The "Pricing Footprint" of Country Image: Insights from the Price Sensitivity Meter

Abstract

We apply van Westendorp's price sensitivity meter (PSM) in an experimental setting to compare the "pricing footprints" of the same brand originating in countries differing in their country image favorability. This footprint is captured by the different price levels for which consumers find the focal brand to be (a) *too cheap* (i.e. raise concerns about its quality), (b) *cheap* (i.e. seem like a bargain), (c) *expensive* (i.e. not cheap but would still consider buying it), and (d) *too expensive* (i.e. priced so high as to prevent purchase). We find that significant differences in country image assessments do not uniformly translate into significant differences across all components of the pricing footprint. Moreover, even if such differences are observed, they do not apply to all focal countries.

Keywords: Pricing Footprint, Price Sensitivity Meter, Country Image, Consumer Traits

1. Introduction

Responding to repeated warnings in the literature that "COO [country-of-origin] has significantly lesser impact as consumers move closer to the actual purchase situation from belief formation regarding the relative quality of brands" (Agrawal & Kamakura, 1999, p. 256), research has been increasingly focusing on addressing price-related aspects of COO. Such a focus is exemplified by price tolerance studies (e.g. Drozdenko & Jensen 2009), price acceptance studies (e.g. Hulland, Todiño & Lecraw 1996) and, most commonly, willingness-to-pay (WTP) studies (e.g. Koschate-Fischer, Diamantopoulos & Oldenkotte., 2012).

While the aforementioned studies have furnished important insights on how COO influences consumers' price-related responses, they focus on *individual* aspects of price behavior (e.g. the consumer's reservation price) and fail to provide a comprehensive picture of the *overall* "pricing footprint" that consumers associate with a particular COO. For example, consumers may consider a particular price level as being too low and associate it with poor product quality (e.g. Ding, Ross & Rao 2010). Or they may consider a particular price level as being excessively high and feel that they are being ripped off (e.g. Xia, Monroe & Cox 2004). On the other hand, they might find a particular price level so attractive as to make the product appear like a "bargain". In short, for a *single* product/brand, consumers are likely to simultaneously hold *multiple* price perceptions, all of which are of potential importance to managers.

In this paper, we ask the following question: how do differences in country image (CI) perceptions translate into pricing footprint differences for a given brand? Drawing on van Westendorp (1976), we conceptualize this footprint as the different price levels for which consumers find the focal brand to be (a) *too cheap* (i.e. raise concerns about its quality), (b) *cheap* (i.e. seem like a bargain), (c) *expensive* (i.e. not cheap but would still consider buying it), and (d) *too expensive* (i.e. priced so high as to prevent purchase), and use the price sensitivity meter (PSM) to empirically capture it. The PSM is widely used in practice (Steiner & Hendus, 2012) and has been found to produce highly acceptable results at relatively low cost (e.g. Reinecke, Mühlmeier, & Fischer, 2009).

2. Conceptual background

In this study, we focus on the COO of the brand (i.e., the brand origin), defined as "the country which a consumer associates a certain product or brand as being its source, regardless of where the product is actually produced" (Jaffe & Nebenzahl, 2006, p. 29). We capture COO assessments by the well-established *country image* (CI) construct, namely "the overall perception consumers form of products from a particular country based on their prior

perceptions of the country's production and marketing strengths and weaknesses" (Roth & Romeo, 1992, p. 480).

To conceptually underpin our investigation, we draw on equity theory (Adams, 1965). According to the latter, individuals involved in an exchange relationship compare the outcome they receive from an exchange to the input they provide. In a marketing context, equity theory suggests that consumers offer a certain input (e.g. money, shopping effort) in exchange for an output (i.e. the benefit of the product). Thus, when they receive a relatively high outcome (i.e. a greater benefit from the product), consumers are likely to provide a greater input (e.g. pay a higher price) thus leading to an equitable deal (Huppertz, Arenson, & Evans, 1978). Bearing in mind that, in the eyes of a consumer, "a product from a COO with a favorable country image is likely to be associated with a higher benefit than a product from a COO with a less favorable country image" (Koschate-Fischer et al., 2012, p. 23), one could predict that, *ceteris paribus*, consumers would be willing to incur a greater (lesser) monetary sacrifice to obtain a product from a country with a strong (weak) CI.

