Factors Impeding Market Share Growth of Supermarkets:
Food Retail Modernization in Hong Kong

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Modern Vs. Traditional Retail Formats: Food
Retail Modernization in Hong Kong

Abstract

Supermarkets were introduced into Hong Kong in the early 1950's. In spite of the long time, the highly developed nature of Hong Kong's economy, and the high income levels and sophistication of consumers, supermarkets' market share of food purchases is only 40 percent. A traditional food retail system, consisting mostly of wet markets, continues to successfully function. In this respect Hong Kong is an example of many other countries in which supermarkets were introduced long ago but, in spite of the time that passed and the progress of the economy, they are far from dominating food retailing.

The reasons for this situation are analysed in this paper. The analysis is guided by a framework identifying the elements driving the process of supermarket market share gain. They are: supermarket diffusion across space and consumer segments, consumer adoption of supermarket shopping, supermarket's product assortment offering, and consumers' utilization of the assortment. We find that supermarkets have already completed their diffusion across space and consumer groups and that all consumers have adopted supermarket shopping. The key limiting factor is the weakness of supermarkets in the fresh foods area and the corresponding strength of the wet markets. This situation is not expected to change soon. We therefore conclude that it is possible that the end state of food retail modernization in Hong Kong will involve a coexistence of modern and traditional retail formats. It is suggested that supermarkets should explore some form of participation in the wet market sector, developing new retail concepts combining the wet markets' and supermarkets' strengths.
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Modern Vs. Traditional Formats:
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INTRODUCTION

The process through which traditional food retail formats are replaced with the modern supermarket is at the center of the food retail modernization research tradition. This tradition, originating in the 1960's, was grounded in the "modernization" tradition dominating the thinking of development economists and sociologists at that time. The central issue was how to foster economic and social growth in non-western, less developed countries (LDCs). It was believed that the solution involves replacing the "traditional" structures and practices characterizing these countries with "modern" ones. Since the developed Western systems were considered the most advanced, the modernization process was viewed as acquiring the institutions, technology, and modes of conduct of these systems.

Marketing was regarded as having an important role to play in this process. While various subareas of marketing have been discussed, most attention focused on the role of the food distribution sector. Agricultural economists dealt with the distribution sector, mostly with physical distribution infrastructures, and marketing scholars concentrated on food retailing (F.A.O. 1973A; 1973B Slater and Riley 1969A; Slater and Henley 1969B; Galbraith and Holton 1966; Slater 1970; Goldman 1974; Kaynak and Cavusgil 1982). LDC consumers devote a large proportion of their income to food purchases, but the food retailing system is costly and inefficient. It consists of small, family operated stores and many layers of middlemen. Consumers have little choice, shop in an unpleasant environment, in many stores, and pay high prices. Introducing modern retail institutions and methods of operation was expected to yield immediate payoffs. The supermarket format, dominating Western food retailing, was viewed as a superior retail technology and was advanced as the main modernization vehicle (Galbraith and Holton 1965; Slater and Henley 1969B; 1970; Goldman 1974).

The issue of food retail modernization and the role of supermarkets in the process continued to attract attention in the ensuing decades, but, as reflected in recent review articles, (Findlay et al
1990; Samiee 1990; 1993; Savitt 1988; 1990) the number of new empirical studies have dwindled and no new insights have emerged. However, this research area is as relevant in the 1990's as it was before. Food retail modernization problems continue to be important especially in two sets of situations.

First, many countries are entering the first stages of the food retail modernization process. Supermarkets have started to appear in Russia, the former republics of the Soviet Union, in countries in Central and Eastern Europe, and in the rapidly developing Asian economies such as China, India, Indonesia and Malaysia. The South American, Middle East and African countries involved in the 1960's were poor and in the early stages of economic development. This is not the case with the new group of countries. Furthermore, in the past, modernization efforts were mostly carried out by governments and international organizations. Now, international and local retail companies are involved.

Second, a large group of countries in Southern Europe (Spain, Portugal and Italy), Asia (Japan, Singapore, Hong Kong), Middle East (Israel, Turkey) and South America (Chile, Brazil, Argentina) are at an intermediate stage of the food retail modernization process. Supermarkets were typically introduced into these countries in the 1950's and the 1960's, but in spite of the long time that passed, their market share is still limited and the traditional food retail sector continues to be important. Typically, supermarkets in this group account for some 30-40 percent of food sales, compared to 70-80 in North America and Western Europe where supermarkets were able to achieve dominance some three decades after they were introduced.

The slowness of the modernization process in the second group of countries points to a major deficiency in our thinking. The literature focused only on the early steps of the modernization effort, ignoring the process and the intermediate steps.

This lacuna in the food retail modernization research tradition is not accidental. It reflects a continued adherence to the ideology that dominated thinking in the 1960's (Dholakia and Sherry 1987; Joy and Ross 1989; Wood and Vittell 1986). The belief in the total and overwhelming superiority of the modern supermarket format over the traditional ones was central to this ideology. Given this superiority, the assumption was that once supermarkets appear, consumers
will switch immediately and completely. The cases of supermarket "failure" were viewed as temporary obstacles occurring in situations where the needed elements on the consumer and on the supply sides were not yet in place (F.A.O. 1973A, 1973B; Goldman 1981; Guerin 1964). It was believed that these would automatically appear as a function of rising incomes and general economic development, and that supermarket dominance would follow rapidly.

The focus of this paper is on the situation where food retailing is at an intermediate stage of the modernization process: supermarkets have been introduced many years ago, established a strong presence but have not achieved dominance. Two general questions are addressed in this paper: (1) What are the factors constraining supermarkets' ability to gain a dominant market share of food retailing? (2) What will be the end-state? Will these food retail systems eventually resemble North American and Western European systems or are the factors constraining supermarkets' advance so ingrained that some may end with a system where modern and traditional food retail formats coexist?

Answers to these questions are of interest to retail and modernization researchers, retail managers, governments, and to modernization agencies. Retail researchers are interested in learning more about the strengths and weaknesses of modern and traditional food retail formats in non-western environments, and about issues of transferring formats internationally. Supermarket management may gain better understanding of the limitations of the supermarket technology. Those in government entrusted with the modernization task will gain insights into the problems that need to be addressed if the process is to continue.

