinct but interrelated pillars of institutions that provide structure to society” (Burgess & Steenkamp, 2006, p. 341), identified as vital elements of a country’s institutional context in socioeconomic theory (e.g., Etzioni & Lawrence, 1991; North, 1990; Scott, 2001). Among the regulative, cultural and economic system factors, we focus on, respectively, consumer protection, individualism and income
Next, we review the recent development of effectiveness criteria for mindset metrics. Combining both building blocks, we propose our conceptual framework of how institutional context differences affect mindset metric effectiveness criteria in an emerging versus a mature market. From this framework, we derive specific hypotheses for our empirical setting of a major emerging market (Brazil) versus a major mature market (the U.K.).

2.1 Regulative, Cultural and Economic System Differences

As part of the regulative context, consumer protection against poor-quality products appears especially relevant to our study of how consumers respond to marketing communication. Lack of such protection is a key example of an ‘institutional void’ typically found in product markets of emerging countries (Khanna & Palepu, 2010). Beyond the existence of quality and safety regulations, Khanna and Palepu (2010) also ask the following questions: “How do the authorities enforce regulations?” “What recourse do consumers have against false claims or defective products?” “Can consumers easily obtain unbiased information about the quality of the goods and services they want to buy?” and “Are there independent consumer organizations and publications that provide such information?”

Marketing literature has long demonstrated that quality uncertainty increases consumers’ risk perceptions, which leads them to search for more quality information before purchase (Erdem, Swait, & Valenzuela, 2006; Money, Gilly, & Graham, 1988; Shimp & Bearden, 1982). In contrast, consumers enjoying strong protection may “assume that all brands offered by mainstream retailers deliver the same basic quality” (Hollis, 2010).

As to culture, one of the main issues facing all societies is to define the nature of the relation between the individual and the group (Schwartz, 1999). Researchers have labeled this tension as independent versus interdependent self-construal (Doi, 1986; Markus & Kitayama, 1991), individualism versus collectivism (Hofstede, 1980), separateness versus
interdependence (Kagitcibasi, 2005) and autonomy versus relatedness (Schwartz, 1999). Following Hofstede (1980), we use the term “individualism” to identify the relative emphasis on the individual versus the larger social group. People in individualist cultures believe that individual is the most important unit. They are self-oriented, make their decisions based on individual needs and independently pursue their own ideas and preferences. Conversely, people in collectivistic cultures believe that the group is the most important unit. They are group-oriented, their decisions are based on what is best for the group and, identifying with the group and participating in its shared way of life, they find meaning in life largely through social relationships (Hofstede, 1980). Individualism-collectivism is “perhaps the most central dimension of cultural variability identified in cross-cultural research” and has inspired a substantial body of research in marketing (Aaker & Maheswaran, 1997, p. 315). Practical implications for managers are detailed in, e.g., Wang’s (2006) distinction of how L’Oreal should implement different branding strategies in an individualist versus collectivist society.

As to the economic context, the gross domestic product (GDP) per capita or other measures that express purchasing power have long been used as the defining difference between mature versus emerging country markets (World Bank, 2010). Compared to the more complicated human development index of the United Nations, the GDP per capita criterion is easier to use and is more directly relevant to marketing as it focuses on available monetary resources in the country (Burgess & Steenkamp, 2006). When the GDP per capita is low, it is harder for consumers to ‘follow their heart’; no matter how much consumers love a brand, they will not buy it if it is not affordable (Pfeiffer, Massen, & Bombka, 2007). Even for products considered low-ticket in mature markets, price can be an important purchase obstacle for emerging market consumers despite their positive disposition towards the brand (Steenkamp & Burgess, 2002).
2.2 Consumer Mindset Metrics and their Effectiveness Criteria

Marketing literature is rich in conceptualization and measurement of consumer mindset metrics, such as communication awareness, brand awareness, brand consideration, brand liking, and brand preference. Although there is consensus that these metrics, in general, help detect and understand the process from brand exposure to purchase (Keller & Lehmann, 2006), debate has raged over which metrics matter (e.g., Lautman & Pauwels, 2009) and over whether the metrics fit into a hierarchical, linear ‘purchase funnel’ (e.g., Palda, 1964) or operate in a parallel fashion, as suggested by neuroscience (e.g., Rose, 1993). Empirical evidence indicates that (1) communication awareness, brand consideration and brand liking metrics substantially improve the predictive power of marketing models (Srinivasan, Pauwels, & Vanhuele, 2010) and (2) parallel impact of such metrics predicts sales better than any hierarchy does (Vakratsas & Ambler, 1999). We maintain these assumptions in our model.

For marketing to effectively change behavior, consumers must become aware of marketing communication, must be open to change their minds and hearts, and, consequently, their buying patterns. The first part refers to the responsiveness of communication awareness\(^2\) to marketing communication. The second part refers to the responsiveness of brand attitudes, such as brand consideration and brand liking. Srinivasan et al. (2010) and Hanssens et al. (2010) propose consideration (set inclusion) to represent the ‘cognitive’ dimension, i.e., consumers’ minds, and propose the extent of brand liking to represent the ‘affective’

\(^2\) Communication awareness is preferred over brand awareness in both recent academic studies on mindset metrics (Srinivasan et al., 2010; Hanssens et al., 2010) because (1) it is often used in practice to assess the effectiveness of communication campaigns and (2) it does not suffer from the variability and ceiling issues common to brand awareness (almost everyone is aware of the top brands, so the measure varies little from 99% to 100%).
dimension; i.e., consumers’ hearts. Finally, the third part refers to the sales conversion of communication awareness, brand consideration and brand liking (ibid).

Recently, Hanssens et al. (2010) operationalized effectiveness criteria for consumer mindset metrics to capture their (1) responsiveness to marketing, (2) stickiness and (3) sales conversion. First, responsiveness is measured as the elasticity of each mindset metric to marketing, accounting for diminishing returns as the mindset metric runs out of potential to grow (e.g., 99% awareness). Second, stickiness refers to the staying power of a change in the mindset metric in the absence of further marketing effort. It is measured in a regression of the mindset metric on its own past. Finally, sales conversion is measured as the elasticity of brand sales to each mindset metric. Managers are urged to focus on marketing actions that generate a large response in a mindset metric that has high staying power and converts strongly into sales.

2.3 Conceptual Framework and Hypotheses

Figure 1 displays our conceptual framework. Starting from differences in regulative protection, individualism and income levels, we propose different responsiveness, stickiness and sales conversion of mindset metrics in an emerging versus a mature market.

