

**What Influence Consumer Choice for Real Estate Brokerage  
Service in China**

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### **Abstract**

Based on the data samples collected from 8 major cities in China, this paper will focus on the study of consumer choice behavior for real estate brokerage service. Firstly, it will analyze why and why not consumers choose to use brokers, then explore how they choose the brokerage firm and what major factors influence their decisions; at last point out the possible development direction for real estate brokerage firms in the future. The results show that on the average there are about 46.7% buyers and 31.9% sellers use brokers to assist their house search or transactions. The main reasons why want to be broker-assisted are “avoiding trouble” and “more quickly”. The main reasons of non broker-assisting are “not necessary” and “don’t trust”. There are a lot of factors influencing whether the consumers choose to use brokers, but significant common rules between different cities have not been found. When consumer chooses a firm, “general reputation”, “scale”, “office location”, “advertisement” and “acquaintance recommendation” are top five factors that influence the decision.

**Key words:** consumer, choice, broker, real estate brokerage service

### **Introduction**

The idea of real estate brokerage service in China can be traced to several hundred years ago but real estate brokerage service as an industry just began in the early 1990's as a result of housing policy reform. This industry has become an important part of Chinese residential real estate market after about fourteen years' development. In China, according to the regulation of real estate intermediate, the supply of real estate brokerage service is based on the institution, such as a firm or a company, rather than on the broker as individual to supply the service like that in United State.

The role of real estate broker on the residential real estate market will become increasingly important for a number of reasons. First of all, where there is a market economy, there is an intermediate. The rising of agency is an inevitable result of the transition from planned economy to market economy in China. Real estate market is not exception, so real estate brokerage is a result of real estate development during the transition. Secondly, it fits the intention of Chinese government to stimulate owner-occupied housing and increase the level of housing privatization by increasing the selling the state-own houses to private and

the flourish of second-hand housing transaction. Thirdly, the shape of rational housing consume structure depends on the activity and good operation of real estate brokerage service market. At last, real estate brokerage can built a high-efficient housing transaction market by increasing the information efficiency and decreasing the transaction cost in order to ensure the benefit of buyers and sellers indeed and to ensure the smooth circulation of real estate market. Meanwhile, the development of real estate brokerage firms and the industry itself depends on the demands of buyers and sellers for the service. So studying and understanding the choice behavior of consumer for the service is very important for real estate brokerage firm to make further developing decision.

The objective of this paper is to explore the consumer choice behavior for real estate brokerage service. Firstly, it will analyze why and why not consumers choose to use brokers, then explore how they choose the brokerage firm and what major factors influence their decisions; at last point out the possible development direction for real estate brokerage firms in the future. The study proceeds as follows: section two reviews the related literature of homebuyers and sellers' choice behavior for real estate brokerage service , section three presents the research design, section four covers the data and analysis results, and the last section offers conclusion.

## **Literature Review**

There are a lot of articles studying real estate brokerage, but only a few papers discuss the characteristics of customer choice behavior for real estate brokerage service and related factors ,such as consumer's characteristics and firm's attributes that influence his(her) decision.

Judy(1983), estimates a search model of buyer and seller behavior using a conditional logit model and finds for home buyers ,the decision to use a broker during housing search is determined by the buyer's prior knowledge of housing market and the opportunity cost of buyer's time. Higher income buyers are more likely to employ a broker in their search. For home sellers, the decision to list with a broker depends on housing market transaction costs including the cost of seller's time.

A later study by Jud and Frew (1986) finds that broker-assisted buyers have a greater demand for housing than those without such assistance. They attribute this result to the informational impact of brokers, drawing an analogy to the impact of advertising in markets with imperfect information.

Johnson, J. M., H. Nourse and E. Day (1988), shows the characteristics of the firm or individual agents are important for real estate firms attempting to maintain or increase market share. He finds that the individual agent is more important than the firm itself in the selection of a real estate firm and the most important factor considered in the selection of a real estate firm is knowing an agent of the firm. He also finds that agent characteristics of selling ability, competence, integrity, knowledge of the market, and understanding the client's needs and concerns are important.

Likewise, Nelson and Nelson (1991) studies the criteria used by home buyers in Grand Forks, ND to select a specific real estate firm. They find that the "friendliness" of the agent is the most important attribute which is followed by "general reputation of firm" and "agent's training/qualifications".

Yavas (1992) examines the impact of brokers on buyers' and sellers' search behavior and on the transaction prices in real estate market. He finds the changing relationship between the consumer search intensity and whether they use broker, between the price increase and commission fee, between commission rate increasing and the changing of equilibrium price and search intensities.

Yavas (1994), examines the role of the middleman in a bilateral search market and takes insight into which type of market player uses the services of middlemen. He finds that the willingness to use an intermediary is based on the size of the surplus a trader expects to receive. The smaller this surplus is, the less it has to be shared with the middleman and hence more willing are the traders to use a broker, then suggests that buyers with low valuations of the good or service wish to acquire broker and sellers with high valuations go to middlemen.

