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A Study on Demand for Visible Good :

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ABSTRACT

Conspicuous consumption, first defined by Veblen (1899), describes wealthy people spending excessively on goods to signal their superior social stat

INTRODUCTION

It has been well recognized that for a wide range of consumer goods, consumers look beyond practical value and seek the social recognition that can be associated with these products. This desire for social distinction can, at the extreme, lead consumers to pay a premium beyond the value of product's hedonic attributes. Veblen (1899) referred this as "conspicuous consumption" and called the behavior "invidious comparison" when a high achiever consumes products conspicuously to distinguish him- or herself from people of lower classes in the society. Today, as modern marketing of luxury industry carefully crafting elite images, many people of lesser financial means are also seen to acquire these products to signal their *desired* social identity or aspirant individual quality (Leibenstein 1950, Han, Nunes, and Drèze 2010).[1] Research in social psychology and consumer behavior have confirmed that the desire for status recognition is an important force driving the demand for luxury goods (Dreze & Nunez, 2009; Griskevicius et al., 2007; Haselton, Mortezaie, Pillsworth, Bleske-Rechek & Frederick, 2007; Mandel, Petrova & Cialdini, 2006; Rucker & Galinski, 2008, 2009).

Building on this status

multi-layer motives, validate the hypotheses associated with the demand for status signaling products (for a detailed summary of research on conspicuous consumption, see Gurzki and Woisetschläger 2017) whereas, empirically, economists used the household expenditure dairy data to estimate Engel curves across different consumption categories with various degree of visibility (Charles et al. 2009; Heffetz 2011; Kamakura and Du 2011, Roychowdhury 2017; Chai, Kaus, and Kiedaisch 2019).

Conspicuous consumption may involve very different signs but being visibly recognizable is obviously essential. That is, a commodity is considered visible if people have common knowledge to assess the expenditure involved and the associated social meaning. However, there are difficulties in identifying conspicuous consumption as a clear motivation for consuming visible goods. This is because despite that visibility is a necessary condition for conspicuous consumption, it is only one of many properties tied to any given good that contribute to the demand. To make the point clear, while we may suspect that a person buying a BMW rather than a Hyundai is to signal high social status, a BMW in reality is superior to a Hyundai in many ways. Hence, one cannot rule out the motive that to buy a BMW is simply for high-quality rather than for signaling purpose. In other words, it is difficult to disentangle demand for visibility from demand for other properties. Evidences from laboratory experiments gathered by Clingingsmith and Sheremeta (2018) show that if visibility has no clear link with income through status, then the extra motive to demand for visible goods vis-

for example. According to Forbes, there is strong

the results of our analyses and related robustness checks. Lastly, we present our conclusions and implications, address limitations, and finally suggest future research directions.

RESEARCH BACKGROUND AND HYPOTHESE

First, we describe a standard status signaling model to illustrate the role of "conspicuous goods" in one's utility function (see, for example, Charles, Hurst and Roussanov 2009).

So, following this literature, the level of children's visible apparel should tie with the relative family income position within the community as suggested by the theory. Hence, we postulate that

Hypothesis 1：As average income of the community decreases, individual spending on

Implicitly, both hypotheses are derived given the assumption that consumers are acting out the same way regardless their relative position in the society. Odabayeva and Chandon (2011) from consumer behavior point of view argued that bottom-tier consumers may act just opposite against the prediction prescribed above. That is, the bottom-tier consumers may increase their conspicuous consumptions as income inequality eased in the peer group. The reason for this counter-intuitive behavior is that while increasing income equality indeed narrows the possession gap for these consumers with other social groups, it also increases the percentage of people that can be surpassed and hence the potential position gains that can be obtained through conspicuous consumption. The analogy is similar to the case in which a runner (bottom-tier income group) may run harder to gain his position as he is just slightly behind a thick pack (improved income inequality) of other runners (adjacent income group). Hopkins and Kornienko (2004) established this argument theoretically while Chai, Kaus, and Kiedaisch (2019), taking the same spirit in their model and substantiated that indeed 'local reference group' matters, particularly the pattern of income distribution of local reference group, whereas arguing that Gini-Index is too broad to predict the behavior of the bottom-tier consumers. This is because a lower Gini Index does not discern which end of the income distribution moves closer to the

and Van Boven 2012). Hence, other things being equal, a few testable implications follow: 1) living in a community where long-standing social networks exist, one's spending on visible goods should diminish; 2) generally speaking, as one grows older, his spending on conspicuous goods would decline. The negative relationship between visible spending and age is consistent with other studies that have found that visible spending tends to be higher among younger unmarried consumers in China who are seeking marriage partners (Grier, Hicks, and Yuan 2015).

Putting these together, we postulate that well-established social network, the need for visible goods diminishes and, as such,

Thus, we postulate the following:

Hypothesis 5：During festivals, spending more on visible clothing would increase.

Visual effect can be categorically divided into two types: tangible vs. intangible visual effect.