A research program involving a systematic analysis of cases of economies situated at various intermediate levels in the food retail modernization process may provide answers to these questions. This undertaking should be guided by a theoretical framework specifying the reasons for these situations, the relevant factors and the relationships among them.

In this paper the first steps in this direction are made. A theoretical framework is developed and then used in a detailed analysis of one case -- Hong Kong. A discussion of the implications for theory development, for retail management and for modernization agencies is provided and future research directions indicated.
Hong Kong is a particularly interesting place to study this process. By most indicators, Hong Kong’s level of development is comparable to the most advanced countries in the world (see Table 1). It is a major trading and financial centre with an open and highly advanced economy and modern infrastructures. Hong Kong’s consumers enjoy high levels of disposable income. Hong Kong people are highly entrepreneurial and educated, and display a high propensity for adopting innovations. Much of the retailing system in Hong Kong reflects this development—in fact, its “shopping paradise” reputation attracts tourists from around the world. Hong Kong consumers are familiar with modern retailing and are served by many international and local speciality and department stores and scores of some of the most sophisticated and modern urban shopping centers in the world (Hong Kong Annual Digest of Statistics 1995; Howlett 1996; Kawahara and Speece, 1994; McGoldrick and Ho 1992; Phillips et al 1992; Retail Monitor International 1993).

Table 1 here

Supermarkets were introduced into Hong Kong in the early 1950’s. In spite of the long time and the highly developed nature of Hong Kong’s economy and sophistication of its consumers, supermarkets’ share of food purchases is only about 40% -- they do not dominate food retailing in the same way as supermarkets in other developed countries. The traditional food retail system consisting of wet markets, street hawkers, Chinese grocery stores, and a variety of speciality stores, continues to successfully function. In this respect, Hong Kong is an example of countries where supermarkets are far from dominating food retailing in spite of several decades’ presence. In addition, Hong Kong is similar to other Asian mega-cities where most of Asia’s economic development is taking place. In particular, the population is ethnically homogeneous (98 percent Chinese), and spatially concentrated in a few densely populated areas. Furthermore, it is close to the Chinese mainland both physically and culturally, so that food retail development in Hong Kong may provide insights generalizable to other countries in the region.
In the next section, we present a framework for analyzing the share of supermarkets, and, in the following sections, use it to evaluate the Hong Kong food retailing environment.

THEORETICAL FRAMEWORK

A central element in the food retailing modernization process is the replacement of the traditional food retail formats by supermarkets, relegating the remaining traditional retailers to marginal positions. How do supermarkets achieve this dominant position? Two developments drive the process: the diffusion of the supermarket format over space, and the expansion of supermarkets’ food assortment. Both developments may occur concurrently. Consumers’ response to these moves is not assured. Consumers may decide not to adopt supermarket shopping or not to buy certain product lines in the supermarkets.

Consequently in order to account for supermarkets’ position in a food retail system four factors need to be studied: supermarket diffusion; adoption of the supermarket format by consumers; the food assortment carried by the supermarket; and consumers’ utilization of the supermarket food assortment. These factors are summarized as follows:

\[
\text{Supermarket market share} = \frac{\% \text{ of consumers to whom supermarkets are accessible}}{\% \text{ of total food purchases,}} \times \frac{\% \text{ of 'accessible' consumers who adopt supermarket}}{\% \text{ of 'adopting' consumers, in}} \times \text{shopping} \times \text{supermarkets}
\]

The first two terms relate to supermarket diffusion and consumer adoption. The last term depends on both the supermarket assortment coverage, and on consumers’ tendency to purchase all or a part of the assortment at the supermarket. The relations among these underlying concepts can therefore be presented in an analogous model form:

\[
\text{Supermarket Market} = \text{Diffusion \cdot Adoption \cdot Assortment \cdot Utilization Coverage}
\]
Diffusion

Supermarkets might enter, as was the case in many of the LDCs, at the high income areas aiming at foreigners and high income consumers, or focus on the middle income ones. They may enter by locating first in the densely populated urban areas or in the suburbs. After exhausting this potential, supermarkets diffuse to new types of areas and consumer groups. However, even in the Western economies where spatial diffusion has largely been completed, areas and consumer groups remain where supermarkets' presence is limited: ghetto areas of the poor, ethnic enclaves, and the center of cities.

A variety of sub-formats of the supermarket are often involved in the diffusion process. As supermarkets advance to new consumer groups and areas they differentiate their format to better fit the requirements and characteristics of the various groups and provide the best operational solutions in the different areas.

Being widely diffused is a precondition for achieving a high market share. However, the three other model variables mitigate the effect of diffusion. We now discuss these variables.

Adoption of the Supermarket Format

Some consumers who have easy access to supermarkets may decide not to buy there -- they may prefer to buy all of their food needs in traditional outlets. This has been observed in LDC’s, and supermarkets’ failure to dominate their trade areas was attributed to consumers’ “inertia”, “habits”, and difficulties in adjusting to the self-service environment. Later it was realized that the reasons are more fundamental. The consumer’s decision to buy in a supermarket was modelled in cost-benefit terms (Goldman, 1981). The consumer is assumed to switch to the new supermarket when benefits from switching outweigh costs. The advantages of price savings and quality gains associated with supermarkets depend on quantity purchased on each trip; however, since supermarkets typically require larger trade areas than traditional formats, consumers on average incur extra transportation costs per shopping trip. The consumers who can benefit the most from adopting the supermarket format for their shopping needs are therefore those who can shop less frequently and buy more in each trip, thereby reducing their
time-averaged transportation costs. When homes are small, consumers lack storage facilities and do not own cars, where public transportation is not well developed, unsteady incomes make purchase and consumption planning impractical, or freshness is highly valued, consumers may need to shop too frequently to make the supermarket an attractive option. Also, qualitative cost and benefit differences between formats will be valued differently by different consumers. The pleasant, hygienic shopping environment, self-service, large selection, and one-stop shopping offered by the supermarket must be traded off against such traditional format benefits as credit, social interaction, and direct contact with store owners. When, for example, there are unemployed adult household members, the opportunity costs of time are lower and one-stop shopping becomes less valuable than when all adults in the household are employed.

