Structural Foundations For E-Commerce Adoption:
A Comparative Organization Of Retail Trade Between Japan And The United States

by

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Abstract

Why do two societies, both technologically advanced, exhibit a divergent path in adopting Electronic Commerce? This paper compares the historical development of retail trade in Japan and the U.S., with a specific focus on the partnership between brick-and-mortar and nonstore retailing. The way in which a society adopts technologies is in part historically determined, and business-to-customer (B-to-C) transactions in particular are strongly influenced by the characteristics and structure of retail trade. While the strategies adopted by U.S. retailers is to develop E-Commerce to sell products that are available at brick-and-mortar stores via online, the strategy adopted by Japanese convenience stores show that Japanese retailers are selling products available online at brick-and-mortar stores. Although the speed of E-Commerce diffusion is typically attributed to the cost of access, a historical analysis of the retail sector reveals variations in institutional foundations for retail business practices, and such differences can shape the development trajectory of the commercial activities of the real- and virtual- worlds.

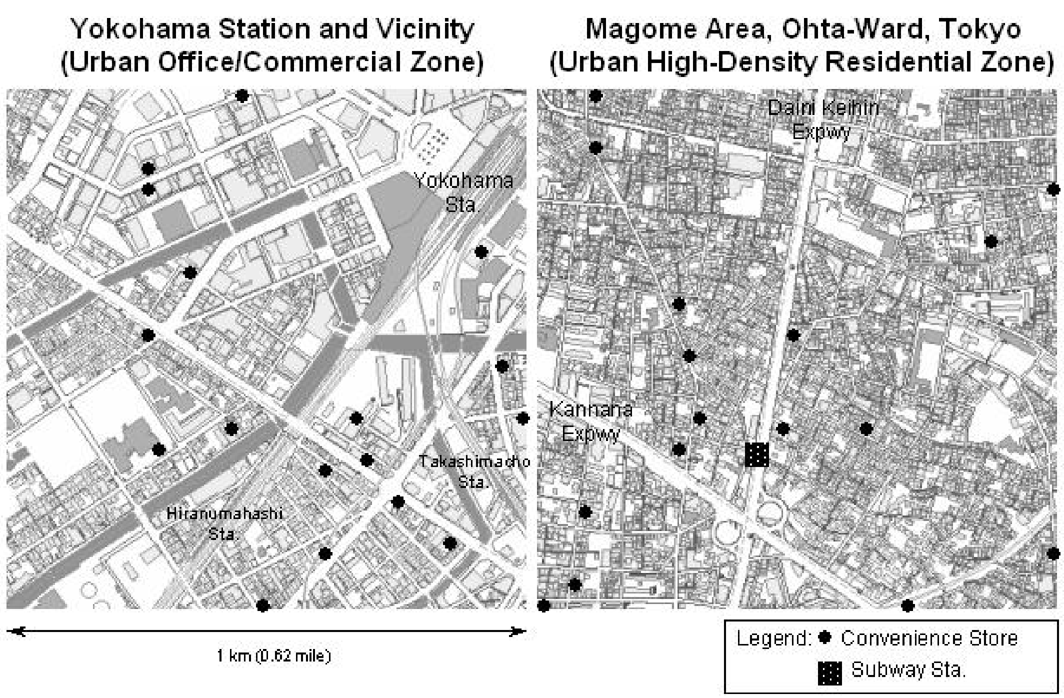
1. Introduction

At the onset of internet-retailing in 1997, the well-publicized competition between Amazon.Com and Barnes and Noble bookstores initially positioned brick-and-mortar retail trade in competition against E-Commerce development. Amazon was the first business-to-consumer online store, opened 22 months ahead of Barnes and Noble's E-Commerce site. The competition between online and real-world booksellers set the tone for subsequent views toward E-Commerce development, positioning store and non-store retailing in direct competition. While the proportion of retail trade online is still a fraction of total retail trade, the potential of E-Commerce growth has prompted retailers to operate stores online. The DMA (2000) projects that sales from internet marketing will reach over $86 billion by year 2004.

In Japan, there are three common means to access E-Commerce: via home-PCs, cellular telephones, and terminals located in neighborhood convenience stores. While household PC ownership rate still lags significantly in comparison to the U.S. figure, m-commerce is rapidly gaining popularity, particularly with the introduction of NTT DoCoMo's 'i-mode' service which now has over 10 million customers. Although this option offers potential for future expansion, currently it does not offer sale of products online at the moment. Instead, i-mode focuses on providing information and services, such as bank transfer, airline and hotel reservations, weather forecasts, and movie listings.

Neighborhood convenience stores have introduced E-Commerce at their retail locations, combining E-Commerce with store-front sales. Convenience stores serve as access points to E-Commerce for Japanese consumers by resolving three major obstacles for E-Commerce diffusion: on-line access, distribution, and secure payments. With convenience stores at every major street corner, consumers can use E-Commerce without purchasing PCs, internet service, or using credit cards. The convenience store option shows that the relationship between B-to-C E-Commerce and traditional retailing in Japan is that of partnership, suggesting a possibility for an entirely new relationship between store- and non-store retailing. Convenience stores use their ubiquitous and strategic urban locations, which function as access points for E-Commerce retailing as well. In Tokyo's 23 urban Wards, for instance, there are 16 convenience stores per square mile, as compared with 1.4 stores per square mile in Washington, D.C.[1] There is one convenience store for every 2,000 residents in urban Tokyo, while the comparable figure for Washington, D.C. is one store over 6,000 residents. This means, for urban Tokyo residents, a trip to the nearest convenience store is shorter than a trip to the nearest train/subway station. Today, an average Tokyo commuter is estimated to walk by three convenience stores on his/her way to work (Landers, 1999).

Figure 1
Locations of Convenience Stores, 1999



Source: Compiled by author based on information provided by NTT Town Page, 1999-2000. Maps reproduced by

[1]Based on Retail Censuses of Japan and the United States. For details, see Aoyama (2000).

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Although the emergence of E-Commerce has dominated the media, few studies exist on their emergence, and in particular, how historical and institutional contexts shape the development of this phenomenon, and how they vary in paving their ways between traditional retailing across societies. This paper contrasts historical development of retail trade in Japan and the United States, and examines how institutional characteristics affected the emergence of E-Commerce in each country. I will examine two categories of retail businesses: direct marketing,[2] and convenience stores in Japan. The structural contrast of the retail sector, developed through different regulatory frameworks and spatial structures, explain the significant difference in the form of partnership forged between the retail sector and E-Commerce in Japan and the United States.

2. Between The Cyberspace and Real Space: Organizational Characteristics of Retail Trade in Japan and the United States

Interactions between the cyberspace and urban spaces have often been elaborated in socio-cultural terms (see Graham and Marvin, 1996; Zook, 1996; Castells, 1996, 1999; Graham, 1998). Few studies, however, link the development of cyberspace with consumer behavior. The relationship between virtual and real spaces in terms of consumer behavior is far from linear, and does not necessarily correlate with the availability of technologies, often measured by such economic indicators as GDP per capita, R&D investments, and the share of knowledge workers.

[2]Direct marketing is a direct communication to a consumer or business recipient that is designed to generate direct response and direct order (DMA, 2000). Major exchange media includes direct mail (catalogs, letters, flyers), telephone marketing, television (info-mercials), radio, newspaper, magazine, and online marketing (Electronic Commerce).

In examining the relationship between cyberspace and urban space, most argue against the technologically deterministic view. For instance, Graham (1998) maintains that "new telecommunications technologies are assumed directly to cause social and spatial change, in some simple, linear and deterministic way," and laments the tendency that "technology is cast as an essential and independent agent of change that is separated from the social world and 'impacts' it, through some predictable, universal, revolutionary wave of change." When it comes to consumer behavior, preexisting practices, cultural preferences, and institutional environments can significantly alter the patterns of technology use in consumption. Consumer behavior is governed by convenience, familiarity, and social habits, which are shaped by historical patterns of retail trade. While business-to-business (B-to-B) transactions can be promoted as corporate policy and the drive toward efficiency, B-to-C transactions require a different set of drivers: ease and cost of access, convenience, and appeal of mass customization (OECD, 1999).

