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# **Investigating the US Consumer Response to the Chinese Acquisition of a US Firm**

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## **Investigating the US Consumer Response to the Chinese Acquisition of a US Firm**

### **Introduction**

The agricultural and food industry has become a leading sector in cross-border Merger and Acquisition (M&A) activities (Herger et al. 2008). The U.S. is the major acquirer and the main target of M&A activities among developed countries, while China is the top acquirer and the main target among developing countries (Bhagat et al. 2011). In 2013, Smithfield Foods Inc., the world's largest pork processor, was acquired by Shuanghui International Holdings Ltd, China's largest pork producer. The \$4.7 billion acquisition marks the largest Chinese takeover of a U.S. company in history. After the acquisition, Virginia-based Smithfield became a subsidiary of Shuanghui International Holdings. Despite concerns about the safety and security of the U.S. food supply system, the acquisition might ultimately benefit US farmers and Chinese consumers as it would secure steady demand for pork and increase U.S. exports to fast-growing markets in China and other Asian countries.

In our previous study conducted in China, we found that Chinese consumers were willing to pay significantly more for US products compared to Chinese products, but their willingness to pay (WTP) for Shuanghui products increased after the Smithfield-Shuanghui acquisition. In addition, we found a positive spillover effect to other Chinese products and a negative spillover effect to other US products (Jin et al. 2016). In this study, we investigated how US consumers responded to the Chinese acquisition of Smithfield. We found that US consumers are willing to pay significantly more for the US brands compared to the Chinese brands. The US consumers' willingness to pay for Smithfield products decreased significantly after they learned about the Smithfield-Shuanghui acquisition, especially for risk averse consumers and those with higher education level. Furthermore, contrasting to the results in the Chinese market, we did not find a negative spillover effect of this acquisition on other US products in the US market.

## **Research Methodology**

A total of 197 local grocery shoppers in the Bryan-College Station area of Texas were recruited by advertisements in local newspaper and other local media to participate in this study conducted in an off-campus conference center. The participants were aged 18 to 82 years old, with 42% being male and 58% female. The products used in this experiment were 12oz Smithfield luncheon meat (US brand, product of USA), Oscar Mayer (US brand, product of USA), and Maling (Chinese brand, product of USA). Product of Shuanghui, which is the company that acquired Smithfield, was not available in local markets thus not included in the study. Therefore, Shuanghui's main Chinese competitor Maling was investigated instead. Second price auctions (SPAs) with 6 to 10 bidders in each auction were conducted to elicit consumer WTP for these products (Vickery 1961). First, subjects were asked to submit their bids for each product in SPAs without given any information of the Smithfield acquisition. After these auction rounds, a paragraph with information about the acquisition of Smithfield by Chinese Shuanghui was read aloud to the subjects, and the subjects were asked to submit their bids again for the same products. Note that in the survey conducted after the auction experiments, 87% of the participants indicated that they had never heard of the Shuanghui-Smithfield acquisition study and only 3 of 197 participants claimed that they were fully aware of this acquisition. Therefore, the US consumers' responses to the Shuanghui-Smithfield acquisition could be assessed by evaluating differences in consumers' WTP (bids in SPAs) before and after they received the acquisition information.

## **Results**

Table 1 summarizes the average bids for the products before and after the announcement of the acquisition information. Our results show that US consumers would pay more than 40% higher prices (P value=0.0003) for the US brand compared to the Chinese brand for a similar product, which showed a similar pattern to our previous finding that Chinese consumers would pay around 30% higher prices for the US product compared to the Chinese Product (Jin et al. 2016).

Table 1. Average bids before and after the announcement of the acquisition information.

	Before Acquisition Information	After Acquisition Information
Smithfield	\$2.53	\$2.13
Oscar Mayer	\$2.41	\$2.43
Chinese Maling	\$1.77	\$1.74

The participants were first asked to bid without given any information about Shuanghui-Smithfield acquisition. Then the acquisition information was read to them and they were asked to bid again. After the announcement of Smithfield- Shuanghui acquisition information, consumer WTP for Smithfield dropped significantly by 16% (Figure 1, P Value = 0.0739). The acquisition information had no significant impact on consumer WTP for the other US brand Oscar Mayer and the Chinese brand Maling.

