

# **Citizen Satisfaction with Educational Services: The Marketing Implications of Public Administration**

**Yong Shen**  
**Tsinghua University**

**Xia Wang**  
**Renmin University of China**

*This study investigates public satisfaction with education and its causal factors in Beijing city, in the context of Chinese education reform. A survey of citizen in Beijing reveals that transparency, quality, quality orientation, and fairness can effectively explain public satisfaction with education. Further studies also demonstrate that demographic attributes affect satisfaction level with education significantly, and the advantaged group is relatively more dissatisfied with the education. Implications for public administration are also discussed.*

## **INTRODUCTION**

In the past several decades, performance has been a siren song for nations around the world, which is not only essential to enterprises, but also more and more important for public administrations (Ingraham, 2005). Government agencies should adopt practices, ranging from scientific management to total quality management, that have been found useful in the business market (Deleon & Denhart, 2000). Meanwhile, citizens are considered as consumers, and could accurately evaluate the specific and multiple service dimensions of local government or public administrations (Licari, McLean, & Rice, 2005; Kelly & Swindell, 2002). A substantial literature, both theoretical and practical, exists on service quality rating and satisfaction with public administration (e.g. Lewis & Pattinasarany, 2009; Van Ryzin & Immerwahr, 2007; Melkers & Willoughby, 2005).

Citizen satisfaction is usually investigated as a whole, including police, fire alarm and public transportation, etc. (Van Ryzin, 2006; Kelly & Swindell, 2002; Fitzgerald & Durant, 1980). A relatively small literature exists on explaining citizen satisfaction with specific function of governments, e.g. public educational administration (Lewis & Pattinasarany, 2009). Unlike the business sector, however, the work of government is extremely diverse across the activities it served (Deleon & Denhart, 2000; Kelly, 2005). Citizens are likely to rate services differently based on whether they consume the services as a result of coercion or choice (Brown, 2007).

Education is one of the most important services provided by local governments, which is

closely associated with economic growth, and plays a crucial role in utilization of human potential for social and economic progress and shaping a new political culture (Heyneman, 2004; Rong & Shi, 2001). Moreover, education is also a business, attracting appropriate students and providing mix of marketing activities is vital for all educational service administration. Marketing theories and concepts, which have been effective in business, are now applied by many educational service providers, especially for higher education, with the purpose to gain advantages in the increasingly competitive industry (Nicolescu, 2009). Satisfaction has been found to be an important determinant of attitude and choice (Tian & Wang, 2010), thus it is critical to understand citizens' satisfaction with educational service, especially which aspects of the service offering are most valued, and hence translate them into marketing activities that would attract and retain students (Hussin, Soon, & Sidin, 2000).

### **The Beijing Context**

Affected by the thoughts of Western public management, the ruling party in China has proposed its target of building a service-based government, emphasizing administrative accountability. Education, as a public good, has attracted attention persistently. Since the late 1950s, China has made tremendous efforts to improve education. Most of schools in China are publicly financed by the government, and only 1.8% of primary schools, 7.6% of middle schools and 19.8% of high schools are private according to the statistics released by National Bureau of Statistics of China. The Ministry of Education has reformed the curriculum by promoting the quality-oriented education (translated in Chinese as *suzhi jiaoyu*) since 1990s (Dello-Iacovo, 2009). In 2006, Chinese government issued the newly-amended Compulsory Education Law, which further clarified government's responsibilities in basic education. The government also adopted tuition fees waiver scheme in order to advocate education fairness in recent years. With the rapid economic growth, Chinese government has achieved conspicuous accomplishments in popularizing education. Some indicators, such as enrolment rate of primary education and adult literacy rate, are above the average of developing countries.

In spite of these efforts, however, at the same time, Chinese resource for education is still unbalanced in various aspects, which lies between genders, urban and rural area, and among various regions and groups (Rong & Shi, 2001; Hannum, Kong, & Zhang, 2009; Mok, Wong, & Zhang, 2009). The quality of educational service is widely criticized. A national survey indicated that 77.8% of the public were quite dissatisfied or not much satisfied with the overall education they received (Yang, 2005). Hence, the concern in education has to be shifted from objective figures such as enrollment to the subjective ones, i.e. satisfaction with quality and performance.

In addition, with opening up of the gates to private and foreign institutions to provide educational services, intense competition can be seen in the years to come. More and more students choose to study abroad or in the private international school with a 20 percent growth rate. School choice has become a major issue in urban China as many parents would like to pay a high-school fee to send their children to a high-quality school, which makes the education quality becoming the central focus in marketing the educational service and attracting appropriate students.

