

Consumers as Inventory Holders

: Consumers' Purchasing-Consuming Cycle Approach

Hisao FUJIMOTO

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ABSTRACT

The answer to a question “Who are the inventory holders?” may be as follows. Inventory holders are institutions like manufacturers, wholesalers, and retailers. Inventory models in macro and micro economics and inventory management almost treat inventories of firms. In distribution channel theory, consumers are included as distribution channel members in the whole distribution channels of consumer goods. It is because the factors determining members are the allotment of distribution functions as transaction, transportation, inventory, and information exchange.

This paper explores the importance of consumers' inventory for distribution channels. For this purpose, this study approaches consumers' shopping behavior and purchasing-consuming cycle, and the changing relationships between distribution channel members in Japan. It is because these factors have strong effects on consumers' inventory holdings. In addition, this study based on a buying behavior model and the data of local consumers' buying behavior of Japanese consumers, especially focusing on elderly people, suggests that Japanese consumers can offer business opportunities to local small retailers for local consumers.

1. Introduction

After 1980, Japanese retail sector has been facing the continuous decline of the number of small retailers. Many small retailers are alert to the concerns and needs of residents. In other words, they have to know local residents and what are their satiation in purchasing goods. Knowing something about residents' attitude and behavior with regard to their interests and opinions of community will enhance retailers' ability to target viable segments efficiently.

The purpose of this paper is to explore the importance of inventory holding of consumers approaching from their shopping behavior and purchasing-consuming cycles. In the next two sections, the structure of Japanese retail sector is briefly surveyed and the distribution functions are discussed. In the following section, the characteristics of Japanese consumers' shopping behavior. After that, the consumer shopping behavior and purchasing-consuming cycles are classified into several types based on the reconsideration of retail services. The classification will be taken by identifying two dimensions: space and time. Based on this classification, the pattern of a consumer's shopping behavior with the aspect of age and mobility is described. Especially, the study will focus on discussing elderly consumers' characteristics with referring to the classification model. It is also discussed the relationship between the characteristics of the local retailers, and the characteristics of consumers' shopping behavior on the field research data in several local governments. In the concluding section, the findings and for future research to reconsider the consumer shopping behavior and their inventory holding with the retail market structure are discussed.

2. Brief Overview of Retail Structure and Consumer Market in Japan

The number of retailers in Japan had been in the upward until 1982. Since then the number had continuously been falling. Although the data of the research in 2014 is the recent official reliable data, it can be supposed that this downward trend has been continuing. It had reduced down to 775,196 in 2014 from 1,721,465 in 1982. About 55% of retail stores had been out of business during this period.

While the number of incorporated retail stores had been slowly decreasing after the peak

Table 1. The Number of Retailers in Japan

Years	Total Number of Retail Stores	Incorporated Establishments	Small Stores (with 1–4 employees)
1962	1,127,975	139,533	1,147,159
1972	1,495,510	265,686	1,276,647
1982	1,721,465	435,822	1,448,747
1985	1,628,644	449,309	1,348,201
1988	1,619,752	503,728	1,296,444
1991	1,591,223	564,642	1,264,135
1994	1,499,948	581,207	1,135,716
1997	1,419,696	586,627	1,059,305
1999	1,406,884	607,401	1,002,179
2002	1,300,057	583,899	901,009
2004	1,238,049	578,426	852,876
2007	1,137,859	565,969	775,529
2014	775,196	448,842	485,269

Source: Japan Census of Commerce

in 1999, the trend of small retailers had moved almost in accordance with the movements of total number of retailers (see Table 1). In spite of this tendency, it suggests that the retail structure in Japan still has been dominantly consisted of small retailers. This fact has been characterizing Japanese retail market structure as the excessiveness and smallness for long time.

The growth of incorporated retail stores in Japan did not mean the increasing pressures of retail competition until 1982. However, that year was a turning point. Small retail stores have been decreasing since then. After 1999 with the decreasing phase of incorporated retailers, the retail competition can be supposed to put on pressures to all retailers. It is proven by the fact of the merger and acquisition of large retailers and the continuing decreasing of small retailers. In addition to the economic depression, the changing of Japanese consumers' life style and their buying behavior has influenced on the retail structure considerably. Among them, the growth of convenience stores and Web retailers have a strong competitive pressure to local small retailers. Many marketing researchers have produced various concepts and theories on this matter. In next section, we will discuss these concepts.