It is important to note that while many of these factors are correlated with income, so that the supermarket should become more attractive as a developing country’s living standards increase, it does not automatically follow that the supermarket will eventually be adopted by all consumers. That result depends on the detailed cost-benefit trade-offs in each country. Supermarket companies may continue to open stores in areas where consumer characteristics will limit adoption. This is because of other considerations, such as government pressures, the motivation to gain first-mover advantages, or simply misjudging the proportion of consumers for whom it is beneficial to adopt supermarket shopping behavior. In summary, adoption of supermarket shopping behavior must be considered separately as a constraint on supermarket share, because it is not guaranteed simply by the availability of supermarkets.

**Supermarket's Product Assortment**

A central theme in the evolution of the supermarket has been the continued expansion in product assortment. The early North American and European supermarkets were small and focused mostly on pre-packaged, canned and processed foods. Later they added fresh foods such as meat, vegetables and fruits but the overall assortment size was relatively small. (Appel 1972; Goldman 1975/6; Markin 1963; Zimmerman 1955). This allowed specialized food retailers to focus on categories that supermarkets did not cover well.
The assortment expansion process has been driven by supermarket management's motivation to capture as much as possible of consumer's expenditures on foods. Initially product categories that were offered before only in traditional outlets were added. Later, new food categories such as frozen foods were introduced.

The process led to the appearance of large scale supermarket sub-formats (hypermalls, supercenters and superstores) carrying tens of thousands of food Stock Keeping Units (sku’s), in addition to large assortment in non-foods. Eventually, they replaced the small “Conventional” supermarkets (Retail Monitor International 1996).

Supermarkets in different countries and at different periods of their evolution vary in their assortment coverage of the food area. They may choose not to offer certain food categories because of space limitations, difficulties in setting up appropriate supply and distribution arrangements, investments in training and in specialized store facilities, low expected profitability, limited demand, and incompatibility with supermarket operational methods.

The extent to which certain food categories are available at traditional retailers but not in supermarkets, will influence supermarkets’ market share. Supermarkets cannot expect to dominate food retailing unless they cover fully all the major food categories.

**Consumers' Utilization of Supermarket's Product Assortment**

Supermarkets may offer a full selection of food lines but consumers who adopt supermarket shopping may prefer to continue to purchase certain food categories in the traditional outlets. (Goldman 1982; Othman 1990). This phenomenon of “selective” adoption of supermarket shopping reflects supermarkets’ weakness in these product areas and the strength of traditional retailers. These situations are typically caused by difficulties supermarkets face in securing supplies, the costs of setting up the supply and distribution systems and inability to effectively handle these lines.
This type of situation challenges the basic assumption of food retail modernization theorists who regard the supermarket as always having clear superiority over the traditional formats. It is the supermarket which may, in some situations, suffer from major weaknesses in certain product categories while the traditional retailers are able to present consumers with superior offerings.

THE CASE OF HONG KONG

Data and Methods

We used the following primary and secondary data to analyse Hong Kong's food retail system:

(1) Government statistics, data supplied by supermarket companies, published studies and data from trade sources.

(2) A consumer shopping behavior study and a series of in-depth consumer interviews.

(3) Interviews with chain supermarket executives, convenience store management, independent supermarket owners, wet market retailers, retailers from variety of types of traditional food stores, and fresh foods wholesalers.

The consumer behavior study involved a random sample of 382 households stratified by the three Hong Kong areas selected from the telephone directory. Trained interviewers administered the questionnaire on the telephone to the primary food shopper in each sampled household. (for a detailed discussion of this study see Goldman, Krider and Ramaswami, 1996).

Twelve in-depth interviews were conducted prior to the main study to enumerate the important food product categories purchased, identify the types of food retail outlets and to ascertain the appropriate Chinese terms to be used. Over 75 in-depth interviews were conducted subsequent to the main study in order to further clarify various issues.

The Food Retail System - Overall View

In 1993 Hong Kong had 18,771 food retail stores, 32.6 percent of the retail establishment universe. The large majority of these food stores are very small, family operated (93 percent
with 5 employees or less, and 60 percent with yearly sales value of 130,000 U.S. dollars or less). The average size of a food store was 480 square feet (Hong Kong Census and Statistics Department, 1995). The total number of supermarkets, including supermarkets in Japanese department stores is estimated at 600 (Ho Suk-Ching 1994). Their market share is estimated at around 40 percent of the food retail business, excluding meals way from home (Ho Suk-Ching 1994; Retail Monitor International 1993). Two big supermarket chains own some 70 percent of the stores. The two chains belong to large diversified multinational corporations and both operate supermarkets in other Asian countries. Both chains also own the two largest drug store chains and other types of food retail businesses, and one owns the 7:11 convenience store franchise.

In addition almost 500 modern convenience stores and about a dozen wholesale membership clubs operate. Contrary to other Asian countries such as Taiwan and Thailand where western supermarket companies such as Carrefour and Macro operate, no international foreign food retailer operates in the territory.

Hong Kong has 17 food stores per square km. This is a very large number (Japan has around 1.8, the U.K. and France around 0.4 and the U.S. around 0.02 stores per square km) reflecting the extremely small size of the territory and the high population density.

The local supermarket format is the small “conventional” one. The average store size in the case of the two chains is 7,500 square feet. Both chains do have larger stores and recently a few superstore type stores in the 45,000 square feet range were opened but their number is likely to remain small. The supermarkets of the other chains and the independent supermarkets are much smaller. The major chains continuously modernize existing stores but they are expected to remain at essentially the same size range. Space limitations and the high costs of land constrain the size of individual supermarkets in Hong Kong.

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1 Some sources report the number of supermarkets to be 900-1000 (Retail Monitor International 1993 and Hong Kong Census and Statistics Department 1993). The discrepancy has to do with the definition of a “supermarket”. Small self service stores and convenience stores were probably included.
The Wet Markets System

The traditional food retail system in Hong Kong consists of many store types but the wet markets occupy a central role. They are the only subsector of the traditional food retail system that potentially presents consumers with a viable shopping alternative to supermarkets in central food categories.