The difference in pricing, cost structures, and access to the internet have all been considered as the primary determinants in E-Commerce diffusion, and theses factors have already been analyzed in detail (OECD, 1999; U.S. Dept of Commerce, 1999; Aoyama, 2000). While cost structure has been considered a determining factor for the rate of E-Commerce adoption, it is not the sole constraint. Structural factors are particularly important for business-to-consumer E-Commerce, in which rules of the economy such as productivity increase, cost efficiency, and profit maximization do not always and directly shape consumer behavior. While business-to-business E-Commerce can be implemented in a top-down manner, the development of business-to-consumer E-Commerce depends upon what consumers consider 'convenient', which is a highly path dependent and socially specific definition.

Partly because E-Commerce originated in the United States, the home-PC based internet access has assumed the norm as a medium of exchange in its developmental trajectory. This form of direct marketing through internet access made its development dependent on a certain technological requirements, including computer literacy, PC ownership, and the availability of credit cards. The United States retail sector has a long and well-established history of direct marketing, represented by its numerous catalog houses and mail order businesses. Online stores are often simply digitized form of catalog businesses which use internet as a medium of exchange.

Zook (2000) conducted a cross-national study of Internet contents and found Japan to be the anomaly among the countries he examined. Evidence from Japan shows that E-Commerce is so far more closely associated with neighborhood corner stores, rather than direct marketing practices. While E-Commerce development typically follows U.S. the model of making products and services that are otherwise available in retail storefronts also accessible on-line, the Japanese model of E-Commerce proliferation represents the reverse; making on-line, digital products available at storefronts. This contrast suggests that the relationship between online and brick-and-mortar stores are by no means universal, nor can such relationship be technologically determined. Furthermore, while the tradition of direct marketing in the United States facilitated the development of E-Commerce through various infrastructural and institutional support, lack of wide acceptance in long-distance retailing in Japan provided other retail sectors to enter Electronic Commerce business. As a result, economies differ in ways they link virtual and real storefronts. Interactions between real space and cyberspace need not take a single form, and in the case of E-Commerce, coordination between purchase and distribution occurs differently across societies.

Traditionally, organizational characteristics of retail trade are considered to be dependent on two variables; economic, such as income and related standards of living (such as household automobile ownership), and settlement patterns (population growth and density) (Russel, 1957; Ferber, 1958; Hall, Knapp and Winsten, 1961; Arndt, 1972; Rosenbloom, 1975; Takeuchi and Bucklin, 1977). More recently, regulatory framework and cultural factors are introduced as major factors (McCraw and O'Brien, 1986; Tamura, 1986; Maruyama, 1993; Hancock, 1993; Heshiki, 1996). In both Japan and the United States, antitrust regulations, which protected independent retailers, have affected patterns of retail trade. In the United States, the emergence of chain stores beginning the 1930s, with successful retailers such as A&P, Sears, and J.C. Penney, have prompted the U.S. government to implement a series of regulations both at state- and federal-levels.[3] During most of the postwar periods, despite various efforts by the government and small retailers to suppress the development of large-scale chain stores, they flourished nationwide and progressively drove out mom-and-pop stores.

In Japan, the demise of independent mom-and-pop stores became a policy issue decades after the U.S., in the late 1960s. This prompted the government to enact Large Scale Retail Law in 1973.[4] Laws that oversaw activities of large-scale retailers in Japan were far more restrictive than the US counterparts throughout the 1980s, and as a result it has been far more successful in sustaining mom-and-pop stores. Japan's retail sector still constitute the largest number of establishments of any of the industrialized nations, and although suburban supermarkets are thriving in Japan as well, 55 percent of the total food and beverage market is reigned by small stores (MITI, 1999c).

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[3]Federal laws such as Robinson-Patman Act in 1936 and Miller-Tydings Act in 1937 were designed to protect small retailers.
[4]See McCraw and O'Brien (1986), Hancock (1993), for a detailed analysis of Large Scale Retail Law.

However, the very laws that successfully protected small stores hindered competition in the retail sector by providing little incentives for innovation and restructuring. Because wholesalers dictated retailers' behavior, and sanctioned those who break exclusive distribution rights, Japan's retail sector faced an added disincentive from any sort of innovation, including diversification of distribution networks and conduct multi-sectoral retailing.[5] This applied particularly among food-selling establishments. Japan's retail sector as a result remained traditional, outmoded, and inefficient (Yoshino, 1975; Czinkota, 1985; Goldman, 1991). A study by Goldman (1991) showed that, while the US had 0.7 food-selling stores for the population of 1,000, United Kingdom had 1.9, France had 3.5 and Japan had 5.5 stores. Over half of the food retail stores in Japan had 2 or fewer employees, while the same share for the U.S. retail sector was about a quarter. Stores with less than 10 employees drew half the total sales of Japan's food retail sector, while similar establishments in the U.S. drew 16 percent of the total sales.

The 1990s became the turning point for Japan's independent retailers. While the size of each establishment remained small, they were becoming increasingly integrated as part of nationwide chains. In particular, neighborhood convenience stores organized by major chains became the most successful food retailers of the 1990s despite the decade of depressed consumer demand (see Table 1). Although the total number of retail establishments declined by 12 percent between 1991 and 1997, the number of convenience stores actually grew by 54 percent, comprising roughly one in five of the supermarket category.[6] In terms of sales, convenience

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[5]Retail trade experts argue that Japan's sectoral division of power is characterized by the dominance of manufacturers, and the wholesalers and the retailers are regarded simply as the distribution arm of the manufacturers.

[6]Supermarkets include general supermarkets, specialty supermarkets, other supermarkets and convenience stores (MITI, 1999c). Japan's retail census defines convenience stores as those with the

stores grew by 67 percent between 1991-97, an impressive rate of growth when the growth for the retail sector was at 6 percent. Also notable is the decline of non-supermarket retailers for both food and nonfood categories. The phenomenal growth of specialized supermarkets (non-food) in the 1990s reflects the popularity of newly emerging supermarkets selling fashion-oriented interior decorating products, also indicating the progress of capital concentration in non-food categories.

Table 1
Major Retail Sector Trends in Japan, 1991-97.

Sector Description	Establishments		Change	Sales (in Million yen)		Change
	1991	1997	1991-97	1991	1997	1991-97
Food selling establishments						
Convenience Stores (CS)	23,837	36,631	53.7%	3,125,000	5,223,404	67.1%
General Supermarkets	1,683	1,888	12.2%	8,495,000	9,956,689	17.2%
Specialized (food) supermarkets	14,761	17,634	19.5%	11,296,961	14,768,134	30.7%
Specialty (food) stores[a]	297,015	230,163	-22.5%	11,291,595	8,810,520	-22.0%
Semi-specialty (food) stores[a]	212,146	154,736	-27.1%	9,590,821	7,767,134	-19.0%
Other establishments						
Conventional Dept Stores and National Chains[b]	478	476	-0.4%	11,349,861	10,670,241	-6.0%
Specialized (non-food) Supermarkets	6,066	14,575	140.3%	2,767,039	5,670,866	104.9%
Variety Supermarkets	72,027	120,721	67.6%	7,244,791	9,985,694	37.8%
Specialty (non-food) Stores	712,046	609,806	-14.4%	55,819,405	50,868,550	-8.9%
Semi-specialty (non-food) stores	249,100	231,012	-7.3%	19,452,160	23,767,445	22.2%
Other Retail Stores	16,424	2,054	-87.5%	1,856,242	253,476	-86.3%

Note: [a]Specialty stores sell more than 70% of products from a single category (food, clothing, household items).

