

# EXPLORING FOOD RETAIL LOGISTICS INTERNATIONALISATION IN SOUTH EAST ASIA

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## **Introduction**

Two recent market research reports noted UK consumers enjoy lower food prices than other Western economies. There are many reasons for this but one is due to the UK's world-leading food retail logistics systems. However, as highly-efficient UK and other Western grocery retailers have entered developing markets, such as South East (SE) Asia, this expertise has not necessarily been successful. Western systems are usually expected to contribute to retailing internationalisation through 'follow-sourcing' where retailers entering new markets will encourage existing suppliers to follow them into it, concentrating on procurement modernisation, the establishment of centralised distribution, and the use of third-party logistics (3PL) service providers.

However, few studies appear to have been carried out to determine defining characteristics of new markets and explain how these might determine which logistics solutions are appropriate to implement. This paper reports on an in-progress exploratory research study investigating physical and demographic characteristics of food purchase and storage in the SE Asia countries of Malaysia, Thailand, and Vietnam, which were selected according to their development of more mature to emerging markets respectively and the types of logistics systems likely to be appropriate to meet consumer needs in them. This study is important as SE Asia prepares to implement its ASEAN Economic Community (AEC) initiative in 2015, which will require standardisation for quality and processes for both domestic and foreign markets.

## **Literature Review**

Some third-party surveys independent to food retailers have pointed out that the UK populations is enjoying food prices below those of many of its neighbours and other Western economies (Collinson, 2013, 2014). There could be many contributory reasons for this, including differences in tastes, demographics, shopping habits and trade balances, but some think that some of the difference is down to the UK's highly developed supply chain and logistics systems. The proposition that the UK food retail market may be an example for logistics efficiency, with unit costs and inventory levels significantly lower than most of the rest of the world was first put forward by Fernie (1995), however there are other factors at play including the fact that the UK is an island with an oligopolistic market structure in supermarket retail and significant trade association support from IGD (formerly the Institute for Grocery Distribution) and Efficient Consumer Response (ECR) UK (Fernie & Grant, 2008). Further, some collaborative efforts are either not embraced by retailers (Hingley et al. (2011) or are coercive in nature (Grant, 2005).

Logistics system developments in the last two decades, including horizontal collaboration, vertical integration and the vastly increased availability and capability of communications technologies, have had the potential to widen this differential and the growth of multi-national retailers whilst potentially contributing to the global spread of logistics best practice, may equally have led those retailers to adapt their logistics model to suit specific local markets and practices. Differences in logistics 'culture' and infrastructure in different territories are being challenged by the increasing internationalisation of retailing and the resultant transfer of operational practices from one market to others (Fernie, 2014).

Although the concept of the supermarket originated in the USA its rapid adoption as the main shopping format in the UK in the 1960s led to what has been described as a transformation in retail logistics. Highly efficient low cost systems have evolved to support freshness, availability and choice. As highly efficient grocery retailers have come to dominate their markets in the USA and Europe, so have they sought expansion into new markets, taking their expertise with them. However, take-up rates have varied around the world.

Cadilhon et al. (2006) reported that at the turn of the millennium modern retailers accounted for only 20% of food sales across the country in Malaysia, while in the cities of Thailand modern retailers' market share of food sales increased from 25% to 50% in just five years from 1995. Anecdotally, we were told that the opening day of a major modern retailer in the heart of Bangkok reduces sales value at a nearby traditional 'wet market' by more than 40% on that day. In Vietnam, fresh food marketing has traditionally involved supply chains operating through a series of wholesale and retail markets scattered around cities. This was still the case in Ho Chi Minh City (HCMC) with over 200 markets to feed an estimated population of 8 million (Cadilhon et al., 2006). Although not as developed as in other countries in the region, modern food marketing outlets started to appear in HCMC with strong backing from the local authorities. Vietnamese supermarkets and modern department stores, at first restricted to a burgeoning middle class, began starting to attract local customers with different income levels. However, in all countries in the region sales of fresh food – fruits, vegetables, meat and fish – are still a stronghold of the traditional retail markets and itinerant retailers.

Coe & Hess (2005) also argued that:

- A first wave of diffusion occurred in the early to mid 90's. In countries such as Taiwan, South Korea, Philippines, Thailand and the Czech Republic the supermarkets' share of the grocery market increased from 10% in 1990 to 60% by early 2000's, a pattern of diffusion in a single decade which had taken five decades in the UK and US.
- A second wave of countries including Indonesia, Bulgaria and Central Southern Europe followed, with take off in the late 1990's giving rise to a rapid 30-50% share.
- A third wave, including Vietnam, China started later still in the early 2000's where a 20% share has not been achieved, triggered by release of specific market constraints, such as controls on inward investment or nationalisation of road transport.
- Progress in the so-called fourth wave countries, such as Cambodia, is likely to be slow because of very low disposable incomes.