The system consists of some 250 wet markets containing a total of some 24,000 small (8-15 square meter) stalls each specializing in a fresh food category. Two types of wet market systems operate in Hong Kong. Both are owned by government and are governed according to a series of special laws and regulations. The first system includes the 107 public markets that are managed by the government’s urban and regional councils. These markets are located at high traffic sites in the various districts. The public markets are usually large two or three level enclosed structures. Government offices, kindergartens, clubs, restaurants, bus stations and other public facilities are often located in or around these markets. In addition street markets in which fresh foods are sold belong to the same system. The second system consists of 105, mostly small, wet markets located in almost every public housing estate. They belong to and are managed by the government’s Housing Authority. In addition some 40 wet markets operate in the various private housing estates. Since the public wet market system is the largest the discussion focuses on this group.

The 107 public wet markets contain a total of 15,730 stalls. The number of wet markets and stalls grew in the 1980’s but has stabilized in the last few years (Hong Kong Annual Digest of Statistics 1995). The size of wet markets varies. The small ones have 30-40 stalls while the big markets contain 400 stalls or more. Almost 50 percent of the public wet markets have more than 100 stalls each (Hong Kong Annual Digest of Statistics, 1995. Internal documents Hong Kong urban service department and Regional Council Depatent 1996).

Some 40 percent of the retailers in the public wet markets deal in vegetables and fruits, 29 percent in dried-preserved Chinese foods, 11 percent in fish, 8 percent in meat, 6 percent in cooked foods and 4 percent in poultry. The stalls are leased in public auctions to retailers.
The vegetable and fruit retailers typically get their supplies directly from the central wholesale markets (two for fruits and one major and one small for vegetables). Many still go to those markets themselves to select supplies and few order by phone. The other retailers get supply mostly from wholesalers, and some of the fish retailers directly from fishermen.

**Evaluation The Food Retail System in Hong Kong**

**Supermarket Diffusion**

Have supermarkets completed their diffusion throughout the territory and to all consumer groups? Is limited diffusion the reason for the low market share of supermarkets?

Figure 1 shows the diffusion pattern of supermarkets in Hong Kong since their introduction.

Figure 1 about here

In the mid 1980’s the supermarket industry moved into the maturity stage. The rate of growth in number of outlets slowed to 1.9 percent and the industry is in a state of consolidation (Ho Suk-Ching 1994). Interviews with supermarket company executives and independent supermarket owners confirmed these observations. The focus in the industry is on modernizing existing stores, not on opening new ones. To evaluate supermarket accessibility further, Table 2 presents an analysis, based on address data appearing in the local trade magazine (Grocery Trade Magazine 1993). Supermarkets are present in all the 19 Hong Kong districts and the number of consumers per supermarket ranges from around 4000 to 15,700.

Table 2 about here
Findings from our consumer shopping study add further insights. On average consumers are located at a walking distance of only 6 minutes from a supermarket and 92 percent of all consumers are within 15 minutes distance. Distance from supermarkets is not correlated with income and other wealth variables. This data shows that supermarkets do cover all consumer groups. It can be concluded that lack of accessibility is not the reason for the supermarkets' low market share.

Supermarket Format Adoption

Given that supermarkets are universally accessible the question is whether all consumers do indeed regularly use the supermarket format. If a subgroup of consumers is found not to purchase there, this may explain the limited market share. The findings from our consumer study provide a clear answer. Almost all of the study respondents regularly shopped in supermarkets. Hong Kong consumers enjoy high incomes but their household characteristics resemble those identified in early LDC studies as causing the cases of supermarket “failure”. The average apartment size among the respondents in our consumer study was 530 square feet and median living area per person was 120 square feet. Only 18.6 percent of households own cars and respondents shopped frequently in supermarkets, on average, 3.8 times per week. The average size of a supermarket transaction was only 5.8 U.S. dollars. Thus, in Hong Kong, small apartments and high shopping frequency did not lead consumers to reject supermarket shopping.

The main reason for this is the short distance to supermarkets. For Hong Kong’s consumers the distance related costs of shopping in supermarkets is not higher than that of shopping in traditional food outlets. Under these conditions consumers can continue to shop frequently and still shop in supermarkets. How can supermarkets locate so close to consumers and still be viable economically? Hong Kong has an extremely high population density (Table 1). Thus, while supermarket’s trade areas are small, a large number of people do reside in the vicinity of each supermarket.
Supermarket Product Assortment

Compared to supermarkets in the West, where a typical store carries over 20,000 SKUs, Hong Kong's supermarkets' assortments are very limited. They range in sizes from 7,000-9,000 skus for the big (9000 - 12,000 square feet) stores to 4,000 - 5,000 skus for the mid-sized (7,000 - 6,000 square feet) stores, to 3,000 sku's for the smaller stores.

Supermarkets in Hong Kong have focused on the packaged and processed foods. In these areas they outperform by far the traditional outlets in variety, quality, and price. Typical is the case of rice sold in the past in bulk in traditional outlets. Supermarkets have been offering a larger assortment (varieties, package sizes, quality levels, price levels, and countries of origin) at better prices. However, in two other areas: fresh foods and traditional Chinese foods supermarkets have only a limited offering.

Chinese foods include items such as preserved meats, dried and salty fish and seafood products, barbecued meats and bean products. These are typically sold in bulk, require high amounts of service and expert knowledge. Their supply system is fragmented and buying is specialized. Supermarkets see these items as incompatible with their mode of operation. In some cases licencees were brought in, but results were mixed.

The fresh food area includes fresh meats (mostly chicken, pork and beef), fresh sea food, and fruits and vegetables. This category occupies a special position among Hong Kong consumers, most of whom use the Cantonese cuisine with its heavy emphasis on fresh ingredients. (Anderson, 1988). Most consumers require the central meal elements of vegetables, meat and fish to be “fresh”. Chilled meat and fish that in the West are regarded as fresh are not considered so by Chinese consumers. This emphasis on freshness is reflected in the household expenditure surveys. (Census and Statistics Department 1996). In 1995 consumers spent 52.6 percent of their food expenditures, excluding meals away from home, on fresh foods.

In the west the fresh food categories are regarded as central to supermarket success. An important component of a supermarket's image is how well these high margin, high risk categories are managed. These categories have become major contributors to profitability.
Hong Kong supermarkets, however, face a more demanding consumer. It is difficult for supermarkets to imitate the wet market and offer fresh fish in tanks or a poultry department where chicken are killed before the customer's eyes. The small size of the supermarkets in Hong Kong further constrain their ability to effectively deal with these categories.