Zumpano, L. V., H. W. Elder and E. A. Baryla (1996) examines the factors that affect the decision of home buyers to use real estate brokers and the subsequent effect this decision has on home prices. Buyers with high opportunity costs and the least amount of information about local market conditions are the most likely to use brokers.

## **Research design**

The research design utilized in this study was a questionnaire, named "Consumer Behavior Survey in Residential Real Estate Market". There are two types of questionnaire, Questionnaire A for buyer and Questionnaire B for seller. There are totally 31 items, involving almost every aspect of buyer to search house and seller to search potential buyer respectively. Within these items there are eight relating

with the choice for real estate brokerage service.

The questionnaire was dispatched in eight cities, Guangzhou, Shanghai, Beijing, Shenzhen, Dalian, Chengdu, Wuhan and Xi'an. These cities are chosen by their representativeness for different territory across China. The questionnaire was filled on- the- spot. So the return rate of questionnaire is rather high, almost 100%. Most of the surveys took place in the city's transaction market (where to carry related procedures for house title transfer). The survey objects are the buyers or sellers of second-hand residential houses who came to the transaction market to transfer house title during the survey period between February and April, 2004, Guangzhou ten days, other cities five days respectively. The samples can be seen as the total sample in the sample pool. In this paper, we will use Guangzhou, Shanghai and Beijing as examples to further examine the consumer choice behavior and related factors influence the decision.

## **Data and Results**

### *The broker-use decisions of sellers and buyers*

Exhibit 1 shows the broker-use decisions of sellers and buyers when to sell or buy houses. From the descriptive statistics of broker-assisted and non broker-assisted transactions of eight cities, we can find that the percentage of broker-assisted transaction varies greatly from city to city. On one hand, the buyers and sellers in different cities have very different decisions in broker-use choices. The more advanced of the city economy and second-hand housing market, the higher percentage of broker-assisted transaction. In Guangzhou and Shanghai, for example, the broker-assisted transaction rate of the two cities are much higher than that in Xian, for seller, 52.06%, 66.67% to 14.29% respectively; for buyers 40.67%, 39.81% to 7.79% respectively.

On the other hand, in the same city, there is different between the choices of buyers and sellers. In Guangzhou for example, the broker-assisted percentage is 52.06% for sellers and 40.67% for buyers; the difference between sellers' and buyers' choices for is 11.4%. For In Shanghai, the difference is biggest, about 26.87%. In Beijing, the difference is rather small, just 1%. These results are adherent to the current situations of economy and real estate development of these cities. Because of the city reconstruction, higher rate of immigrants and relative rigidity of housing supply in short time as well as rather higher price of new constructed housing, many people need to buy second-hand houses and there usually exist relative shortage caused by the demand over supply. In many cities, because of the shortage, many real estate firms need to compete for second-hand house resources by supplying some advantages to sellers, such as free agent

service, so the commission fee is usually paid by buyers. Compared with sellers, the buyers are more prefer to find the housing by themselves if possible.

**Exhibit 1**  
**The broker-use decision**

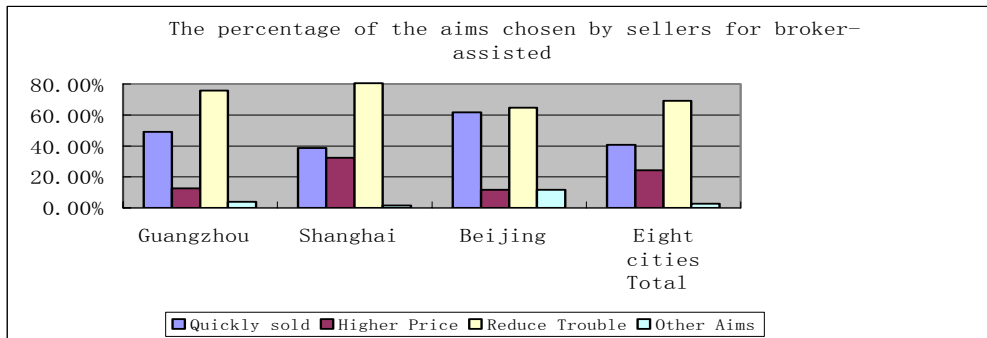
	City	Total Questionnaires	Useable Questionnaires	broker-assisted transactions	Percentage of broker-assisted transaction
SELLERS	Guangzhou	468	461	240	52.06%
	Shanghai	94	93	62	66.67%
	Beijing	126	125	34	27.20%
	Shenzhen	100	100	49	49.00%
	Dalian	25	25	14	56.00%
	Chengdu	77	75	59	78.67%
	Wuhan	99	99	30	30.30%
	Xian	63	63	9	14.29%
	Total	1052	1041	497	46.77%
	Descriptive Statistics N=8		Minimum 14.3%	Maximum 78.79%	Mean 46.83%
BUYERS	Guangzhou	686	686	279	40.67%
	Shanghai	105	105	41	39.81%
	Beijing	142	142	36	26.28%
	Shenzhen	103	103	39	39.00%
	Dalian	99	99	24	25.00%
	Chengdu	78	78	47	60.26%
	Wuhan	101	101	15	16.30%
	Xian	77	77	6	7.79%
	Total	1391	1369	487	31.26%
	Descriptive Statistics N=8		Minimum 7.79%	Maximum 60.26%	Mean 31.89%

***The aims for broke-assisted transaction***

In questionnaire, we design the question: Why do you want to use broker in your transaction? There are five answers can be multiple chosen: “more quickly”, “higher price” (for sellers) or “lower price” (for buyers), “avoiding trouble” and “other aim”. Exhibit 2, Exhibit 3 show the multiple choice results of sellers and buyers respectively.