Semi-specialty stores sell between 50-70% of products from a single category.
[b]Department stores and national chains in Japan also sell food, although the share of food in total sales may not be significant.

Source: 1997 Retail Census. Ministry of International Trade and Industry.

In contrast, convenience stores in the U.S. show a divided fate in the 1990s. Although conceived in the United States, stand-alone convenience stores experienced an 11.7 percent

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opening hours of 14 hours or longer, with the store space between 30 to 250 square meters (323 to 2,691 decline in the number of establishments and a 2.7 percent decline in sales (see Table 2). Yet, data show that convenience stores with gas stations are growing rapidly both in numbers and in sales. These establishments rely on gasoline sales as the primary source of revenue, and therefore cater to a slightly different market. The fastest growing segment of the U.S. food-selling retail sector in the 1990s was not convenience stores, but large-scale discount stores, namely, warehouse membership clubs and superstores. Warehouse membership clubs, represented by such retailers as CostCo, Sam's Club and Price Club, grew rapidly since the 1970s and changed the pattern of grocery shopping in the United States.[7] This segment continued to grow in the 1990s, with over 150 percent growth in both the number of establishments and in sales.

Table 2
Major Retail Sector Trends in the United States, 1992-97.

NAICS	Sector Description	Establishments		Change	Sales (in US$ Millions)		Change
		1992	1997	1992-97	1992	1997	1992-97
Food selling establishments							
44511	Supermarkets and Other Grocery (except CS)	73,357	69,461	-5.3%	$314,133	$351,403	11.9%
44512	Convenience Stores (CS)	30,748	27,081	-11.9%	$17,311	$16,848	-2.7%
44711	Gas Stations with CS	57,033	81,684	43.2%	$67,331	$127,609	89.5%
4452	Specialty Food Stores[a]	47,306	22,373	-52.7%	$16,641	$10,830	-34.9%
45291	Warehouse Clubs and Superstores	616	1,530	148.4%	$30,691	$81,919	166.9%
Non-food establishments							
4521101/03	Conventional Dept Stores and National Chains	4,264	3,988	-6.5%	$89,515	$93,985	5.0%
4521102	Discount or Mass Merchandising Dept Stores	6,737	6,378	-5.3%	$101,270	$126,201	24.6%
454	Nonstore retailers	27,805	44,481	60.0%	$51,080	$123,106	141.0%
45411	Electronic Shopping & Mail Order Houses[b]	7,773	10,013	28.8%	$34,580	$79,018	128.5%

sq ft), and sell food items.

[7]Price Club, founded in San Diego in 1976, was merged with Missouri-based CostCo in June 1993, and together they control 231 stores worldwide with 13.5 million members. Wal-Mart owns Sam's Clubs, which boasts 456 locations, and in addition operates 682 "Wal-Mart Supercenters," which, despite not a membership club, carries a similar variety of items, such as 36 departments of clothing and household items in addition to food and groceries.

Note: [a]Includes meat markets (SIC 542/NAICS44521), fish & seafood markets (SIC 542/NAICS44522), fruit & vegetable markets (SIC543/NAICS44523); Other specialty food stores (baked goods, confectionery & nuts, all other)
(SIC 543,4,5,9/NAICS44529). 1987 SIC codes and 1997 NAICS were matched according to the census specification.
[b]1992 figure includes catalogs and mail order houses only.
Source: Retail Census, 1992 and 1997.

Suburban retail superstores have been successful in the United States in part because the U.S. consumers are willing to travel extra distance for low prices. Average travel distance for warehouse membership clubs is 13 miles, which is significantly longer than the average distance traveled to traditional supermarkets, at one to two miles (Cotter, et al, 1992). Warehouse membership clubs also reflects the retail trends of the mid- to high-end market. Club members are wealthier-than-average families with children, and on average spend 43 percent of retail food dollars at warehouse membership clubs, thus contributing to the downward trend of food purchases at traditional supermarkets. Unlike American consumers, Japanese consumers are known to be far more willing to trade after-market service, convenience and proximity for a higher price (McCraw and O'Brien, 1986; Goldman, 1991; Hancock, 1993). Such consumer characteristics, combined with the refusal by manufacturers to channel products to discount stores out of fear of losing control, together discouraged the rapid development of discount stores in Japan. An over-reliance on foreign merchandizes early on, which were often considered of inferior quality by Japan's conservative consumers, also tarnished the reputation of discount stores.

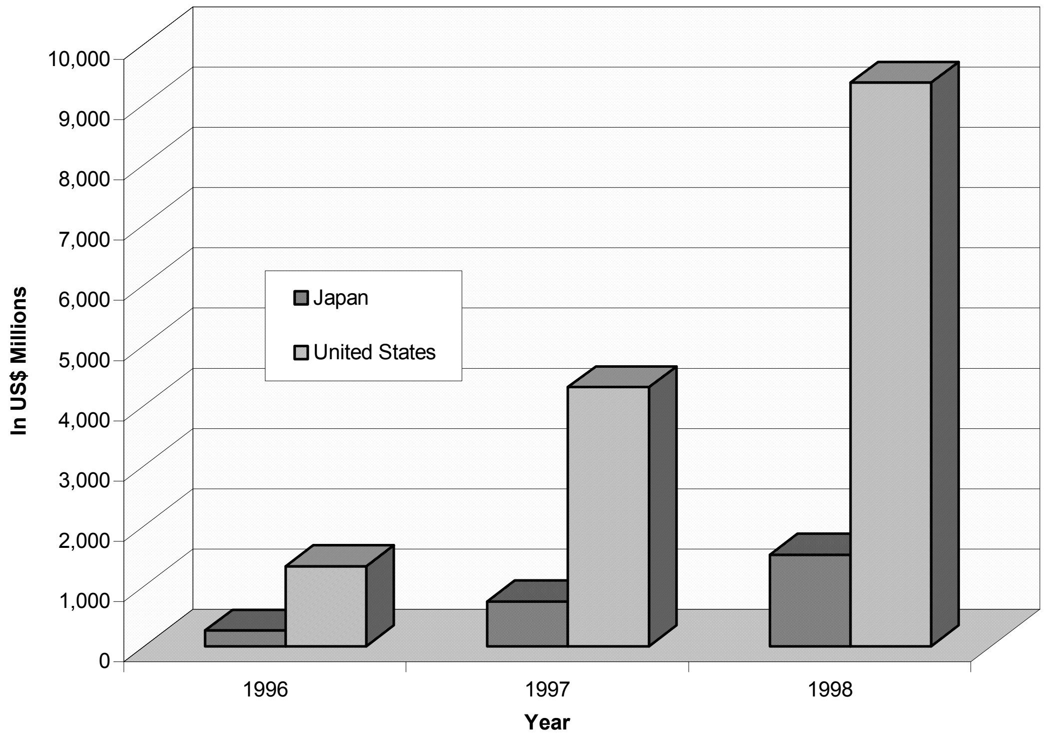
The second fastest growing segment of the U.S. retail sector is nonstore retailing, which includes direct marketing of all types, such as catalog houses and E-Commerce. Between 1992-97, nonstore retailers grew by 60 percent in terms of the number of establishments, and by 140 percent in sales volume. These figures only include those that are exclusively nonstore retailers, and thus do not take into account the growth of real- and virtual- combination stores, such as the sales of Wal-Mart's online stores and Barnes and Noble's online sales.[8] Therefore, the actual size of direct marketing business is larger than the figures reveal. Nonstore retailers are the established segment of retail trade, and have emerged as the major players, occupying the top of Fortune 400 retailers.