Beijing, the capital of China as well as China's political, economic and cultural center, has leading positions in the educational development of China. However, Beijing still faces great challenges in education, including the unbalanced elementary education service quality which resulted in the hot issue of school-choice. For instance, there exist differences in education expenditure between urban and rural areas, and the education expenditure for urban areas is

nearly 3 to 4 times than that for rural areas. Also, educational service in Beijing has becoming to be a buyer's market. The government schools have faced increasingly competition from private and other non-profit education institutions, as the number of government schools in Beijing has been reduced from 2100 in 2000 to 1403 in 2005. Thus it is crucial to understand how parents in Beijing evaluate the educational service quality and their satisfaction, and therefore provide marketing activities accordingly in order to compete in this competitive industry.

## **REVIEW OF RELEVANT LITERATURE**

### **Performance of Educational Service**

There are two types of indicators for public administrations' performance, performance data defined as objective and citizen survey data typically characterized as subjective (Parks, 1984; Brown & Coulter, 1983). Although there exist debates on whether the evaluation could approximate the reality, most of scholars agreed that citizen surveys sometimes collect useful information for the management for some kind of services and evaluate service quality that objective data otherwise cannot (Kelly & Swindell, 2002). The dominant model of consumer satisfaction in the study of business section is the expectancy disconfirmation model (Oliver, 1997; Van Ryzin, 2006). Whereas most of the studies investigating the public satisfaction have tended to adopt a straight forward approach, in which satisfaction is assumed to be directly determined by demographics and attitudinal factors (Lewis & Pattinasarany, 2009; Van Ryzin & Immerwahr, 2007; DeHoog, Lowery, & Lyons, 1990).

In the specific section of education, several studies have been carried out to investigate the factors influencing citizen satisfaction with educational service. World Bank Governance and Decentralization Survey (GDS) of Indonesia show that the probability that households are satisfied with education is determined by service quality indicators, governance conditions, and various exogenous variables (Lewis & Pattinasarany, 2009). The service quality indicators are measured through percentage of classrooms in good condition, whether school is accessible via an asphalt road, and average age of teachers at the primary school, etc. An African barometer survey indicates that service accessibility, service fees, service supply, teaching quality, corruption, and social structure will affect African satisfaction with educational service (Bratton, 2007).

In a pioneering study of service quality, Parasuraman, Zeithaml and Berry (1985) developed the instrument of SERVQUAL, which has been widely acclaimed as a major contribution. Five dimensions were identified in the SERVQUAL model. They are tangibility, reliability, responsiveness, assurance and empathy (Parasuraman et al, 1985). Although SERVQUAL was originally developed to assess consumer perceptions of service quality in business markets, it is also used in a variety of organization settings, such as higher education (e.g. Yeo, 2008; Arambewela & Hall, 2006; Sahney, Banwet, & Karunes, 2004; Engelland, Workman, & Singh, 2000).

However, SERVQUAL needs to be adjusted accordingly in the field of basic education which is different from business administration in essence, e.g. the service is not a choice but coercion. For instance, unlike business section, transparency and openness are important indicators for government performance evaluation. In the international movement of globalization, many countries, including China, have promoted access-to-information legislations, which are designed to advance public administration information flow and accountability (Relly & Sabharwal, 2009). In recent years, China government has issued Regulations of the People's

Republic of China on Open Government Information, providing legal guarantee for the right of public awareness and government transparency, aiming at meeting the demand of anti-corruption and accountability. In educational service, the public also need to gain information about enrolment policy, school quality, resource allocation, etc.

Government responsiveness and fairness are also important factors affecting satisfaction. Citizens who feel municipal authorities are unresponsive to them or not getting a fair return in municipal services for the taxes they provide are less likely to be satisfied with these public services (Fitzgerald & Durant, 1980). Furthermore, A superior quality interaction with the public service provider will increase the likelihood of a positive rating, whereas a poor quality interaction should increase the likelihood of a negative rating (Brown, 2007). As parents can contribute insights and knowledge to the school and enhance the educational process (Comer & Haynes, 1991), parents' participation may also be an important determinant of educational service performance. Moreover, it is safe to expect that citizen would like to spend their dollars as efficiently and effectively as possible (Ingraham, 2005), thus the expense of education may play an important role in the formation of citizen satisfaction. Finally, education quality clearly plays an important role since it directly affects a child's learning and educational attainment (Zhao & Glewwe, 2010).

Based on current literature, citizens' satisfaction with education may involve the following factors: transparency and openness, responsiveness and fairness, parents' participation, expenses, and service quality of education.

### **Demographics and Public Satisfaction**

There are also some studies on public satisfaction have focused on the impacts of demographic characteristics. Generally, the black and the poor are likely to feel being discriminated against, and more dependent upon city services, and hence have relatively lower satisfaction levels compared with the white and the affluent (Fitzgerald & Durant, 1980; Brown & Coulter, 1983). DeHoog et al (1990) has got an opposite conclusion and found that the white and the lower income citizens tend to have higher levels of satisfaction. Citizen ratings vary between residents and nonresidents (Licari et al., 2005), and areas with more residential turnover show less satisfaction with public services (Kelly & Swindell, 2002).

