

Comparing Face-to-Face and Online Approach: Household Recruitment of Consumer Panel in China

¹Teresa (Ye) Jin, ²Yu-Chieh (Jay) Lin, ¹Shu Duan & ¹Jennie Lai

¹The Nielsen Company, 501 Brooker Creek Blvd, Oldsmar, FL 34677

²Institute for Social Research, University of Michigan, Ann Arbor, MI 48104

Introduction

In an effort to measure fast moving consumer goods (FMCG) that households purchase in China, Nielsen deployed a multi-mode survey technique of recruiting households face-to-face as well as online to establish the Consumer Panel Service. The recruited households will be provided a home scanner by Nielsen to scan the households' purchases during panel period. In consideration of the increasing popularity of internet usage in China, the dual-mode recruitment methods can optimize coverage and improve the representativeness of sample households across the country (Sheehan, 2002). Even though the face-to-face household recruitment is a key method to conduct survey in China (Gong, 2007), the response rate had suffered from a variety of factors, such as changes of community structures (e.g., growing gated communities and high-rise apartments), increasing concern of safety and trust issues among general publics, and cost-saving pressures of research companies. Number of Chinese researchers raised concern and suggested using online recruitment with the climbing internet penetration rate (37.7%¹ by 2011, reaching 505 million users). The emergence of online survey/panel providers also offers an alternate solution for survey researchers to use a multi-mode approach.

This research paper will evaluate the cooperation of face-to-face and online recruitment efforts, and compare the demographic characteristics of main purchasers recruited from face-to-face versus online mode in different tier of cities. The findings from qualitative interviews with Nielsen field team were also integrated with the analysis results to help further understand how easy or difficult to recruit households via face-to-face. Given the dual-mode approach has not been well documented in research literature for China, the key findings of recruitment methodology and lessons learned in this research can be leveraged for future household recruitment in China.

Methodology

Both face-to-face and online recruitment started from mid July 2011 and targeted to end by June 2012 with the goal to recruit total 36,800 households across China. Due to the quality concern of China's universe estimates, Nielsen China statistical research team prepared quota sample for face-to-face as well as online modes to ensure proportional distribution of recruited households in terms of demographic characteristics for each tier of cities. Depending on the economy scale, population size, development of services and infrastructure, and the cosmopolitan nature of the city, Chinese government classified the Chinese cities in five tiers, including K, A, B, C and D cities. For example, **K** cities include four metropolitan cities (e.g., Beijing, Shanghai, Guangzhou, & Chongqing); **A** cities are capital cities of each province; the lower level cities were categorized based upon the criteria listed above. When the quota for a given demographic group and

¹ Source: China Internet Network Information Center (CNNIC).

geographic location (e.g., designated map blocks for face-to-face mode) is filled, Nielsen will stop recruiting households or reserve the recruited households for future consideration. If spillover happens, the extra households will be reserved for future consideration.

A qualified respondent for a recruitment visit is the main purchaser(s) of the household, who is responsible for most of purchases in the household. Due to resource constraints, Nielsen started *face-to-face* recruitment from Shanghai and some key level cities in July 2011, and then extended to the lower level cities gradually. Field Interviewers were trained to identify the sample households in the designated map blocks, and then recruit the main purchasers. If the main purchaser was not qualified (e.g. Media-related, or if the household will move to another city in next two months), this household will be disqualified and Field Interviewer will move to next household. The households were considered being recruited successfully upon verbal commitment to participate in the panel and completing *Recruitment Household Survey*² during the visit.

Online recruitment was launched in all the cities simultaneously since mid-July 2011. Nielsen collaborated with SSI (Survey Sampling International) on recruitment efforts by sending out e-mails or posting banner on high traffic websites about *Nielsen Family* panel. Online respondents were asked to complete two separate web surveys in order to verify if the respondents are eligible to participate in the panel. Nielsen statistical research team screened the first completed survey (*Household Demographic Survey*), and then sent email to the qualified respondents to complete the second survey (*Shopping Behavior and Lifestyle Survey*).

