

# **ELECTRONIC COUNTRY OF ORIGIN EFFECTS (eCOO): A CROSS-CULTURAL STUDY**

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## **ABSTRACT**

The country of origin (COO) of a product has been shown to affect consumers' perceptions about products, but the extent to which this effect exists in an online environment such as a discussion board has not been investigated. This study examines the content of 5993 discussion postings to US and China based discussion boards during two 90 day periods in 2004 and 2005. The results of this first study of electronic COO (eCOO) effects revealed an important extension to previous offline studies, finding strong negative COO effects which appear to be largely independent of product quality, relating instead to national political issues. Implications for research are discussed.

## **INTRODUCTION**

The marketing literature has established that the country of origin of a product or service affects consumers' perceptions and can influence a purchase decision [1-3]. Previous COO studies have studied consumers in their own national and cultural setting, but the global nature of the Internet now allows consumers from different countries in different parts of the world to exchange information about a product through channels such as electronic discussion boards. The purpose of this study therefore, was to investigate cross-cultural differences in eCOO effects by conducting an ethnographic and textual analysis of discussion boards based in different countries, (the US and China) over a two year period.

## **LITERATURE REVIEW**

The majority of cross-cultural studies of COO effects have been conducted in developed countries within North America and Europe and have demonstrated that consumers' attitudes towards foreign products differ significantly from country to country [2-6]. Previous COO research has generally analysed COO effects on choice by asking consumers to compare or to choose products or services from different origins. Under these circumstances, any COO effects, while sometimes apparent to an experimenter, are thus largely private and isolated from evaluation by the individual's peers. In an online discussion board, however, as with off-line discussion between peers, any statement regarding COO is subject to the scrutiny of others. Those "others" are largely unknown in an online discussion board (since most participants use a pseudonym) and this may increase participants' willingness to express, and act on, negative COO opinions. Alternatively, the presence on a discussion board of unknown 'others' from unknown national origins may decrease the frequency of stated COO sentiments, because participants may be unwilling to express negative COO sentiments to an audience of unknown national origin. The resultant uncertainty about whether COO effects will be more or less common online makes eCOO particularly interesting to study.

Separate studies have found COO effects among both US consumers (for a review, see Al-Sulaiti and

Baker [7]) and Chinese consumers [8]. However there have been no previous studies that have tracked COO effects over time, or examined the extent of COO on electronic discussion boards, though both Pitta and Fowler [9] and Goldsborough [10] have highlighted the usefulness of discussion boards to provide insight into the discussants who are likely to be influential in purchase decisions. This study addresses this gap, comparing the frequency of positive and negative eCOO postings by discussants on American and China based discussion boards over a fifteen month period.

## METHODOLOGY

The study investigated the behaviour of individuals who visited six discussion boards based on six different Internet portals (eBay, Yahoo, Google, EachNet, Sina and Netease) with a focus on “Digital Photography”. The first three of these discussion boards are US based while EachNet, Sina & Netease are China based. Online observation was carried out on all the discussion boards, and all postings that related to Digital Cameras were downloaded daily over a three month period from March to May 2004. This same process was repeated a year later from March to May 2005.

Information from each posting such as the author’s pseudonym, subject line and date of posting was recorded. Each posting was then coded for a number of measures including Country-of-Origin effects. For the US based discussion boards, a total of 4308 discussion postings from a 90 day (March-May) period in 2004 and for an equivalent period in 2005 were downloaded and coded. For the China based discussion boards, 1685 discussion postings over the same 90 day periods in 2004 and 2005 were downloaded and coded. In all, a total of 5993 postings were analyzed for the fifteen month period.

## RESULTS

All discussion postings in 2004 and 2005 that contained a reference to a digital camera’s COO were coded as positive, negative or neutral following Johansson’s terminology [11]. The country to which the reference was made was also recorded. There was a significant difference between the US and China based discussion boards in the percentage of all types of COO references in both years ( $Z = 7.00$ ;  $p < 0.001$  for 2004 and  $Z = 13.38$ ;  $p < 0.001$  for 2005). The Chinese engaged in more negative COO references than their US counterparts in both 2004 and 2005 ( $p < 0.001$  for both years), and also more positive eCOO references ( $p < 0.001$  for both years).