While the above line of argument is intuitively appealing, it raises three important questions: First, will differences in CI assessments be reflected on *all* elements of the pricing footprint (e.g. will perceptions of too low as well as too high prices differ among the countries concerned)? Second, for those pricing footprint elements for which there *are* differences, will these be roughly the same in terms of magnitude? Third, will the differences between *adjacent* price levels (e.g. between perceptions of "cheap" and "expensive" prices) be similar across countries differing in their CI?

Answers to these questions are, unfortunately, not provided by extant literature, not least because – to the best of our knowledge – this is the first study specifically examining the COO pricing footprint. Having said that, we do expect that CI differences are likely to be more strongly reflected in price level differences at the "expensive" and "too expensive" end of the spectrum rather than the "cheap" and "too cheap" end. We ground this expectation in two arguments. First, as Roll, Achterberg & Herbert (2010) state, the price perceived as "expensive" (but still leading to purchase) is conceptually closest to the consumer's reservation price, that is, the maximum price a consumer is willing to pay for a given quantity of a product or a service (Wertenbroch & Skiera 2002). Given that prior research shows a positive relationship between country image favorability and WTP (e.g. Aichner, Forza, & Trentin, 2017), we can expect that CI differences will be reflected in differences in the perceived "expensive" price levels. Moreover, given that "too expensive" prices (leading to no purchase) must, by definition, be higher than reservation prices (but only just), CI differences are also likely to be reflected in differences in the perceived "too expensive" price levels. The second argument is based on the fact that, in general, consumers "like" low prices and therefore a price must probably be *exceptionally* low for them to question the product's quality to such a degree as not to buy the product. Furthermore, in considering what is "too cheap" to be unworthy of purchase, consumers are more likely to anchor their perceptions on the product category *as a whole* rather than on a specific brand from a specific country. For example, when buying a new car, a price of, say, EUR 1000 would probably raise concerns about quality irrespective of whether the car was of German or Spanish or South Korean origin – simply because (new) cars are never that cheap.

In light of the above, we do not expect major differences in consumers' perceptions of "too cheap" price levels as a result of CI differences. As far as "cheap" (i.e. bargain) price perceptions are concerned, we expect these to be closer to the "too cheap" rather than the "expensive" price perceptions because a price slightly lower than one's reservation price is hardly likely to be viewed as constituting a "bargain". So, again, we expect that CI differences will not be strongly reflected in differences in "cheap" price perceptions.

In investigating pricing footprint differences, we control for consumer traits that might also influence price perceptions over and above any CI differences. Specifically, we consider (a) consumer ethnocentrism (CET; Shimp & Sharma, 1987), (b) consumer cosmopolitanism (C-COSMO; Riefler et al., 2012), (c) consumer price sensitivity (Goldsmith & Newell, 1997), and (d) product involvement (Zaichkowsky, 1985) as covariates in the analysis.

3. Data collection and measures

Two hundred Ukrainian consumers (69.6% female, M_{age} = 26.73, SD =7.67) participated in an online survey using a between-groups design. Respondents were randomly exposed to one of three versions of a fictitious shoe (sneakers) brand originating in the Ukraine, Germany and China respectively. Following ad exposure, participants were exposed to van Westendorp's (1976) PSM and asked to indicate the prices (in UAH; 1 Euro = 33.92 UAH as 22.09.2020) at which they would find the focal brand (i.e. the brand version to which they had been exposed to) to be (a) *too cheap*, (b) *cheap*, (c) *expensive* and (d) *too expensive*.[1]

After completing the PSM questions on price, respondents were asked to complete established scales on CI (Roth & Romeo, 1992; $\alpha_{UKRAINE}$ = 0.79, $\alpha_{GERMANY}$ = 0.85; α_{CHINA} = 0.86), consumer ethnocentrism (5-item version of CETSCALE by Verlegh (2007); α = 0.81), cosmopolitanism (C-COSMO scale by Riefler et al. (2012); composite α = 0.90), price sensitivity (4-item scale by Goldsmith & Newell (1997); α = 0.80) and product involvement (5-item scale based on Mittal (1989); α = 0.72).