Demographic attributes of individuals such as age, gender, and education degree may also affect citizen's attitude judgment. The elder have limited expectation about the services, and maintain more favorable view of municipal governments than their younger counterparts (Fitzgerald & Durant, 1980; Brown & Coulter, 1983). There is also gender bias in service quality evaluations, males tended to rate the fairness of service encounters higher than females (Snipe, Thomson, & Oswald, 2006), and they were slightly more satisfied with police treatment than females (Brown & Coulter, 1983). But there are still some disputes unresolved. For instance, in the study of Brown (2007), males tended to give lower marks than females. The probability that households were satisfied increases with the head's education degree (Lewis & Pattinasarany, 2009).

Previous studies regarding China demonstrate that there is gender gap in education progress, especially in rural areas. Women are the majority of illiterate and semiliterate persons in China, and girls are less likely than boys to be enrolled in schools and more likely than boys to drop out (Rong & Shi, 2001; Hannum et al., 2009). Also there exists educational inequality between the economically developed areas and less economically developed areas in China (Mok et al., 2009). Maslak, Kim and McLoughlin (2010) found significant gender and ethnicity differences on

educational engagement. Furthermore, people with high education degree have lower evaluation on the government (Tang & Parish, 2000), but mothers' education will have positive effects on their children's completed years of schooling (Zhao & Glewwe, 2010).

Although scholars recognize the correlation between demographics and public satisfaction, the association pattern especially for satisfaction with education is not clear. Thus, the demographic attributes of individuals may also influence their satisfaction with education.

### **The Survey in Beijing**

Beijing, as a special case of China, faces the same competition and challenges in educational service quality. Thus, the objective of this study is to offer an empirical investigation of the citizen satisfaction with education and its causal factors in the city of Beijing. Specifically, we will focus on two sets of factors expected to influence citizen satisfaction with quality, that is service performance and demographic factors.

In turn, our study contributes to the literature in two ways. First, this study enhances the satisfaction literature by studying the educational service marketing at the macro-level. There has been a steady stream of research studying the customer satisfaction and service quality (e.g. Parasuraman et al, 1985; Oliver, 1997). However, educational service quality and public satisfaction, especially for governmental elementary schools, have not been studied. Our study fills this gap. Second, we not only investigate the characteristic of public satisfaction with education in Beijing, but also identify the causal factors of service performance and the demographic influence on the public evaluation of education, which could generate important implications for the local government and educational service institutions to provide a mix of marketing activities to attract students and gain some edge in education industry.

## **METHOD**

### **Participants**

The study investigates public evaluations on basic educational service provided by the government. A telephone survey was conducted on the citizens of Beijing. The sample was randomly selected and covered urban and rural residents in Beijing. A marketing research agency was entrusted to implement the survey at the end of 2006. Taking into account that parents take a decisive role in the children's participation of school, and are also a crucial group in evaluation of the public managements, the respondents were restricted to parents of household with primary or middle school students.

Table 1 shows demographic attributes of the respondents. Effective sample size is 605. The respondents with primary and junior school education accounted for 21.8%, and the respondents with high school education accounted for 30.2%, the rest have college or above education. 42.8% were male and 57.2% were female. Age of respondents was distributed between 18 and over 60, among which, 43.3% were below 40 years old. The interviewees came from 18 districts and counties of Beijing. In line with the needs of the study, we divided the residential area of respondents into urban area and suburban area, including 8 urban districts and 10 suburban districts respectively. The respondents lived in urban area accounted for 78.2%, and the respondents lived in suburban area accounted for 21.8%.

**TABLE 1**  
**DESCRIPTIVE STATISTICS OF DEMOGRAPHICS**

Variables	Percent	Variables	Percent
Gender		Age	
Male	42.8	<40	43.3
Female	57.2	>=40	55.7
Highest Education		Residence	
Primary/ Junior School	21.8	Urban	78.2
High School	30.2	Suburban	21.8
College and Above	46.9		

### Measurement

As reviewed above, there is no unified form of citizen satisfaction measure, especially for education service. Performance assessment is often implemented as a series of specific performance measures associated with certain service functions (Kelly & Swindell, 2002). Since citizens are witness of public service, citizen panels are considered as an important source of service quality performance measures (Crosby, Janet, & Schaefer, 1986). This citizen panel technology has been widely used in developing service attributes for public administration.

In order to understand citizens' expectations and attitudes towards educational service, the study firstly adopted the method of citizen panels and selected 9 Beijing citizens at random to conduct open interactive interviews. Three encoders recorded the results and at least two consistent observation items were kept. With encoding reliability of 70.7%, 21 measurable items were finally obtained to evaluate public service performance.