---- Insert Figure 1 around here ----

Our framework is general, as are the conceptual arguments for our hypotheses. Moreover, we built on previous findings from several emerging and mature markets (e.g., Erdem et al., 2006; Hult et al., 2000; Money et al., 1988; Nicholls et al., 1997), reflecting the view that similarities in institutional context abound among countries within each group (Steenkamp & Burgess, 2006). At the same time, we acknowledge substantial differences within emerging and mature markets. Therefore, any empirical analysis can only provide a partial assessment.
of the framework and should formulate hypotheses specific to the analyzed markets. We provide a first empirical assessment with the specific institutional context differences between Brazil (a major emerging market) and the U.K. (a major mature market). Our interest generates from the distinct differences between the average Brazilian and the average U.K. consumer on the three institutional context dimensions.

First, the Brazilian consumer enjoys less consumer protection against poor quality products than the U.K. consumer. In Brazil, the Consumer Protection Code, which establishes basic consumer rights and sets penalties for infractions, was introduced in 1990 (Pinto, 2002). In the U.K., such regulations were enacted in the 1970s (Beale, 1978). Proteste, the Brazilian Association of Consumer Protection, celebrated its 10th birthday in 2011 (http://www.proteste.org.br/), while Consumer’s Union celebrated its 75th. The U.K. also has a designated government office to address consumer complaints - the Office of Fair Trading, established by the Fair Trading Act of 1973. In contrast, the 1990 Consumer Protection Code in Brazil only establishes the Consumer Protection National System, which loosely combines the country’s and civil society’s efforts, leaving consumer protection “without a specific centralization” (Pinto, 2002, p. 17). Due to regional disparities, lack of resources and commercial pressure, Pinto (2002) concludes that, despite progress, “in several layers of society, citizens still ignore their basic consumer rights” (p. 31). This lack of consumer protection reflects the regulative context in general. LaPorta et al. (1998) score the U.K. 10/10 for efficiency of judicial system against 5.75/10 for Brazil, while the Global Corruption Report (2008) gives U.K. a 7.7/10 and Brazil a 3.5/10 (with 10 meaning ‘highly clean’).

How would these differences in regulative protection affect the consumers’ purchase process? On the one hand, consumers may trust marketing communication less as they enjoy less protection against misleading marketing. However, empirical studies consistently show
that consumers in emerging markets pay more attention to marketing communication and trust marketing messages more than their counterparts in mature markets (Eisend & Knoll, 2012; Mindshare, 2011; Möller & Eisend, 2010; Nielsen Media Research, 2009). For instance, 74% of consumers in Latin America (77% in Brazil) trust television advertising compared to only 49% in the EU (Nielsen Media Research, 2009). Similarly, 82% of consumers in Latin America agree with the statement that “by providing information, advertising allows for better consumer choices” compared to 50% in the EU (ibid). These recent numbers support the argument that the information function of marketing is higher in emerging markets (Burgess & Steenkamp, 2006). In a caveat emptor (buyer beware) environment, the buyer is the main responsible party for ensuring that product quality meets minimum standards (Andaleeb & Anwar 1996; Qu, Ennew & Sinclair, 2005). Concerns to avoid poor quality products induce consumers to attend more to communication regarding the quality of brands (Erdem et al., 2006). Due to the responsiveness to marketing communication, future marketing stimuli will weaken the recall of the current stimulus (Burke & Srull, 1988; Keller, 1987). As a result, increases in communication awareness are more difficult to maintain in the absence of repetition, leading to reduced stickiness.

Combining our predictions with the current situation of regulative protection in Brazil and the U.K., we propose the following:

_Hypothesis 1: For Brazil versus the U.K., communication awareness is (a) more responsive to marketing communication and (b) less sticky._

Second, on Hofstede’s (1980) scale of individualism, Brazil scores 38 and the U.K. 90 out of 100. We posit that individualism affects the responsiveness of brand attitudes to marketing communication. Living in a highly individualist culture, U.K. consumers see themselves as independent and distinct from the group, and accordingly, they place a high value on
uniqueness, individual accomplishments and achievement. As a result, they should feel free to change their own brand attitudes substantially based on marketing communication. In contrast, Brazilian consumers see themselves as part of a larger group, and accordingly, they value connectedness and conformity and are integrated into strong, cohesive in-groups. As a result, they should be less willing to change their attitudes based solely on marketing communication. Instead, their attitude changes mostly derive from social interaction. “If a symbol is to convey meaning, it must be identified by a group […] and the symbol must convey similar meaning to all within the group” (Grubb & Grathwohl, 1967, p. 24).

The few empirical papers on the subject attest to the notion that marketing communication is less important than social influence for consumers in collectivist cultures. Nicholls, Roslow, and Dubish (1997) find that Hispanic customers are more susceptible to social influences than their Anglo counterparts in the U.S. Similarly, Money et al. (1988) report that consumers in collectivist cultures rely more on interpersonal information exchange or word-of-mouth. Brands that are considered expert and trustworthy are more valuable in collectivist cultures because they help reinforce group identity (Erdem et al., 2006; Johansson, Ronkainen, & Czinkota, 1994). This anchoring of brand attitudes in the group or community also implies that, when a brand does succeed in improving attitudes, this change is rather enduring, i.e., sticky. Therefore, we predict the following hypotheses on the basis of our conceptual framework:

**Hypothesis 2:** With respect to Brazil versus the U.K., the brand attitudes, consideration and liking, are (a) less responsive to marketing communication and (b) more sticky.

Finally, income plays a key role in the conversion of brand liking into purchase. Poorer consumers spend a large part of their income on daily use products (World Bank, 2010). Many economic studies have found that low-income consumers make more rational versus
emotional purchase decisions (Jones & Mustiful, 1996). Low-income consumers focus on value and product functionality (Cayla & Arnould, 2008), which drive brand consideration (Kardes, Kalyanaram, Chandrashekaran, & Dornoff, 1993; Roberts & Lattin, 1991). In contrast, brand love is driven by self–brand integration, passion, separation distress, romance, mystery and sensuality (Batra, Ahuvia, & Bagozzi, 2012; Roberts, 2005). High-income consumers have the luxury to buy the brands they love, because they spend a small proportion of their income on consumer products. Moreover, high-income consumers tend to gain greater command of their own information environments and are more likely to rely on their own brand liking in their purchase decisions (Bennett, 1998; Giddens, 1991).