In contrast, the Japanese statistics on retail trade does not include data on nonstore retailing, but industry estimates show that the size of the Japanese direct marketing business represented 6 percent of the size of U.S. direct marketing business at its peak in 1996 (JADMA, 2000). Historical development, as outlined in the following section, reveals that Japan's non-store retailing never became a widely accepted practice. The combination of relatively delayed introduction of nonstore retailing, and a rapidly urbanizing population resulted in the undeveloped nonstore retailing at the initial stages, and without effective market identification, nonstore retailers never successfully competed against storefront retailers. According to the most recent data from Japan's Ministry of Post and Communications, the estimated market size for Business-to-Consumer E-Commerce in Japan doubled from 1997 to 1998, but lags significantly from that of the United States (see Figure 2).

Figure 2

Business-to-Consumer E-Commerce Market in Japan and the United States

[8] Barnes and Noble controls 15 percent of online book market, while Amazon.Com has a 75 percent share (Pack, 1999).



Source: Ministry of Post and Telecommunications, 2000.

In the following sections, I will examine the structural foundations of non-store retailing, and explores factors behind the lack of development in non-store retailing in Japan, and, analyze how neighborhood convenience stores became successful in combining store-front and nonstore retailing along with Japan's E-Commerce development.

3. The Evolution Of Nonstore Retailing in United States and Japan

Nonstore retailing is a category of direct marketing, in which retail activities do not involve storefronts. Merchants use a variety of means to gain access to customers, such as through television (info-mercials), telephones, catalogs (mail order), and the internet (E-

Commerce). Because many retailers engage in both storefront and nonstore activities, the exact size and the extent of nonstore retailing are not readily available, and in particular, historical data are at best sketchy for both countries. Yet, numerous historical accounts provide evidence for a long and established history of the practice and its wider acceptance in the United States in contrast to the relative absence of such practice in Japan.

In the U.S., non-store retailing existed since colonial times. Mail order businesses began with the development of printing technologies in Europe where book printers sold cataloged lists of published books. Benjamin Franklin was the first to bring this practice into the New World. In his capacity as a printer, he printed and sold the first known catalog of books in the U.S., entitled *A Catalogue of Choice and Valuable Books to be Sold by B. Franklin, April 11, 1744* (Philadelphia: Franklin, 1744). This catalog was advertised for sale in the Marcy 29, 1744 issue of Pennsylvania Gazette, the newspaper he also owned.

Direct marketing was also adopted by import traders. Import business began expanding along with the expansion of maritime trade in the late 17th Century. Horticulture was the primary area of trade, and newspaper ads for seeds and plants began appearing in the 1720s, showcasing exotic imports from Europe. By the mid-18th Century, U.S. farmers and horticulturalists were commonly using catalogs to purchase seeds and plants. By 1800, extensive catalogs were being published by largely by nurseries located in Massachusetts, New York, and Pennsylvania, and included several hundred species of seeds, ornamental plants, medicinal plants, and herbal plants (Mack, 1991). However, mail order was still regarded as a sideline business rather than the primary mode of distribution.

The supplementary use of mail order, however, was transformed after the Civil War. Mail order seed trade expanded dramatically along with the development of railroad networks and postal rates reduction. By 1875, the market expanded nationwide. W. Atlee Burpee, a major contemporary U.S. catalog house for plants and vegetables, was founded as a seed trade company in Philadelphia during this period. Peter Henderson, who introduced the first full-color catalogs and advertisements, expanded beyond seed/plant trade and offered the idea of procuring all gardening supplies from one firm (Spripps and Maw, 1976). Henderson catalogs became not only the Bible of the gardening world, but also provided with the industry a successful means of enticing consumption through full-color representations. In 1883, the American Seed Trade Association was established in Washington, D.C. in order to represent interests of seed trading business. By the turn of the century, hundreds of firms in northeastern United States alone produced annual catalogs that are several hundred pages long, with elaborate multicolored prints.

Although seed trade laid the foundation to U.S. mail order business, the practice of mail order business became widely accepted with the emergence of comprehensive catalog houses selling various household items, namely Montgomery Ward and Sears. In 1872, Montgomery Ward published its first mail order catalog, a single sheet listing 150 items, and simultaneously introduced a scheme of money-back guarantee. Sears followed by setting up its catalog business in the 1880s. By 1895, the Seas Catalog featured 532-pages of apparel, tools and other merchandise, catering largely to the needs of rural farmers. These catalogs quickly became a lifeline for residents in remote areas (Gattuso, 1993). In fact, Sears drew the majority of its revenue from mail-order business until 1931, when the emphasis shifted to their chain stores. Sears' switch from rural to urban focus corresponds to the changing characteristics of U.S. population from majority rural (1890s) to majority urban (1920s). Sears opened its first store in 1925 adjacent to mail order processing plant in Chicago, and by 1927 had 27 stores in operation nationwide. Five years later, the number of stores grew to 400 stores nationwide, and then to over 600 by 1941.[9]

Starting from the 1960s and throughout the 1980s, the U.S. catalog market gradually shifted away from the 'bigbook,' mass-market approach to target-market approach, catered by upscale and specialized catalogs. Sears found themselves unable to effectively compete against niche-market catalogs, in such areas as lawn and garden, health care, and tools, which today constitute more than 80 percent of the mail order market in the United States. This resulted in Sears terminating the catalog business in 1993. The downfall of 'Big Book' was not attributed to the declining use of mail orders by consumers, but rather on marketing blunders, including unfocused efforts (two Big Books published annually plus 50 other seasonal, monthly sale or specialized catalogs), uncompetitive service functions (until 1991, Sears catalogs were only available at stores, and until 1992, it did not have a toll-free number), and wrong markets emphasis (women's and children apparel, major appliances all of which do well in stores).

Thus, although the initial success of U.S. non-store retailing is attributed to the high share of rural populations, population density and spatial patterns are no longer considered the determining factors in its success today. Instead, the current success is attributed to its target marketing approach emphasizing quality, instead of directly competing against discount stores by offering low-priced goods. According to the Direct Marketing Association, the average household income for a typical U.S. mail order customer in mid-1990s was well over the national average, at $75,000. This indicates that U.S. mail order business had already successfully captured the high-end, quality-based market well before the introduction of E-Commerce, and that U.S. consumers accept non-store retailing as legitimate practice. The U.S. non-store

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[9]Currently, Sears operates 833 stores in the United States (Sears, Roebuck and Co., 1999).

retailing is therefore grounded on three centuries of experience, with accumulated knowledge on its use both from the supply and demand sides. On the supply side, the industry developed expertise necessary for nonstore retailing, involving such know-how as factual catalog writing (correspondence between catalog representation and actual product), product quality assurances, accuracy and timeliness in delivery (time-scheduling method), and policies regarding refunds, returns, and exchanges. On the demand side, consumers are familiar with using nonstore retailing, and have done so for generations (Morganosky and Fernie, 1999). American consumers are well-versed with the procedures of receiving refunds, returns, and exchanges, and actively make use of these policies without shame nor guilt. The combined effect is that the U.S. direct marketing business today has become the largest in the world with the consumer sales of $843 billion in 1999, and comprising 12.9 percent of the total U.S. consumer sales (DMA, 2000). The US mail order market also constitutes over half of the worldwide market, with 13 billion catalogs being distributed annually (Morganosky and Fernie, 1999). Twenty of the top 25 mail order companies worldwide were U.S. firms in 1998 (*Direct Marketing*, 1999).