**Exhibit 2**

**The percentage of the aims chosen by sellers for broker-assisted**



**Exhibit 3**

**The percentage of the aims chosen by buyers for broker-service**

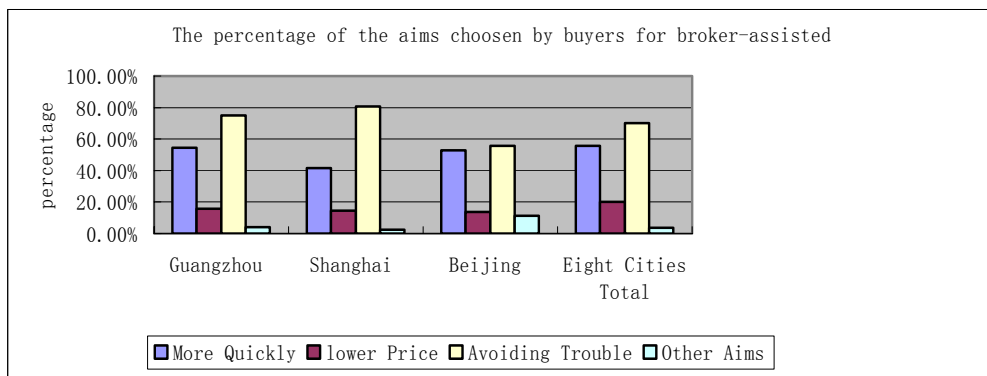


Exhibit 2 and Exhibit 3 show that the first important aim is “avoiding trouble” in all three cities and on the average of eight cities. But there are different percentages chosen by sellers and buyers. For sellers, the percentages are 75.83%, 80.65%, 64.71% in Guangzhou ,Shanghai, and Beijing. For buyers the percentages change little, 74.91%、80.49% and 55.56% for the three cities respectively.

“More quickly” to sell or buy is the second important aim to use broker. From the results, we can find that both buyers and sellers have no high expectation about the price benefit might made by broker. For sellers, there are only 12.50%, 32.26% and 11.76% consumers in Guangzhou, Shanghai and Beijing who expect broker to help them to get higher selling price. For buyers, the percentages are 15.77%、14.63% and 13.89% in the three cities respectively. For the average of eight cities, this percentage is 24.4% for sellers and 13.83% for buyers, which imply sellers’ expectation on broker for price benefit is higher than that of buyers. The percentage of “other aim” rather small compared with other four aims.

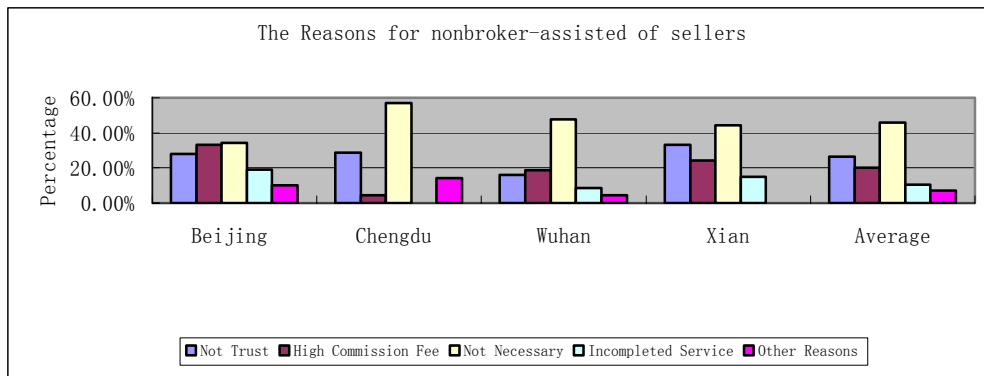
The results above are consistent with the current orientation of real estate brokerage firms in China. At the moment, Real estate broker neither represents the seller's interest nor that of buyer and he/she is just an intermediate between buyer and seller. The main function of broker is to match buyer and seller and try to persuade them to reach a consistence about the selling or buying price in order to realize the transaction at last. Through in-depth interview with some consumers, the brokers are necessary for sellers or buyers mainly for two basic reasons, one is the shortage of useable information about house resources, house price, how to transfer the title of the house and related policies; the other is that the principles have no time to handle the transactions.

Because of such orientation of real estate brokerage firms, there is no necessary core competitiveness that can make them un-substituted. It is the lack of core professional or expert service that can distinguish them form other firms or persons who have same information and knowledgeable advantage makes the industry suffers from much competition from other kinds of firms, such as property management companies, some very small brokerage firms with several people, even some persons to do same business illegally.