Upon completion of screening process, Field Interviewers then set up appointment with qualified households to install the home scanner. Households were recommended to stay in panel for at least 6 months but they can exit at any time if don't want to participate. In return, the households can redeem a variety of gifts based upon point accumulated reward system. The incentive structure applies to all the households across the country. One month after recruitment efforts, Nielsen Research Methods team conducted qualitative interviews with Field team to understand how recruitment and installation procedures were implemented, what issues and challenges that Field team encountered. We also probed their suggestions for improvement regarding to procedure, material and training. Some key findings were also incorporated in the discussion of this research paper.

Results

1. 'A' Cities has higher contact rate but 'K' cities can gain greater cooperation with respondents upon contact

The analyses for face-to-face recruitment are limited to Key (4 cities) and A level cities (23 cities across China) with the fact that Field team was not able to enter recruitment information for B, C, and D cities in time for analysis. The paradata collected in the *Recruitment Control Form* is comprised of number of attempts, time (date, day of week and day-part) and outcome of each attempt, the final status of each home address, and refusal reasons. As shown in Table 1, the contact rate in A cities is much higher than K cities, 33.3 percent versus 8.6 percent. The overall response rate in A cities is 1.25 percent, slightly higher than 1.14% in K cities. Among the households that interviewers

² Recruitment Household Survey includes both *Households Demographic Survey* and *Households Shopping Behavior & Lifestyle Survey*.

contacted, 12.5 percent of them cooperated³ in K cities, versus only 3.7 percent in A cities. It was discovered there are more challenging in K cities to reach households than A cities. However, once interviewers have a chance to speak with household members, there is more likelihood to recruit households in K cities. The key take-away is people living in K cities are harder to reach (e.g., busy life, living in gated community) but they are more knowledgeable about the research and are willing to participate in.

Table 1: Contact rate, Response Rate & Cooperation Rate of Face-to-face Recruitment by City Tiers

City Tier	Total Households Approached	# of Households Contacted	Contact Rate ⁴	Cooperated Households	Response Rate ⁵	Cooperation Rate ⁶
K City	441,662	37,939	8.6%	4,731	1.1%	12.5%
A City	1,375,570	455,609	33.3%	16,887	1.2%	3.7%
TOTAL	1,811,064	493,548	27.3%	21,618	1.2%	4.4%

The distributions of final status and refusal reasons for K cities are similar to A cities. Figure 1 shows among total households approached, 48 percent of them are *households are away or unavailable*. About one out of four households *refused by household member*, which was translated that the refusal was made immediately without being able to identify the main purchasers. Another 13 percent of refusals were contributed by *refused by main purchasers*. As shown in Figure 2, the distribution of refusal reason is very similar for K and A cities. The most significant refuse reason is *general lack of interest* (44.8%), followed by *does not understand or interested in market research* (16.8%). There are a large portion of households refused because of *gift catalogue is not appealing* (14.2%) and *confidentiality concern* (10.6%).

The results are consistent with the findings from the qualitative interviews conducted with field interviewers, who reported that a lot of households have negative perception about research, did not want to respond the strangers who knock on the door with safety concerns, or have little knowledge about Nielsen. If interviewers were able to convince the households to continue conversation, it is more likely to recruit the households successfully.

³ **Cooperated Households** are households whose main purchasers complete the *Household Recruitment Survey* and agreed to participate in the panel.