Tangible visible type includes the elements such as exotic mater

obtained from the National Statistics Bureau. The latter includes socioeconomic information for

physical store locations obtained from Balabala, the number one children’s fashion brand with over 4,000 stores nationwide, to form the proxy as a control variable.

value < .01). Therefore, the visibility coding was applied across all purchase data. Regarding the second criterion, expensiveness, we found that prices of boy's clothing and girl's clothing are systematically different even within the same category. Hence, we tabulated the average price for the boy's and girl's clothing categories. Then, if the purchase price is above the average price in the category, it is coded 1 as expensive.

To be quantified as a conspicuous purchase in this study, an item must be expensive and have a 5 in visibility score. We identified, among all transactions, roughly 22.5% of the purchases as being conspicuous buys. Given that the unit of analysis is household or customer, we then computed and created the following dependent variable:

CC Index: the percentage of spending on conspicuous items out of the total spending on children's clothing.

As shown in Table 3. The average spending on conspicuous clothing over total spending is 30.64% across all households.

Variables of Predictions: Next, we defined a set of variables associated with the theoretical implications.

Average income: Census data does not contain income at the district level. Fortunately, there are records on 19 industries such as finance, information, hotel, and agriculture in each district. We inferred average income using the number of employees in industry and the average salary of the corresponding industry. Hence,

Average income$_i$ = he n mber of emplo ees of ind s r

he a erage salar of ind s r total population size$_i$

Income dispersion: Based on the average salary of each industry, we then classified each industry into one of the following five categories: high income, high-medium income, medium income, medium-low income, and low income. We computed the standard deviation based on the number of employees of each category as the operationalization of income dispersion.

Stable community: Census data does not have any direct measures to match the notion of "stable environments with long-standing social networks" or "people who are frequent movers", both mentioned as possible predictors (Frank 1985, p185). The closest proxy is the percentage of homeownership since homeownership conceptually fits well with both descriptions and is highly correlated with another descriptor, "older and married". Hence, the percentage of homeownership is used as a proxy for the degree of stable community.

Education: Average years of education is obtained from the district data.

Festival purchase: Since each purchase record is time-stamped, we computed percentage of purchase orders made prior to festivals.[7]

Income inequality: Gini coefficients are not available at the district level. So, the operationalization of this variable is as follows: Given the number of employees of an industry and the average salary of the corresponding industry, we are able to construct the income earned by the top 10% of households in district *i*, as well as the income earned by the bottom 10% of households in district *i*. Specifically, 10% households of District *i* =

(![7]For Chinese New Year, all logistic companies shut down their operations a week to 10 days prior to the new year. As such, people would buy their products early accordingly. Hence, we counted all purchases in a 3-week window before the Chinese New Year as festival purchases.!

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10% * 50,000 (total working employees of District i). We find the industry that offers the highest average salary (IT industry) and if the number of employees in the information industry is equal to or greater than 10% of households, then the income earned by the top 10% of households = 10% * 50,000 * average salary of information industry. If the number of employees in the information industry is smaller than the 10% of households, we find the industry that offers the second highest salary (in this case, finance industry). Then, the income earned by the top 10% of households = the number of employees in the information industry * average salary of the information industry + (10% * 50,000- the number of employees in the information industry) * average salary of finance industry. With that, income inequality *i* is computed as the ratio of income earned by the top 10% of households to income earned by the bottom 10% of households in District i.

Table 3 contains the summary statistics of the dependent variable and all variables of

that though the direction of “income dispersion” is theoretically ambiguous, the estimate suggests that the utility from conspicuous clothing is concave (B = .008; p < .05) which is also consistent with Glazer and Konrad (1996). Thus, the higher the income dispersion the more would be spent on conspicuous children’s clothing consumption which supports the intuition – as income dispersion in the reference group gets wider, the need for status/conspicuous goods increases.

A stable community means the social network is relatively more mature and people know each other well. Hence, the need for conspicuous goods diminishes. This implication is also supported (B = -.085, p < .05). Higher education level also reduces the demand for conspicuous children’s clothing (B = -

< .05). One plausible explanation is that city folks have more options to signal their status through children (for example, private K-12 schools, private lessons, and summer camps).

In summary, based on our main estimation results, we validated the implications or predictions gleaned from various status-signaling theories as applied to the case of 'extended conspicuous consumption' here. Both Veblen effects of "invidious comparison" (showing-off) and "pecuniary emulation" (keeping up with the Joneses), are well supported in this study.

ROBUSTNESS CHECKS

Though the estimated results support the status signaling theories proposed in the literature, we conducted a series of robustness checks to further solidify the notion that conspicuous consumption behavior is driven by the economic or social conditions rather than by intrinsic preference differences.

By Segments

We divided the data into two halves, respectively, in the following ways: 1) by GDP

Our study anchored on the 'extended self' concept. Then, we need to show that conspicuous children's clothing is indeed purchased for parents' status signaling purpose. To do so, we further constructed a variable for conspicuous children's clothing purchased prior to Fall School Opening day (on Sept 1 in China). School Opening day is a big event for children whereas major festivals such as Moon festival and Chinese New Year are important for parents since during those festivals it is a tradition for the family to visit other families, see people, and move about in public. Thus, we expect that conspicuous children's clothing purchases, in contrast, are far less before School Opening day. Indeed, as seen in RC1, we not only replicated the results of our main analyses but also found that for School Opening day, parents purchased significantly less conspicuous children's clothing ($B = -.126$, $p < .05$) while for traditional Chinese festivals, the effect ($B = .170$, $p < .05$) is positive and significant.