#### ***The Reasons for non broker-assisted transaction***

We also take survey about the reasons for non broker-assisted house transactions in Beijing, Wuhan, Chengdu and Xian. The question is "Why not choose to use broker?" There are five multiple choices : "Not Trust", "High commission fee", "Faultiness service", "Not necessary" and "Other reason". The results are showed in Exhibit 4 for sellers and Exhibit 5 for buyers.

**Exhibit 4**  
**The reasons for non broker-service of sellers**



**Exhibit 5**  
**The reasons for non broker-service of buyers**

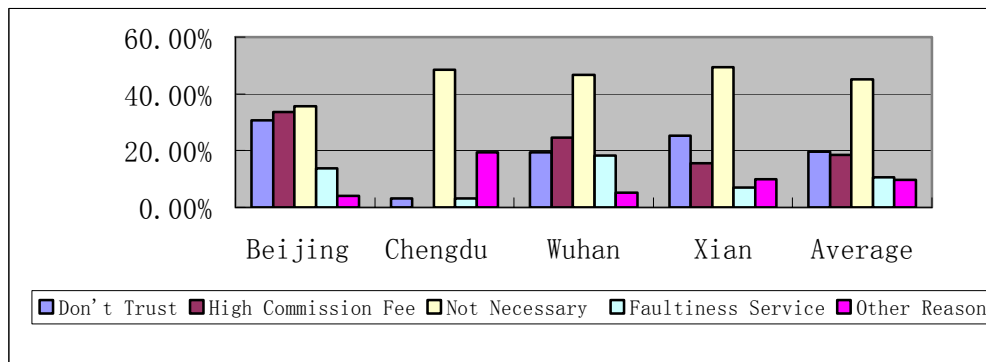


Exhibit 4 and Exhibit 5 show that the first important reason that buyers and sellers don't use brokers is "Not necessary" in all of the four cities. On the average, 45.96% sellers and 45.02% buyers choose it as the first reason. The result further confirms that current orientation of real estate brokerage firms is the first obstacle for their further development because the service they supply does not satisfy the consumers' demand. That means the firms which want to pursue further development and larger market share need to renew its orientation, expand it service items and put emphases on the expert or professional service in order to make themselves not only needed by consumers but also can not be substituted in the market.

"Don't trust" is second important reason for the non broker-assisted. On the average 26.41% sellers and 19.66% buyers choose it. The lack of trust has been a bottleneck for the further development of this industry. It may partly due to the immaturity of real estate brokerage services but what is more important is the lack of Code of Ethics and Standards of Practice to regulate and supervise brokers'

behaviors. Now the construction of industry trust has caused great attention, not only in real estate brokerage service industry but in the others industries also.

The third important reason for the non broker-service is “High commission fee”. The choice percentages are 20.07% for sellers and 18.46% for buyers on the average. Considering the situation in United State, though the commission fee is 6%, the brokers are on the behalf of buyer or seller solely in the best interest of client. In addition, they have three other most important fiduciary duties: obedience, full disclosure and confidentiality. The duties and liability including the rational price making, house investigation, liability insurance etc make the commission fee deserve itself. But in China, because of the relative simple brokerage service and the lack of responsibility and legal liability for the principals, 0.5% to 2.5% commission fee seems rather high, though there is usually about 50% percent discount in the practice. So how to design a rational commission structure according to the current brokerage service under the related regulation in order to attract more consumers is another important work for further study.

The “Faultiness service” is an important factor also. That means the real estate brokerage firm should to improve their service quality, to increase the loyalty rate by increasing the satisfaction of customers. Besides the four reasons, there are other reasons which have not been classified in the study that should be pay attention to.

### ***The characteristics of consumers and the choices for broker-service***

According to the literatures that study about the characteristics of buyers and sellers that influence the selection of broker-use, there are three primary factors: the cost of time; related experience about house search and transaction as well as the ability to obtain the related information. In this paper, we use annually household income to represent the cost of time of buyers or sellers, whether first buying or selling to represent the related experience and use age, education level and whether the city resident to reflect the ability of collecting related information. The descriptive statistics of variables used in the analysis are showed in Exhibit 6 to Exhibit 9.

In the analysis, the binary logistic regression model is used to examine the relationship between the characteristics of sellers or buyers, such as experience, level of income, age and education level etc and the choices for broker-service and non broker-assisted. Exhibit 10 and Exhibit 11 provide the logit results of Guangzhou, Shanghai and Beijing samples.

The maximum-likelihood model can be written as follow:

$$Z=f(NOEXP, AGE, EDUL, WRC, AINVC)$$

$$Z=log(prob(WBA=1)/1-prob(WBA=1))$$

*WBA* =Whether broker-assisted. This is an indicator variable that takes the value of 1 if a real estate broker is used (broker-assisted)in the transaction and 0 otherwise (non broker-assisted)

*Prob(WBA=1)*=represents the probability of a homebuyer or seller to use broker in searching and transaction.