Comparing Malaysia with France, Hult et al. (2000) find that consumers in the lower-income country place more importance on tangible attributes, such as price and safety. Given that the per capita gross domestic product (PPP) is $10,800 for Brazil versus $34,800 for the U.K. (World Factbook, 2011), we posit the following:

*Hypothesis 3: With respect to Brazil versus the U.K., brand liking has a lower sales conversion.*

We summarize the conceptual arguments and our specific hypotheses in Table 1.

--- Insert Table 1 around here ----

3. Empirical Study

Our conceptual framework may be falsified by different data collection methods, including experiments, surveys and purchase behavioral data. Several data providers have measured consumer attitudes at the market or segment level for decades and thus have achieved adequate representation and sample sizes. The resulting metrics (including price image, communication awareness, consideration and liking) predict sales (Lourenço, 2011;
Hanssens et al. 2010, Srinivasan et al. 2010, Van Heerde, Gijsbrechts, & Pauwels, 2008). Moreover, managers are encouraged to use such mindset metrics to evaluate the success of their marketing communication actions (Keller & Lehmann, 2006, Pauwels & Joshi 2011). Despite the benefits of external validity and actionability, these data also have drawbacks as they are not available at the individual consumer level and constructs cannot be manipulated.

The level of analysis is an important choice. Once we move beyond the individual consumer level, we can formulate hypotheses for groups of consumers, whether these are subcultures within a city (e.g., Ackerman & Tellis, 2001), age cohorts within a country (e.g., Inglehart & Baker, 2000) or countries (e.g., Hofstede, 1980; Schwartz, 1999). The latter level of analysis is typical in cross-cultural research and has the benefit of currently available data on marketing communication spending, mindset metrics and sales. Moreover, previous literature has established average levels of individualism/collectivism, consumer protection and income at the country level. These benefits come at a cost, however, as the analysis at the country level masks differences among regions within a country and among consumers within a region.

Our empirical study combines archival sales and marketing information with large-sample survey data on consumer attitudes at the country level for Brazil and the U.K. These markets are of commercial interest because they represent a major emerging and a major mature market, each of which place in the top 10 in the category’s worldwide consumption.

3.1 Data

The dataset contains 72 monthly observations on marketing actions (price, distribution and advertising), sales, and mindset metrics (communication awareness, brand consideration and brand liking) for 6 brands in Brazil and 10 brands in the U.K. The operationalizations
follow standard practice: sales and prices are expressed in ounces of the product, distribution is all commodity value (ACV) distribution in the country and advertising is measured in gross rating points (GRPs). To control for inflation, we calculate the relative price as brand price divided by category price. The mindset metrics are similar to those in Srinivasan et al. (2010), as detailed in Table 2.

---- Insert Table 2 around here ----

Monthly sample sizes for these mindset metrics exceed 200 in each country, and quota sampling ensures that sampled respondents are representative of the country’s consumers in the category. This characteristic increases the comparability between the emerging market and the mature market sample (Sekaran, 1983) as well as the managerial relevance of our findings.

The data provider requires confidentiality regarding the identity of the personal care category and that of its brands, which are formulated and positioned either for males or for females. Table 3 presents the descriptive statistics on each variable for all advertised brands.

---- Insert Table 3 around here ----

We observe that the U.K. has four more advertised brands, 3 male and 1 female. While there is, therefore, more competition in the U.K. market, it is not the case that its market is mature while the Brazilian market is in the early life cycle stages. In both countries, the category was introduced over 3 decades ago, but category sales and most brand sales (and market share) series are evolving\(^3\). Moreover, each brand in each market has at least one evolving mindset metric. As to the change direction, the data period sees brands both growing and shrinking in sales and in mindset metrics. Mindset metrics are not systematically lower in

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\(^3\) We both perform the augmented Dickey Fuller (ADF) test, which has evolution as the null hypothesis, and the Kwiatkowski, Phillips, Schmidt and Shin (KPSS) test, which has stationarity as the null hypothesis.
Brazil; i.e., they are not further away from their maximum potential of 100%. Thus, while Brazil as a country may have greater market potential, the analyzed brands also have plenty of room to grow in the U.K., both in the hearts and minds of the consumers and in sales.

Six brands (three for males and three for females) are present in both markets, and they have similar sales rankings, relative price and global ad campaigns for Brazil and the U.K. Male brand 1 (MB1) leads in sales, but challenger MB2 advertises more and obtains higher communication awareness. Female brand 1 (FB1) has higher sales and attitude values than FB2 and FB3. Both MB3 and FB3 are growing brands aiming to establish themselves.

3.2 Methodology

Our empirical methodology starts from Hanssens et al. (2010): they specify separate regressions for responsiveness of each mindset metric, for stickiness of each mindset metric, and for the sales conversion of the mindset metrics. They also note an important methodological issue, that is, while sales conversion of mindset metrics is likely a characteristic of the consumer decision process in the category (and the country), responsiveness to marketing is likely brand-specific. Thus, we need to account for both country market and brand variation in the coefficients relevant to our hypotheses.

Hierarchical linear models (HLMs) are designed to analyze multilevel data (Draper, 1995) and can incorporate heteroskedasticity and dependence. The HLM’s mathematical form enables researchers to investigate the underlying theory about the functional relationship among the variables in each level (Heck & Thomas, 2000). The variance of an outcome variable is partitioned into “between” and “within” variances, which should increase the precision of estimates. In matrix form, the general specification is:

\[
\text{(1)}
\]
where $y$ is an vector of responses, $X$ is an matrix containing the fixed effect regressors, $\beta$ is a vector of fixed effects parameters, $Z$ is an matrix of random effects regressors, $u$ is a vector of random effects, and $\varepsilon$ is an vector of errors.

In our three-level model, time series observations within brands constitute the first level, the brands constitute the second level, and the markets constitute the third level. As a result of this hierarchical structure, the model analyzes the brands in common across countries. We fit HLM by combining fixed and random effects. We allow for random effects at both the market\(^4\) and the brand-within-market levels. We choose the higher likelihood model from between 1) the varying-intercept (random-intercept) model and 2) the varying-intercept and varying-coefficient (random-intercept and random-slope) model. Summing up the random and fixed effects, we derive separate values for the coefficients of interest for Brazil and the U.K.

