

## **Organic Food: Observations of Chinese purchasing behaviours**

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### **Abstract**

Previous research into organic food purchasing was based on the Theory of Planned Behaviour and this has enabled us to understand which attitudinal dispositions are associated with intentions to purchase organic food. A key issue identified by researchers such as Zinkhan and Carlson (1995) is that intentions do not always lead to behaviours and as a result alternate methodological perspectives are required.

A covert observation technique was used to explore what is purchased and by whom in China. The behaviours and key characteristics of 136 people were observed in 66 episodes in two Chinese supermarkets. Dry grocery products were the dominant organic food category purchased in China. People shopped in groups, with interactions and the influence of others clearly evident. Surveys of one person are likely to provide limited insight into behaviour.

### **Introduction**

The increasing importance to people of what they eat, where they shop and how they live is reflected in the present abundance of studies measuring consumer attitudes towards green products such as organic foods. There is currently an unprecedented level of international media attention on environmental issues in response to the scientific communities' agreement that increasing world temperatures are occurring in response to human impact on global habitats. Studies have shown that a certain sector of consumers report a higher likelihood of purchasing environmentally friendly products and that certain types of consumers are more favourably disposed towards green products such as organics (D'Souza, Taghian and Lamb, 2006; Paladino, 2005; Tadajewski and Wagner-Tsukamoto, 2006).

While many people declare they are concerned for the environment, are aware of environmental issues and intend to purchase green products (D'Souza, Taghian and Lamb, 2006; Lockie et al., 2002; Paladino, 2005) figures suggest that people are not purchasing organic foods in sufficient quantities. While some researchers have found that intentions lead to requisite behaviours (for examples see Chan and Lau, 2000; 2001), other researchers have found that intentions do not always translate into green purchasing behaviours. Studies concerned with actual behaviours are not only called for by Zinkhan and Carlson (1995) they are necessary if we are to improve uptake of green products such as organic food. This paper uses covert observation to extend our understanding of what is purchased and by whom in China.

### **Literature Review**

Many researchers seeking to understand how to change green shopper behaviour have followed Fishbein and Ajzen's (1975) Theory of Planned Behaviour. The Theory of Planned Behaviour was first proposed in the 1970's by Fishbein and Ajzen (1975). The Theory of

Planned Behaviour suggests that the intention to perform a (planned) behaviour is a key driver of behaviour. According to this theory, intentions to perform behaviours are based on three main effects, namely: 1) the consumer's attitudes towards the behaviour, 2) subjective norms, which are the expectations of others (termed referents) and the individual's willingness to conform to the opinions of others and 3) perceived behavioural control which is a consumer's perceived ability to perform a behaviour.

Researchers seeking to understand organic food purchasing behaviours have largely focussed on understanding attitudes towards green purchasing behaviour and their relation to purchase intentions (Harper and Makatouni, 2002; Padel and Foster, 2005; Paladino, 2005), and on willingness to pay (perceived behavioural control) and its relation to purchase intentions (Krystallis and Chrysosoidis, 2003; Sanjuan et al., 2003). Intentions to purchase do not always lead to purchasing behaviours and alternate methods are required in order to predict behaviour.

Until recently the Asian organic food market had been noted as reasonably small in size, but now China is showing significant signs of growth through both production and consumption of organic products (Ip, 2003; Sanders, 2006; Willer and Yussefi, 2006). The increase of almost three million hectares of organic land under cultivation in the last three years is of note (this now makes China the largest producer of organics in Asia) and the key statistic identified is that 90% of the organic produce is exported to the key markets of Europe (Willer and Yussefi, 2006).

There are gaps in the knowledge about Chinese consumer demand for organic food products. Recent studies have been undertaken on intentions to perform green purchasing behaviour in the Chinese environment (Chan, 2000) and a cross cultural study of American and Chinese consumers' intentions in the area of green food purchasing behaviours has been conducted (Chan and Lau, 2001). There is no specific empirical consumer research of organic food purchasing behaviour in China.