The vegetable offering in Hong Kong includes Western and Chinese vegetables. Supermarkets cover the Western vegetables well. They face, however, major difficulties in Chinese vegetables, mostly the leaf vegetables which have short shelf-lives and are easily damaged. Supermarkets were unable to handle these products satisfactorily and most stores either do not stock them or offer a token pre-packaged selection. In summary, Hong Kong's supermarkets offer an uneven assortment in the food areas - - a broad and deep one in the pre-packaged and processed foods and a limited one in the fresh and Chinese traditional foods areas.

**Consumer Utilization of Supermarket Assortment**

Consumers may react to the assortment limitations described above in two ways. One possibility is that preference for the benefits of supermarket shopping is so strong that consumers will compromise on the weaknesses in assortment and buy what is available on supermarkets' shelves. The other possibility is that consumers will utilize supermarkets selectively: buying there the food categories in which they are strong and continue buying fresh and Chinese foods in the traditional outlets.

The results of the consumer shopping behavior study are used to identify the supermarket assortment utilization pattern in Hong Kong.

Table 3 provides the basic utilization statistics for the main food product lines.
Supermarkets and wet markets serve as the main shopping outlets with some traditional specialized stores still important in some food lines. Consumers buy staples and processed foods in supermarkets, but generally purchase the fresh foods -- fish, meat, fruits and vegetables in the wet markets. In addition, the purchases of fresh bakery products and traditional Chinese foods takes place outside the supermarkets in specialized traditional stores.

The survey showed that the vast majority of households shop at both modern and traditional outlets. Indeed, the proportion of households shopping exclusively at traditional and modern outlets are only 2.6% and 2.4% respectively. Further analysis reveals that the mixed shopping behavior results primarily from a tendency of almost all shoppers to exclusively purchase fresh foods at traditional outlets, and for most shoppers to purchase a great majority of the non-fresh foods at supermarkets.

The results of the consumer study show that Hong Kong’s consumers have adjusted to the weakness of the supermarkets in the fresh foods area by developing a pattern of a “selective” utilization of the various food retail formats.

The Evaluation Process: Conclusion

The four determinants of the supermarket market share position in Hong Kong were evaluated. The analysis shows that supermarkets have completed their spatial diffusion. They cover most geographical areas in the territory and all consumer groups. Furthermore all consumers have adopted supermarket format shopping. The limited market share of supermarkets in Hong Kong is caused by their inability to cover well a central food area -- fresh foods. Consumers reacted to this situation by selectively utilizing supermarkets, and continuing to buy these food items in the traditional outlets.

The Future of Hong Kong’s Food Retail System: Westernization or a Mixed System?

In this section developments that may affect the future shape of food retailing in Hong Kong are discussed. The central question is whether Hong Kong will follow the Western modernization
model where the traditional retailers will eventually disappear and supermarkets will dominate all areas of food retailing, or whether it will stay in its present state. Should the latter materialize, we will face a case of a new modernization model where in the end-state modern and traditional food retail formats coexist. Trends in consumer behavior, supply chain, competition and government policies influence the future development path of the food retail system.

Specifically, Hong Kong’s supermarkets may increase their overall market share at the expense of the wet markets if one or more of the following developments take place:

(1) Changes in consumer values and consumption patterns may lead to changes in the existing “selective” shopping pattern.

(2) The wet markets system weakens.

(3) Supermarkets overcome their weaknesses in the fresh foods area.

Changes in the Selective Shopping Patterns

Consumers may alter their shopping patterns as a result of two possible developments: changes in the values guiding shopping or in consumption habits.

(A) Change in consumer values:
The supermarket and the wet market present consumers with completely different shopping environments. Whereas the wet markets are dirty, slippery, noisy and crowded and lack heating or air conditioning, supermarkets are the opposite. Given supermarkets’ advantages, it may be expected that some consumers will trade off the freshness and price advantages of the wet markets for the convenience, pleasantness and time savings of shopping in supermarkets. The experience in Western countries suggests that higher-income younger consumers from households in which both members work should be expected to be the first to change in this direction. To check for this development, we looked at the consumer survey results. We find
that there are significant but extremely weak effects on preferences for shopping in modern vs. traditional outlets arising from wealth or age factors².

As income levels are already high and a very high (56 percent) proportion of women already work outside the home it seems that future expected changes in household wealth related characteristics are at most, likely to bring about a very small shift in shopping preferences.

(B) Changes in Consumption Patterns:
Hong Kong’s consumers may change their consumption habits away from meals based on traditional ingredients and involving traditional methods of preparation towards meals based more on processed, frozen and chilled ingredients and an emphasis in meal preparation on time saving and convenience. These types of changes have occurred in Western countries.

No systematic studies regarding meal preparation patterns of Hong Kong’s consumers exist. The household expenditure survey, however, provides some insights. It shows that between 1990 and 1995 the split in consumption between processed types foods, frozen items and the fresh categories remained the same (Hong Kong Census of Statistics Department 1996 and 1991). While, there is a marked increase in the presence of international food companies and of international food brands, fresh foods continue to be of central importance. The fast expansion and growing popularity of the international and local fast food restaurants attests to the openness of Hong Kong’s consumers to Western consumption habits, but this has been accompanied by the continued expansion and strength of the Chinese restaurants sector where traditional meals are eaten (Hong Kong Census and Statistics Department 1995). Thus it seems that traditional consumption patterns continue to dominate. While Western meals and processed foods are popular, they are not viewed as an alternative consumption system replacing indigenous consumption patterns. They simply increase the variety and range of foods and meals available to consumers.

²The survey did not control for ethnicity or nationality. It is quite possible that the wealth effects were entirely induced by the western expatriates in the sample.
Trends in the Wet Markets Systems

Our consumer shopping behavior data confirms the popularity of the wet markets. Almost every consumer shops there a few times a week. They are, by far, the major source for fresh foods for most of Hong Kong’s consumers. Consumers shop there because they believe that they are superior to supermarkets: offering fresher products, larger variety and depth at lower prices.