⁴ **Contact Rate**=# of Households Contacted/Total Households Approached

⁵ **Response Rate**=# of Households Completed Survey/Total Households Approached

⁶ **Cooperation Rate**= Completed Survey/Contacted

Figure 1: Final Status by City Tiers

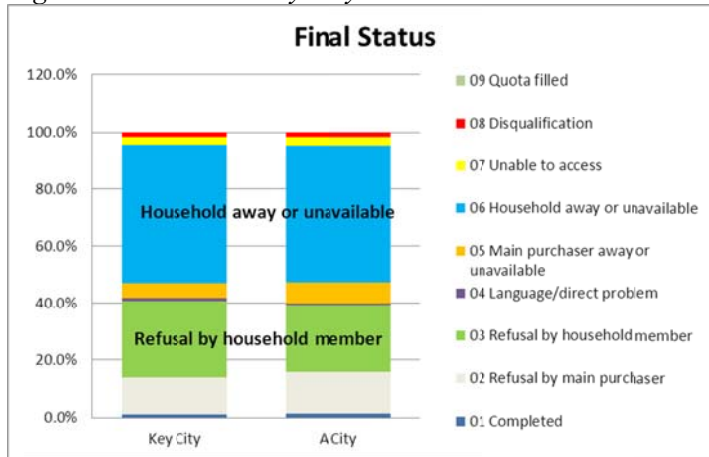
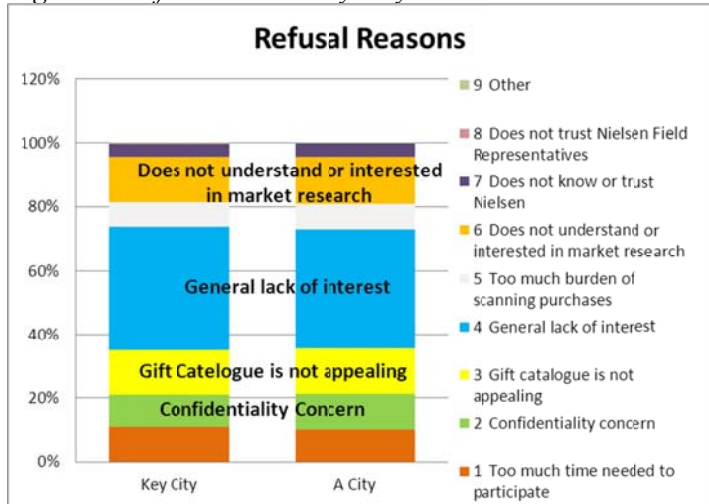


Figure 2: Refusal Reasons by City Tiers



2. Online Recruited Respondents vs. Quota Sample

In the seven-month recruitment period (from mid July 2011 to mid-February 2012), there were total 33,037 online respondents completed first web survey (*Household Demographic Survey*) across all the cities from K to D tier. Among those, 25.6 percent (8,471 respondents) were selected to be panelist.⁷ To control the panel composition, Nielsen statistical research team used two criteria to filter respondents via online recruitment: household size and main purchasers ‘age. The following analyses were conducted to evaluate the online recruitment efforts using the actual respondents against the quota sample.

As shown in Table 2, the majority of online recruited respondents is <45 years old across different tier of cities (75.1%-91.4%). The actual respondents for K and A cities exceeded quota sample significantly, while actual respondents in <45 years old group is just slightly higher than quota sample in lower tier cities. The findings are particularly notable in the light of recruitment strategy that online mode is a good approach to young people,

⁷ If the quota filled, the respondents will be saved for future consideration.

who are those field interviews have difficulties to recruit in face-to-face mode. The comparison also indicates that about one out of four respondent falls into *45-54 old year old groups* in C and D cities, which is much higher than the quota sample. We do not have clear explanation for why the proportion of 45-54 respondents in lower tier of cities is much higher than K and A cities. Contrary to young age group, there are very few *>55 year old respondents* across all the tier of cities.

Table 2: Online Recruitment by Age by city tiers: Quota vs. Actual

City Tier	<45		45-54		>55	
	Quota	Actual	Quota	Actual	Quota	Actual
K	67.5%	87.8%	19.1%	9.6%	13.4%	2.6%
A	72.5%	91.4%	16.6%	7.0%	10.9%	1.6%
B	79.4%	81.9%	13.2%	11.5%	7.5%	6.6%
C	100.0%	75.1%	-	24.5%	-	0.4%
D	73.7%	76.3%	15.5%	23.7%	10.9%	0.0%

From household size's perspective (see Table 3), the recruited households=2 *household members* is lower than quota consistently in different tier cities. There were more households recruited than quota needs for households \geq 5 *household members* in C and D cities. For K and A cities, the distribution of household size is very close to the quota sample, but it is harder to control in B, C and D tier cities.