\textit{Responsiveness} is the response of each mindset metric to marketing. As do Hanssens \textit{et al.} (2010), we use the multiplicative model and incorporate diminishing returns by expressing the dependent variable as an odds ratio of the mindset metric (e.g., 60% awareness) and its remaining potential (e.g., $100\% - 60\% = 40\%$ potential). The HLM specification is:

\begin{equation}
\text{(2)}
\end{equation}

where $y$ is the log of odds ratio $[Y/(100\%-Y)]$, $Y$ is the mindset metric, and $X$ are the logs of marketing (relative price, distribution and advertising GRPs). The index $i$ is for time series observations, $j$ for brands, and $k$ for markets. $\mu_k$ is the random intercept for markets $k$, $\mu_j$ is the random intercept for brand $j$ and market $k$. Finally, $\varepsilon$ is the residual error and

\(^4\) We formulate our model in general terms (with random component at the market level), so that researchers may use it in future applications with several emerging and mature markets. It is feasible even for our 2-market level analysis because, in the longitudinal HLM, time is nested within the brand, which is nested within the market. Thus, we have not 2 (number of markets) observations but $2\times6$ (number of brands per market)$\times69$ (number of data periods) = 828 observations for estimation.
are the responsiveness coefficients of interest. As do Hanssens et al. (2010), we run the model separately for each mindset metric (communication awareness, brand consideration, brand liking).

*Stickiness* is captured by an autoregressive (AR) process, i.e., regressing each mindset metric on its own lagged value. The stickiness value acts as a multiplier for translating short-term into long-term gain. For stickiness values of 0.9, 0.8 and 0.5, respectively, one multiplies the short-term gain in the mindset metric by $10 \left[= 1/(1-0.9)\right]$, 5, and 2, respectively, to obtain the long-term gain without any further stimulation. The HLM specification is:

$$
(3)
$$

where $x$ is the lagged dependent variable and $\gamma$ is the ‘stickiness’ coefficient of interest, which varies across markets and across brands.

We assess *sales conversion* in a single model in which we allow for each attitude to influence sales (Hanssens et al., 2010; Vakratsas & Ambler, 1999). This also makes it possible to empirically test for, e.g., a higher sales conversion of liking in the U.K. versus Brazil but a lower conversion of communication awareness. The HLM specification is:

$$
(4)
$$

where $y$ is the log of sales volume, $X$ is the log of each of the 3 mindset metrics, and $\beta$ are the sales conversion coefficients for each mindset metric.

### 4. Results

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5 We note that we use each variable in levels in the HLM models, obtaining comparable and interpretable findings. Differencing a mindset metric before including it in the equation would limit the interpretation of our results. We thank an anonymous reviewer for this insight.

6 While Hanssens et al. (2010) use an AR(3) model, we estimate an AR(1) model because we need to compare a coefficient and its standard error across brands and countries. We verified that the empirical ordering of brands and countries in stickiness is unchanged whether one uses the AR(1) or the AR(3) model.
For each of the HLM models, the likelihood ratio (LR) test suggests the HLM (fixed and random specification) is superior to conventional regression (fixed effects only). Moreover, the 3-level HLM model outperforms the 2-level model, justifying the country market as a third level. Table 4 displays the percentage of variance explained by market level and by brand level differences, while tables 5 to 7 show the detailed estimation results for, respectively, responsiveness, stickiness and sales conversion. Finally, Table 8 combines fixed with random effects to present the elasticities for Brazil and the U.K.

4.1. HLM Results on Responsiveness

First, for communication awareness, 3.870% of the variation can be attributed to market differences, and 51.700% to brand differences (Table 4). Thus, we observe a high residual variance (44.430%) in explaining communication awareness; apparently, factors other than marketing actions influence whether survey respondents recall having seen marketing communication. Relative price (0.681) and distribution (0.299) have similar effects on communication awareness in each country (Table 8). In contrast, the advertising GRP coefficient is significantly different across country markets as the average brand manages to increase communication awareness with advertising in Brazil (0.009), but not in the U.K. (-0.027). In support of H1a, we thus find that responsiveness of communication awareness to ad GRPs is higher for Brazil than for the U.K.

For brand consideration, 0.367% of its variance is explained by differences between markets, 90.100% by brand differences and the remainder by residual variance (Table 4).

--- Insert Tables 4-8 around here ---

7 The negative sign is unexpected but holds up in our robustness checks for outliers, functional form and potential multicollinearity. We infer that the specific advertising during the data period may have been very ineffective in the U.K. and thus did not add to communication awareness, while the negative estimate is due to random error in respondents’ survey answers.
Summing up the fixed and the random effects between markets (Table 8), we find that the responsiveness of brand consideration to relative price (-0.231) does not differ significantly between markets, but that Brazil shows a significantly higher responsiveness to distribution (0.312 versus 0.260), while the U.K. shows a significantly higher responsiveness to advertising GRPs (0.009 versus 0.007). Second, for brand liking, 2.225% of its variance is driven by market differences, and 87.509% by brand differences. The responsiveness of brand liking to relative price (0.127) does not significantly differ across markets, but Brazil shows a significantly lower responsiveness to distribution (0.054 versus 0.100) and to advertising GRPs (-0.002 versus 0.004). Thus, we find support for H2a: the responsiveness of brand attitudes (i.e., consideration and liking) to marketing communication is lower in Brazil than in the U.K.

Figure 2 visualizes the differences between Brazil and the U.K. regarding advertising responsiveness of mindset metrics. Communication awareness is more responsive to advertising in Brazil, but both brand attitudes (consideration and liking) are more responsive to advertising in the U.K. Advertising’s main power in Brazil is to increase communication awareness, while its main power in the U.K. is to increase consideration directly.

---- Insert Figure 2 around here ---

4.2. HLM Results on Stickiness

For communication awareness, 13.869% of the variance is explained by market level differences, and 12.385% by brand differences (Table 4). In support of H1b, communication awareness is less sticky (Table 8) in Brazil (0.611) than in the U.K. (0.878). Absent new stimuli, gains in communication awareness enjoy a multiplier of 2.571 [1/(1-0.611)] in Brazil and 8.197 in the U.K.
For brand consideration, 0.218% of variance is explained by market differences and 74.179% by brand differences. The stickiness of brand consideration is not significantly different for Brazil (0.499) versus the U.K. (0.486). For brand liking, 92.516% of variance is explained by market differences and only 4.079% by brand differences. Brand liking has significantly lower stickiness in Brazil (0.184) than in the U.K. (0.759), a result that is contrary to our hypothesis. Gains in brand liking enjoy a multiplier of 1.225 \[1/(1-0.184)\] in Brazil and 4.149 in the U.K. Thus, we fail to find support for H2b that brand attitude stickiness is higher in Brazil than in the U.K.