Consumers can see the live fish and chicken, and verify the freshness of poultry and meat. Vegetables and fruits are continuously being sorted, cleaned, trimmed, and sprayed. The high turnover and frequent deliveries further contribute to consumers’ perception of product freshness. Paradoxically, the lack of refrigeration facilities means that products cannot be kept in storage, further reassuring consumers about freshness.

Wet markets have additional strengths. Their costs of operations are much lower than the supermarkets’. Rents, the major expense for retailers in Hong Kong, are low compared to supermarkets, employees are usually family members, and facilities are maintained by government. The high turnover contributes not only to freshness but also to profitability. Wet markets offer consumers the same convenient one-stop shopping for fresh and Chinese foods as do supermarkets in the non-perishables area.

Weaknesses include low levels of cleanliness and shopping convenience, and the unpleasant shopping environment. The personal contact with retailers and lack of self service is viewed by many as a disadvantage because under the probing of retailers consumers have to make quick decisions and find it difficult to change their minds.

How stable is the wet market system and what are its survival chances? An analysis of data about stall vacancies in the public markets shows the average vacancy rate in 1996 as 14%. A more detailed analysis shows the existence of a subgroup of 22 wet markets with vacancy rates above 30 percent. Most of these markets (16 out of 22) were small with 50 stalls or less. Not all public wet markets are doing well but most continue to be viable as indicated by the low
vacancy rates. Wet markets located in housing estates show vacancy rates of 8%. In this case, too, a subgroup of weak markets exist.

| Table 4 about here |

Public criticism about hygienic conditions in the wet markets have led the government to engage in a modernization program. Several markets have already been modernized. Facilities, illumination, escalators, ventilation, fans, toilets, and signage were improved, markets are kept cleaner and the overall stall appearance is more uniform. The modernization program aims to eventually include all wet markets. Moves to privatise management of wet markets have been taken in the housing estates' wet market system. A private management company already runs 6 markets with improvement in the overall atmosphere, cleanliness, and opening hours. Market wide promotions, advertisement to consumers and a market credit card system were instituted by this company (Hong Kong Economic Journal, 1996). Another development is the incorporation of small problematic wet markets into nearby supermarkets.

The heavy administrative burdens of running this complex system can be expected to lead the government to privatise the management of additional markets in the housing estates and perhaps some public ones. Modernization and privatization will bring improvements in the shopping environments. It is not clear, however, whether the economics of the new wet market system will be viable. At present retailers pay little rent and repairs and investments in facilities are done by government. Government will need either to increase its budget, charge higher rents or take a more drastic approach to privatization giving more autonomy to the private companies managing the wet market. Under private management, a shopping center type system is likely to eventually replace the existing one. Retailers will be required to pay higher rents, perhaps tied to their sales, adhere to stricter rules of conduct and participate in a variety of market wide promotions. Also, the new management companies may wish to dictate, as they do in shopping centers, the mix of retail stores. To the extent that these changes will indeed happen and be successful, the wet market system can be expected to continue and flourish. Less
efficiently managed stalls and those in less demanded lines will close down, or be incorporated into bigger stalls.

At the earlier stages of their development supermarkets in North America and Western Europe also faced a large traditional retail system in the fresh foods area: speciality (produce, butcher, fish) stores, street markets, street stalls and public markets. This system was highly fragmented, consisted of many small privately owned stores that lacked the resources and the ability to band together, develop and modernize their operations. The wet market system in Hong Kong is stronger because government owns the facilities, continues to support the system and views it as important to the welfare of consumers. Thus, the organizational foundation for further development is in place. Furthermore, the concentration of these traditional retailers into distinct markets contrasts with the wide geographical dispersal of the traditional fresh food retailers in the West. This too favours further development of the system. It can be concluded that the wet market system in Hong Kong is at present strong. What shape the wet market system will take in the next decades remains to be seen, but it is unlikely to disintegrate.

Supermarkets Handling of Fresh Foods

The above discussion leads to a conclusion that supermarkets' future position depends on overcoming their weaknesses in the fresh foods area. To frame the discussion we briefly review the experiences of West European and North American supermarkets.

The factors responsible for success included: a strategic commitment to the fresh foods area and major investments in personnel (expert buyers and store level people), in training, in development of physical infrastructures (processing facilities, storage areas, and cold chain distribution systems), in operational procedures (quality control standards and quality assurance systems), in store facilities and in research (consumer preferences, food technology, product quality, shelf life). An important success requirement was large space allocation to the fresh foods. Indeed, while Western supermarkets did sell fresh foods for many years, the breakthrough in this area coincided with the transformation, from the conventional - smaller size stores to the larger scale superstore formats. By far the single most important factor was supermarkets' success in establishing direct relationships with suppliers. Bypassing wholesale
markets provided supermarkets with important advantages. First, in contrast to traditional retailers who are more opportunistic in their assortments, supermarkets do not simply sell what is available in the wholesale markets. Wholesale markets could not be relied on to provide a steady supply of the quantities required of the exactly defined products (size, variety, quality and price levels). Furthermore, the large amounts supermarkets purchased often drove prices up. The direct relationships with suppliers enabled supermarket chains to reduce supply uncertainties and get competitive advantages. Large scale buying became now an advantage. Second the more advanced supermarket chains took the lead in introducing innovative products to their customers.

Can Hong Kong’s supermarkets use the same methods to gain a competitive advantage over the traditional wet market system? At present Hong Kong’s supermarkets’ ability to effectively compete against the wet markets is constrained by space, supply and costs.

(1) **Space**: Supermarkets are small and lack the space needed to present a broad and deep assortment in the various fresh foods categories in an enticing manner. Both major chains have recently increased the area devoted to fresh foods in a number of test stores. The results were good. However, space is very expensive and extra space allocations must come at the expense of other categories or be limited to few stores. To the extent that the dominant supermarket format in Hong Kong will continue to be that of a “conventional” supermarket, innovative solutions for the space problem will have to be explored. For example, supermarket companies may take over space from adjoining wet markets.

(2) **Supply**: Supermarkets already bypass wholesale markets mostly using agents in Hong Kong or outside the territory. In general the system operates well. However, whereas Western supermarkets reshaped the supply system and used it as a mechanism for gaining significant competitive advantages over the traditional retailers, this is not the case in Hong Kong. The same supply system is used also by the wholesale markets and by wholesalers supplying the wet markets.