Unlike the U.S. consumers, the current generations of Japanese consumers are largely new to non-store retailing. Although non-store retailing in Japan goes back at least a century, the practice never took off as a major mode of distribution. Direct marketing was formally introduced in Japan by Sen Tsuda, an agricultural scientist, who observed the practice of mail order seed trade in the United States during a government mission to purchase a battleship in 1868 (Kurozumi, 1993). At the time of his visit, catalog houses such as Montgomery Ward and Sears had not yet existed. Tsuda founded an agricultural school in Tokyo in 1875, and began publishing an agricultural journal a year later, in which he advertised seeds imported from the United States to be sold via mail. A one-page circular was subsequently developed independent of the journal, and was distributed separately. A circular printed in 1888 shows a simple listing of the names of seeds and plants imported primarily from the United States and France, and included various plants, mostly fruits and vegetables.[10] Mail order seed trade peaked in Japan in the late 19th Century, although the scale of business was not significant in comparison to the U.S. counterpart. When several hundred U.S. catalog houses were publishing several hundred-pages of full colored catalogs annually, there were approximately 30 catalog houses in Japan at its peak in 1910, publishing catalogs between 40 and 90 pages long.

Albeit limited, mail order business was adopted by a few other segments of the retailer sector in prewar Japan. In many cases, mail order businesses were set up by importers who offered specialized items which were otherwise unavailable through local retailers. Exclusively nonstore firms began emerging in the mid-1890s, and became an established trend in the 1910s. Catalog houses as Ootani Kyodai Shokai (f. 1911), Taishoya (f. 1912) and Sakurai Shokai (f. 1912) all emerged during this period. By then, catalogs, circulars, and advertisements for mail order included not only imported items such as watches, toys, telephones, and musical instruments, but also included weaponry (rifles and revolvers), and scientific and precision equipment (binoculars, microscope, and cameras).

However, most retailers combined store-front sales with catalog businesses. Tenshodo Printing (f.1879) of Ginza, Tokyo, for example, produced a mail order catalog in 1882 selling Japanese carved signature stamps, catering to the upper middle class including government officials, landlords, store owners, and industrialists. Tenshodo later expanded into importing watches, which they also sold through mail order. Itoki Corporation, a major office equipment

[10] The list included peaches, apples, raspberries, blackberries, strawberries, asparagus, horseradish, artichokes, pine trees, mulberries, apricots, tangerines, parsley, beans, peas, tomatoes, celeries, leeks, onions, and watermelons (Kurozumi, 1993).

and design firm today, was started by a trader in Osaka, Kijuro Ito, who traded imported business equipment over mail, including safes, typewriters, and staplers. Machinery, chemicals and insecticides were also traded by mail beginning 1906 by a spin-off of Maruyamasha (f.1890), a producer of machinery manufacturer and publishing house specializing in silk trade. Japan's largest bookseller, Maruzen (f.1869), began accepting mail orders for Encyclopedia Britannica in 1902, in conjunction with London Times Office in Japan, and received 1,125 orders from Japan's novelists, industrialists and entrepreneurs, over double the initial order limit of 500 sets. Maruzen also introduced multiple payment system, allowing customers to split payments up to 31 months.

Japan's newly established department stores also took an active part in mail order business; out of 87 department stores in the pre-World War II period, 21 had mail order operations. At the time, department stores were able to exploit the significant delay in fashion trends between urban and rural areas, and made handsome profits by selling unsold items to rural areas via mail order. Takashimaya was the first department store to start mail order in 1899, closely followed by Mitsukoshi, a kimono trader since 1673. Mitsukoshi produced a 365-page catalog, which included not only merchandise for sale, but also featured novels written by famous authors. By 1911, Mitsukoshi's mail order section had 70 employees, and was earning 20 percent of the total sales, and received an average of 700 orders daily. Orders came primarily from rural and remote areas, including Japan's then colonies (Korea, Taiwan, Manchuria and Sakhalin Island) catering to both military and civilian populations. Even in the prewar period, most urban residents did not respond well to catalogs.

Prewar Japanese government took particular interest in mail order business as a means to modernize traditional retailing, and commissioned various studies of mail order businesses of

Western European nations and the United States. These studies revealed that despite the initial modest success, mail order business faced a number of structural obstacles. In one of the government commissioned studies in 1908, it was already suggested that structural differences in retail trade between Japan and the United States would hamper the growth of Japan's mail order businesses. Among various impediments, the study identified the following problems; 1) Japan's densely populated spatial structure, 2) mistrust of merchants (including lack of returns, refund and exchange policies), 3) undeveloped printing technologies (a key instrument in enticing consumption in mail order business), 4) undeveloped postal system for distribution, and 5) inherently limited market size for Japanese language catalogs as compared with English-language catalogs.

After a quick climb, Japan's mail order business began the road to decline by the 1930s. The Great Depression and the subsequent collapse in consumer demand affected the business in a devastating manner. This coincided with the changing product demand, particularly in women's apparel, which was undergoing a dramatic transformation. Consumer tastes became increasingly segmented, resulting in heightened competition from store-front retailers. Increasingly urbanized population also hampered the inherent demand for mail order business. Despite these changes in the target markets, mail order businesses did not adapt their strategies sufficiently to continue growing. Furthermore, entry by a rising number of fraudulent and deceptive merchants in the business tarnished its reputation. Customer dissatisfaction rose, and profitability declined.

Mail order business in Japan never completely overcame the stigmatized image as deceptive practice, and never succeeded in generating demand from urban population during most of the postwar period. Similar to many European mail order businesses, Japan's postwar mail order businesses were considered a down-market activity, offering low-quality, low-cost goods. Government policy, friendly in the prewar period, turned hostile against nonstore retailing in the postwar period, and actively imposed tight regulations to place consumer protection the top priority, but the business climate was made to unfriendly for entering merchants. Also, department stores either terminated their mail order activity or downsized the business significantly in the 1930s, and most did not re-enter the market until the late 1980s.

Japan's mail order business began recovering some of its legitimacy only in the late 1980s, when the sector repackaged itself as an 'personal imports' intermediary, allowing individual consumers to purchase products from abroad (Yamaguchi, 1996). The prospects of personal imports captured the interest of the market segment that never had interests in catalogs: the urban, mid- to high-end consumers. Japanese consumers were particularly eager to purchase reasonably priced, quality items that domestic manufacturers did not produce at competitive prices and quality (especially outdoor gears and clothing, most notably L.L. Bean). Active interests of foreign firms in the Japanese market, and the strong yen of the mid-1990s also facilitated the expansion of mail order businesses.[11] Japan's wholesale and retail was considered as a structural impediment by American retailers which hampered their entry, and personal importing was seen as an efficient strategy to bypass unfamiliar distribution channels and high import tariffs.

Overseas catalog boom began in 1994 with much fanfare supported by both U.S. and Japanese governments. The U.S. Department of Commerce coordinated the American Catalog House in Osaka, and 120 U.S firms were represented. Manufactured Imports Promotion Organization (MIPRO), a non-profit organization set up by MITI, became designated as the primary agent in promoting foreign mail order businesses in Japan. However, sales began to slip in the matter of a few years once the fad- and novelty- factors faded. Foreign catalogs quickly saturated the tiny market of highly educated, risk-taking consumers willing to order from English language catalogs priced in dollars (Miyashita, 1999). In the meantime, the Japanese economy came to a virtual standstill, consumer demand plummeted, and the yen lost the previous purchasing power vis-à-vis the U.S. dollar. Major U.S. mail order companies, such as Saks Fifth Folio and J.C. Penney, have since retreated from the Japanese market. A survey conducted by Japan Direct Marketing Association in 1999 showed the use of foreign catalogs by consumers were at mere 3.7 percent of Japan's direct marketing business. Today, Japan's mail order market is less than 10 percent of the size of the U.S. mail order business market, and while the sales in the U.S. market grew at 12 percent in 1998, the sales in the Japanese market declined at 1.5 percent (*Direct Marketing,* 1999).

Thus, despite Japan's a history of non-store retailing for over a Century, the practice never amounted to an established and accepted pattern of trade. The business never made a successful transition from the prewar geographic-based marketing approach taking advantage of the urban-rural divide, to the upscale, target-marketing strategy represented by the postwar U.S. catalog houses. Consequently, when E-Commerce emerged, merchants in Japan had to begin developing a customer-base from the ground zero, without the already developed market for direct marketing.