## **Methodology**

Observations were chosen for this research (Boote and Mathews, 1999). The method of collecting observations was repetitive although not complicated. It is important to note that the researchers were acutely aware that the entire description of what was to be observed could not be recorded (Rust, 1993; Kellehear, 1993) and strategies were used to record as much information as possible. Record sheets were developed to ensure that observers could record key behaviours and shopper and shopper group characteristics. Shoppers were observed on various days and times of the week. Store managers agreed to permit observation research, after they had been advised that the (unobtrusive) observations would not hinder normal business practice or their customers. The observers sat at cafes within proximity of the businesses and recorded episodes.

Two venues were chosen as the basis for this study. The first venue chosen for the study in China was the American international supermarket of Wal-Mart based in the city of Chungchun, China. Wal-Mart is a global leader in supermarket retailing commencing operations in China in 1996, in the province of Shenzhen (Wal-Mart China, 2007). The second venue selected for this study was Hengkelong Supermarket, a Chinese owned and operated supermarket business also located in the centre of Chungchun in Northeast China.

The supermarket offered a large range of products, including organic foods. Hengkelong carried a majority of Chinese brands with a limited selection of international brands in most categories. The observations ranged from as little as four minutes to as much as six minutes. Average episode lengths varied in each of the two venues. A total of 66 completed episodes where whole and part shopping processes (behaviours / actions) were recorded (arrived in line of sight, purchased or other action, left the line of sight) in China at two different venues. In all, 136 people were observed in this research with group sizes observed averaging 2.0 people and episode lengths averaging 4.6 and 6.1 minutes.

## **Results and Analysis**

Shoppers were observed to gain insights on what they were purchasing and to gain detail on who was purchasing organic products in China. Key behaviours are reported in table 1.

### **Chinese Organic Food Purchasing Behaviours**

**Table 1: Chinese shopper behaviours (n=66 episodes)**

Behaviour observed	Proportion of shoppers
Received assistance from a personal shopper	80.3%
Purchased organic dry grocery products	78.8%
Read product packets	51.5%
Purchased organic fruit and vegetables	9.1%
Purchased organic dairy products	6.1%
Promotional material	1.5%
Purchased other organic products	0.0%
Purchased organic meat products	0.0%

The majority of Chinese shoppers (80.3%) received assistance from a personal shopper while in the supermarket. These personal shoppers are provided by the product companies and personal shoppers are used specifically to “push” their own brands. The only practice occurring in Australian supermarkets that can be likened to this are the presence of in-store food demonstrators in supermarkets whose role is to provide information on products being demonstrated to “push” promoted brands. Personal shoppers played a key role in influencing the behaviours of some Chinese shoppers while other Chinese shoppers were not influenced by the personal shoppers.

One half of shoppers observed read product labels before selecting a product for purchase, which suggests that shoppers were seeking information on the products prior to arriving at a choice decision. There was limited use of promotional material by Chinese shoppers with 1.5% reading and retaining the promotional material e.g. brochures. This is reflective of the very limited array of material available in stores. Shoppers appeared to be reliant on the “Personal Shoppers” to persuade, inform and sell the products to the shoppers. Products in the dairy category such as cheese, butter and yoghurt were the only products supported by promotional literature. Additionally, this literature was presented in both English and Chinese scripts. The shoppers observed in this category, appeared to be well dressed and spoke with both Chinese and English words in their conversation. The researcher recorded several episodes, where shoppers had what appeared to be printed advertisements from magazines with English writing depicting the product for which they appeared to be searching.

Dry grocery products were the most frequently purchased organic and green products in China. Dairy and organic fruit and vegetables were purchased to a lesser extent. The most frequently sighted products in this category at both Chinese supermarkets were baby food, fruit juice, water, sushi nori sheets, soya milk powder and rice vermicelli noodles.