4. Analysis and results

An analysis of variance (ANOVA) using Roth & Romeo (1992) scale confirmed that three focal countries vary in terms of CI favorability ($F_{2,172}$ = 71.491, $p < 0.001$), with Germany's image (M = 5.15, SD = 1.09) being significantly more positive than that of the Ukraine (M = 3.49, SD = 1.07) and China's image (M = 2.84, SD = 1.07); all pairwise comparisons (Games-Howell tests) were significant at $p < 0.01$ or better. Thus the manipulation of the independent variable was successful.

We employed multivariate analysis of covariance (MANCOVA) to examine differences in the elements of the pricing footprint across the three target COOs. We opted for MANCOVA both because the dependent variables (i.e., the four price levels describing the footprint are substantially correlated (see Table 1) and because the method allows the inclusion of covariates (i.e. consumer ethnocentrism, cosmopolitanism, price sensitivity and involvement). Prior to the MANCOVA, we tested for homogeneity of the covariance matrices across the groups (countries) and obtained non-significant results (Box's test = 22.026, F = 1.064, p = 0.381).

Table 1: Correlations among Pricing Footprint Elements

	Cheap	Expensive	Too Expensive
Too Cheap	0.722	0.572	0.446
Cheap	-	0.776	0.618
Expensive	-	-	0.830

Note: all correlations significant a $p < 0.001$ (two-tailed).

[1] In accordance with PSM guidelines, respondents providing inconsistent responses (i.e. violating the *very cheap<cheap<expensive<very expensive* sequence) were excluded from the analysis, resulting in a final sample of 173 respondents.

The MANCOVA results were highly significant (Pillai's trace = 0.127, F = 2.769, $p < 0.01$; Hotelling's trace = 0.142, F= 2.884, $p < 0.01$) indicating that the three countries indeed differ in terms of their pricing footprints. However, none of the covariates turned out to be significant and, therefore, were dropped from further analysis which focused on identifying *specific* cross-country differences in terms of the *individual* elements of the pricing footprint. To this end, a series of ANOVAs was conducted followed by multiple comparisons (Table 2).

Table 2: Differences in COO Pricing Footprints

	Means (Std. Deviations)			
	Too Cheap	Cheap	Expensive	Too Expensive
Ukraine	816.07 (309.12)	1489.29 (450.73)	2366.07 (628.79)	3303.57 (736.57)
Germany	871.93 (309.81)	1550.00 (543.06)	2389.50 (725.77)	3254.39 (856.29)
China	700.00 (370.52)	1300.00 (655.10)	1908.33 (779.24)	2691.67 (916.38)
ANOVA	$F_{2, 170} = 4.101$ $p < 0.05$	$F_{2, 170} = 3.206$ $p < 0.05$	$F_{2, 170} = 8.451$ $p < 0.001$	$F_{2, 170} = 9.581$ $p < 0.001$
Mult. Comparisons (Games-Howell $p < 0.05$ or better)	Germany>China	Germany>China	Germany>China Ukraine>China	Germany>China Ukraine>China

As all ANOVAs are significant, it can be concluded that three investigated countries differ in all elements of their pricing footprints. However, significant differences relating to perceptions of "too cheap" and "cheap" prices are only noted between Germany and China. In contrast, significant differences relating to perceptions between "expensive" and "too expensive" prices are observed both between Germany and China as well as between Ukraine and China. Moreover, despite the fact that Germany and the Ukraine differ significantly in terms of their CI, they do *not* differ in terms of their pricing footprint.