3. Types of Retail Services

In considering retail function, arguments on “concepts of retail products” may give us very instructive suggestions. Some argued that retailers produce services as “their own products” (Bliss, 1988; Betancourt and Gautschi, 1992). Although it is difficult to reach an agreement on this issue, these concepts reliably work on understanding how a consumer chooses retail stores.

Bucklin (1963) and Tamura (1982) defined that retailers provide “retail services” for consumers. According to them, these services can be classified into the following four types:

- (1) Reduction of buying lots: Manufacturers and producers ship their goods in large-scale lots. Retailers sell these goods in small lots to be accepted by consumers.
- (2) Shortening of trading and delivering time: If consumers directly trade with manufacturers and producers of goods, it will take them a long time to finish trading. Retailers can shorten this time.
- (3) Assortment of goods: Assortment at retail store eases consumers to make comparisons of and buy many kinds of goods.
- (4) Providing of accessibility: Retailers can locate their stores near consumers’ residents, and provide consumers with the accessibility for goods. It increases their buying chance.

It is important that consumers can also provide these services. In other words, consumers can decide to what extent they receive these services from retailer. If consumers receive considerable part of retail services, they can get goods easily. In this case, they have to pay much, because these service cost has to be added to the price of goods. If not so, they have to bear every effort and can get goods much cheaper. Consumers have choices to what extent they buy or undertake these retail services. Their decision on retail services will be connected with their store choices as a result.

To consider the small retailers and their market structures, we examine how this matter relates to the “product classification theory”. Copeland (1923) provided the idea that consumer buying behaviors held many of the keys for understanding how retailers should market their products and locate their stores. His approach has been a base for the improvement

of the model, and several researchers aroused controversies on this subject. Especially, their arguments concentrated in the criterion to classify the types of products. As a result, they agreed that the cost of search and buying trip is the key factor. Holton (1962) derived the difference between convenience and shopping goods from a continuum defined by the consumer's perceptions of the costs and benefits from a comparison of the price and quality of goods. Convenience goods, for which the net benefit from cost was negative, positioned at the one pole. Shopping goods, for which there was a net payoff from cost, positioned at the other. Paradoxically, his idea suggested that when consumers perceive these costs equally for every shopping, the classification has no meaning. For example, the development of the suburban life and motorization makes consumers perceive these costs equally (Berry and Parr 1988). People living in the suburbs usually drive cars for every shopping, and their cost perceptions that define the difference between convenience and shopping goods may become ambiguous.

Actually, these changes of the consumers' lifestyle affect the structure of retail districts. Comparing with above-mentioned "retail service types", however, the motorization can only compensate for the "providing of accessibility". Whereas the accessibility is a very important aspect for analyzing consumer buying behaviors, it is a just one of them. A many-sided theoretical approach will be needed to examine consumers buying behaviors.

4. Distribution Functions and Inventory

In modern economy, production and consumption are structurally divided. It means that production and consumption have to be bridged. However, this bridge between production and consumption is not so simple. In distribution channel theory, this bridge is performed by the adjustment process, which bridges gaps between production and consumption. They are called distribution functions. What gaps are exist between production and consumption? Four gaps are assumed in distribution channel theory. (Tamura 2001) They are: 1) gap of ownership, 2) gap of place, 3) gap of time, and 4) gap of information. Among of these gaps and functions, gaps of place and time are assumed to be related to inventory, because these are called physical distribution functions.

Consumer goods move between each stages of distribution channel from manufacturers to

consumers. In other words, consumer goods are transacted with the moving phase as “flow” and the staying phase as “stock”. When consumers purchase goods from retailers in the last stage between retailers and consumers, goods will be inventories of consumers till they will consume these goods. When the inventories of consumers are considered from this point of view, we can find several issues of consumers’ inventories. It can be several aspects of consumers’ purchasing and consuming behaviors. In the next section, we will propose an approach to explore this issue.

5. Conceptual Model of Consumer Purchasing and Consuming Behavior

Purchasing and Consuming Interval

First, the consumption interval aspect of consumer purchasing behavior is considered. Consumers are thought to make their purchasing plan before shopping. Considering whether their buying actions are done as designed or not is an important criterion, because the buying plan prescribes the consumption interval of goods.