*AINC*= Annual income. This is a discrete variable for the seller's or buyer's annual household income with the following class interval values: 1= under 50000RMB, 2=if 50000-80000 RMB; 3= 80000-150000RMB; 4=150000-200000RMB; 5=if >250000 RMB

*NOEXP*= No experience. This is an indicator variable that takes the value of 1 if a buyer has not previously owned a home and 0 otherwise. For a seller, the value of 1 for first selling and 0 otherwise;

*AGE*=Age. It is a discrete variable for the buyer's or seller's age with the following class interval values:1=if < 20 years;2=if 20-29 years;3=if 30-39 years; 4= if 40-49 years;5=if >=50 years.

*EDUL* =Education Level. This variable represents the highest education level of a buyer or seller has finished, 1=If junior high school;2= if high school;3=if two or three years postsecondary; 4=if Bachelor degree; 5=if Master or Doctor degree.

*WCR* =Whether the city resident: This is an indicator variable that takes the value 1 if the buyer or seller is resident of the city, 0 otherwise.

**Exhibit 6**  
**Summary Statistics for Variables Used in Estimation of Sellers in Guangzhou, Shanghai and Beijing with Non broker-assisted**

CITY	Variable	N	Minimum	Maximum	Mean	Std. Deviation
Guangzhou	NOEXP	216	.00	1.00	.8287	.3776
	AGE	216	2.00	5.00	3.5231	.9927
	EDUL	216	1.00	5.00	2.6250	.9064
	WCR	216	.00	1.00	.9537	.2106
	AINC	216	1.00	5.00	1.8148	.9562
	Valid N	216				
Shanghai	Variable	N	Minimum	Maximum	Mean	Std. Deviation
	NOEXP	27	.00	1.00	.8519	.3620
	AGE	27	2.00	5.00	4.0370	.9398
	EDUL	27	2.00	5.00	3.1481	.9074
	WRC	27	.00	1.00	.9259	.2669
	AINC	27	1.00	3.00	2.1481	.7698
Beijing	Variable	N	Minimum	Maximum	Mean	Std. Deviation
	NOEXP	84	.00	1.00	.7738	.4209
	AGE	84	2.00	5.00	3.3810	.9430
	EDUL	84	.00	1.00	.9286	.2591
	WCR	84	.00	1.00	.9405	.2380
	AINC	84	1.00	5.00	2.7381	.8084
Valid N	84					

**Exhibit 7**  
**Summary Statistics for Variables Used in Estimation of Sellers in Guangzhou, Shanghai and Beijing with Broker-assisted**

CITY	Variable	N	Minimum	Maximum	Mean	Std. Deviation
Guangzhou	NOEXP	223	.00	1.00	.7758	.4180
	AGE	223	1.00	5.00	3.2018	1.0653
	EDUL	223	1.00	5.00	2.8296	.8942
	WCR	223	.00	1.00	.8924	.3106
	AINC	223	1.00	5.00	2.0179	1.0221
	Valid N	223				
Shanghai	Variable	N	Minimum	Maximum	Mean	Std. Deviation
	NOEXP	52	.00	1.00	.7885	.4124
	AGE	52	2.00	5.00	3.6538	1.1696
	EDUL	52	1.00	5.00	2.9808	.9391
	WRC	52	.00	1.00	.8654	.3446
	AINC	52	1.00	5.00	2.3269	1.2637
Beijing	Variable	N	Minimum	Maximum	Mean	Std. Deviation
	NOEXP	33	.00	1.00	.7273	.4523
	AGE	33	2.00	5.00	3.3939	.8269
	EDUL	33	.00	1.00	.8485	.3641
	WCR	33	.00	1.00	.8182	.3917
	AINC	33	1.00	4.00	2.9394	1.0880
Valid N	33					

**Exhibit 8**  
**Summary Statistics for Variables Used in Estimation of Buyers in Guangzhou, Shanghai and Beijing with Non broker-assisted**

CITY	Variable	N	Minimum	Maximum	Mean	Std. Deviation
Guangzhou	<i>NOEXP</i>	400	.00	1.00	.8100	.3928
	<i>AGE</i>	400	2.00	5.00	3.2600	.9848
	<i>EDUL</i>	400	1.00	5.00	2.7725	.9840
	<i>WCR</i>	400	.00	1.00	.8500	.3575
	<i>AINC</i>	400	1.00	5.00	1.9225	.9843
	<i>Valid N</i>	400				
Shanghai	<i>Variable</i>	N	Minimum	Maximum	Mean	Std. Deviation
	<i>NOEXP</i>	56	.00	1.00	.7143	.4558
	<i>AGE</i>	56	2.00	5.00	3.6964	1.1896
	<i>EDUL</i>	56	1.00	5.00	3.1607	.9682
	<i>WCR</i>	56	.00	1.00	.8750	.3337
	<i>AINC</i>	56	1.00	5.00	2.0714	1.1258
<i>Valid N</i>	56					
Beijing	<i>Variable</i>	N	Minimum	Maximum	Mean	Std. Deviation
	<i>NOEXP</i>	101	0	1	.60	.49
	<i>AGE</i>	101	2	5	2.98	.92
	<i>EDUL</i>	101	1	5	3.31	1.01
	<i>WCR</i>	100	0	1	.67	.47
	<i>AINC</i>	101	1	5	2.59	1.13
<i>Valid N</i>	100					