Both local supermarket chains are relatively small in international terms and their fresh foods volume is disproportionately low compared to similar chains in the West. Thus, the major local
wholesalers, many of whom also supply China and neighbouring countries. Often place larger orders, get preferred access to products and negotiate better payment terms. Supermarkets' supply position is especially weak in lines of special importance to Hong Kong's consumers: Chinese vegetables, pork and fish. For example, over 80% of Hong Kong's consumption of Chinese vegetables is imported from China, grown mostly by Hong Kong companies leasing land from Chinese farmers. The vegetables are delivered daily to the main wholesale market, managed by the government Vegetable Marketing Organization (VMO) and then distributed to wet market retailers. The system operates smoothly, supplying consumers on a regular basis with freshly picked vegetables. Grading and sorting are done in the fields and while adequate for wet markets they are not compatible with supermarket standards. Performing these functions in the supermarkets' distribution centers is too costly, but none of the growing companies is interested in taking on the tasks because of the low volumes involved. One chain has worked closely with the VMO which prepares the vegetables for the chain but costs are high. Both chains made major investments in distribution and processing centers for perishables, in delivery systems, in store facilities and in personnel. These investment reflect a commitment to the fresh foods area. These facilities help in solving supply and handling problems in some lines but are not designed to solve the problems in the central categories of fish, Chinese vegetables and fresh pork meat. In any case they are not able to move supermarkets ahead of the traditional system and generate competitive supply based advantages over the wet markets.

(3) Costs: Wet market retailers pay a fraction of the rent supermarkets pay, employ family members, do not pay for refrigeration, cooling and heating and store facilities. In addition, supermarkets face higher packaging and shrinkage costs. It is estimated that wet market retailers operate at gross margins that are less than half of the supermarkets’ in comparable lines. The major supermarket cost factors are unlikely to change and consequently, as long as the wet markets continue to operate in their present form, they will enjoy substantial price advantages.
Future Developments in Hong Kong's Food Retail System - Conclusions

Based on the evaluation above, it can be concluded that supermarkets may improve their position somewhat, but that no dramatic increase in their market share can be expected.

The environment in Hong Kong differs from that faced by Western supermarkets at the same juncture in their development. Hong Kong's consumers' values and preferences for fresh items are more entrenched. The wet market system has stronger roots, is sponsored and supported by government and is economically viable. Supermarkets' ability to leverage their inherent size and technology advantages is much more limited in Hong Kong due to the small size of the territory and the nature of the fresh food supply system. Thus the methods North American and Western European supermarkets used to gain competitive advantage over the traditional retail system are largely ineffective in the Hong Kong environment.

What actions can supermarkets take given this situation? They are limited in their ability to influence elements in the situation and accelerate movements in their favour but they can adapt to it.

Adaptation to the present situation

Recognizing the importance and strength of wet markets, both chains tried to incorporate wet market features into their fresh foods operations: wet market style presentation, wet market retailers acting as licensees and using adjoining wet markets to supplement their assortment. All of these had a limited effect.

The more drastic approach of an active participation of supermarkets in the wet market system merits serious consideration.

(1) Taking over management of selected wet markets to develop a stand alone “fresh food shopping center”.

(2) Developing a new integrated retail format where the store consists of a part containing the present supermarket assortment and a wet market part with different types of stalls, take home
foods and a wet market shopping atmosphere. This concept operates successfully in the large Japanese GMS (General Merchandise Stores). In the Hong Kong context some of the existing multistorey public markets could be converted into this concept.

Expanding operations into the Chinese provinces adjoining Hong Kong presents another opportunity. Such a move will increase supermarkets’ volume, creating economic and channel power advantages. In China supermarkets also face problems in the area of fresh foods but the traditional wet market and street market systems there are much weaker. At present there are many difficulties in implementing such an expansion (Goldman 1996), but this possibility may become viable in the future.

CONCLUSIONS

Summary

We have analysed food retailing in Hong Kong as an example of a system where supermarkets have a long history and have established a strong position, but have not been able to capture a dominating market share. A large number of countries, many well advanced economically, are in this situation, but this phenomenon and the reasons for it have received little attention. A framework centered around the determinants of supermarket market share attainment is used as a guide for in-depth evaluation of the Hong Kong example. This framework proved useful in identifying the reasons for supermarkets’ limited market share and evaluating future trends. While developments can be expected -- consumer behavior may gradually change, supermarkets may improve their fresh food operations, and pressure will mount for modernizing wet markets -- none is likely to cause a dramatic change in the present situation. Consequently, supermarkets will not dominate in the way they do in the West. Given the expected continued strength of the wet markets, it was suggested that supermarkets might explore some forms of participation in this sector: developing new retail concepts that will combine the wet markets and supermarkets strengths. In this manner the food retail system will continue to modernize, but the end-state of a mixed formats system will be different from that seen in the west.
The Hong Kong example can be generalized. The key elements characterizing the Hong Kong case also appear in other Asian countries such as Singapore, Taiwan, Thailand and Japan. In all cases the traditional retail system for fresh foods is strong, consumer values and shopping patterns change slowly, and supermarket companies seem unable or unwilling to make the push that Western supermarkets made in the fresh foods area.

Western Modernization Model

The modernization literature assumes that the food retail modernization process is simple and straightforward (Arndt 1972). Consumers' income and economic development are viewed as the major driving forces. The Hong Kong case has shown that this model is too simplistic and reality is more complex. In a situation of a highly developed economy with high consumer income levels the food retail system is far from having completed its modernization, and it is not clear that it ever will. This situation is not unique to Hong Kong nor to Asian countries.

The food retail modernization process depends on many factors beyond income and development. The inherent strength of the traditional food retail system, consumer characteristics, consumption patterns and values, population density, the nature of the supply system, the size of the country, government policies and the strategies of supermarket companies, are some of the relevant elements.