The purchasing and consuming interval consists of three time stages:

- (1) Time stage of decision to what goods or brands should buy.
- (2) Time stage of action to go shopping to get goods.
- (3) Time stage of using and consuming the goods.

Especially, the first time stage is decisive on this issue, and two factors have effect on this stage. The first factor is the “sense of stock in house”. If a consumer lays stress on the extent of the stock of goods in house, the purchasing plan on these goods is designed as a long-range and firm schedule. In this case, his purchasing action will become very speculative, and he may purchase a large amount of these goods to avoid the shortage of these goods. If not so, the buying plan can be easily changed.

The second factor is “the synchronization of the consumption interval between goods”. In generally, a consumer buys many kinds of goods at one shopping, because the shopping trip cost per one goods can be decreased. The more a consumer purchases many goods at one time, the more he can be benefited over the shopping cost. In short, a consumer may synchronize his consumption intervals of many kinds of goods to make an efficient buying

plan. In this case, his action is also speculative, and the frequency of shopping trips can be reduced. It results in the situation that consumers will have various inventories when the synchronization of the consumption interval between goods will be low.

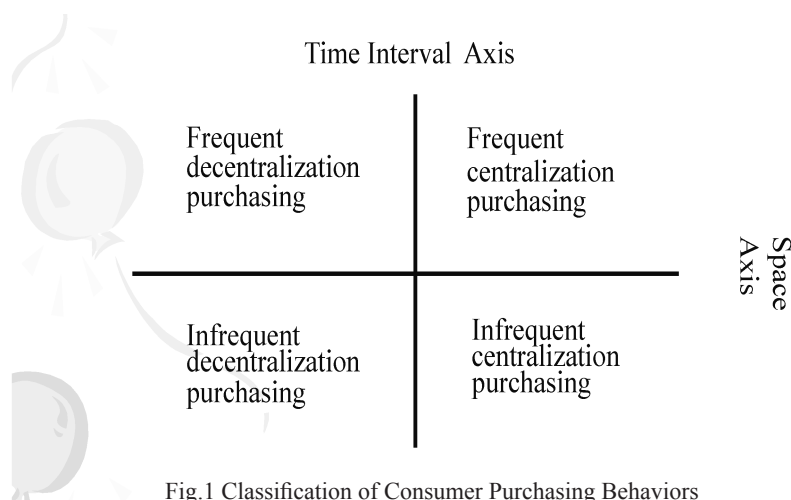
Classification of Consumer Purchasing Behavior

Keeping above-mentioned analytical aspects in mind, we will proceed to the next step to classify the consumer purchasing behavior. This is accomplished by identifying two dimensions: “the axis of space” and “the axis of time”. The space axis is a criterion of judgment on consumer’s accessibility to retail store. At one side of this dimension is the “decentralization”, which means the store’s location to be decentralized in a given market area. When a consumer chooses a store located close to him, it reflects that he lays stress on the accessibility. At the opposite side is the “centralization”, which means the centralized retail location, as a commercial center or shopping center, at one district in a given market area.

The type of consumption interval is determined by time dimension. When the interval is short, it is categorized as the “frequent purchasing”. If the interval is relatively long, it is assumed the “infrequent purchasing”.

As depicted in Fig. 1, with these dimensions, the consumer purchasing behavior can be divided into following four types:

- (1) *Frequent centralization purchasing*: In this pattern, consumers have shorter shopping intervals. They will purchase several kinds of goods, which can be available in a given trip. This can be possible on the high mobility and planning of consumers.
- (2) *Frequent decentralization purchasing*: This pattern is different from the above in the high accessibility for retail stores. Consumers visit neighboring stores more frequently, and the average money spent per trip may be low. It is recognized as a typical daily shopping behavior for perishable and daily goods with the short consumer lead-time.
- (3) *Infrequent centralization purchasing*: In this pattern, consumers spend more money and purchase various kinds and lots of goods in a given trip. This type used to be recognized as a kind of “one stop shopping”. It may be scheduled on the consuming and shopping plan.



- (4) *Infrequent decentralization purchasing*: This pattern can be recognized as the “hand to mouth purchasing”. In this case, consumers have no shopping interval plan for goods, and they buy it at neighboring store when they need it. Almost impulse buying behaviors will be included in this pattern.

It is important that this classification also has the relationship with retail services provided and characteristics of consumer goods.