Figure 3 visualizes the differences in mindset metric stickiness for Brazil versus the U.K. With the exception of consideration, the staying power of mindset metrics is higher in the U.K. than it is in Brazil.

4.3. HLM Results on Sales Conversion

The conversion of consumer attitudes into brand sales shows average elasticities (Table 7) of 0.133 for communication awareness (significant at the 5% level), 0.400 for brand consideration and 0.879 for brand liking (both significant at the 1% level). These estimates are lower than, but in the same order as, the average elasticities Srinivasan et al. (2010) report for France: 0.44 for communication awareness, 0.78 for brand consideration and 1.03 for brand liking.

The importance of market variation is striking for the sales conversion equation where 98.574% of the variance is explained by market differences, and 0.447% by brand differences (Table 4). Thus, sales conversion depends on the country, not on the specific brand. The low error (0.979%) in the sales conversion equation implies that a given change in a mindset
metric (e.g., 10% increase) has essentially the same sales effect at any time in our data period. We do find significant differences across markets both in the intercept and the coefficients for communication awareness and brand liking. First, the intercept differs much more between markets than between brands (their standard deviation is, respectively, 3.637 and 0.246 in Table 7). The baseline of sales conversion is significantly lower in Brazil (3.836) than in the U.K. (11.103), which likely reflects the lower average income level (Table 8). As for the slope coefficients, the sales conversion of brand consideration is slightly higher in Brazil (0.401 versus 0.399), but this difference is not statistically significant. However, the sales conversion of communication awareness is significantly higher in Brazil (0.185 versus 0.081), and the sales conversion of brand liking is significantly higher in the U.K. (1.171 versus 0.613). Thus, in support of H3, brand liking converts less to sales in Brazil than in the U.K. In addition, communication awareness is more important to sales in the U.K. than in Brazil.

Figure 4 visualizes the differences between Brazil and the U.K. regarding the sales conversion of mindset metrics. In each country, the conversion ordering is the same: upper-funnel metric communication awareness has the lowest sales conversion, followed by consideration and then liking. The marked difference is that communication awareness has more than twice the sales conversion in Brazil versus the U.K., while liking has almost twice the sales conversion in the U.K. versus Brazil.

4.4. Managerial Implications

How can managers use the type of elasticities provided in Table 8? The estimated elasticities for each arrow in Figure 1 may be combined to assess the expected sales gain of contemplated marketing actions in different countries. For example, increasing distribution
by 10% increases liking by 0.540% in Brazil (Table 8), but by 1.000% in the U.K. Due to the higher liking stickiness in the U.K., this translates into a long-term liking gain of 0.662% in Brazil and 4.149% in the U.K. Finally, due to the higher sales conversion of liking in the U.K., this long-term liking increase translates into a long-term sales gain of 0.406% in Brazil versus 4.859% in the U.K. Similar calculations for communication awareness and consideration reveal a sales gain of 1.422% and 2.497% in Brazil versus 1.985% and 2.018% in the U.K., respectively. From this analysis, managers learn that the sales impact of distribution occurs mostly through liking in the U.K., but mostly through consideration and communication awareness in Brazil. This knowledge helps them to focus on the most relevant mindset metrics in each market. Moreover, the elasticity magnitudes provide benchmarks for any specific marketing campaign in each market. For instance, it appears ill-advised to criticize a Brazilian manager for failing to increase liking (which is key to sales gain in the U.K.) when, instead, the focus in Brazil should be communication awareness and consideration gains. Thus, our model enables managers to prioritize different metrics in different markets rather than promoting a one-size-fits-all strategy.

5. Discussion and Conclusion

This paper presented and illustrated a conceptual framework of how effectiveness criteria for consumer mindset metrics operate differently in an emerging market versus a mature market. Based on regulative, cultural and economic differences between countries, we formalized our hypotheses on (1) the responsiveness and stickiness of communication awareness, (2) the responsiveness and stickiness of brand attitudes, and (3) the sales conversion of brand liking. As a first empirical assessment of the framework, we analyze these effects for a major emerging market, Brazil, versus a major mature market, the U.K.
We find support for $H_{1a}$, $H_{1b}$, $H_{2a}$ and $H_3$. Brand attitude consideration and liking are less responsive to marketing communication in Brazil than they are in the U.K. Brand liking has a lower sales conversion, while communication awareness has a higher sales conversion in Brazil than in the U.K. Moreover, communication awareness has a higher responsiveness to advertising in Brazil, which is the likely reason for its lower stickiness (Bettman, 1979; Burke & Srull, 1988). However, low responsiveness to advertising does not necessarily imply high stickiness. *Contrary to $H_{2b}$*, brand liking is less sticky in Brazil than in the U.K. This may be due to the dynamic demographics in Brazil, which have both a younger population than the U.K. (World Factbook, 2012) and witnesses a rapid increase of the middle class (Broide, Hoefel, & Stul, 2012). As a result of such demographics, many consumers in emerging markets are first-time buyers in a product category (Batra, 1999; Burgess & Steenkamp, 2006). Such dynamic demographics may lead to higher instability in the brand liking metric. Future research is needed to examine whether the lower stickiness of liking also applies to other emerging markets.

How would our results hold up in other emerging and mature markets? As our framework is general, we would predict the same responsiveness and conversion differences for emerging (mature) markets low (high) in regulative protection, individualism and income. However, different combinations of these institutional context factors would generate interesting new predictions. For instance, Spain scores relatively low among mature markets on Hofstede’s (1980) scale of individualism (51/100, ranked 20th), while India scores relatively high among emerging markets (48/100, ranked 21st). At the same time, regulative protection and income differ substantially between these two countries, consistent with the U.K.-Brazil difference. Would Spain and India show similar advertising responsiveness of brand attitudes, but different advertising responsiveness of communication awareness and different sales conversion of liking? While our framework would predict so, future research is
needed to verify this prediction. The regulative protection and income factors offer the additional benefit of studying changes over time, as the gap between emerging and mature markets is more likely to shrink with respect to those institutional context dimensions than with respect to the cultural factor (Inglehart & Baker, 2000). If consumers in an emerging country receive much better regulative protection against poor quality products, would they start paying less attention to marketing communication? And if economic prospects substantially deteriorate in a mature market, will the sales conversion of liking decline? These predictions derive from our framework, which requires further empirical validation. Below we discuss important research and managerial implications in the event such validation is successful.