Table 3: Online Recruitment by Household Size by city tiers: Quota vs. Actual

City Tier	Size 1		Size 2		Size 3		Size 4		Size 5	
	Quota	Actual	Quota	Actual	Quota	Actual	Quota	Actual	Quota	Actual
K	12.0%	14.3%	36.5%	32.0%	31.9%	32.7%	11.1%	11.3%	8.4%	9.6%
A	12.0%	12.6%	33.1%	30.0%	31.6%	35.0%	13.6%	12.5%	9.7%	9.9%
B	8.4%	10.3%	26.9%	20.1%	31.1%	36.4%	20.5%	15.8%	13.1%	17.4%
C	9.2%	9.1%	28.9%	15.2%	33.3%	34.9%	19.0%	16.4%	9.7%	24.3%
D	11.6%	9.8%	35.4%	22.2%	31.6%	32.8%	12.6%	18.0%	8.9%	17.2%

3. Demographics Comparison of Panelist (Face-to-face vs. Online)

Until February 14, 2012, there were total 21,530 panelists⁸ in the panel, including 13,059 from face-to-face (60%) and 8,471 from online (40%). The panelist data was explored to compare the panelists' demographic characteristics in terms of recruitment mode and city tier.

As showed in Figure 3, majority of female main purchasers were recruited in face-to-face mode, ranging from 57 percent (C city) to 73 percent (A city). The composition of gender for online mode dramatically different from face-to-face, especially in B (male=65%), C (male=69%), and D cities (male=63%). The findings discovered that it is easier to recruit female main purchasers in face-to-face recruitment across different tier of cities, but online mode is a better approach for male main purchasers, especially in the lower tier of cities, where the internet penetration is lower than average and not all the households have equal opportunity to internet access.

⁸ Panelists include all the households who currently are active in the panel or have dropped. As long as they are or have been panelist, these households are included in this analysis.

Figure 4 shows the main purchasers recruited online were dominated by 18-44 year old group across all tier of cities, with very few of them are > 44 year old. This conclusion is aligned with the findings from Table 2 above that recruiting people above 45 year old via online mode is quite difficult. On the contrary, the age for face-to-face mode skews to >45 year old group in different tier of cities. The composition of age provides another strong statement that using multi-mode instead of one mode approach is a critical strategy in China to improve the sample representativeness.

Figure 3: Main Purchasers' Gender by city tiers by modes

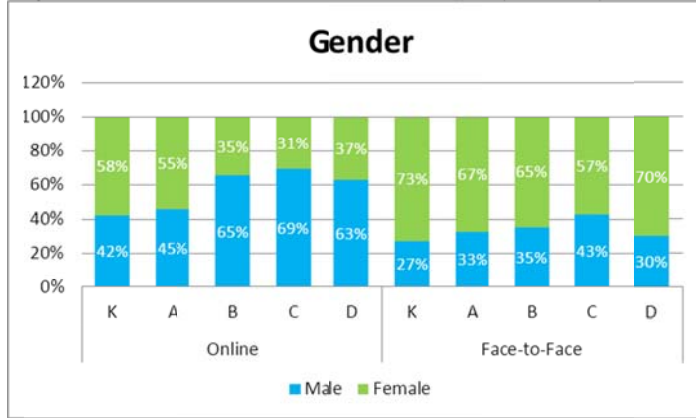
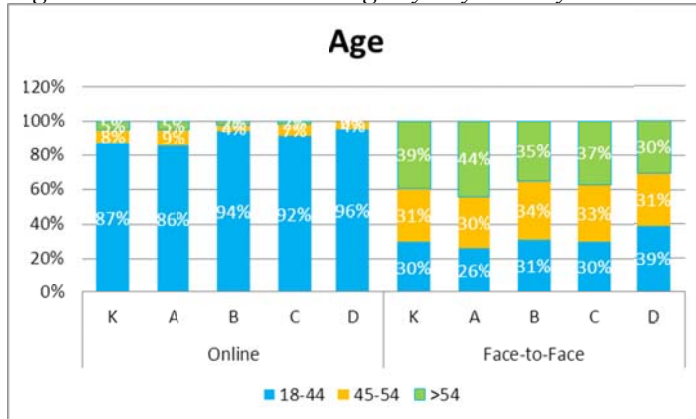


Figure 4: Main Purchasers' Age by city tiers by modes



We can see from Figure 5 the most of online panelist (70-80%) has *Diploma (some degree)* or *Technical school* degree, comparing to over 70 percent of face-to-face panelists have *Junior high* or *Primary school or less*. It is important to note the education level of online panelists is much higher than face-to-face. Figure 2 shows online panelists tent to skew young people significantly, which explains the education discrepancy due to the factor that young generation's education level is much higher than older generation.