Further qualitative analysis of the negative eCOO references was carried out, and revealed a specific negative eCOO theme, negative comments about Japan. Of the 27 negative eCOO references in 2004, 20 (74.1%) consisted of unfavourable references to Japan and/or its products. There was even stronger evidence of this anti-Japanese sentiment in 2005, with 97 (96%) of the 101 negative eCOO references referring to Japan. It is notable that these anti-Japanese sentiments both preceded and were potentially increased by large scale anti-Japanese demonstrations in China in April 2005 over the reported rewriting of Japanese school history textbooks, which was apparently seen in China as an attempt to downplay Japan’s wartime atrocities in China [12]. The evidence of anti-Japanese sentiment on the discussion boards in 2004 shows that anti-Japanese sentiments were already prevalent before the demonstrations in April 2005 and were directed at products (including digital cameras) that originated from Japan:

*“I want to buy a good digital camera but do not want Japanese made products, please give me some recommendations.” [28 April 2004; Translated]*

The frequency of negative eCOO references increased from 2.79% of all postings in 2004 to 14.11% of

postings in 2005 with significantly more discussion postings expressing anti-Japanese sentiments ( $Z = 8.06$ ;  $p < 0.001$ ). Despite a majority of eCOO references being negative, participants from the China based discussion boards also made a higher percentage of positive eCOO statements than those on the US based discussion boards in both 2004 ( $Z = 3.49$ ,  $p < 0.001$ ) and 2005 ( $Z = 5.60$ ,  $p < 0.001$ ). Qualitative analysis of these statements showed that the majority of these positive eCOO statements related to Chinese products, consistent with the COO literature which suggests that consumers often exhibit a preference for products produced in their home country even though such products may not necessarily be the best quality or price [2]. The following is a typical example of this type of posting:

*“Domestic digital cameras are slightly poorer in quality but still functional. If you are Chinese, you should buy domestic products!!” [16 April 2004; Translated]*

## DISCUSSION AND LIMITATIONS

This study found both quantitative and qualitative differences in eCOO opinions in the content of discussion boards based in the US and China. While eCOO references were almost completely absent from the US based discussion boards in both 2004 and 2005, negative eCOO references were significantly higher (and increasing) on the China based discussion boards, with most referring to Japan and/or to brands that originated from Japan. In contrast with previous COO effects discussed in the literature, these negative eCOO sentiments appeared to be independent of (or even despite) perceived product quality, instead reflecting ethnocentric sentiment apparently largely linked to the Japanese occupation of parts of China during World War II. This type of nationally driven COO effect was apparently enhanced by the widespread protests in China over the perceived whitewashing of Japanese textbooks, with a sharp year on year increase in the percentage of postings containing negative COO references (from 2.79% in 2004 to 14.11% a year later).

While previous COO literature has discussed ethnocentric effects on COO judgments, that discussion has largely been restricted to a preference for same country products. The results from this study suggest a clear threat to the success of Japanese products in China, shown by the rapid escalation in anti-Japanese sentiment on the China based discussion boards and in off-line demonstrations and critical press reports about Japanese actions. However the findings also present a warning for other countries, suggesting that anti-national sentiments can be expressed and magnified online, potentially contributing to greater salience and greater influence of non-product related COO features. Future COO research would benefit from measuring and modelling attitude towards the country, separate from any product specific evaluations, to see if these national effects are detected in other product environments.

In conclusion, the results provide the first cross cultural comparison of COO effects over time. The study identifies an important extension to previous COO research, negative effects related to national tensions, unrelated to the perceptions of product quality which have been a focus of previous COO work. Our results suggest that attitude towards the country should be modelled in other COO studies, to establish if this is a uniquely Chinese phenomenon. The results also show the value of a longitudinal study in examining COO effects; across a fifteen month period, we found consistent and important differences in the behaviour of participants on the US and Chinese discussion boards, with some evidence that the differences were increasing, rather than decreasing.

**[Due to the page limitation, a list of the references is available from the authors upon request.]**