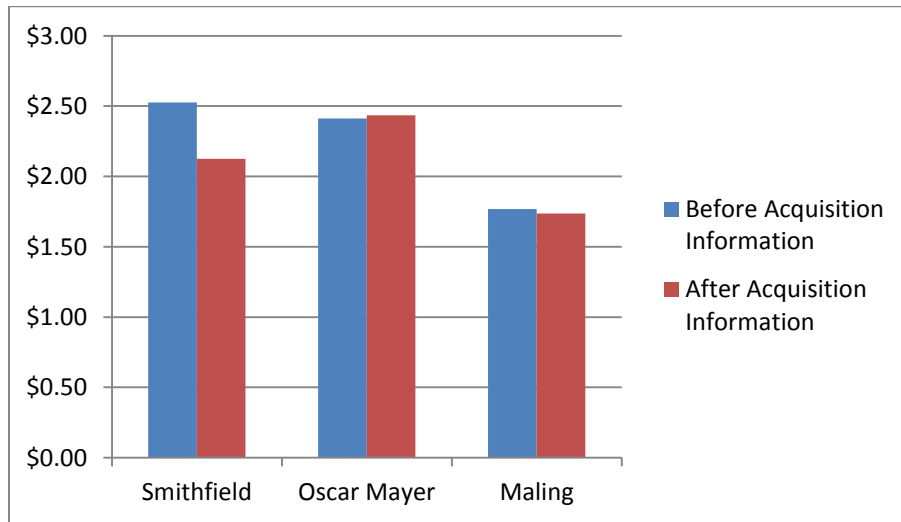


Figure 1. Consumer WTP before and after Acquisition Information

We conducted regression analysis to examine various factors that may affect consumer willingness to pay, including age, gender, income, number of children in the household, education level, marriage status and risk attitude. Risk attitudes of the participants were elicited using the methods of Holt and Laury (2002) and Andersen et al. (2008) assuming CRRA utility function. We found that consumer willingness to pay for these meat products increases with number of children in the household and decreases with the education level (Table 2).

We then compared difference in the consumer willingness to pay between Smithfield and Oscar Mayer after the announcement of the acquisition, and examined the factors that contribute to the differences. The results are shown in Table 3. Consumers are willing to pay 15% more for Oscar Mayer than the now Chinese owned Smithfield. Factors that increase the difference in the WTP between Oscar Mayer and Smithfield are risk aversion and education. This difference decreases with the number of children in the household. A survey about participants attitudes towards Shuanghui-Smithfield acquisition showed that 19% of the participants supported the acquisition, while 32% of were against the acquisition, and 49% were not sure (Figure 2). The participants were also asked about their opinions on the acquisition activities of general American enterprises. Nearly half (49%) of participants agreed that American enterprises should acquire foreign enterprises actively, while only 23% disagreed and 28% were not sure (Figure 3). In contrast, when asked if Foreign enterprises should acquire American enterprises actively, 49% of participants disagreed, 30% agreed and 21% were not sure (Figure 4).

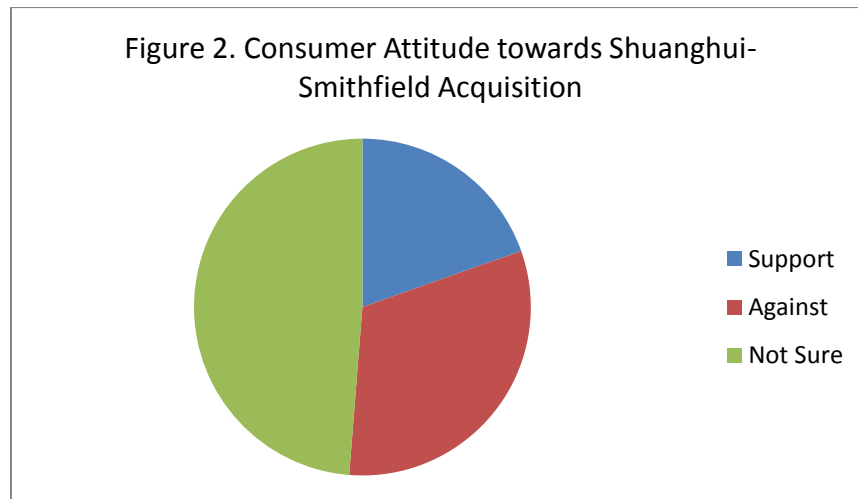


Figure 3. Consumer Attitude towards Foreign Enterprises Acquiring American Enterprises