The undeveloped market in direct marketing in Japan leads to a number of obstacles for a rapid E-Commerce adoption. On the supply side, because the mail order business never fully regained its prewar legitimacy, it was unsuccessful in developing a necessary set of institutional

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[11]Morganosky and Fernie (1999) discuss a similar process that took place in the UK mail order market,

attributes in supporting the widespread acceptance of non-store retailing. The interruption of half-a-century has resulted in the lapse of most know-how, skills, and the strategies developed for the business. In Japan, money-back guarantee is still unheard of, and return and exchange policies are rarely taken at face value for both store-front and non-store retailers. In some instances, Japan's department stores even refuse customers from trying on certain clothing items (such as pull-overs), claiming such practice can damage the merchandise. The use of return and exchange policies by consumers would promptly raise suspicion of fraud by retailers, and they are granted only in rare and extreme circumstances.

On the demand side, the lack of refund, return, and exchange policies makes already reluctant customers even more unwilling to engage in long distance purchase. Abundant store-front retailers in urban areas, and uncompetitive product-line offered by catalogs also do not encourage consumers to turn to non-store retailing. Because Japanese consumers never departed from, and are far more comfortable with, direct exchanges of cash with goods and services, exchange of a credit card number against a promise of a product represents a process involving multiple layers of new and unfamiliar practice. High communications and transportation costs, particularly before deregulations of the past few years, made nonstore retailing further uncompetitive. Thus, the absence of developed nonstore retailing sector in Japan makes it difficult for consumers and businesses alike to adopt E-Commerce. In Japan, retailing without storefronts, be it digital or non-digital, do not yet have the necessary institutional foundation, social legitimacy, and historical familiarity for a rapid proliferation. It is no surprise that Japan's retail sector opted for a completely different path for E-Commerce adoption and developed its own unique partnership, by combining E-Commerce with the most

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with the entrant of US mail order businesses such as L.L. Bean, Talbots, and Land's End.

successful segment of Japan's retail today, neighborhood convenience stores. In the following section, I trace the history of convenience store development, and show that the innovativeness of this retail sector became a natural seedbed for new types of retailing, including E-Commerce.

4. The Rise of the Convenience Store Chains

Convenience store concept was originated in the United States. Claude S. Dauley, a Texas ice-distributor since 1927, began carrying some dairy and food items, such as bread, milk and eggs, at his store upon customer requests. By 1947, it grew to a firm called Southland Corporation, which owned and operated 74 corners stores with long opening hours in Dallas areas. By then, the store concept was formalized as a co-op program through which all stores agreed to be open from 7am to 11pm, with the shared name, 7-Eleven stores (Sparks, 1995). The company expanded significantly in the 1950s and in the 1960s, first by opening stores in Florida, then in Washington, D.C., and expanded the market area to California through a take-over. By the end of 1960s, the number of stores grew to approximately 4,000 stores, and they were open 24 hours a day.

Beginning 1970s, Southland began opening stores abroad, mostly through licensing agreements. Canada and Mexico were the first areas of expansion, followed by Japan (1973), Australia (1976), United Kingdom (1977) and Taiwan (1979). The heyday of stand-alone convenience stores in the United States was in the 1970s and the 1980s. Seven Eleven chains peaked in terms of the number of stores in 1987, with over 8,000 stores nationwide (Sparks, 1995). The latter part of the 1980s saw the entrance of large-scale petroleum capital, which began setting up food marts in conjunction with gasoline stations. The stand-alone convenience stores counteracted gas station/food mart combination, by attempting diversification. However, diversification strategies failed and resulted in a series of bankruptcies; fourteen such companies filed for bankruptcies between 1989 and 1991 (Kotabe, 1995). Southland Corporation, the seventh largest retailer by 1985, was one of those companies who had filed for Chapter 11 bankruptcy protection during this period. In 1991, Ito-Yokado and Seven Eleven Japan bought Southland out of bankruptcy, and today controls 70 percent share of the company that granted them a license nearly 20 years ago.[12]

Convenience stores in the U.S. also faced multitudes of difficulties, and were unable to develop strategies to cope with stigmatized image through repeated burglaries, the declining sales of tobacco and beer from which they drew half of the revenue, as well as the shift in consumer preferences away from traditional snack foods (Kotabe, 1995; Berstein, 1997). Although innovative at the onset (with the most well-known example being Slurpee frozen carbonated drink), convenience stores failed to sustain its innovativeness. By the 1990s, innovations for convenience stores were being imported from Japan; Seven Eleven Japan introduced rapid inventory turnover, in which product line-ups were changed as often as 30 times a year, when U.S. counterparts were conducting turnover at the rate of 12 times a year (Kotabe, 1995).

For Japanese consumers, convenience stores are relatively new part of their lifestyle. Japan's convenience stores begin appearing some forty years after U.S. counterparts, and it began growing rapidly only after Ito-Yokado's licensing agreement with Southland to open 7-Eleven stores in Japan. Other retail chains followed suit and established their own franchise of convenience stores (see Table 3). Subsequently, the number of convenience stores grew dramatically from 500 in 1973 to 36,631 in 1997.

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[12]In the United States, there are 5,591 Seven Eleven stores (including licensed stores and those operated

Table 3
Major Convenience Store Chains in Japan

Name	Owner	Year Established	No. of Stores	Sales (In yen)
Seven Eleven Japan	Ito Yokado	1973	7,924 (1999/8)	1,950,000,000,000 (2000/2 est.)
Lawson	Daiei	1975	7,016 (1999/2)	1,157,200,000,000 (1999/2)
Daily Yamazaki	Yamazaki	1977	2,872 (1998/12)	381,100,000,000 (1998/12)
Sunkus	Uni	1980	2,371 (1999/2)	409,700,000,000 (1998/2)
Mini Stop	Jusco	1980	1,343 (1999/10)	172,856,000,000 (1999/2)
Family Mart	Seibu	1981	6,799 (1999/2)	758,222,000,000 (1999/2)
Circle K	Uni	1984	2,530 (1999/9)	406,769,000,000 (1999/3)
am/pm	Japan Energy	1990	1,003 (1998/4)	139,000,000,000 (1998/3)

Sources: Compiled with data provided by Official Web Pages of companies, 1999.

Convenience stores in Japan average around 100 square meters (1,076 square feet) and are larger than typical mom-and-pop retail establishments in Japan, but far smaller than average U.S. counterparts, which are typically between 2,400 and 3,000 square feet in size.[13] Over 70 percent of convenience stores in Japan are franchised, and top 3 chains control nearly three-fifth of the convenience store establishments in Japan.[14] Japan's largest convenience store chain, Seven-Eleven Japan, franchises nearly 8,000 stores nationwide, serves on average 960 customers daily per store, with the estimated annual sales of US$2 trillion (1999 Fiscal Year), equaling 31 percent of the total net sales of convenience stores in Japan. The firm's market value in 1999 exceeds that of major US retail chains such as Walgreen and Safeway.[15]

by affiliates) up from 5,428 stores in 1997 (Annual Report, 1997, 1998).
[13]Data provided by 7-Eleven, Inc. (2000).
[14]Data provided by Jutaku Shimpo, 1999.
[15]Based on the figure provided by Seven Eleven Japan, Annual Report 1999, estimated by Morgan Stanley with the exchange rate on March 31, 1999.