6. Characteristics of Japanese Consumer Behavior

Frequency and Mobility of Japanese Consumers

In order to explain the reasons that the number of small retailers could occupy the majority in Japanese retail structure for long time, some researchers have introduced several consumer behavior approaches.

For example, Maruyama (1992) and Naryuu (1994) insist that Japanese consumers have a strong taste for fresh products, such as raw fish and fresh vegetables, instead of processed foods like canned or frozen foods. All the products are perishable, preserved only for a short period of time even in a refrigerator. They also argue that the average house space in Japan is generally narrow, therefore, the cost of inventory stock of goods in house is rather high.

Because of these points, they conclude that Japanese consumers go shopping frequently in small lots at each purchase. It leads to the retail structure with a large number of small retailers densely located near to residential area.

Their model apparently assumes that Japanese consumers carry out shopping by foot. However, motorization in Japanese society had been developed enough. As in other countries, many consumers use cars for daily shopping and go to giant retail stores beyond the local marketplace. It means that local small retailers in one district have to compete with giant stores located in the same district and/or outside of it.

One more important fact is that many Japanese women get their own jobs. In generally, housewives living in developed countries tend to purchase many goods on one stop shopping. Their rate of occupation is rather high and their opportunity cost for shopping also has become high, because many Japanese women still bear the work of shopping even if they have a job. This can explain that these shoppers are the less frequent shoppers, and their shopping trips should be well planned in advance of visiting stores. They try to simplify their

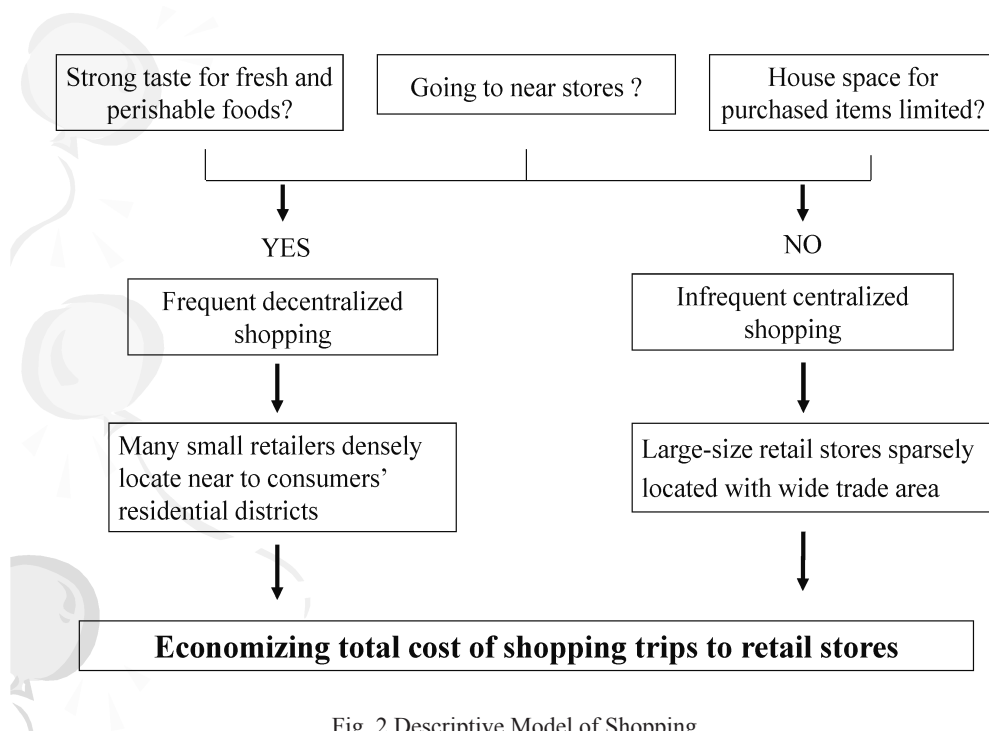


Fig. 2 Descriptive Model of Shopping

trips and to reduce the number of stores they plan to visit. As a result, they prefer the “one-stop shopping” at shopping centers and /or large stores. The consumers’ shopping pattern, which can be grouped as the “frequent centralization purchasing” and the “infrequent centralization purchasing”, can be supposed to have the effect to reduce the survival rate of local small retailers. Fig. 2 depicts a descriptive model by a comparison of “frequent decentralization purchasing” and “infrequent centralization purchasing”.

