Assessing the impact of stylistic responding in country and destination image research

Abstract

Based on a seven-country study, we investigate the impact of stylistic responding on a structural equation model linking the country image and destination image constructs to tourists' intentions to visit a country (Italy) and engage in positive word-of-mouth (WOM). Across all countries, we demonstrate that that accounting for stylistic responding produces a significantly better model fit and that, when stylistic responding is not accounted for, parameter estimates are biased and effect sizes (as reflected in variance explained) are inflated. Overall, stylistic responding is found to pose a non-negligible threat to model results and thus the conclusions based on them.

1. Introduction

In recent years, tourism research has been increasingly combining constructs from the country-of-origin (COO) and destination marketing literatures to better explain and predict tourists' decision making. In particular, the *country image* construct – defined as "the total of all descriptive, inferential and informational beliefs one has about a particular country" (Martin & Eroglu 1993, p.193) – has been employed in conjunction with the *destination image* construct – defined as "the perceptions held by potential visitors about an area" (Hunt 1975, p. 1) – in models seeking to explain such outcome variables as tourists' visit intentions and (positive) word-of-mouth (e.g. Elliot, Papadopoulos & Kim, 2011; De Nisco et al. 2015). In such models, country image has been typically modeled as an antecedent/driver of destination image, with the latter acting as a partial or full mediator on outcome variables (Nadeau et al. 2008; Elliot & Papadopoulos 2016; De Nisco, Papadopoulos & Elliot 2017).

An important methodological issue relating to the estimation of such models is that of response styles, namely "tendencies to respond systematically to questionnaire items on some basis other than what the items were specifically designed to measure" (Baumgartner & Steenkamp 2001, p. 143). Accounting for stylistic responding is essential to ensure that empirical results (i.e., model fit statistics, parameter estimates and effect sizes) accurately reflect the substantive relationships of interest rather than methodological artifacts attributable to respondents' differential scale usage and other method effects (Baumgartner & Steenkamp 2001; Baumgartner & Weijters 2019; Podsakoff et al. 2003). Surprisingly, however, extant tourism research has largely ignored the issue of stylistic responding when estimating models of the impact of country and/or destination image on behavioral intentions and other outcome variables. This is a serious shortcoming, not least because there is strong evidence suggesting that failure to account for response styles can lead to erroneous inferences regarding the presence and/or strength of pertinent model relationships (Baumgartner & Weijters 2019; Podsakoff, MacKenzie, & Podsakoff 2012).

Against this background, the purpose of the current paper is to compare results based on the same theoretical model before and after controlling for response styles and highlight key differences in terms of (a) the overall fit of the model, (b) the magnitude and significance of the structural parameters, and (c) the effect sizes associated with the prediction of the endogenous variables. We do this by drawing on a seven-country online survey (overall N = 4,550 respondents intercepted in Brazil, China, India, Indonesia, Russia, South Africa, and Turkey) of tourists' perceptions of and intentions to visit Italy, using a simplified version of De Nisco, Papadopoulos and Elliot's (2017) model for illustrative purposes.

2. Model Specification

The model we are using to investigate the effects of stylistic responding is summarized in Figure 1. Specifically, we model country image as an antecedent of destination image, with both image constructs subsequently driving tourists' intention to visit the focal country (i.e., Italy in the present case) and to engage in positive-of-mouth (WOM) about the latter as a tourist destination. We also include familiarity with the destination as a control variable to take into account individual differences in tourists' knowledge of and personal experience with the focal country. Finally, we incorporate a stylistic responding variable which we link directly to the indicators of country image, destination image, visit intention, and destination WOM. Following the recommendation of Podsakoff et al. (2003), we apply the correction for stylistic responding to the measures (indicators) of the various constructs, not the constructs themselves.