Retail internationalisation can be attributed to some extent on the logistical transformation of UK retailing in the last three decades (Sparks, 2014). Western logistics systems might be expected to contribute to the internationalisation of retailing through 'follow-sourcing' (Reardon et al, 2007), whereby retailers encourage their existing supply base and service providers to follow them into new markets, essentially imposing existing strategy and practices on a new market. There has been some evidence of success based on this approach in more developed markets such as Thailand (Coe & Hess, 2005) and where there are concerns about security of supply and waste (Akkerman et al., 2010; Goldman, 2001) but few, if any, studies appear to have been carried out to quantify the defining characteristics of new markets and explain how these might determine which logistics solutions are appropriate.

Further, the types of retail formats and replenishment systems are also 'dropped-in' according to Western standards. For example, Tesco Lotus has the following store types in Thailand for food sales: Extra (5-10,000 sq m, over 22,000 stock keeping units or SKUs); hypermarkets (3-7,000, 17,000); department stores (1,000, 13,000); Talad or Metro-type stores (.5-2,000, 8,000); and Express (100-

300, 4,000) across the country (Tesco Lotus, 2015). The Tesco Lotus distribution centre (DC) network also follows Western standard with DCs in Wangnoi (ambient for hypermarkets), Bangbuathong (ambient for Talads and Express); Samkok (cross-docking for hypermarkets); Lamlukka (fresh for all formats) and Khonkaen (ambient and fresh for over 300 stores in North East Thailand. Again anecdotally, we were told that the Khonkaen DC was developed after the 2011 floods which crippled distribution networks for Tesco and other retailers and could serve as an emergency back-up if flooding was to happen again. Figure 1 provides locations of the five Tesco Lotus DCs, four of which are clustered around Bangkok. We are not suggesting this location strategy is incorrect, but issues surrounding cold chain distribution in Asia are also important due to the warmer climate and the increased risk of spoilage for perishable foods may have been a factor behind the decisions made by Tesco Lotus, besides being close to the huge market of Bangkok and its surrounding area (Salin & Nayga, 2003).



Figure 1: Tesco Lotus DC locations  
(Map Source: <http://www.maps-thailand.com>)

Kamboj et al. (2011) contrasted the success of Carrefour in entering the Chinese market with the struggle faced by Wal-Mart, which they largely attribute to the former's strategy of trying to localise

and to things ‘the Chinese way’ rather than attempting to impose foreign culture and practices. Of eight potential hurdles to entry identified, different purchasing habits and diet are cited. In particular, they note that Chinese consumers shop frequently and in small amounts, appreciate freshness and do not necessarily have the same brand or store loyalty which underpins Western retail strategy.

Traditional ‘wet markets’ remain very popular in many parts of Asia (Goldman et al., 1999) although concerns about food quality and safety have to some extent driven consumers away from more them (Chen & Sun, 2006). However, perceptions about cost, sourcing and freshness remain important factors in understanding how and where Asian consumers choose to shop (Hu et al., 2003; He et al., 2005). Although models have been proposed to explain this (Bin, 2011), there is little published data in English on the actual effects of these attitudes.

It also appears that growing affluence and the easing of regulation have paved the way for an expansion of supermarkets and other forms of outlet in so called ‘retail revolution’ but the extent to which entrenched attitudes and habits will limit this expansion is unclear (Wang, 2011). However, all consumers want to make informed decision regarding food quality and safety and make choices that support their lifestyle (Geetha & Naidu, 2014), particularly consumers in Asia as issues such as nutrition and health risks related to the consumption of processed or fast food will amend their concerns and behaviour to match those in developed countries (Baker & Friel, 2014).

This may also be manifested in a consumer’s choice of retail location, i.e. are there certain formats that provide more assurance regarding the purchase of hygienic, safe and quality food. Extant research in this context reports that product assortment, store environment and atmosphere as well as location are not only important factors for shoppers’ retail format choice (Carpenter & Moore, 2006) but also potential antecedents for satisfaction. In the same manner, Huddleston et al. (2009) found that price, product assortment, quality, and employee service influence store satisfaction

Established theories of retailing such as the ‘wheel of retailing’ (Hollander, 1960) or the ‘retail accordion’ (Hollander, 1966) suggest that new retail formats will tend to start as low cost or low margin and narrow range and then evolve into more complex businesses with higher costs and prices and broader ranges. This would suggest that a period of sudden expansion of formats and ranges may be followed by a return to more simple offerings. This has certainly been borne out by recent market changes in the UK and the influence of Aldi and Lidl in the grocery sector (Grant et al., 2014). Although some research has been carried out on the attitudes and practices of suppliers to the expanding retail formats (Chuang et al, 2011), the extent to which consumer habits and attitudes affect these cycles of retailing is far from clear and underpins this research.

### **Methodology**

The foregoing literature indicates international retail success is driven by consumers needs in the local markets and that provide our initial impetus to investigate consumer preferences for food shopping and storage in the three target countries of Malaysia, Thailand and Vietnam. The rapid development and economic growth of these three countries as well as the emergence of an urban middle-class with higher purchasing power compared to rural areas has parallels with Western countries and is also very timely given the development of AEC 2015 and its members’ intentions to modernise and update aspects of their respective economies and standards of living.