Franchising provides a combination of independence and security, which fit well with the mentality of most contemporary Japanese workers who have become highly risk-averse and anti-entrepreneurial in the postwar period. Although franchise stores are independently owned, they are required to pay a significant loyalty fee to the chain (some up to 40 percent of the store revenue), and in return, the chain provides assistance almost daily to newly opened stores until owners learn the trade.[16] The chains provide storefront design, product delivery, information systems, as well as detailed management know-how (inventory control, use of point-of-sale (POS) system, shelf layout, and customer relations), and personnel training (including training of part-time workers, crime prevention program).[17] The storeowner is primarily responsible for handling orders, and hiring and training of part-time workers.[18]

A survey conducted by Japan Institute of Labor (1995) on prior work experience of franchise owners shows that approximately half of them were wage earners (most in retail trade), while the other half owned independent retail stores (most frequently, liquor stores). Those who switched from wage-earning jobs did so to seek a greater degree of independence, but also were attracted to the significant assistance provided by the chain. Those who switched from operating independent mom-and-pop stores saw the exponential growth of convenience stores, and simultaneously saw the limit in future growth of their existing establishment.

The implications of widespread franchising should be considered carefully. [19] On the

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[16]Other types of chain stores include voluntary chain stores and regular chain stores. Voluntary chain stores are typically consortiums of independently operated stores. Regular chain stores are limited in numbers, and are directly owned and operated typically by franchisers and are used as model stores, where they launch experimental products/services and train new storeowners and employees.
[17]Survey by Japan Institute of Labor reported that for all franchises, store visits by franchise supervisors average 6.7 times/month.
[18]Owner's spouse and family members are typically part of the labor force, in addition to 14.4 part-time workers, who are typically either male college students or married women in their 30s and 40s.
[19]The survey by Japan Institute of Labor (1995) shows that storeowners have experienced at least 2 change-of-jobs in their lifetime, which is beyond the norm among the more privileged, white-collar

one hand, the partnership provided retail innovation lacking in Japan. By injecting new competition in the retail sector, franchise functioned as a catalyst for innovation and long-overdue retail revolution. Also, franchising saved those mom-and-pop stores that can no longer survive on their own (especially those which had exclusive rice or liquor licenses before deregulation). On the other hand, franchising eroded control by individual retailers, resulting in an increasing standardization of storefronts across the nation. The presence of convenience stores may therefore involve the risk of further accelerating the demise of traditional, independently operated, mom-and-pop stores, which no longer were able to compete with the new and innovative networked chain.

5. Retail Innovation And E-Commerce Alliances By Japan's Convenience Stores

Japanese convenience store's primary cause of success is in part structural, created by the regulatory framework, and in part due to their innovative strategies (Bernstein, 1997; Hashimoto, 1999). In 1973, Large Scale Retail Law was enacted to restrict activities of large-scale retailers in order to protect small retailers.[20] Although this law was designed to protect Japan's numerous mom-and-pop stores and preserve inner city commercial districts, they instead provided incentives for large retailers to seek loopholes. Large retailers turned to franchising, which effectively combined large-scale capital with small size, independently owned

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workers in Japan. Three out of 5 convenience store owners earn less than their wage-earning counterparts. The average working hours is 65 hours per week, with the average duration of hours at 16 hours per day, with half of the storeowners surveyed reported that they work continuously for more than 12 hours. Over three quarters of the owners surveyed had less than one day-off per week, and over a quarter reported that they have no day-offs. Also, typical to those industries that rely on large proportion of part-time workers, scheduling problem has led to 38 percent of storeowners in Tokyo to handle 2 unscheduled night shifts per month.

[20]These laws restricted hours of operation for most large-scale grocery stores at the national level, and at regional levels, prefectures regulated the entry of large retailers by restricting new entrants by floor-size.

operations.[21]

Japan's convenience stores were innovative particularly in three fronts: in terms of their locational strategy, their marketing strategy, and their strategy to adopt information-technologies. The locational strategy adopted by Japan's convenience stores was decidedly urban: the chains initially focused on opening stores with close proximity to each other in the largest of the metropolitan areas. This was done in order to maximize distribution efficiency and minimize delivery routes. Convenience stores' smaller-than-supermarket floor space enabled them to strategically locate stores in high-density urban areas, thus providing advantages over supermarkets in terms of access. Japan's typical urban consumers shop in small volumes and more frequently than American counterparts. Since consumers are more likely to walk or bicycle to a nearby grocery store or drop by a store after work en route from a nearby train or subway station, occupying strategic urban locations is the single-most important factor for successful retail performance in Japan. Furthermore, due to limited housing size and high energy cost, most households did not own large-size refrigerators until recently, thus necessitating frequent restocking. Lack of storage space provided no incentive for customers to shop at large-volume, discount stores that are popular in the United States.

Convenience stores represented the revolutionary change in the Japanese retail sector where multi-sectoral retailing is relatively new. In addition to the deliberate locational strategy, Japan's convenience stores employed a strategic marketing focus. Unlike convenience stores in the United States, which relied on gasoline, alcohol and tobacco products for half of their sales, Japan's convenience stores draw half of their sales from deli, dairy, bakery and lunch boxes (Sparks, 1995; Bernstein, 1997). For Japan's post-bubble, economy-minded office workers,

[21]Coincidentally, franchise was promoted by Japan's Small and Medium-size Enterprise Agency (SMEA)

lunch boxes at a convenience store became an economical alternative to lunches served at restaurants. Convenience stores are particularly important for workers employed by small businesses who are without access to subsidized cafeteria common to large businesses. Individual-size food items were developed in order to respond to the demand from increasing single-person households in urban areas from the yuppies to the elderly. Furthermore, by adding a variety of services, convenience stores function as a one-stop shop for a variety of daily necessities. While picking up food items, customers can also pay utility bills, use coin-operated copy machines, send a fax, or arrange a parcel delivery.[22]

Convenience stores are not just the trendsetters in Japan's otherwise highly inefficient distribution sector, but also have become trailblazers in adopting information technologies, thereby significantly consumption patterns by aggressively making use of the information networks. The combination of convenience stores and E-Commerce has eliminated the society-specific disadvantage, such as relatively low PC ownership and high cost of access, and turned it into opportunities by shifting what used to be a 'discontinuous innovation' for Japanese consumers to 'continuous innovation,' adding onto consumption practices already familiar to Japanese shoppers.

Japan's convenience stores are known for the disproportionately large investment on information technologies per floor space than any other forms of retail outlets in Japan. Convenience stores initially invested heavily on information technologies with a sole purpose of improving delivery efficiency (Hashimoto, 1998). To shorten the time required for restocking,

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at the time, as policy makers considered it as a strategy to maintain small retailers.

[22]In part due to the success of convenience stores in providing office services, convenience stores effectively eliminated business opportunities for specialized office service outlets popular in the United States, such as Kinko's and Mailboxes, etc. Kinko's operate a dozen outlets in Tokyo, but they cater

the point-of-sale (POS) system was developed by Seven Eleven Japan in 1982. At this stage, information networks were used simply as an instrument for delivery trip rationalization and cost reduction. Reduction in delivery routes was further reinforced by bundling product delivery by required storage temperatures. For example, Seven Eleven Japan currently owns 250 distribution centers, which are classified by product's storage temperatures: at 41 degrees Fahrenheit (55 centers for refrigerated items), at 68 degrees (56 centers for rice dishes), at –4 degrees (47 centers for frozen item), and no temperature control (92 centers for beer, other alcoholic beverages, and canned foods). Through restructuring the delivery routes, Seven Eleven Japan reduced the daily restocking trips per store from the average of 70 in 1974 to 9 by the early 1990s, thereby dramatically reducing delivery costs.

Once the information infrastructure was in place, however, convenience stores quickly realized that the same network could be used to gather customer information. The second stage of informatization thus involves the use of the network for market research purposes. Information is used to determine the variety and the amount of products on the shelf for each store. They developed cash registers that require cashiers to press the button representing gender and the estimated age bracket of the customer in order to open the cash register drawer and provide change and a receipt. The information that includes the item of purchase, the gender/age of the customer, and time of purchase is then relayed back to the headquarters, which is used to order restocking, and to add to the database on consumption patterns for different stores. Rather than identifying the specific market and time of purchase, however, this system is most useful in identifying slow-circulating products. By identifying and eliminating slow-selling products, stores are able to identify and stock only fast-selling products, and thereby

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almost exclusively to traveling business professionals, by locating in the central business district or near making shelf space available for new products. In part because of this system, convenience stores have served as experimental grounds for a variety of new products (typically processed food items), which resulted in their reputation as trendsetters in Japan's retail sector.

