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ONLINE TRAVEL SURVEY RESPONSE RATES AND RESEARCHER ETHNICITY

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ABSTRACT

This paper documents a USA-based experiment that tested response rates to an online travel survey request. The results of the experiment revealed a dramatically lower rate of response to requests sent by a researcher with an ethnically Chinese-name than to an identical request from a researcher with a Western-name. The importance of this study is evident to tourism practitioners as well as academic tourism researchers who so often rely upon survey-based research. Recommendations for overcoming ethnic bias are provided.

Keywords: conversion study, research design, ethnic bias, travel surveys, response rate.

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1. INTRODUCTION

Researchers frequently employ visitor surveys to measure travel behavior, advertisement effectiveness, traveler spending, and destination image (Pan & Li, 2011). Primarily due to convenience and low-cost, these data collection methods have generally moved from face-to-face interception and postal mailings to an online environment. From the beginning, however, this migration, has resulted in significant issues related to epidemically low response rates and response bias (Cole, 2005) as well as concern the responding members of the sample do not accurately represent the target population (Hwang & Fesenmaier, 2004).

Various theories have been applied to explain the response decision-process. These include *Response propensity theory* (Groves et al. 2006), *Social exchange theory* (Dillman, 2007) and *Leverage-saliency theory* (Groves, Eleanor & Corning, 2000). Collectively, these theories suggest that survey recipients unconsciously assign weight (positive and negative) to survey attributes, including the topic, sponsor, incentive, and sender; with summation of these weighted attributes determinant as to whether he/she will receive sufficient benefit from participation to justify opting-in to the exercise (Groves, Eleanor & Corning, 2000). The survey attribute explored in this research note is the ethnicity of the requestor; an understudied but important variable

that we were concerned could have a material impact upon tourism research response rates.

Chawla and Natarajan (1994) seem to have been first to explore the issue of requestor ethnicity. Their research calculated the response rate from a mailed survey dealing with the impact of free-trade pacts on American business, sent to 800 USA industrial sector workers. Sample recipients included only those with 'domestic (i.e. American-Christian) sounding names.' Half the sample received the survey from a sender with an 'American-Christian-sounding name.' The other half received theirs from a researcher with a 'foreign-non-Christian-sounding name.' What was learned? The 'American-Christian-sounding name' sender's requests generated a higher response rate. Respondents who received their request from a graduate student with a Western-sounding name had a 37.5% response rate. Those whose request came from an undergraduate student with a 'foreign sounding' name responded at a rate of 27.5%; and the final group, who received their request from a professor with a 'foreign sounding' name, yielded a response rate of 31.5%. The authors surmised that the perceived ethnic differences between sender and receiver created an enhanced feeling of dissimilarity, which led to the lower response rate for the non-Western researchers.

Pan, Woodside & Meng (2014) sought to extend the above work with a tourism-related experiment. Their contribution was important, as it employed an online versus a mailed participation request. Pan, Woodside & Meng's (2014) findings replicated those of Chawla and Natarajan (1994), with their 'Western-named'

requests generating a significantly higher response rate than those sent by the non-Western named researcher. This led to the authors' recommendation that those sending email survey requests "should use a researcher who has a name in similar cultural background as the respondents' to be the main contact person." While perhaps sound advice, and consistent with the earlier mail-based findings, the Pan, Woodside & Meng (2014) study acknowledged severe limitations as, in addition to the difference in ethnicity, their Western-named requests were sent by a Professor at a prestigious university, while their non-Western-named requests came from a regional university Associate Professor. Thus, per the authors, further study was needed to determine the degree of response differential attributable to ethnicity, versus the differences in 'power-status' of the requestors. This lacuna was the impetus for the work that follows.

2. EXPERIMENTAL DESIGN

Working with a CVB, online surveys were sent to potential visitors who had requested a visitor's guide through the CVB website. The practical goals of the exercise, for the CVB, were to determine the year's conversion-rate, demographics, and travel/spending patterns of the destination's visitors. The online survey was administered using Qualtrics. With the permission of the CVB, of the approximately 50,000 requests sent, 9,820 were randomly selected to support this experiment. These were randomly divided into two treatment groups of 4910 recipients. The 9,820 selected recipients were sent identical survey requests, e-mailed at the same time by researchers with the same title and from the same university. The sole distinction:

one group's requests came from an obviously Chinese-named requestor; the other from a requestor with a common Western-name. The hypothesized results, based upon the above discussion of previous research and theory: the Western-named researcher's requests would generate a significantly higher response rate than those sent by the Chinese-named researcher.

3. TEST RESULTS

The difference in the response rates between the two treatment groups was dramatic, with the Western-name requests having generated 63% more responses than those sent by the Chinese-named researcher (Chinese-name response rate=7.9%; Western-name response rate=12.9%; Chi-square significance $p<0.0001$). See Table-1 for a detailed reporting of the results.