Furthermore, the modernization of food retailing does not necessarily mean, as it did in the west, the demise of the traditional formats and their replacement with the supermarket. It may take the different route of modernisation of the traditional formats with the goal of keeping their strong points but using elements from the supermarket format to improve their operations. Another possibility is that modernization may involve developing new formats combining the strong elements of the wet market and of the supermarket. It is thus possible that in certain circumstances the end-state of the modernization process will fall short of a total domination of the supermarket. Instead a "hybrid-formats" situation may persist where traditional food retail formats continue to coexist with the supermarkets. Hong Kong and perhaps other Asian Countries may indeed become examples of this situation.
Future Research Directions

Theoretical and empirical work remains to be done. The framework used here proved useful. It can serve as a foundation for developing a more general model of the food retail modernization process in which the relationships among the various elements, their impact on the modernization process and the factors affecting them are explicitly modelled. Country case studies guided by this model will further clarify issues, identify possible additional factors and provide insights about the process in different environments. Following a successful completion of this research agenda, empirical quantitative studies encompassing a large number of food retail systems can be undertaken.
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### Table 1
Comparative Development Indicators

<table>
<thead>
<tr>
<th></th>
<th>U.S.</th>
<th>U.K.</th>
<th>France</th>
<th>Japan</th>
<th>H.K.</th>
<th>Germany</th>
</tr>
</thead>
<tbody>
<tr>
<td>GNP per capita (US$)</td>
<td>26,620</td>
<td>18,800</td>
<td>25,860</td>
<td>36,315</td>
<td>23,200</td>
<td>24,905</td>
</tr>
<tr>
<td>Life Expectancy (years)</td>
<td>77</td>
<td>76</td>
<td>77</td>
<td>80</td>
<td>78</td>
<td>76</td>
</tr>
<tr>
<td>Infant Mortality (per 1000 live births)</td>
<td>8</td>
<td>6</td>
<td>6</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>People per telephone</td>
<td>1.3</td>
<td>1.9</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
<td>1.8</td>
</tr>
<tr>
<td>Population Density (pop. per sq. km)</td>
<td>26</td>
<td>236</td>
<td>104</td>
<td>329</td>
<td>6300</td>
<td>225</td>
</tr>
</tbody>
</table>

Sources: Asia Week July 12, 1996
<table>
<thead>
<tr>
<th>Population Per Supermarket</th>
<th>Number of districts</th>
<th>Number of supermarkets</th>
</tr>
</thead>
<tbody>
<tr>
<td>4000-7000</td>
<td>4</td>
<td>107</td>
</tr>
<tr>
<td>7000-10,000</td>
<td>5</td>
<td>153</td>
</tr>
<tr>
<td>10,000-12,000</td>
<td>5</td>
<td>148</td>
</tr>
<tr>
<td>12,000-16,000</td>
<td>5</td>
<td>146</td>
</tr>
<tr>
<td>Total</td>
<td>19</td>
<td>554</td>
</tr>
</tbody>
</table>

Source: Based on data in Grocery Trade Magazine 1993
Table 3
Purchase Concentration in
Outlet Types for 16 Food Categories

<table>
<thead>
<tr>
<th>Food Category</th>
<th>% of Households Purchasing the Category in:</th>
<th>Traditional Outlets</th>
<th>Supermarkets</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Wet Market</td>
<td>Other</td>
</tr>
<tr>
<td>Vegetables</td>
<td></td>
<td>92.3</td>
<td>6.0</td>
</tr>
<tr>
<td>Fruits</td>
<td></td>
<td>70.2</td>
<td>18.0(^1)</td>
</tr>
<tr>
<td>Fish</td>
<td></td>
<td>96.0</td>
<td>2.7</td>
</tr>
<tr>
<td>Meat</td>
<td></td>
<td>94.0</td>
<td>4.4</td>
</tr>
<tr>
<td>Bread</td>
<td></td>
<td>-</td>
<td>72.1(^2)</td>
</tr>
<tr>
<td>Frozen</td>
<td></td>
<td>50.7</td>
<td>14.1(^3)</td>
</tr>
<tr>
<td>Rice</td>
<td></td>
<td>2.1</td>
<td>82.9</td>
</tr>
<tr>
<td>Noodles</td>
<td></td>
<td>-</td>
<td>90.6</td>
</tr>
<tr>
<td>Drinks</td>
<td></td>
<td>-</td>
<td>89.6</td>
</tr>
<tr>
<td>Oil</td>
<td></td>
<td>-</td>
<td>90.0</td>
</tr>
<tr>
<td>Canned Foods</td>
<td></td>
<td>-</td>
<td>97.8</td>
</tr>
<tr>
<td>Salty Foods</td>
<td></td>
<td>50.6</td>
<td>23.8(^4)</td>
</tr>
<tr>
<td>Biscuits</td>
<td></td>
<td>-</td>
<td>94.3</td>
</tr>
<tr>
<td>Spices and Sauces</td>
<td></td>
<td>5.7</td>
<td>83.3</td>
</tr>
<tr>
<td>Tea</td>
<td></td>
<td>-</td>
<td>41.9(^5)</td>
</tr>
<tr>
<td>Alcoholic Drinks</td>
<td></td>
<td>-</td>
<td>81.0</td>
</tr>
</tbody>
</table>

\(^1\)fruit shops
\(^2\)bakeries
\(^3\)Chinese grocery stores
\(^4\)Chinese grocery stores
\(^5\)tea shops
Table 4
Vacancy Rates of Wet Markets in Hong Kong (1996)

<table>
<thead>
<tr>
<th>Percentage of Vacancies (%)</th>
<th>No. of Wet Markets</th>
<th>Wet Market (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>17</td>
<td>17.5</td>
</tr>
<tr>
<td>1-10</td>
<td>36</td>
<td>37.1</td>
</tr>
<tr>
<td>11-20</td>
<td>11</td>
<td>11.3</td>
</tr>
<tr>
<td>21-30</td>
<td>11</td>
<td>11.3</td>
</tr>
<tr>
<td>31-50</td>
<td>16</td>
<td>16.5</td>
</tr>
<tr>
<td>51+</td>
<td>6</td>
<td>6.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>97</strong></td>
<td><strong>100 %</strong></td>
</tr>
</tbody>
</table>

Source: Hong Kong Urban Service Department (Kowloon and H.K. Island) and Regional Council Department. Data are available for 97 out of the 107 Public Wet Markets.
Figure 1: No. of Supermarket Outlets in Hong Kong

Source: Ho Suk-Ching 1994
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