Elderly Consumers as Potential Customers

Although many small retailers face with the difficulty in business, they must be responsive to the changing circumstances. They should develop effective strategies by focusing on a specific segment of the consumer market. These strategies may bring small retailers a new point of view to search more effective activities and service offerings.

The first step of searching effective strategies is to analyze the characteristics of potential customers. Small rural markets are attracting attentions of retailers (Miller 1986; Bergmann 1998; Kean et al. 1998). Several demographic data also show the importance of the elderly segments for marketers. There are an increasing number of elderly people in Japan. The Ministry of Health and Wealth reported that 26.7% of the Japanese population was occupied by the people over 65 years old in 2015.

In many Japanese communities, elderly residents can be viable customers. Retailers that understand the importance of the elderly segment in retail markets will take the advantage in planning successful marketing strategies and expanding their market share. In generally, consumers purchasing behaviors depend on their frequency of going out. According to the survey data of several local governments, over 30% consumers go out to shopping every day for fresh foods.

Several survey research of local governments report this inference. (see Table 2)

Other survey reports of local governments find that retailers’ accessibility because of their closeness occupies almost the top reason to visit local stores. Compared with 10 years before, the ratio of using private cars as the means of transportation has been increasing, the consumer shopping behavior by walk and bicycle still occupies a stable position.

The result of inconvenience and anxiety which the local people feel in their living region

Table 2. Frequency of Shopping in Tokyo, Yokohama, and Okinawa

Frequency	Tokyo (2016)	Yokohama (2013)	Okinawa (2015)
Everyday	25.8	10.9	6.1
3-4days in a week	34.9	22.4	17.4
1-2days in a week	33.3	17.2	25.7
Once in a week	-		14
Once in 2 weeks	-	13.2	-
1-2 days in a month	-	5.6	20.3

(%)

Source: Survey Report of Consumers' Purchasing Behavior in Tokyo, Yokohama, and Okinawa

also shows that “Inconvenience for shopping in daily life” occupies the important issue for them.

Based on the discussions mentioned above, it can be said that Japanese consumers still go shopping frequently, and purchase a small lots at each purchasing for foods and daily goods. The total cost of such purchasing behavior will be much lower, when the distance of each shopping trip is comparatively short. This aspect of shopping cost explains an economic reason why the Japanese traditional retail structure with a number of small retailers densely located in a given area has been maintained (Fujimoto, Sasakawa, and Kubo 1999). With the classification of this study, almost Japanese consumer's purchasing behavior still can be categorized as the “frequent decentralization purchasing”. This purchasing behavior means short purchasing cycles and results in small inventories for these consumer goods related to short consumption cycles. Japanese consumers have a strong taste for fresh products. Although the young Japanese favor processed foods ready for eat, a taste of elderly people for fresh foods is still strong. Another important aspect is that elderly consumers are small eaters. They do not need a large volume of foods for each meal. It also another reason for their small inventories and frequent purchasing behavior. The amount of inventories of foods will be smaller in elderly peoples' households compared with the more inventories in young generations' households with prepackaged meals like frozen and dried foods convenient to stock and eat.

7. Concluding Remarks

Under the changing business environments for retailers in Japan, the traditional retail structure with a large number of small retailers densely located near to the residents seems to have been losing its economic rational. In order to overcome this difficulty, local small retailers have to focus their attention on the particular consumer segments to develop effective strategies. In this paper, the author tried to classify the consumer purchasing behavior as a base for developing inventory issues including consumers as inventory holders.

As the result, consumers who carry out the “frequent decentralization purchasing” are congenial to small residential retailers. These consumers tend to complete their daily shopping within their local communities.

The study suggests that elderly consumers can be a promising segment to become potential customers for local small retailers. Their behavior can be classified into the “frequent decentralization purchasing”. They may be not so conscious of price, but conscious of high level services. Small retailers can provide them with many kinds of services as important social supports. Several small retailers already have begun to recognize the importance of elderly consumers and grapple with new retail services such as the convenient ordering and delivery systems.