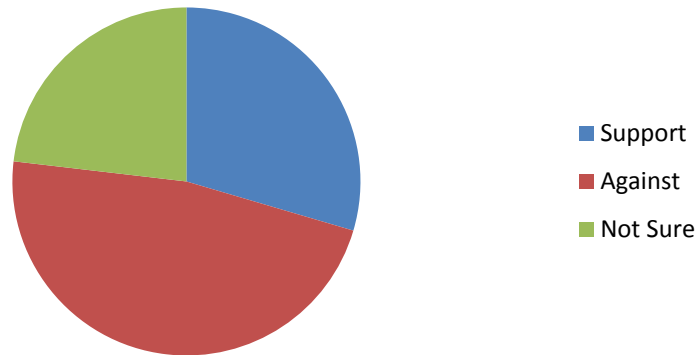
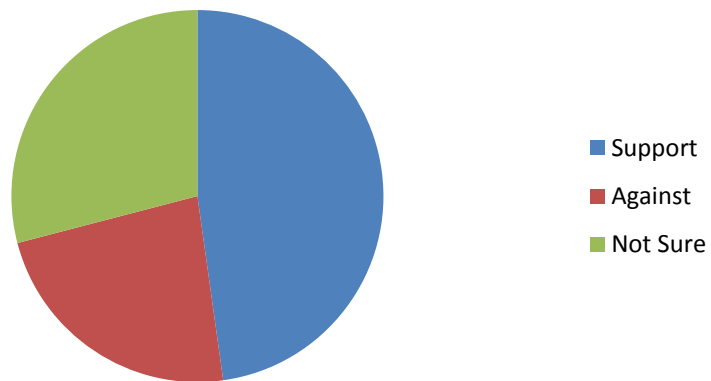


Figure 4. Consumer Attitude towards American Enterprises Acquiring Foreign Enterprises



## Conclusion

In this study, we investigated how US consumers responded to largest Chinese acquisition of a US company, and examined factors that affect consumer willingness to pay for the US brands and the Chinese brands. We found that the US consumers are willingness to pay significantly more for the US brands compared to the Chinese brands of the similar products. Consumer willingness to pay decreased significantly after learning that the US brand has been acquired by a Chinese company. Risk averse consumers and consumers with high education levels are less willingness to pay for the

brand acquired by the Chinese firm. This acquisition did not affect consumer willingness to pay for other US brands of similar products, and did not affect Chinese brands in the US market either. Our survey results also suggested that the US consumers were more supportive of the outbound acquisition than the inbound acquisition.

Table 2: Consumer Willingness to Pay before and after the announcement of acquisition information.

	Smithfield		Oscar Mayer		Chinese Maling	
	Before Acq	After Acq	Before Acq	After Acq	Before Acq	After Acq
Intercept	4.2962 *** (2.86e-07)	3.8658*** (5.69e-06)	3.1254 (1.42e-05)	3.2185*** (4.14e-06)	2.9432*** (0.0053)	2.6696*** (0.0002)
Income	-0.2812 (0.4623)	-0.2042 (0.5934)	-0.3439 (0.312)	-0.5200 (0.114)	-0.0355 (0.9391)	-0.3132 (0.3508)
Female	0.1445 (0.6720)	0.2653 (0.4401)	0.3430 (0.255)	0.1284 (0.664)	0.2465 (0.5497)	0.2493 (0.4110)
# Children	0.36782** (0.0422)	0.4027** (0.0231)	0.1229 (0.431)	0.2008 (0.183)	0.2072 (0.3476)	0.3009** (0.0492)
Age	-0.0053 (0.6154)	-0.0075 (0.4841)	-0.0108 (0.252)	-0.0055 (0.546)	-0.0145 (0.2566)	-0.0089 (0.3402)
Education	-1.8704** (0.0073)	-1.9200*** (0.0072)	-0.5639 (0.348)	-0.6905 (0.235)	-0.9113 (0.3148)	-0.8558 (0.1617)
Risk Attitude	-1.1070 (0.3729)	-0.1134 (0.3429)	0.0534 (0.599)	0.0586 (0.553)	0.1204 (0.3929)	0.0501 (0.6271)
Marriage Status	0.0534 (0.8989)	0.2167 (0.6108)	0.1643 (0.665)	0.0658 (0.857)	-0.0875 (0.8655)	-0.0315 (0.9327)
R Square	0.1426	0.1834	0.0586	0.0741	0.0600	0.11

Note: p-value in parenthesis; \*, \*\*, \*\*\*: Statistically significant at the levels of 0.10, 0.05 and 0.01 respectively.

Table 3. Difference in the Willingness to Pay between Oscar Mayer and Smithfield.

	Intercept	Income	Gender	# Children	Age	Education	Risk Attitude	Marriage Status	R Square
Diff	-1.110** (0.0183)	-0.035 (0.8792)	0.0786 (0.7008)	-0.2825*** (0.0088)	-0.0037 (0.5765)	1.1543** (0.0047)	0.1784*** (0.0117)	0.1830 (0.4777)	0.2022

Note: p-value in parenthesis; \*, \*\*, \*\*\*: Statistically significant at the levels of 0.10, 0.05 and 0.01 respectively.



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