To further strengthen the results, we also repeated the analysis with alternative operationalization of the dependent variable, different model specifications, and functional forms. RC2: we converted conspicuous purchase into a binary variable, assigning 1 to customers who ever bought a conspicuous clothing, 0 otherwise. We then employed a logit model. RC3: we utilized Poisson regression where the total number of conspicuous products purchased is a dependent variable. RC4: instead of using the customer-level data, we created an order-level data and a binary variable, assigning 1 to orders containing conspicuous products, and 0 otherwise. Again, a logit regression is performed. Overall, the results are largely consistent with the original GLS model as shown in Table 8 and 9.

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Insert Table 8 and 9 about here
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Furthermore, though we included a pair of proxies, offline store locations and e-commerce development index to control for physical store distribution and pervasiveness of online channels, the results may be skewed by the missing offline purchases that are not observable to us. To alleviate this concern, we conducted RC5 and selected a subsample data to include 61,659 customers who live in small and remote counties in West China (the most undeveloped region in the country) where retailing settings remain very primitive. As shown in Table 9, the pattern remains quite consistent with our main findings. Hence, per our judgment, the potential skewedness from missing offline purchases is a concern but not serious enough to unravel the main findings.

CONCLUSION AND DISCUSSION

In conclusion, the main contribution of this study is as follows. First, though the link between conspicuous or status consumption and exhibitionistic motivation has long been noticed and examined, as far as we know, there are no empirical studies directly linking the theories to actual conspicuous purchases in the previous studies. Moreover, our findings suggest that the conventional status signaling motives still hold true in the context of conspicuous spending shifted from oneself to one's children. Second, this study supports the argument that using conspicuous products is to signal social status and the propensity to allocate more (or less) budget to conspicuous goods is driven by socio-economic conditions, and not because people put different weights (i.e., strong or weak preferences) on the conspicuous goods. Thus, we view our contribution in the tradition of scientific approach, according to which, theories explaining economic behavior should rely on measurable variables rather than on ad hoc assumptions concerning tastes. In this regard, our findings are generalizable, albeit using children's clothing purchase data obtained in China.

Third, above and beyond the contribution to the academic literature, this research provides managers with some insights on why particular cross-sections of customers are more interested in purchasing visible children's clothing than others. We are able to differentiate the demand for visible goods in two categories: visible for social signaling and visible for the sake of self-promoted differentiation. The latter suggests that all brands, cheap or expensive, should recognize that being distinctive is an important driver for their customers. More importantly, different types of visibility design mean differently to their customers.

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TABLE 1

Descriptive Statistics for Part One Data

Variable	Mean	Std. Deviation	Minimum	Maximum
Average clothing size	5.36	1.70	1.00	8.00
Promotion intensity				

TABLE 2 Desc

TABLE 3

Descriptive Statistics for Dependent Variable and Variables of Predictions

Variable	Mean	Std. Deviation

TABLE 4

Correlation[a]

TABLE 5
GLS Results Predicting Conspicuous Consumption Index

	Variables	Model		Consistent with Predictions?
		B	SE	
Variables of Predictions	Average income	-.062***	.02	Yes
	Income dispersion	.008***	.00	Yes
	Percentage of homeowners	-.084***	.02	Yes
	Average education (Years)	-.013***	.00	Yes
	Festival Ratio	.172***	.01	Yes
	Income inequality	.019**	.01	Yes
Control Variables	Offline shopping	.010	.01	
	Level of e-commerce development	.014*	.01	
	Average clothing size	.029***	.00	
	Small cities	.019**	.01	
	Promotion intensity			

n=1,057,487.
[a]: p-value < .10; *:p-value<.05; **: p=value<.01; ***:p-value<.001.

TABLE 7
GLS Results Predicting Conspicuous Consumption Index by Segments (cont.)

	By Region		
Variables	**South**	**Consistent with Predictions?**	**North**

South N= 260,664; North N = 582,119
[a]: p-value < .10; *:p-value<.05; **: p=value<.01; ***:p-value<.001.

TABLE 8
Robustness Checks: GLS Results Predicting Conspicuous Consumption Index

Robustness check 1: Customer-level data (Log(CC index)): N = 1,057,487
Robustness check 2: Customer-level data (ever bought a conspicuous product): N = 1,057,487;
Robustness check 3: Customer-level data (number of conspicuous products bought): N = 1,057,487;
[a]: p-value < .10; *:p-value<.05; **: p=value<.01; ***:p-value<.001.

TABLE 9
Robustness Checks: GLS Results Predicting Conspicuous Consumption Index - cont

Robustness check 4: Order-level data (ever bought a conspicuous product): N = 1,540,473;
Robustness check 5: Customer-level data from w