Consistent with education level, most of online panelists' occupation is either *corporate management* or *government non-management* (see Figure 6). They usually have more advanced knowledge and access to internet from work or home. No surprise, most of panelists can be reached via face-to-face are *retired* or *self-employed*, who stay more time at home. It is obvious to see the correlation between computer skills/access to the internet and respondents' income, education and occupation.

Figure 7 shows most of households range from household size 2 or 3 for both modes with slight differences between them. The findings show the Chinese society transforms to small-family structure from big families with three generations living together. It is shown in Figure 8 the majority online panelists fell into higher income > RMB 60,000, while most face-to-face panelists fall into lower household income level, RMB40,001-59,999 and RMB 20,001-39,999, which also reflects the type of occupation of face-to-face panelists, large proportion of them are retired or self-employed with lower income.

Figure 5: Main Purchasers' Education by city tiers by modes

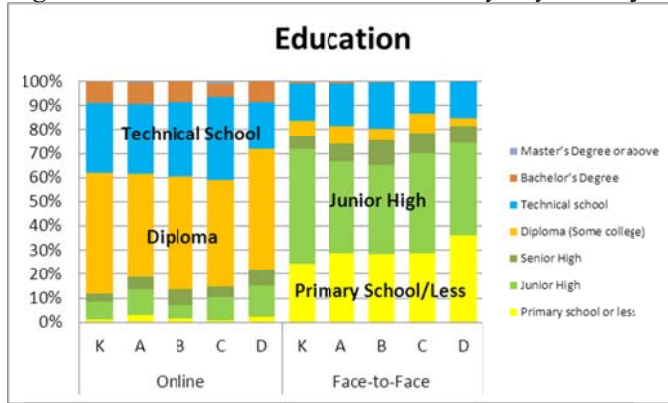


Figure 6: Main Purchasers' Occupation by city tiers by modes

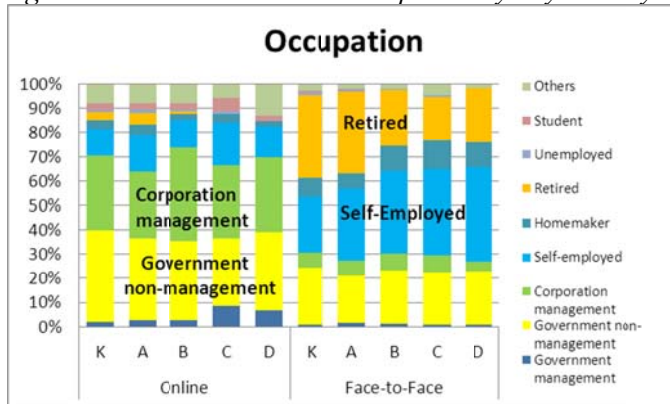


Figure 7: Main Purchasers' Household Size by city tiers by mode

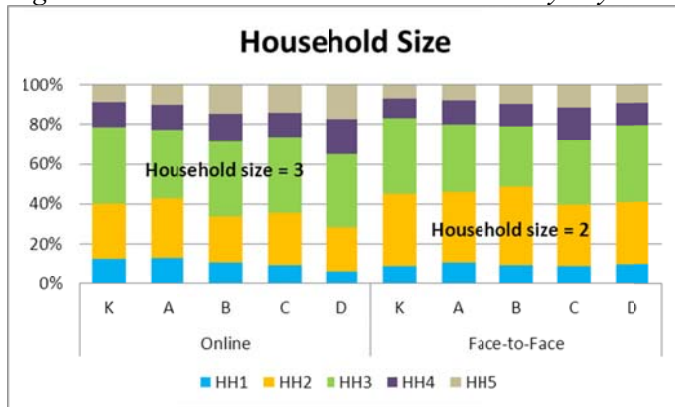
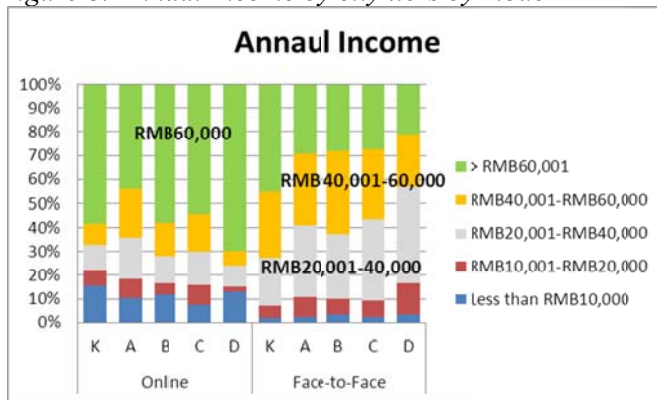


Figure 8: Annual Income by city tiers by mode



Discussion

The findings shared in this research paper can shed light on how to employ valid and viable research methodologies in China. As Roy (2001) pointed out the need to devote particular care to research methodology issues and the frequent necessity to adopt some approaches that are less than ideal should not discourage researchers. Several challenges and recommendations concluded from this study can be taken into consideration for future panel research in China.

Table 4: Challenges & Recommendations for Face-to-face Mode

Challenges	Recommendations
<ul style="list-style-type: none"> • Not applicable to use area probability sampling methodology. • Need to consider a variety of factors to recruit households in different tier of cities, ranging from field resource availability, travel and training cost, dialect capability of interviewers, to knowledge of local households about survey research. • More and more households living gated apartment buildings or communities added another layer of complexity to reach the households. • Chinese society is facing with considerable issues, such as increasing crime, safety and morality concern, and less trust between people, which are further challenging the research industry. 	