Regarding the advice for brands to become “romantic and mysterious” love marks (Roberts, 2005), our findings imply that the rewards of such a strategy may be much greater in a mature market such as the U.K. than in an emerging market such as Brazil. Indeed, the recent empirical finding that brand liking is highly responsive to advertising and converts strongly into sales (Hanssens et al., 2010) come from a country (France) where most consumers are high in individualism, income and protection against poor-quality products. Our findings offer reason to believe that the Hanssens et al. (2010) result may not hold for consumers low in individualism and/or income. In our study, price increases liking, but decreases consideration. Just as Ferrari may be loved but remain out of reach for many in mature markets, relatively expensive packaged good brands may be liked by emerging market consumers who do not consider buying them in the foreseeable future.

The lower sales conversion of brand liking also implies that a strong emotional connection with consumers may not be as important for brands in emerging markets as it is for brands in mature markets (though we acknowledge that, also in mature markets, several
brands with a utilitarian focus succeed\(^8\)). In this context, Western branding experts should exercise care when claiming that “China has no brands in any real sense” (Yong, 2005) and that Chinese consumers are “unable to define the features of a brand” as “the emotional connection is simply absent” (Lindstrom, 2011). Thus, we agree with Cayla and Arnould (2008, p. 7) and question the assumption of prominent marketing practitioners and academics that “the principles of building a strong brand are basically the same across cultures”. Similarly, brands born in emerging markets should be wary of carrying their assumptions into mature markets. For example, Hyundai now recognizes the need in the US market to move beyond a “left-brain choice” (value, fuel economy, lengthy warranty); as a result, it has begun to air ads that “aim to add an emotional connection and remind [people that] buying a Hyundai isn’t just a rational choice” (Ad Age, 2011).

What does this mean for marketing managers? First, patience is gold in an emerging market such as Brazil. That is, managers should immediately track whether consumers received the message, but then they need to give the social influence process time to flourish. Second, a pulse of the GRP spending should allow marketing communication to start the social influence process, which then requires little if any further stimulation due to the effect of word-of-mouth and stickiness in brand consideration. Third, a large portion of the marketing budget should aim to ensure that relevant consumer groups are aware of and consider the brand for purchase.

Our framework and empirical analysis have several limitations that require further investigation. First, we base our propositions on consumer mindset (demand-side) metrics, without explicitly accounting for supply side considerations, such as infrastructure and political stability, or company factors, such as organizational absorption of the marketing

\(^8\) We thank the editors for this insight.
concept (e.g., Nakata & Sivakumar, 2001), managerial focus (e.g., Adler & Bartholomew, 1992, Morris & Pitt, 1994; Peterson, 1993) and degree of marketing program standardization (Jain, 1989). Second, our focus on aggregate-level mindset metrics requires us to infer the impact of individual consumer characteristics – controlled experiments are needed to directly demonstrate these links. Third, we use specific operationalizations of regulative, cultural and economic dimensions, and future research may investigate other measures. We do not expect our findings to be sensitive to alternative operationalizations – for one, we obtain similar results substituting Hofstede’s (1990) individualism-collectivism scales with Schwartz’s (1999) autonomy versus relatedness scales. Fourth, our empirical study only considers one product category in one emerging versus one mature market. Further studies are needed to determine the generalizability of our findings across markets and categories. Fifth, we base our empirical analysis on the same mindset metrics for the emerging and the mature market. Different mindset metrics could play a key role in emerging markets. Sixth, as consumer heterogeneity is substantial in both analyzed countries, further research may distinguish among regions, age cohorts and consumer segments. Last but not least, the question remains whether differences in mindset dynamics and marketing effectiveness are mostly driven by institutional, cultural or economic differences. The economic gap between currently emerging and mature markets may disappear within the next few decades, but the cultural differences are likely to remain (Inglehart & Baker, 2000). As countries transition from industrial to service-oriented economies, will consumers continue to choose the ‘safe bets’, i.e., brands with reliable quality and good service (Zhou, 2008) or will they be attracted to the ‘love marks’, i.e., brands that are “romantic, sensual and intimate” (Roberts, 2005)? Time will tell how this romance versus reliability dilemma will evolve.
References


### Table 1: Summary of Conceptual Arguments and Findings

<table>
<thead>
<tr>
<th>Institutional Dimension</th>
<th>Theoretical Argument</th>
<th>How Brazil differs from the U.K.</th>
<th>Hypotheses For Brazil versus the U.K.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Regulative</strong></td>
<td>Concerns to avoid poor quality products should lead consumers to attend more to communication on the quality of brands <em>(Erdem et al., 2006)</em></td>
<td>Brazilian consumers enjoys less consumer protection against poor-quality products than U.K. consumers <em>(LaPorta et al. 1998)</em></td>
<td>Communication awareness is more responsive to marketing communication <em>[H1a; supported]</em></td>
</tr>
<tr>
<td></td>
<td>Increases in communication awareness are harder to maintain in the absence of repetition <em>(Burke &amp; Srull, 1988; Keller, 1987)</em></td>
<td></td>
<td>Communication awareness is less sticky to marketing communication <em>[H1b; supported]</em></td>
</tr>
<tr>
<td><strong>Cultural</strong></td>
<td>Collectivism implies marketing communication to be less important than social influence <em>(Money et al., 1988; Nicholls et al., 1997)</em></td>
<td>On Hofstede’s (1980) individualism scale Brazil scores 38 and the U.K. 90 out of 100</td>
<td>Brand attitudes are less responsive to marketing communication <em>[H2a; supported]</em></td>
</tr>
<tr>
<td></td>
<td>When a brand does succeed in improving attitudes, this change is more enduring in collectivist cultures <em>(Johansson et al. 1994)</em></td>
<td></td>
<td>Brand attitudes are more sticky to marketing communication <em>[H2b; not supported]</em></td>
</tr>
<tr>
<td><strong>Economic</strong></td>
<td>Low-income consumers make more rational versus emotional purchase decisions <em>(Cayla &amp; Arnould, 2008; Jones &amp; Mustiful, 1996)</em></td>
<td>The per capita Gross Domestic Product is $10,800 for Brazil versus $34,800 for the U.K <em>(World Factbook, 2011)</em></td>
<td>Brand liking has a lower sales conversion <em>[H3; supported]</em></td>
</tr>
<tr>
<td></td>
<td>High-income consumers are more likely to rely on their own brand liking in their purchase decision <em>(Bennett, 1998; Giddens, 1991)</em></td>
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</tr>
<tr>
<td>VARIABLE</td>
<td>OPERATIONALIZATION</td>
<td></td>
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<tr>
<td>------------------------</td>
<td>-------------------------------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Marketing Mix</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Relative Price</td>
<td>Average price paid for 1 ounce of brand, divided by average price in category</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distribution</td>
<td>All Commodity Volume (ACV) weighted distribution</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advertising</td>
<td>Gross Rating Points (GRPs) of advertising</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Performance</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales</td>
<td>Volume sales in ounce</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Mindset Metrics</strong>*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication Awareness (% aware)</td>
<td>“For which of these brands have you seen, heard, or read any advertising in the past 6 months?” (Respondent reads a list of brands, and indicates YES or NO to each) % aware is the percentage of respondents indicating ‘YES’ for the particular brand</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brand Consideration (% considering buying)</td>
<td>“Which of these brands would you consider buying?” (Respondent reads a list of brands, and indicates YES or NO to each) % consideration is the percentage of respondents indicating ‘YES’ for the particular brand</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brand Liking (% of liking)</td>
<td>“Please indicate how much you like brand X.” (1: I don't like at all, 7: I like a lot)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* measured every month in a stratified national sample, with between 246 and 251 respondent realized each month in Brazil, and between 243 and 249 respondents realized in the United Kingdom
Table 3: Descriptive Statistics for Brands Present in Both Markets (Ordered by Market Share) and Remaining Brands (Ordered by Market Share)