The convenience store chains realized the potential of offering E-Commerce through the network, only after the information system was already in place. By using their already present ISDN network, convenience stores began delivery of new on-line based services.[23] Seven Eleven Japan began experimenting with on-line utility bill payment system as early as 1987. Today, it offers online utility bill payment system with bills payable to 126 utility companies including telephone, gas, electricity, and water.[24] In a country where personal checks are non-existent and credit cards are seldom used, utility bill payments were done exclusively through bank transfers until convenience store chains began offering the service.

Preceding the involvement in E-Commerce, Seven Eleven Japan also experimented with 'personal imports' through mail order business just as other catalog houses in the early 1990s. Labeled as "Shop America", this service attracted as many as 300,000 subscribers at one point. Catalogs showcasing merchandises from the United States were distributed, and orders were accepted only at Seven Eleven stores, and their ISDN network was used to transmit orders (Spark, 1995). Today, Seven Eleven Japan offers a variety of services, including parcel delivery, ATM access, and life insurance packages. Also through their network, it sells electronically transmittable products, such as game software, music, and electronic books. Seven Eleven Japan announced a triangle alliance between Internet firm and book wholesaler in June, 1999, and together they plan to set up a book-delivery service, called e-books (Seven

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large hotels with international clients.

[23]Based on an interview with Professor K. Hashimoto, Osaka Gakuin University, December 4, 1999.

[24]Data provided by Seven Eleven Japan (http://info.sej.co.jp/).

Eleven Japan, 1999b). Following this move, FamilyMart announced a consortium of five firms to develop its own E-Commerce service in January, 2000. Lawson, which already has its own E-Commerce website, also announced an alliance with Mitsubishi trading company to solidify its footings in E-Commerce during the same month.

Multiple alliances between convenience stores and E-Commerce vendors further increase the product variety. Convenience stores have already began performing the functions of travel agency by allowing customers to book a flight, purchase domestic or international package tours, and reserve last minute hotel rooms at a discount rate. Customers can purchase discount airline tickets via the internet, pay cash at a local convenience store, and the flight coupon is delivered to the store for a pick-up. Seven Eleven Japan also announced the joint venture between Sony Corp., called 7dream.com, that offer travel packages, music, books, and other goods on-line, starting fall, 2000, and it has also forged an alliance with CarPoint, the world's largest internet automobile dealer (Landers, 2000).

Convenience stores' ubiquitous locations and their information network combined are attracting brick-and-mortar stores to seek alliances. Upon realizing that consumers frequent convenience stores even if they have kept away from more expensive, specialized retailers, department stores began courting convenience stores as an intermediary to reach more customers for the annual year-end gift packages, a traditional practice of gift-giving in Japan. Instead of traveling to a department store in urban centers, customers can avoid the lines, the crowd, and traffic congestions, and pick out a department store-grade gift package from a catalog and order it at a neighborhood convenience store, pay cash, and the order is relayed via the information network.

Convenience stores have therefore become an effective intermediary between traditional retailing and E-Commerce in a manner that has not been observed in the U.S. Combining retail storefronts with E-Commerce in this manner provides the option that can overcome existing social and institutional constraints and simultaneously offer new possibilities for further growth in the retail sector. For Japanese consumers who were not accustomed to the practice of long-distance shopping, convenience stores provides face-to-face interactions at each of their local storefronts, thereby reducing consumer anxiety, increasing legitimacy of non-store retailers associated with convenience stores, and make the service and product delivery far more user-friendly. With the convenience store functioning as a financial as well as distribution intermediary, it provides easy access and legitimacy to on-line retailers and bypasses all security concerns that surround online transactions.

The future of the convenience stores and its partnership with E-Commerce lies in whether they can effectively mediate with other on-going forces and capture the majority share of E-Commerce activities. The major challenges for convenience stores will come from the competition from cellular phone-based internet access. In May, 2000, Fujitsu announced that it will begin cell phone based E-Commerce from December, 2000. Consumers will select products from catalogs, info-mercials, or in-store advertisements, and order by plugging in information on the cell phone (Nikkei News, May 2000). Fujitsu is expecting 12 million users by year 2004. On the other hand, convenience store-based E-Commerce is getting strengthened by further involvement by manufacturers. For example, Toyota just announced an involvement in convenience store based E-Commerce by making new model information available.

6. Conclusion

In a society without a widespread PC ownership, low cost internet access, and accepted practice of non-store retailing, diffusion of Electronic Commerce would have posed significant constraints. However, as this paper has shown, Japan's E-Commerce providers are seeking alternative avenues for consumer adoption by forging alliances with the most successful segment of the retail sector, convenience stores. Although this partnership seemed unlikely in the outset, the historically rooted barriers against nonstore retailing in general, and the innovative capability of the convenience store retailing combined suggests that this type of digital-storefront partnership is a rather natural organizational consequence in the Japanese retail sector. This example showed that potentially, existing retail structure can provide a powerful force in determining dominant institutions and business practices, which can in turn shape the development of a particular form of next generation retailing, including E-Commerce. Consumer behavior has largely been considered a passive recipient of technological change, but in fact consumers' habits and orientations can alter the ways in which new technologies are introduced to a market. Factors that are important to consumers, such as convenience and familiarity, are in turn shaped by the relative strength and historical trajectory of the retail sector.

The new partnership between corner stores and E-Commerce poses theoretical implications in our understanding of how a society employs and adopts a new technological option. The partnership between convenience stores and E-Commerce provides an alternative model of information technology use. Although technological adoption by consumers is more often than not associated with costs and knowledge level of the population, retail organizational characteristics can also play a significant role. The Japanese example suggests the E-Commerce can develop with an alternative means of internet access. For Japanese consumers, using E-Commerce in the same manner used by American consumers means adopting new business practices and consumer behavior that comes with the technology, and having to institute necessary infrastructure and regulations that facilitate this mode of exchange. Accessing E-Commerce through neighborhood corner stores means eliminating the issue of unequal access. By making E-Commerce an activity combined with a neighborhood store, it provides a greater access to consumers regardless of economic status, technological knowledge and home PC ownership. The current E-Commerce development in Japan therefore shows that social consequences of technological impacts are by no means set to a certain inevitable path.

The development of E-Commerce also prompts a re-examination of the assumptions on emerging urban spatial form as a result of technological development. The partnership between E-Commerce and neighborhood convenience stores may help retain commercial activities at the urban core, with convenience stores serving as sources of pedestrian traffic. Just as in the United States, suburban outlet malls have become popular shopping destinations for young Japanese consumers. Convenience stores can function as an important countertrend to retail suburbanization, and can serve as new magnets for the emerging urban cultural landscape. The partnership between corner stores and E-Commerce can not only benefit cities by stimulating economic growth, but also ensures the sense of community that rise out of frequent, face-to-face retailing, thereby facilitating the survival of many urban commercial districts whose livelihood has been endangered in recent decades.[25] By having convenience stores as magnets of pedestrian traffic, some commercial zones in inner-city areas may have prevented further decline. Used in a certain manner, E-Commerce can in fact be a means of bringing back life to some urban commercial districts. The partnership would not only impact the youth culture, but can also help improve the quality of life for those without access to automobiles, particularly those

[25]Decline of traditional commercial zones has become an issue especially after 1988 (MITI, 1999c).

raising young children, and Japan's elderly population, more of whom are living alone in urban areas. Thus, the combination of convenience stores and E-Commerce not offers a new way of complementing traditional face-to-face retailing. It suggests that spatial consequences of a technology are not always uniform across societies.

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