We undertook exploratory empirical research through a survey questionnaire as shown in the Appendix to this paper. We approached academic and professional colleagues in the three countries of interest to assist in distributing and administering the survey during the early part of 2015. We acknowledge and thank these colleagues at the end of this paper and are grateful for their support and enthusiasm for this study.

Completed surveys were returned either to us or to our colleagues for batch submission to us, and we received 200 valid responses: 33 from Malaysia (16.5%), 129 from Thailand (64.5%) and 38 from Vietnam (19%). We were not advised by our colleagues of the number of surveys that were distributed so do not have a response rate. We received a file with several hundred responses that was technically corrupted and unusable, so we suspect the survey went out to between 500-750 people.

The qualitative comments received on many surveys and the fact that a lot of our colleagues are in academia suggests that university students make up a large number of respondents. We are aware only that some of the Thai surveys were completed by Master's level students who study part-time in evening classes and work during the day. However, that lack of information is not troubling as student surveys as part of a methodology can highly benefit to issues in logistics, SCM and retailing (Brown & Dant, 2008; Holmes & Paswan, 2012) and allow researchers to shake up historical patterns of methodologies and provide additional insights into old retailing problems, including explicitly the retail supply domain. Further, today's students are tomorrow's household consumers and having a view on current preferences and behaviour is useful for forward planning, such as the Thai Master's students.

### **Findings to Date**

There were 97 respondents who noted they had 21 meals a week, or three meals a day, and 103 who said they had less than 21 meals per week. The average number of meals per week for this latter group was almost 15 (14.8,  $\sigma=1.6$ ). The average number of meals eaten in the home was almost 9 (8.7,  $\sigma=4.8$ ), while average meals prepared were almost 7 (6.9,  $\sigma=4.5$ ) and average meals purchased, i.e. takeaways were just over 5 (5.1,  $\sigma=3.4$ ).

The average number of weekly shops was about 4 (3.8,  $\sigma=2.2$ ) with wet markets, supermarkets and convenience stores dominating the retail formats used. Only 10 respondents selected online shopping as a format choice with 6 from Thailand, 3 from Malaysia and 1 from Vietnam.

The predominant factors for choice of shop were convenience, price, quality and distance from home or work. Sixty-six respondents (33%) have changed their food shopping habits during the last five years with an interest in more quality and safe food being the predominant reason, followed by changes in life stages i.e. becoming married or going to university.

Only ten respondents did not own a refrigerator/ freezer and the most popular food items kept in them were meat-chicken-pork, fresh vegetables, fruit and various beverages including water, juice and beer. Interestingly, 19 respondents from Thailand (almost 15% of Thai responses) noted that they keep chocolate or sweets in the fridge while another half-dozen responded that cosmetics and medication were also kept chilled.

### **Conclusions**

The findings of our exploratory survey appear to support the literature as regards to:

- Supermarkets diffusing into the retail space and becoming a more popular format in Asia (Coe & Hess, 2005; Cadilhon et al., 2006; Wang, 2011) while wet markets continuing to play an important role (Goldman et al., 1999); and
- Food hygiene and safety becoming more important (Carpenter & Moore, 2006) while price and quality remain important purchase decision factors (Huddleston et al., 2009).

Our results have also allowed us to understand some perceptions and resulting consumer behaviour in these countries as regards shopping for food (Hu et al., 2003; He et al., 2005) however our survey instrument did not allow us to tap into attitudes underlying this behaviour.

There are some limitations to this exploratory work however it gives us a start to probe consumer attitudes more deeply in a larger and more penetrating study. We did not anticipate that we would receive the number of responses we did and missed a chance to expand the survey with different and more revealing questions. However, the collaborative support of our colleagues allows us to consider developing an improved and enhanced instrument and applying it in another survey round to reveal even more insights. Longer term, we want to move upstream from consumers to investigate issues in retail and distribution in this region affecting how consumers purchase food to determine if food distribution is properly aligned with consumer needs and wants and if not where efficiency and effectiveness can be improved.

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### **Appendix: Survey Instrument**

1. Do you have 21 meals per week that is three times a day? Yes \_\_\_ No \_\_\_
2. If no, how many do you have per week \_\_\_ and when do they occur, that is morning, midday and/or evening? \_\_\_
3. Of the total number of meals per week, how many are taken at home? \_\_\_ Which meals? \_\_\_
4. Of the meals taken at home, how many are produced from ingredients \_\_\_ and how many are bought ready prepared? \_\_\_
5. How many times per week does someone in your household shop for food to be eaten at home? \_\_\_
6. How many of the following different types of shop are visited in a typical week?
 

Wet market ___	Convenience store ___
Supermarket ___	Specialist retailer ___
Bought online ___	Other (please name) ___
7. Which three factors primarily influence where you choose to shop? \_\_\_
8. Have your food shopping habits changed in the last five years? Yes \_\_\_ No \_\_\_
9. If yes, how? \_\_\_
10. Does your household have a refrigerator and/ or a freezer? Yes \_\_\_ No \_\_\_
11. If yes, what do you keep in it? \_\_\_
12. If no, how do you keep any perishable or chilled foods cool? \_\_\_

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