T-tests were conducted to ascertain whether there were differences between the behaviours observed at Wal-Mart and Hengkelong and only two behavioural differences between the two venues were noted. Firstly, the purchasing of dairy products was observed at Wal-Mart and not at Hengkelong ( $p < 0.001$ ). This situation may be related to the fact that Wal-Mart is an international supermarket chain and Hengkelong is Chinese national supermarket without global connections. Secondly, shoppers received assistance from a personal shoppers more often at Hengkelong than they did at Wal-Mart ( $p = 0.02$ ). The number of personal shoppers observed across the two venues is reported in Table 2.

**Table 2: Incidence of in-store assistance (n=66 episodes)**

No. of Personal Shoppers	Proportion of shoppers
One	54.7%
Two	41.5%
Three	3.8%

Observations revealed that more than one half of Chinese shoppers were assisted once by a personal shopping assistant, while a further 40% were assisted by two personal shoppers. The influence of personal shopping assistants on Chinese shoppers was clearly visible. For example, when discussions occurred with personal shopper, shoppers' facial expressions changed with looks of surprise registering or other expressions such as raised eyebrows clearly evident. When more than one personal shopper was communicating with a shopper/s, the observation showed the product discussed was largely taken for purchase. Additionally, the majority of the products recommended by personal shoppers were examined and read by the shopper after the shopper was directed to information on the label by the personal shopper.

The actual number of organic products selected by Chinese shoppers was observed. A small proportion (7.6%) of Chinese shoppers did not purchase any green or organic food products. The number of green and organic food items purchased tended to be small with just over 40% of Chinese shoppers purchasing one green or organic food product and a further third of observed Chinese shoppers purchasing two products. On average Chinese shoppers purchased 2.0 organic food products. The standard deviation was 3.0 and this is likely to be influenced by the exceptional incident where a Chinese shopper purchased 24 organic food products.

Chinese shoppers varied in their approach to shopping with one-third using a trolley (33.3%) to do their shopping while another third did not use a basket or a trolley (34.8%). Thirty one percent of Chinese shoppers used a shopping basket.

### **Organic shopper characteristics**

Shopper characteristics are reported in Table 3.

**Table 3: Shopping participants (n=66 episodes)**

Composition	Wal-Mart	Hengkelong	Characteristics	Wal-Mart	Hengkelong
Couple	44.4%	53.3%	Female*	90.9%	83.3%
Family	30.6%	16.7%	Male*	59.1%	70.0%
Single	22.2%	26.7%	Child*	19.7%	13.3%
Group	2.8%	3.3%			

\* Statistically significant at the  $p=0.01$  level

Most episodes involved more than one shopper with couples, families and groups observed. A total of one hundred and thirty-six people were observed in the sixty six episodes. This suggests that product choice is likely to be frequently influenced by persons accompanying the shopper. The people shopping were also recorded for each episode. For example, 90% of Walmart episodes involved a female shopper. T-tests were conducted to ascertain whether there were differences the observed shoppers at Wal-Mart and Hengkelong and statistically significant differences were noted.

### Conclusions

This study used an alternate research methodology to shift the focus explicitly from the attitudes and intentions realm towards the consumer behaviour realm. Observational research methods were used to identify what organic food products were purchased and by whom. Insights into the behaviours undertaken by Chinese shoppers were reported in this paper along with clearly distinguishable shopper characteristics (e.g. gender) and the composition of shopper groups. An important research finding was that many people shop in groups. Many researchers consider one individual when they survey and this factor has been identified as an oversight which may explain why intentions don't always lead to behaviours. Shoppers are influenced by the people they shop with and come in contact within the purchasing environment. The study found 'product information' communicated via packaging and specialised selling was a positive influencer on the uptake of organic products in the Chinese environment.

The findings of this study demonstrated the benefits of unobtrusive observations as an investigative method to elicit behaviours of shoppers who were for the most part unaware. The time and number of behaviours recorded could have been improved if electronic recordings (i.e. videos) were taken. Studies employing the observational research methodology should employ electronic recording methods in future to improve the richness of the data collected. Additionally, although behaviours were largely being documented by both counting and recording of actions, the use of a Chinese speaking researcher may have drawn out further qualitative comments and added to the strength of the observation process. Additionally, the research was conducted at diverse times of day, different seasons during year, and on alternate days of the week to capture and elicit a broad range of behaviours. Studies have not previously used observational research methodologies to observe what organic food products are purchased and by whom. This study provides insight for marketers in understanding shoppers' behaviours. Specifically, this study identifies ways that marketers may be able to increase the uptake of organic food products in China. Observations in China suggest that employing two or more personal shoppers to promote organic food products is likely to result in product selection.

