THE EVOLUTION OF JAPANESE RETAILING: 1991 – 2007

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ABSTRACT

In this research we theoretically address, and empirically estimate, key factors that affect sales at four major lines of retail trade that include frequently purchased consumables (food and drink), less frequently bought non-durables (apparel, shoes and dry goods), to infrequently acquired durable goods that range from moderately costly (furniture) to truly expensive (autos). We examine Industrial Classifications 56, 57, 58, and 59: Dry Goods, Apparel and Apparel Accessory stores (largely clothing, shoe, linen and accessories); Food and Beverage stores (primarily grocery, liquor, and specialty food stores); Motor Vehicles and Bicycle stores (because our measure is sales, autos dominate); Furniture, Household Utensils, and Appliances. These four lines of trade collectively comprise about 60% (1991: 62%, 1997: 60%, 2002: 59%, 2007: 58%) of all retail sales.

Our data is drawn from four successive Japanese retail trade censuses (1991, 1997, 2002, 2007); it encompasses 528 cities, in all 47 prefectures, that are home to over 75% of Japan's people.

Our theoretical model argues that retail sales are determined by three fundamental factors: the Market Environment (which is beyond the control of retail managers), Intertype Competition (which is influenced, but not controlled, by managers in the line of trade), and the Marketing Mix in each line of trade (which is set by managers). The essence of our argument is that the Market Environment determines a base level of sales per household. Intertype Competition takes sales away from the focal lines of trade. Finally, the Marketing Mix in each line of trade augments sales by (a) doing an above average job of appealing to customers and (b) countering the negative impact of Intertype Competition.

Turning to our empirical model, within the Market Environment we include seven variables: income per capita, household wealth (proxied by household size in square meters), the five year population growth rate, daytime population relative to residential population, mobility (proxied by auto ownership per capita), out-shopping (proxied by distance to the prefecture's capital city), and newspapers per capita. We expect each of these independent variables to increase our dependent variable of interest: retail sales per household.

For the Marketing Mix we measure three variables: assortment (proxied as square meters of selling space per store), service (employees per square meter of selling space), and access (number of stores per capita); each of them should increase retail sales per household in its line of trade (e.g., the marketing mix for Food stores should only affect food sales per household).

For Intertype Competition we use General Merchandise Stores (largely department stores and supercenters) that, in Japan, directly compete with Apparel, Furniture and Food stores. We focus on the same three variables (assortment, service, and access); they are expected to lower sales per household in the lines of trade with which they compete. (There is no intertype competition in our Motor Vehicle regressions.)

In the first stage of our analysis we use the Market Environment to explain the variation in retail sales per capita across the four census years and four lines of trade (i.e., sixteen regressions). The Market Environment generates adjusted R^2 's of 16.5% – 40.6%. In our second-stage analysis our dependent variable is the residuals from the first stage regressions. Here we include the Marketing Mix and Intertype Competition variables as explanatory; they account for 24.2% – 45.0% of the variation in the first-stage residuals. Taking the two stages together, we are able explain some 50% to 70% of the variation in retail sales per capita across the four lines of trade over four census years.

Our empirical research makes four contributions. First, we use two independent variables that infrequently appear in studies of sales per household: out-shopping and home size. Second, we include, and show the importance of, intertype competition in affecting sales at specific lines of retail trade. Third, we investigate data from four censuses that span a sixteen year period; few previous studies have examined changes in retail structure over time. Fourth, we examine retailing in Japan; the world's third largest economy has rarely been the focus of retail trade studies.