//Table-1\\

To investigate the difference further, we calculated *post-hoc* differences in the response rates for the two treatments based upon respondents' geographic location; which we were able to measure as the initial database contained the zip code or home country of the subjects; with this information then also provided by those completing the survey form (see Table-2). Segmenting the USA population into four regions, it was found that recipients residing in all corners of the country yielded significantly lower response rates to the survey request of the Chinese-researcher than they did to the Western-researcher. A Chi-square test yielded no differences between regions.

Lower response rates for the non-Western name requests were consistent across the USA.

The number of international respondents was not sufficient to make any sweeping generalizations regarding USA versus non-USA response patterns. Further, such findings would likely vary country by country. However, it is worth noting that for the limited number of non-USA respondents in the sample, little variance was noted in the response rates of the two treatment groups: Non-Western and Western-researcher request response rates were statistically undifferentiated.

//Table-2\\

4. CONTRIBUTIONS AND CONCLUSIONS

The results support our hypothesis, with a strong negative bias reflected among our USA population to requests sent by a Chinese-named versus a Western-named researcher. The finding, as would be predicted by the aforementioned *Response propensity*, *Social exchange* and *Leverage-saliency* theories, validates the earlier results of both Chawla and Natarajan's (1994) and Pan, Woodside & Meng (2014), and confirms that the ethnicity of the sender plays a significant role when surveying a sample of the USA population. Clearly, dissimilarity between the solicitor and those asked to provide assistance led to a heavy negative weighting of the Chinese-named requests. Is this rational? Why did this happen? It is understandable that a receiver would ignore or delete email from a 'Nigerian Prince' promising a considerable sum

of unclaimed fortune, since most respondents at one time or another have encountered such scams. A survey solicitation email from a Chinese-named researcher from an American university does not convey a devious message. However, it seems that ethnic association elicits a negative subconscious response among a significant share of the USA population, thus limiting participation and deflating the already low response share one can expect from an online survey exercise.

Our findings thus add to Chawla and Natarajan's (1994) conclusion that perceived ethnic differences between a sender and receiver result in enhanced feelings of dissimilarity and lower response rates, with perhaps the degree of discrepancy even more pronounced for e-mailed surveys versus mailed surveys; which makes sense given the potential for sender malfeasance in an online environment.

Consistent with the Pan, Woodside & Meng (2014) recommendation above, this research thus also unfortunately suggests that in order to maximize response rates, Chinese researchers consider Westernizing their name for solicitation purposes (likely a challenge when obtaining IRB approval) or working with a Western-sounding named colleague when sending out solicitation emails. The 63% differential in response rates noted in the current study is simply too great to ignore, and can easily represent the difference between a successful and unsuccessful data collection effort. We recommend researchers consider the issue as they do their planning for future online survey exercises.

5. LIMITATIONS AND FUTURE RESEARCH

Our international response rates did not reflect a statistically significant bias based upon the ethnicity of the requestor. However, as noted above, the limited number of international respondents in our sample make any generalization of this finding a stretch. We therefore propose further research with non-USA populations be conducted to ascertain the response patterns of different nations and cultures. For example, will the results invert if this study were replicated in China? Would Western-names be disadvantaged? Similarly, what would be the results, both in the USA and elsewhere, were ethnic names other than Chinese used? Would an American population show bias when receiving a request from a researcher with, for example, a Semitic, Eastern European, Southern Asian or Hispanic name; or will classical 'Western-Christian' names always yield higher response rates? We look forward to future research to provide answers to these important questions. We also look forward hopefully to the day when all researchers, regardless of ethnicity, find their survey requests responded to equally.

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Table-1. Response Rates: Two Treatment Groups

Group	Researcher	Emails Sent	Failed/Bounced	Started	Completed	Fail/Bounce Rate	Started to Valid Ratio	Completion to Valid Ratio	Completion to Started Ratio
1	Bing Li*	4,910	200	539	374	4.0%	11.4%	7.9% ¹	69.4% ²
2	John Smith*	4,910	204	867	609	4.1%	18.4%	12.9% ¹	70.2% ²

1. Difference is significant, Chi-Square P value=0.0001
2. Difference is not significant, Chi-Square P value=0.790.

*Pseudo-names for anonymous review purpose.

Table-2. Responses Rates: Geographic Regions

Region	Chinese-Name			Western-Name			Difference	P Value
	Sample	Completed	Ratio	Sample	Completed	Ratio		
USA Midwestern States	1,002	94	9.4%	1,047	138	13.2%	+40.4%	0.0040*
USA Southern States	2,346	144	6.1%	2,393	275	11.5%	+88.5%	0.0001*
USA Northeast States	843	70	8.3%	773	108	14.0%	+68.7%	0.0002*
USA Western States	324	35	10.8%	300	52	17.3%	+60.2%	0.0001*
Non-USA	194	31	16.0%	188	34	18.1%	+13.1%	0.3404

* Chi-square value of differences among four USA regions is not significant, Chi-Square P value=0.5440.