**Exhibit 9**  
**Summary Statistics for Variables Used in Estimation of Buyers in Guangzhou, Shanghai and Beijing with Broker-assisted**

CITY	Variable	N	Minimum	Maximum	Mean	Std. Deviation
Guangzhou	<i>NOEXP</i>	266	.00	1.00	.7895	.4085
	<i>AGE</i>	266	1.00	5.00	2.9398	1.0151
	<i>EDUL</i>	266	1.00	5.00	2.7256	.9693
	<i>WCR</i>	266	.00	1.00	.8195	.3853
	<i>AINC</i>	266	1.00	5.00	2.0564	1.0464
	<i>Valid N</i>	266				
Shanghai	<i>Variable</i>	N	Minimum	Maximum	Mean	Std. Deviation
	<i>NOEXP</i>	28	.00	1.00	.7857	.4179
	<i>AGE</i>	28	2.00	5.00	3.5000	1.2620
	<i>EDUL</i>	28	1.00	5.00	2.8571	1.1455
	<i>WCR</i>	28	.00	1.00	.9286	.2623
	<i>AINC</i>	28	1.00	4.00	1.8929	.9940
<i>Valid N</i>	28					
Beijing	<i>Variable</i>	N	Minimum	Maximum	Mean	Std. Deviation
	<i>NOEXP</i>	35	0	1	.63	.49
	<i>AGE</i>	35	2	5	3.17	.98
	<i>EDUL</i>	35	2	5	3.29	.93
	<i>WCR</i>	35	0	1	.74	.44
	<i>AINC</i>	35	1	5	2.23	1.17
<i>Valid N</i>	35					

Exhibit 10

Maximum Likelihood Estimates of the Logit Model for Seller Samples

	Variable	B	S.E.	Wald	df	Sig.	Exp(B)
<b>Guan gzhou</b>	NOEXP	-.162	.250	.420	1	.517	.850
	AGE	-.238**	.101	5.583	1	.018	.789
	EDUL	.105	.119	.772	1	.379	1.110
	WCR	-.771*	.395	3.816	1	.051	.463
	AINC	.163	.104	2.453	1	.117	1.177
	Constant	1.077	.656	2.699	1	.100	2.936
	Model Summary						
<b>Shanghai</b>	Variable	B	S.E.	Wald	df	Sig.	Exp(B)
	NOEXP	-.400	.660	.368	1	.544	.670
	AGE	-.408*	.241	2.854	1	.091	.665
	EDUL	-.274	.275	.991	1	.320	.760
	WCR	-.831	.927	.803	1	.370	.436
	AINC	.072	.248	.084	1	.772	1.074
	Constant	3.987	2.047	3.794	1	.051	53.881
Model Summary							-2 Log likelihood 96.60 Cox & Snell R Square 0.060 Overall percentage correct 62%
<b>Beijing</b>	Variable	B	S.E.	Wald	df	Sig.	Exp(B)
	NOEXP	-.138	.493	.078	1	.779	.871
	AGE	.072	.238	.092	1	.761	1.075
	WCR	-1.157	.712	2.638	1	.104	.314
	EDUL	-.314	.734	.183	1	.669	.731
	AINC	.252	.245	1.063	1	.303	1.287
	Constant	-.482	1.399	.119	1	.731	.618
Model Summary							-2 Log likelihood 133.85 Cox & Snell R Square 0.045 Overall percentage correct 73.5%

a Variable(s) entered on step 1: NOEXP, AGE, EDUL, WRC, AINC.

\*significant at 10% level

\*\* significant at 5% level

Exhibit 10 shows that AGE is negative and significant for sellers in Guangzhou at 5% level and in Shanghai at 10% level, that mean the older the sellers, the smaller the possibility to choose broker-assisted. The influencing degree in Shanghai is more than that of Guangzhou because of the different coefficient (Beta). WCR is negative and significant only in Guangzhou at 10% level, that means compared with nonresident, to be resident of the city, the odds ratio of broker-service may decreases. NOEXP, EDUL and ANIC are not significant even at 10% in the three cities that means the changing of these variables have no significant influence about the probability of the choices for broker-assisted.