The model shown in Figure 1, which we call the *response style model*, can be directly compared with an alternative model, referred to as the *null model*, in which the effects of the stylistic response measure on all indicators of the substantive constructs are constrained to zero.
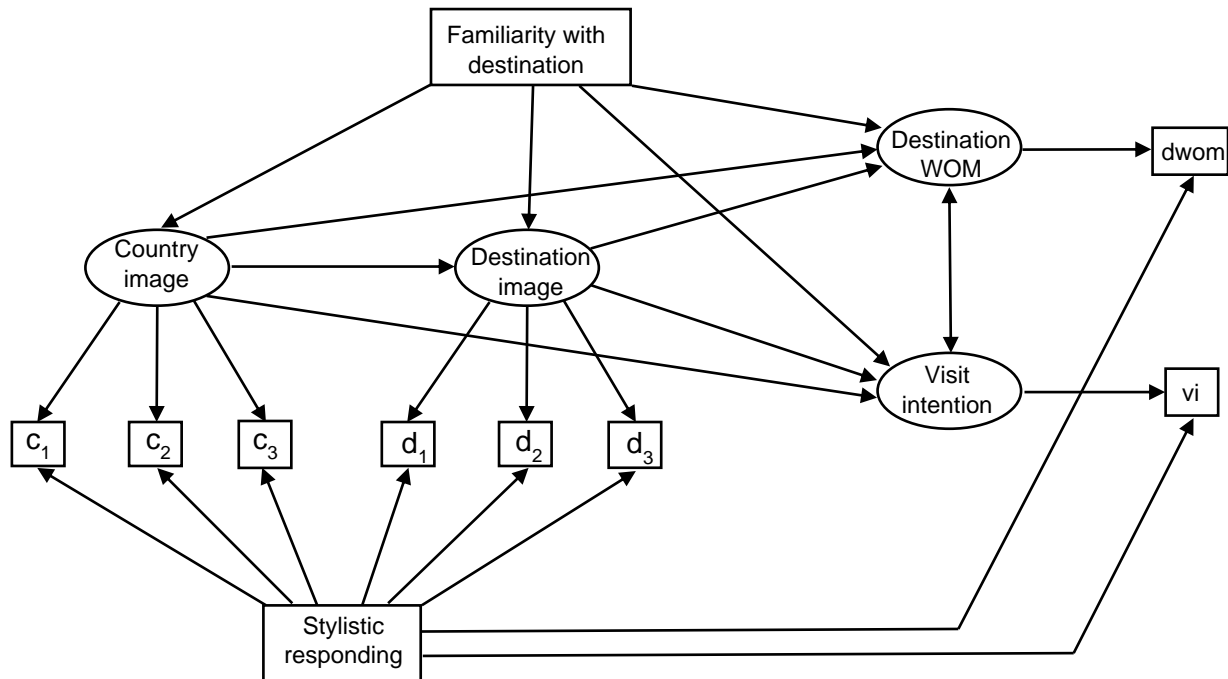
Figure 1: Illustrative model

Note: WOM – word of mouth; dwom and vi – indicators of destination WOM and visit intention. The constructs of substantive interest are depicted as ellipses, the observed measures (c_1-c_3, d_1-d_3, dwom and vi) and control variables (familiarity with destination and stylistic responding) as rectangles. The association between familiarity with destination and stylistic responding and the error terms for dependent variables and are not shown for simplicity.

If the response style model has a significantly better fit than the null model, this would indicate that response style effects are indeed materially affecting the results. The overall fit comparisons can be complemented with more fine-grained comparisons of the parameter estimates (to identify upward/downward bias due to stylistic responding) and the effect sizes associated with the endogenous variables (as reflected in the proportion of variance explained in the endogenous variables).

3. Methodology

The data used for the present study were drawn from a large online survey whose purpose was to assess the foreign image of Italy. The fieldwork was managed by a major Italian research agency that maintains representative panels in several countries around the world. A total of 4,550 questionnaires (650 respondents per country) were collected from respondents in seven emerging countries (Brazil, China, India, Indonesia, Russia, South Africa, and Turkey). The original questionnaire was drafted in English, translated into Chinese, Portuguese and Russian, and then back-translated to ensure linguistic equivalence. The survey instrument included a set of standard demographic questions and a total of 58 items aimed at assessing respondents' perception of various aspects of Italy as a country, as a tourist destination, and as a source of different products. We use a subset of these items in our study.

Country image was measured with 10 items (e.g., politically stable, sociable and friendly population, high quality of life) and destination image with 13 items (e.g., many things to see and to do for tourists, unique historical and artistic heritage, high quality of hotel and accommodation). Respondents provided their ratings on 10-point scales with endpoints of 1 = it doesn't represent at all my idea/opinion of Italy (as a tourist destination) and 10 = it perfectly represents my idea/opinion of Italy (as a tourist destination). Since both sets of image items were

highly correlated, we formed three parcels consisting of 4, 4, and 3 items for country image and 5, 4, and 4 items for destination image, respectively (Bandalos 2002).