The economic activities involved in the consumer-retailer exchange are embedded in the community’s social structure. Rural small retailers are encouraged to focus on a specific segment that has a majority in the community, and to increase their own involvement in community activities. Elderly consumers who have been occupying a large part of economic and social minorities called as “shopping loser and shopping refugee” will become the important segment of market and this important issue has been forced to our society in 21st century. Especially for the frequent decentralization purchasing consumers, rural retailers not only offer a convenience of shopping and services, but also opportunities for reducing inventories for consumers as functioning as substitute inventory holding institutions. It will also change the inventory holding system in distribution channel including consumers’ inventory in future.

REFERENCES

- Bergmann, J. (1998), "Small Markets Are Attracting More Retailers", *Discount Merchandiser* 38 (5) (May): 42-44.
- Berry, B. J. L. and Parr, J. B. (1988), *Market Centers and Retail Location: Theory and Applications*, Prentice Hall, Englewood Cliffs, NJ.
- Betancourt, R. R., and Gautschi, D. (1990), "Demand Complementarities, Household Production and Retail Assortments", *Marketing Science* 9 (2) (Spring1990): 146-161.
- Betancourt, R. R., and Gautschi, D. (1992), "The Demand for Retail Products and the Household Production model: New viewson complementarity and substitutability", *Journal of Economic Behavior and Organization* 17 (2) (March): 257-275.
- Bucklin, L. P. (1963), "Retail Strategy and the Classification of Consumer Goods", *Journal of Marketing* 27 (1) (January): 50-55.
- Cabinet Office (2016), *White Paper of Aging Society (Kourei Shakai Hakusho)*, Web (URL: http://www8.cao.go.jp/kourei/whitepaper/w-2016/zenbun/28pdf_index.html 閲覧日 2016年 8 月 1 日).
- Copeland, M. T. (1923), "Relation of Consumers' Buying Habits to marketing methods", *Harvard Business Review* 1 (3) (April): 282-289.
- Fujimoto, H., Sasakawa, Y., and Kubo, Y. (1999), "The Structure and Problem of Small Retailers in Japan", *Business Economy* 35 (*Keiei Keizai*) (November): 83-102.
- Holton, R.H. (1958), "The Distinction between Convenience Goods, Shopping Goods, and Specialty Goods", *Journal of Marketing* 23 (1) (July): 53-56.
- Holton, R. H. (1962), "The Role of Competition and Monopoly in Distribution: The Experience in the United States", in *Competition Cartels and Their Regulation* in J. P. Miller, ed. North-Hollander Publishing, Amsterdam, pp.263-307.
- Kean, R. et al. (1998), "Effects of Community Characteristics, Business Environment, and Competitive Strategies on Rural Retail Business Performance", *Journal of Small Business Management* 36 (2) (April): 45-57.
- Kim, B. and Park K. (1997), "Studying Patterns of Consumer's Grocery Shopping Trip", *Journal of Retailing* 73 (4) (Winter): 501-517.
- Maruyama, M. (1992), *Competitive Structure in Japanese Market (Nihon Shijou no Kyousou Kouzou)*, Soubunsysa, Tokyo.
- Miller, N. J. and Kim S. (1999), "The Importance of Older Consumers to Small Business Survival: Evidence from Rural Iowa", *Journal of Small Business Management* 37 (October): 1-15.
- Miller, N. M. (1986), "Rural Retailing: The Last Frontier", *Chain Store Age Executive with Shopping Center Age* 63 (March): 18-22.
- Naryuu, T. (1994), *Economic Theory of Marketing and Distribution (Ryuutsuu no Keizai Riron)*, Nagoya Daigaku Shuppan Kai, Nagoya.
- Okinawa Prefecture (2015), *Survey Report on Shopping Trend (Okinawa-ken Kaimono Doukou Chousa Houkokusho)*.
- Tamura, M. (1982), *Distribution Industry (Ryutuu Sangyou)*, Nihon Keizai Shinbunsysa, Tokyo.

- Tamura, M. (2001), *Principles of Distribution Channels (Ryutuu Genri)*, Chikurashobo, Tokyo.
- Tokyo Metropolitan Government (2016), *Survey Report on Food Purchasing (Shokuhin no Koubaishiki ni Kansuru Yoronchousa)*.
- Yokohama City (2012), *Survey Report of Consumers' Purchasing (Shouhisha Koubaikoudou Ishikichousa)*, Web (URL: <http://www.city.yokohama.lg.jp/keizai/toukei/pdf/24syohihokokusyo.pdf> 閲覧日 2016年8月1日).