**Exhibit 11**  
**Maximum Likelihood Estimates of the Logit Model for Buyer Samples**

	Variable	B	S.E.	Wald	df	Sig.	Exp(B)	
<b>Guan gzhou</b>	NOEXP	-.162	.207	.615	1	.433	.850	
	AGE	-.398***	.090	19.517	1	.000	.672	
	EDUL	-.262***	.097	7.232	1	.007	.770	
	WCR	-.057	.219	.067	1	.796	.945	
	AINC	.167*	.089	3.535	1	.060	1.182	
	Constant	1.388	.511	7.374	1	.007	4.009	
	Model	-2 Log likelihood						870.05
	Summary	Cox & Snell R Square						0.038
							Overall percentage correct	62.8%
<b>Shanghai</b>	Variable	B	S.E.	Wald	df	Sig.	Exp(B)	
	NOEXP	.557	.577	.932	1	.334	1.745	
	AGE	-.342	.225	2.307	1	.129	.710	
	EDUL	-.417	.292	2.034	1	.154	.659	
	WCR	.681	.904	.568	1	.451	1.977	
	AINC	-.080	.266	.091	1	.763	.923	
	Constant	.918	1.584	.336	1	.562	2.504	
	Model	-2 Log likelihood						101.77
Summary	Cox & Snell R Square						0.060	
							Overall percentage correct	70.2%
<b>Beijing</b>	Variable	B	S.E.	Wald	df	Sig.	Exp(B)	
	NOEXP	-.021	.437	.002	1	.962	.979	
	AGE	.196	.245	.643	1	.423	1.217	
	EDUL	.206	.237	.757	1	.384	1.229	
	WCR	.347	.491	.501	1	.479	1.415	
	AINC	-.348*	.204	2.912	1	.088	.706	
	Constant	-1.730	1.325	1.706	1	.192	.177	
	Model	-2 Log likelihood						149.924
Summary	Cox & Snell R Square						0.033	
							Overall percentage correct	74.1%

a Variable(s) entered on step 1: NOEXP, AGE, EDUL, WRC, AINC.

\*significant at 10% level

\*\* significant at 5% level.

\*\*\* significant at 1%.

For buyers as Exhibit 11 shows: In Guangzhou, AGE is negative and significant at 1% level that means the older the buyers, the less the odds ratio of broker-assisted. EDUL is significant and negative at 1% that means the higher the education level, the less the odds ratio of broker-assisted. Furthermore, ANIC is positive and significant at 10% level that means the higher the annual household income the bigger the odds ration of broker-assisted. In Shanghai, no variables are significant at 10% level, which means the characteristics of buyers have no significant influence to the decision of broker-use this level. In Beijing, contract with in Guangzhou, AINC is negative and significant 10% level, which means the higher the income, the lower the odds ratio of broker-assisted. NOEX and WRC are both not significant even at 10% level for the three cities.

According to the Model of Summary, the Goodness of fit of the each regression

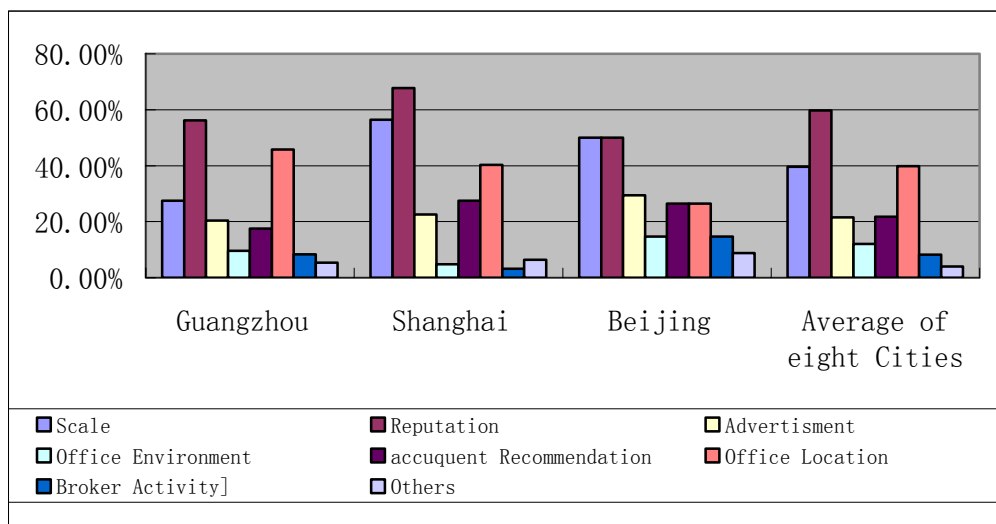
models above is not good so the predictive power of the model is limited. The regression efficiencies only can be use to explain the odds ratio changing of broker-service as the variables change.

The analysis results above different with that of Jud (1983) and Zumpano, Elder and Baryla (1996). We have not found the same significant influence of AINC. In Guangzhou and Beijing, the influences of AINC is even opposite because one beta is positive and the other one is negative. Such question needs further examining.