Destination familiarity, visit intention, and destination WOM were measured with single items (i.e., I know very well Italy as a tourist destination, I would like to visit/return to Italy as a holiday, and I often speak well of Italy as a tourist destination). The response format for the first two items was the same as for destination image, and a 10-point strongly disagree to strongly agree scale was used for destination WOM. Although visit intention and destination WOM were measured with single-item scales, the constructs and measures were modeled separately so that the variance in the constructs accounted for by the three substantive antecedents (i.e., country image, destination image, country familiarity) can be meaningfully compared between the null model and the response style model.

Ideally, the items used to measure stylistic responding should have no common substantive content and should be completely unrelated to the measures of the focal constructs (Baumgartner & Weijters 2019). Unfortunately, such "ideal" items are usually unavailable. Under these circumstances, researchers should judiciously select items as response style measures that are as conceptually unrelated as possible to the constructs of substantive interest. In the present case, we identified five items on which respondents indicated their opinion about the quality of Italian products (i.e., technological products, machinery and industrial equipment, furniture and home furnishings, cars, and household appliances), which should not be (strongly) related to the constructs included in Figure 1. Furthermore, a different response scale (1 = very low quality to 10 = very high quality) was used to collect the quality ratings. Therefore, the average score on the five quality evaluations should be a valid measure of stylistic responding.

4. Results

The overall goodness-of-fit measures for the response style model indicated that the model fit the data well in all countries: the chi-square values (with 20 degrees of freedom) ranged from 46.02 to 86.67 (average of 61.64); and the average values of RMSEA, SRMR, CFI, and TLI were .056, .011, .991, and.979, respectively (all indicating good fit). In contrast, the fit of the null model was consistently poor; χ^2-difference test showed that the response style model was the preferred model in every single country and all eight effects of the response style measure on the measures of the substantive constructs were highly significant in all countries.

Figure 2 shows the estimates (including confidence intervals) of the five key structural parameters for the null model and the response style models (i.e., the paths from country image to destination image, visit intention, and destination WOM, and the paths from destination image to visit intention and destination WOM). With few exceptions, the direct effects of country image on visit intention and destination WOM are small and often non-significant, so we will focus on the remaining paths. Panel A shows that, while country image has a strong and highly significant positive effect on destination image in all countries for both models, the effect is substantially overestimated in the null model. Panel D shows that the same is true for the effect of destination image on destination WOM in Brazil, India, and Russia. In China, Indonesia, and Turkey, the effect of destination image on destination WOM is significantly positive in the null model but non-significant in the response style model. Panel E shows that destination image has a strong and highly significant positive effect on visit intention in all countries. Although the differences between the null and response style models are rather small, the effect of destination image on visit intention tends to be underestimated in the null model relative to the response style model.

To provide additional evidence on the magnitude of the differences in effects across the two models, we compared the variance accounted for in each of the four endogenous constructs between the null model and the response style model. The R^2 values are consistently and quite substantially higher in the null model in which stylistic responding is not taken into account (by

Figure 2: Effect of response styles on estimated path coefficients

Note: Parameter estimates for the null model are shown in blue, parameter estimates for the response style model in red. Error bars are 95 percent confidence intervals.

a factor ranging from 1.25 to 2.35). The reasons for this result are two-fold. First, the variance in each of the endogenous constructs is reduced when stylistic variance is removed from their indicators, so the potential for variance overlap is reduced as well. Second, the shared variance between constructs that is due to common method variance no longer contributes to the correlation between constructs and thus cannot artifactually inflate the R^2.

5. Discussion and Conclusions

To the best of our knowledge, this is the first study that explicitly investigates the impact of response styles in models linking country and destination images to tourist behavior outcomes. Our results – based on data from seven different countries – reveal that stylistic responding is not a trivial issue that can be safely ignored when estimating models aimed at explaining tourists' intentions to visit a particular destination and/or to speak positively about it to others. Our analysis clearly shows that response style effects can not only strongly impact the overall fit of a given model, but also considerably inflate parameter estimates and artificially boost effect sizes (as captured by the variance explained in the endogenous substantive constructs). Importantly, while response style effects vary in their severity across countries, no country seems to be "immune" to them. The clear implication of this is that researchers should undertake *explicit* efforts to assess the impact of stylistic responding on the relationships of substantive interest as failure to do so may result in misleading conclusions. Our recommendation to tourism researchers is to assess stylistic responding prior to drawing theoretical conclusions and deriving managerial implications *even* if such assessment is based on an imperfect response style measure; the potential for over-correction seems to be a (much) less serious concern than no correction whatsoever.

6. References [available upon request]