<table>
<thead>
<tr>
<th>M/Female Sales Rank</th>
<th>M1</th>
<th>M2</th>
<th>M3</th>
<th>F1</th>
<th>F2</th>
<th>F3</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA</td>
<td>39.374</td>
<td>10.260</td>
<td>49.025</td>
<td>12.387</td>
<td>30.118</td>
<td>8.2236</td>
</tr>
<tr>
<td>Consideration</td>
<td>66.043</td>
<td>5.768</td>
<td>67.878</td>
<td>6.033</td>
<td>21.304</td>
<td>4.646</td>
</tr>
<tr>
<td>Relative Price</td>
<td>0.987</td>
<td>0.022</td>
<td>0.931</td>
<td>0.018</td>
<td>1.154</td>
<td>0.052</td>
</tr>
<tr>
<td>Distribution</td>
<td>474.671</td>
<td>174.395</td>
<td>580.884</td>
<td>86.639</td>
<td>189.329</td>
<td>70.529</td>
</tr>
<tr>
<td>Ad GRPs per 100m inhabitants</td>
<td>171.293</td>
<td>280.301</td>
<td>229.043</td>
<td>282.048</td>
<td>7.480</td>
<td>32.502</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>M/Female Sales Rank</th>
<th>M1</th>
<th>M2</th>
<th>M3</th>
<th>M4</th>
<th>M5</th>
<th>M6</th>
<th>F1</th>
<th>F2</th>
<th>F3</th>
<th>F4</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA</td>
<td>182.4</td>
<td>25.83</td>
<td>26.26</td>
<td>12.78</td>
<td>15.57</td>
<td>11.91</td>
<td>0.11</td>
<td>7.42</td>
<td>4.32</td>
<td>3.42</td>
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<tr>
<td>Consideration</td>
<td>107.65</td>
<td>129.7</td>
<td>14.6</td>
<td>0.06</td>
<td>4.83</td>
<td>4.74</td>
<td></td>
<td></td>
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<tr>
<td>Liking</td>
<td>1.114</td>
<td>0.108</td>
<td>0.94</td>
<td>0.158</td>
<td>1.135</td>
<td>0.384</td>
<td>0.099</td>
<td>0.880</td>
<td>0.112</td>
<td>0.870</td>
</tr>
<tr>
<td>Relative Price</td>
<td>695.935</td>
<td>75.360</td>
<td>505.469</td>
<td>115.324</td>
<td>295.377</td>
<td>295.377</td>
<td>109.630</td>
<td>876.180</td>
<td>96.610</td>
<td>533.720</td>
</tr>
<tr>
<td>Distribution</td>
<td>102.717</td>
<td>182.703</td>
<td>295.477</td>
<td>248.802</td>
<td>27.246</td>
<td>72.479</td>
<td>103.049</td>
<td>139.493</td>
<td>15.572</td>
<td>61.686</td>
</tr>
<tr>
<td>Ad GRPs per 100m inhabitants</td>
<td>260.320</td>
<td>315.120</td>
<td>226.168</td>
<td>214.909</td>
<td>69.682</td>
<td>51.007</td>
<td>107.653</td>
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</table>
Table 4: Variance Partition Coefficients (in percentages) for all HLM Models

<table>
<thead>
<tr>
<th></th>
<th>Responsiveness Equations</th>
<th>Stickiness Equations</th>
<th>Sales Conversion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CA</td>
<td>Consideration</td>
<td>Liking</td>
</tr>
<tr>
<td>Market</td>
<td>3.87</td>
<td>0.367</td>
<td>2.225</td>
</tr>
<tr>
<td>Brands</td>
<td>51.700</td>
<td>90.100</td>
<td>87.509</td>
</tr>
<tr>
<td>Residual</td>
<td>4.430</td>
<td>9.533</td>
<td>10.267</td>
</tr>
</tbody>
</table>
Table 5: Maximum Likelihood Estimates of Responsiveness Equations in Longitudinal HLM*

<table>
<thead>
<tr>
<th></th>
<th>Model 1 (DV= Log_CA)</th>
<th></th>
<th>Model 2 (DV= Log_Consideration)</th>
<th></th>
<th>Model 3 (DV=Log_Liking)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fixed Effects</strong></td>
<td>Coefficient</td>
<td>SE</td>
<td>z</td>
<td>p&gt;</td>
<td>z</td>
<td></td>
</tr>
<tr>
<td>Log_Price</td>
<td>-2.366</td>
<td>0.445</td>
<td>-5.31</td>
<td>0.000</td>
<td>-1.989</td>
<td>0.368</td>
</tr>
<tr>
<td>Log_Distribution</td>
<td>0.681</td>
<td>0.108</td>
<td>6.34</td>
<td>0.000</td>
<td>-0.231</td>
<td>0.051</td>
</tr>
<tr>
<td>Log_GRPs</td>
<td>0.300</td>
<td>0.067</td>
<td>4.48</td>
<td>0.000</td>
<td>0.286</td>
<td>0.042</td>
</tr>
</tbody>
</table>

| **Random Effects**  | Coefficient | SE  | z    | p>|z| | Coefficient | SE  | z    | p>|z| | Coefficient | SE  | Z   | p>|z| |
|---------------------|-------------|-----|-----|-----|-------------|-----|-----|-----|-------------|-----|-----|-----|
| ___                 | 0.054       | 0.031 |     |     | 0.008       |     |     |     |
| ___                 | 0.558       | 0.772 |     |     | 0.163       |     |     |     |
| ___                 | 0.522       | 0.251 |     |     | 0.056       |     |     |     |
| _                   | 0.029       | 0.008 |     |     | 0.004       |     |     |     |
| _                   | 0.008       | 0.038 |     |     | 0.024       |     |     |     |
| _                   | 0.022       | 0.003 |     |     | 0.003       |     |     |     |