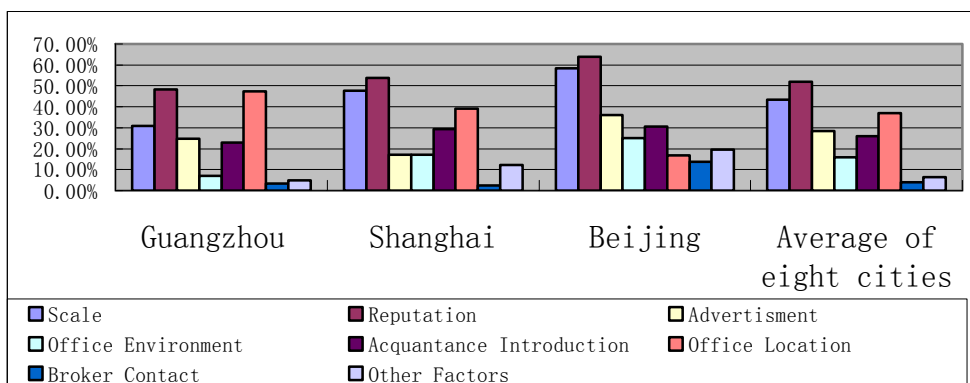
***The attributes of the firm and the choices for broker-service***

When sellers or buyers choose which firms to use, which characteristics they may pay more attention? In order to study this question, there are multiple choices designed in the questionnaire, “scale”, “reputation”, “advertisement”, “office environment”, “office location” of the firm and other related factors include “acquaintance recommendation”, “broker activity” and “others” as choice items. Exhibit 12 and Exhibit 13 show the summary of the choice results for sellers and buyers in Guangzhou, Shanghai, Beijing and the average of eight cities.

**Exhibit 12**  
**The characteristics of firm seller consider when select**



**Exhibit 13**  
**The characteristics of firm buyers consider when select**



No matter of sellers or buyers, the “reputation” of firm with percentage of 50% to 67.74% is most important attribute they consider when choose firm. The average percentage of eight cities for this attribute are 59.76% for sellers and 51.85% for buyers. Looking into the sellers’ choices in three cities, Shanghai has the highest choice percentage for this factor with 67.74%, as Beijing is lowest with 50%, and Guangdong with 56.25% in the middle, a little lower than the average. For buyer, Beijing has biggest with 63.89%, Guangdong least with 48.39%, Shanghai in the middle with 53.66%, little more than the average of 51.85%.

“Scale” with percentage 39% to 44% rank second or third important level. For buyers scale is second as for sellers is third. In Shanghai and Beijing, Scale is second important factor, but in Guangzhou scale is ranked third.

On the average, “Office location” also with choice percentage 39% to 44% (except Beijing) is ranked second rank for buyers but third for sellers. Comparing with the three cities, as Guangzhou with “office location” as second for both sellers and buyers, Shanghai office location ranks third. Beijing is very different from others in office location, just rank sixth with only 26.47% for sellers and 6.67% for buyers respectively.

“Advertisement “and “acquaintance recommendation” are also some important factors with choice percentage of 17% to 37%. On the average the percentages of “advertisement “are little more than that of “acquaintance recommendation” for buyers and almost the same for sellers.

In the whole, “reputation”, “scale”, “office location”, “advertisement” and “acquaintance recommendation” of firm are five top important factors influence the consumer’s selection, Following by “office environment” ( average 12% to 15%) and “broker activity” (broker contact with consumers actively)(average 4%

to 9%)and others( average less than 7%).

Those firms that pursue to expand its market share in order to further development should pay more attention to the top five characteristics first. Constructing enterprise reputation, expanding firm's scale, rationally choosing office location and advertising as well as paying attention to the word of mouth about firms are all important parts and future directions in the firm's new developing strategies.

## **Conclusion**

The real estate brokerage service in China is just at the beginning of the developing process. Many consumers have recognized the importance and convenience of broker in housing search and transaction but the recognition about the necessary of which is very different between different cities. The mainly indicators are the great difference between the percentages of broker-assisted transactions in different cities.

The main aims to use broker are "avoiding trouble" and "more quickly". Consumers have little expectation for the benefit that broker can increase selling price for sellers or decrease buying price for buyers. The main reasons why not use broker are "not necessary" and "don't trust", then "high commission fee", "faultiness service" and "others". All above results are consistent with the current orientation and commission structure of most real estate brokerage firms.

There are many factors influence whether the consumers choose to use broker or not, such as the consumers' related experience, age, education level, income and whether the city resident. But according to the binary logistic regression analysis, the influence of these characteristics to whether broker-use or not are very different in Guangzhou, Shanghai and Beijing and there is no distinct common rules can be followed.

There are many aspects that the consumers will inspect when they choose which firms to use and the considerations are different between the considerations of buyers and sellers. In the whole, "reputation", "scale", "office location", "advertisement" and "acquaintance recommendation" of firm are five top important factors.

Since the development of real estate brokerage service firms depends on the choices of consumers for their service, those firms that would like pursue further development firstly should adjust their developing strategies toward expert or professional service orientation rather than just intermediation; then put emphases on the trust building and pay more attention to the five top characteristics that

consumers consider more about when making firm-use decision. They should design a rational and efficient commission fee structure that consistent with their service in order to attract more consumers. They should build its reputation through enlarging the firm scale, relocating the firm office rationally and increasing advertisement and achieving higher service quality, etc. For the industry management, it is urgent to make Code of Ethics and Standards of Practice and other related industry regulation in order to solve the lack of trust from the bottom and realize the healthy development of the total industry.

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