Regarding the magnitudes of the observed differences, the average prices associated with Germany exceed those of China by 24.6% (too cheap), 19.2% (cheap), 25.2% (expensive) and 20.9% (too expensive). The average prices associated with the Ukraine as a brand origin exceed those of China by 24% (expensive) and 22.7% (too expensive).

Concerning differences between adjacent elements of the pricing footprint, Table 3 shows that, in all countries, the percentage rate of increase is not constant; there is a much greater "jump" between the "too cheap" and "cheap" prices than between the "expensive" and "too expensive" prices.[2] Moreover, again across all target COOs, "expensive" prices are perceived to be approximately 45-60% higher than what is considered by consumers to be a bargain (as captured by the cheap price). Finally, to be considered prohibitive (and thus prevent purchase), price levels have to be more than a third higher than "expensive" prices.

[2] Caution needs to be exercised when looking simply at percentage differences. For example, in absolute terms, the "too cheap" and "cheap" price perceptions for China differ by 600 UAH whereas the "cheap" and "expensive" perceptions by 608 UAH. Yet, the corresponding percentage increases in Table 3 are 85.7 % and 46.8% respectively, due to the changing baseline (i.e. denominator).

Table 3: Average Magnitudes of Differences of Adjacent Pricing Footprint Elements

	Cheap	Expensive	Too Expensive
Ukraine	Too Cheap + 82.5%	Cheap + 58.9%	Expensive + 39.6%
Germany	Too Cheap + 78.0%	Cheap + 54.0%	Expensive + 36.0%
China	Too Cheap + 85.7%	Cheap + 46.8%	Expensive + 41.0%

Our findings support our theoretical reasoning that "cheap" (bargain) price perceptions are likely to be closer to the "too cheap" rather than the "expensive" perceptions. A related samples t-test performed on the "cheap minus too cheap" and "expensive minus cheap" price differences, revealed that the former is smaller than the latter ($t = -2.615$, $p < 0.05$).

5. Conclusions

Our study offers several new insights regarding the price-related consequences of COO. First, the fact that two countries may differ significantly in terms of their CI does *not* necessarily transfer into pricing footprint differences. CI differences must be *quite substantial* to materially affect price perceptions. This is aptly illustrated by lack of significant differences between Germany and the Ukraine despite their significantly different CIs. Second, not all elements of the pricing footprint may be impacted by differences in CI favorability. Thus when the difference in CI is not large – even if significant – only limited differences (if any) can be expected in terms of price perceptions. Third, the relative (percentage) magnitudes of differences between COOs across different elements of the pricing footprint are remarkably similar/stable. Whenever such differences are observed between any two COOs, the price level of the more favorable COO (in terms of its CI) exceeds the corresponding level of the less favorable COO by 20-25% on average. While it is too soon to generalize this finding, it is interesting to note that CI differences are "monetized" by a more or less "fixed" percentage price premiums (irrespective of which specific COOs are compared or which element of the pricing footprint is involved).

Managerially, our findings suggest that brands benefiting from a *really* strong COO will find it easier to implement a premium pricing strategy. Thus drawing attention to the brand's COO in communication activities will encourage consumers to notice and process the COO cue, ultimately resulting in a more favorable pricing footprint. However, differences in CI perceptions may not automatically translate into pricing footprint differences and, even if they do, not all elements of the footprint might be affected. This is good news for brands originating in countries with a less favorable CI. Having said that, if the brand's origin is not particularly strong, it is probably wiser to engage communication activities that highlight attributes other than the COO (see also Verlegh, Steenkamp, & Meulenberg, 2005).

Regarding future research, there is an obvious need for replication of the current study in different product categories with different COOs as stimuli and conducted in different countries. Second, conducting within-subject experiments whereby respondents are simultaneously exposed to multiple products from different COOs should generate complementary insights into the CI → pricing footprint relationship to those offered by our study. Finally, attention to potential moderating influences such as country familiarity or country affinity/animosity would further refine our understanding of how CI impacts the COO footprint by identifying relevant boundary conditions.

References - Upon request.