Log Likelihood  
-327.674  
-35.282  
574.901

LR test

--- is the standard deviation of the random intercept at the market level, --- is the standard deviation of the random intercept at the brand level, --- is the standard deviation of the residuals. For the responsiveness of consideration, the between-market (level 3) variance is , the between-brand (level 2) variance is and the within-market between-brand (level 1) variance, i.e. the variance of the residuals is 0.063. Thus, the total variance is 0.002+0.596+0.063=0.661 and the between-market variance partition is 0.002/0.661=0.367%
<table>
<thead>
<tr>
<th></th>
<th>Model 1 (DV=Log_CA)</th>
<th>Model 2 (DV=Log_Consideration)</th>
<th>Model 3 (DV=Log_Liking)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fixed Effects</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coefficient</td>
<td>z</td>
<td>p&gt;</td>
<td>z</td>
</tr>
<tr>
<td>-0.122</td>
<td>0.060</td>
<td>-2.03</td>
<td>0.043</td>
</tr>
<tr>
<td>AR(1)</td>
<td>0.749</td>
<td>0.098</td>
<td>7.65</td>
</tr>
<tr>
<td><strong>Random Effects</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.016</td>
<td>0.030</td>
<td>0.133</td>
<td>0.250</td>
</tr>
<tr>
<td>0.136</td>
<td>0.079</td>
<td>0.233</td>
<td>0.008</td>
</tr>
<tr>
<td><strong>Log Likelihood</strong></td>
<td>-133.814</td>
<td>-30.592</td>
<td>595.698</td>
</tr>
<tr>
<td><strong>LR test</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* is the standard deviation of the random intercept at the market level,  is the standard deviation of the random intercept at the brand level,  is the standard deviation of the residuals.

is the standard deviation of the slope parameter for the lagged DV at market level, is the standard deviation of the slope parameter for the lagged DV at brand level.
Table 7: Maximum Likelihood Estimates of Sales Conversion Equation in Longitudinal HLM*

|                  | Coefficient | SE   | z    | p>|z| |
|------------------|-------------|------|------|------|
| **Fixed Effects**|             |      |      |      |
|                | 7.470       | 2.574| 2.90 | 0.004|
| Log_CA          | 0.133       | 0.060| 2.21 | 0.027|
| Log.Consideration| 0.400     | 0.064| 6.27 | 0.000|
| Log.Liking      | 0.879       | 0.261| 3.37 | 0.001|
| **Random Effects**|           |      |      |      |
|                | 3.637       |      |      |      |
|                | 0.246       |      |      |      |
|                | 0.364       |      |      |      |
|                | 0.066       |      |      |      |
|                | 0.019       |      |      |      |
|                | 0.292       |      |      |      |
| **Log Likelihood**| -189.135     |      |      |      |
| **LR test**     |             |      |      |      |

* is the standard deviation of the random intercept at the market level, is the standard deviation of the random intercept at the brand level, is the standard deviation of the residuals, is the standard deviation of the slope parameter for the log of Communication Awareness, etc.
Table 8: Elasticity Estimates (combining fixed and random effects) for Brazil versus U.K.

<table>
<thead>
<tr>
<th>Stickiness</th>
<th>Brazil</th>
<th>U.K.</th>
<th>Brazil</th>
<th>U.K.</th>
<th>Brazil</th>
<th>U.K.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log_CA</td>
<td>-0.117</td>
<td>-0.117</td>
<td>-0.172</td>
<td>-0.172</td>
<td>0.094</td>
<td>0.082</td>
</tr>
<tr>
<td>Log_Consideration</td>
<td>0.611</td>
<td>0.878</td>
<td>0.499</td>
<td>0.486</td>
<td>0.184</td>
<td>0.759</td>
</tr>
<tr>
<td>Log_Liking</td>
<td>0.094</td>
<td>0.082</td>
<td>0.094</td>
<td>0.082</td>
<td>0.184</td>
<td>0.759</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Responsiveness</th>
<th>Brazil</th>
<th>U.K.</th>
<th>Brazil</th>
<th>U.K.</th>
<th>Brazil</th>
<th>U.K.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log_CA</td>
<td>-2.363</td>
<td>-2.369</td>
<td>-1.990</td>
<td>-1.988</td>
<td>-0.295</td>
<td>-0.297</td>
</tr>
<tr>
<td>Log_Consideration</td>
<td>0.681</td>
<td>0.681</td>
<td>-0.231</td>
<td>-0.231</td>
<td>0.127</td>
<td>0.126</td>
</tr>
<tr>
<td>Log_Liking</td>
<td>0.299</td>
<td>0.299</td>
<td>0.312</td>
<td>0.260</td>
<td>0.054</td>
<td>0.100</td>
</tr>
<tr>
<td>Log_Price</td>
<td>0.009</td>
<td>-0.027</td>
<td>0.007</td>
<td>0.009</td>
<td>-0.002</td>
<td>0.004</td>
</tr>
<tr>
<td>Log_Distribution</td>
<td>0.009</td>
<td>-0.027</td>
<td>0.007</td>
<td>0.009</td>
<td>-0.002</td>
<td>0.004</td>
</tr>
<tr>
<td>Sales Conversion</td>
<td>Brazil</td>
<td>U.K.</td>
<td>Log_Sales</td>
<td>3.836</td>
<td>11.103</td>
<td></td>
</tr>
<tr>
<td>Log_CA</td>
<td>0.185</td>
<td>0.081</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Log_Consideration</td>
<td>0.401</td>
<td>0.399</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Log_Liking</td>
<td>0.613</td>
<td>1.171</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Figure 1: Conceptual Framework and Hypotheses for Emerging Market Brazil versus Mature Market U.K.
Figure 2: Advertising Responsiveness of Mindset Metrics in Brazil versus U.K.
Figure 3: Stickiness of Mindset Metrics in Brazil versus U.K.
Figure 4: Sales Conversion of Mindset Metrics in Brazil versus U.K.