<ul style="list-style-type: none"> • The reputation and brand awareness of research companies or institutes should be leveraged; • Recruitment training should be more concentrated on recruitment techniques and communication skills; • Interviewers' professional appearance, attire and recruitment materials can increase the eligibility of the company s/he is on behalf of; • Explaining why to collect personal data and how to process data will relieve households' confidentiality concern; and • Well-designed incentive structure can encourage households' participation.

Table 5: Challenges & Recommendations for Online Mode

Challenges	Recommendations
<ul style="list-style-type: none"> • Majority of online respondents are early adopters or tech-savvy participants, such as male, young, educated people with higher income, due to the fact that internet penetration is not evenly distributed. • Online mode uses convenience sampling methodology. 	<ul style="list-style-type: none"> • Online mode is an essential component in multi-mode approach but can't be the only mode; • Using quota sample to control the panel composition to ensure the sample representativeness, and • Researchers should consider making necessary adjustments continuously to reflect the real picture of population periodically.

Table 6: Recommendations for Recruitment Strategy

<ul style="list-style-type: none"> • In consideration of the different demo composition recruited from face-to-face versus online, recruitment materials should be tailored to different demo groups. • To make the recruitment efforts more productive, the tailored approach for different modes should be also incorporated in the design of recruitment strategy, such as recruitment skill training, and interviewer selection as well.
--

Reference:

- Bos, R. (2011). Dealing with diversity. *Research World*. March/April 2011.
- Hsu, F. (1971). Psychological Homeostasis and Jen: Conceptual Tools For Advancing Psychological Anthropology. *American Anthropologist New Series*, 73, 1, 23-44.
- Roy, A., Walters, P.G.P, & Luk, S. T.K. (2011). Chinese puzzles and paradoxes: conducting business research in China. *Journal of Business Research*, 52, 203-210.
- Sheehan, K.B. (2002). Online Research Methodology: Reflections and Speculations. *Journal of Interactive Advertising*, 3,1.