## References

- Brodie, R.J., Danaher, P.J., 2000. Building models for marketing decisions: Improving empirical procedures. *International Journal of Research in Marketing* 17 (2-3), 135-139.
- Boote, J., Matthews, A. 1999. Saying is one thing; doing is another: the role of observation in market research. *Journal of Qualitative Market Research* 2 (1), 15-21.
- Chan, R. 2001. Determinants of Chinese Consumers' Green Purchase Behavior. *Psychology and Marketing*. 18 (4), 389-413.
- Chan, R., Lau, L. 2000. Antecedents of green purchases: a survey in China. *Journal of Consumer Marketing*. 17 (4), 338.
- Chan, R., Lau, L. 2001. Explaining Green Purchasing Behavior: A Cross-Cultural Study on American and Chinese Consumers. *Journal of International Consumer Marketing*. 14 (2/3), 9-40.
- D'Souza, C., Taghian, M., Lamb, P. 2006. An empirical study on the influence of environmental labels on consumers. *Corporate Communications*. 11 (2), 162-173.
- Fishbein, M., Ajzen, I. 1975. *Belief, Attitude, Intention and Behaviour: An Introduction to Theory and Research*. Addison-Wesley Publishing, Massachusetts.
- Harper, G., Makatouni, A. 2002. Consumer perception of organic food production and farm animal welfare. *British Journal of Food*. 104 (4), 87-299.
- Ip, Y. 2003. The marketability of eco-products in China's affluent cities. *Management of Environmental Quality*. 14 (5), 577- 589.
- Kellehear, A. 1993. *The Unobtrusive Researcher*. Allen and Unwin, Sydney.
- Krystallis, A., Chrysosoidis, G. 2003. Consumers' willingness to pay for organic food: Factors that affect it and variation per organic product type. *British Food Journal*. 107 (5), 320 – 344.
- Lockie, S., Lyons, K., Lawrence, G., Mummery, K. 2002. Eating 'Green': Motivations Behind Organic Food Consumption in Australia. *Sociologia Ruralis*. 42 (1), 24-33.
- Padel, S., Foster, C. 2005. Exploring the gap between attitudes and behaviour: Understanding why consumers buy or do not buy organic food. *British Food Journal*. 107 (8), 606 – 625.
- Paladino, A. 2005. Understanding the Green consumer: an Empirical Analysis. *Journal of Customer Behaviour*. 4, 69-102.
- Rust, L. 1993. Observations: Parents and Children Shopping Together: A new approach to qualitative analysis of observational data. *Journal of Advertising Research*. 33, 65-70.
- Sanders, R. 2006. A Market Road to Sustainable Agriculture? Ecological Agriculture, Green Food and Organic Agriculture in China'. *Development and Change*. 37 (1), 201-226.

Sanjuan, A., Sanchez, M., Gil, J., Gracia, A., Soler, F. 2003. Brakes to organic market enlargement in Spain: consumers' and retailers' attitudes and willingness to pay'. *International Journal of Consumer Studies*. 27 (2), 134-144.

Tadajewski, M., Wagner-Tsukamoto, S. 2006. Anthropology and consumer research: qualitative insights into green consumer behaviour. *Qualitative Market Research*. 9 (1), 8-25.

Wal-Mart China 2007. Viewed between 10 April, 2006 and 27 May, 2007, <<http://www.walmartchina.com>>.

Willer, H., Yussefi, M. 2006. The world of organic agriculture: Statistics and emerging trends. International Federation of Organic Agriculture Movements (IFOAM), Bonn.

Zinkhan, G., Carlson, L. 1995. Green Advertising and the Reluctant Consumer. *Journal of Advertising*. 24 (2), 1-6.