

Professor Marian BEISE-ZEE

Customer Perception of International Corporate Decisions Using Discrete Choice Analysis



For any brand or firm, international corporate change can have a negative effect on societal attitudes and consumers' trust even if the products and services the firm offers remain exactly the same. For instance, the shift of manufacturing abroad or the takeover of a local company by a foreign multinational firm often leads to suspicion and negative attitudes from the public. The announcement of such corporate decisions can therefore affect the willingness of customers to purchase products or services from the firm.

My research aims to use discrete choice models to understand the effects of different types of international corporate changes. I also seek to understand what the effect of such changes are when they are made simultaneously, such as when the takeover of a local company is accompanied by a shift in manufacturing abroad. The effects of simultaneous decisions can be additive, compensatory or compounding.

Discrete choice methods are used to explain or predict a choice from a set of two or more discrete (i.e. distinct and separable; mutually exclusive) alternatives. My interest in this was sparked by my dissatisfaction towards the way we collect data in research. Most surveys, for instance, ask to measure our attitude towards something on a scale of 1 to 7. In reality, this is difficult to accurately determine as we have no metric measures in our head. By converting what we like to find out into choice decisions, we can use people's natural ability to choose among offered alternatives. For instance, discrete choice analysis can be used to determine whether people would prefer a specific life situation over another. Since we make all kinds of decisions in our daily lives, discrete choice analysis is a more natural way to understand human preferences. The beauty of this approach is that it can be used in virtually all areas of research, such as health, environmental protection and politics. The strength of such a method is that while several attributes of a product or situation may appear equally important, trade-off relations between these attributes exist, therefore requiring us to make difficult choices and sacrifice one attribute for another.

I conducted a research survey to determine the attitudes of Japanese consumers towards cars produced by a Japanese firm recently taken over by a Chinese firm. Respondents were asked repetitively to choose a car from a set of three cars. These cars differ in terms of company ownership, manufacturing/production location and brand name. All other attributes of the cars remain equal. In this scenario, discrete choice analysis enables us to identify how much more respondents value or are willing to pay for a product produced by a Japanese firm compared to a Chinese firm, a product produced in Japan compared to a product manufactured in China, or a product of an established brand compared to a rebranded product. Through this, we can then estimate the impact corporate decisions have on the attitude of Japanese society as a whole. The results showed that a sale of ownership from a Japanese firm to a Chinese firm, relocation of production abroad and rebranding led to a substantial drop in the price premium of the car. The study also suggested that interaction effects exist between these corporate decisions and that the impact of corporate decisions is not additive.



Source	Value	Standard error	Wald Chi-Square	Pr > Chi2	Wald Lower bound (95%)	Wald Upper bound (95%)
Brand name change-Legacy	-0.275	0.026	109.790	< 0.0001	-0.327	-0.224
Brand name change-Midas	-0.035	0.027	1.615	0.204	-0.088	0.019
Brand name no change-Subaru	0.310	0.031	99.340	< 0.0001	0.249	0.371
Owner no change-Fuji Heavy Industry	0.541	0.029	358.471	< 0.0001	0.485	0.597
Owner change-Geely (China)	-0.582	0.031	360.675	< 0.0001	-0.642	-0.522
Owner change-PSA (France)	0.041	0.026	2.545	0.111	-0.009	0.092
Manufacturing Loc-Factory in China	-0.543	0.020	712.129	< 0.0001	-0.583	-0.503
Manufacturing Loc-no change(Japan)	0.543	0.020	712.129	< 0.0001	0.503	0.583
Price-2000000	0.465	0.032	206.376	< 0.0001	0.402	0.528
Price-2200000	0.234	0.034	45.865	< 0.0001	0.166	0.301
Price-2400000	-0.235	0.030	61.519	< 0.0001	-0.293	-0.176
Price-2600000	-0.464	0.036	164.368	< 0.0001	-0.535	-0.393

A table of standardized coefficients depicting how product attractiveness changes after each corporate decision

 **College of Affiliation**
College of International Management

 **Research Field**
Business Administration,
Economic Statistics, Commerce

 **Email Address**
rian@apu.ac.jp