The 21 items obtained through interviews were divided into 6 service dimensions: Quality-Oriented Education, Education Quality, Education Expense, Education Transparency, Education Fairness and Education Participation. The quality-oriented education is corresponding to the curriculum reform in China (Dello-Iacovo, 2009). Education quality and education expenses represent special issues of basic education. There is an intense public response to exam-oriented education and education g in China (Yang, 2005). Meanwhile, education quality is an important predictor of achievement in poor countries and central Asia (Heyneman, 2004; Chapman, Weidman, Cohen, & Mercer, 2005). Variables of education transparency, fairness and participation are consistent with the suggestions in citizen satisfaction literature, and are also stressed in the discussion of the education reform in rural China (Brock, 2009).

The overall satisfaction was composed of 2 items including the overall quality of public educational service and satisfaction with public educational service. All of the 23 items were measured on a 10-point Likert scale ranging from "strongly disagree" to "strongly agree". Respondents were also asked to complete the information about their demographic information such as highest education level, age, and gender etc. Participants were provided with an instruction of their children's school when answering questions. No information was released about the underlying assumptions of the questionnaire.

### Analysis

SPSS was used to analyze the data. Exploratory Factor analysis (EFA) with varimax rotation was performed to analyze the latent dimensions of educational service performance. Three items were dropped for their unsatisfactory loadings. The optimal solution was achieved and had seven

factors as displayed in Table 2, which were consistent with the dimensions previously proposed. The seven factors explained 65.7 percent of the overall variance. To ensure that the measures that loaded on each dimension were internally consistent, each group was tested for reliability. Except the 'education fairness' factor having the Alpha value of 0.67, all reliabilities were acceptable (Cronbach's alpha > 0.70). Education fairness was kept for further analysis due to the importance of this dimension in education.

Confirmatory Factor Analysis (CFA) was employed to verify the construct validity of the factors, as shown in Table 2. Standardized loading ranges from 0.59 to 0.95, T value reflecting significance is at the level of  $p < 0.01$ . Except the AVE value of education participation slightly lower than 0.5, AVE values of other constructs are all higher or equal to 0.5. Considering the alpha value of this dimension, we believed that the effect of education participation still needs further analysis. Finally, the model fit of the measurement model is acceptable. ( $\chi^2=578.08$ ,  $\chi^2/df=3.19$ , GFI=0.92, CFI=0.97, NNFI=0.93, AGFI=0.89, RMSEA=0.06).

**TABLE 2**  
**RELIABILITY AND VALIDITY OF THE VARIABLES**

Factors	Items	Loadings	Alpha	AVE
Overall Satisfaction	Overall quality of public educational service	0.90	0.93	0.85
	Satisfaction with public educational service	0.95		
Education Quality	Teaching ability of teachers	0.83	0.88	0.60
	Occupational quality of the teachers	0.83		
	Teaching quality of the school	0.89		
	Teaching facilities and equipments of the school	0.59		
	Teaching content of the courses	0.70		
Quality-Oriented Education	Extra-curricular activities, etc.	0.69	0.79	0.57
	Extent of well-rounded development of students	0.82		
	Making students feel happy in learning	0.76		
Education Expense	Rationality of expense in education	0.82	0.82	0.68
	Openness and transparency of expense in education	0.83		
Education Fairness	Fairness of treatment on students	0.76	0.67	0.50
	Fairness of enrollment in school	0.65		
Education Transparency	Providing sufficient school information	0.79	0.81	0.58
	Convenience of accessing education information	0.79		
	Openness / transparency of education administration	0.70		
Education Participation	Communications between parents and school/teachers	0.68	0.70	0.44
	Participation in discussions on major school issues	0.61		
	The Parent Association's practical role	0.70		

To prepare the data for analysis, means of the constructs are calculated and reported in Table 3. The mean score on a 10-point scale is 6.76 for overall satisfaction, implying moderately positive evaluation of the educational service. In all of the determinants, the public are more satisfied with the education fairness, and are dissatisfied with the education transparency relatively. Table 3 also showed the correlations among the constructs. All of the cause factors are significantly positively correlated with overall satisfaction, whereas the correlations between overall satisfaction and education expense, overall satisfaction and education participation are relatively weak.

**TABLE 3**  
**DESCRIPTIVE STATISTICS AND CORRELATIONS**

	Mean	Std	OS	EQ	ET	QO	EP	EC	EF
OS	6.76	1.83	1						
EQ	7.25	1.54	0.54**	1					
ET	6.38	1.89	0.65**	0.57**	1				
QO	6.65	1.82	0.51**	0.58**	0.61**	1			
EP	6.62	1.89	0.42**	0.57**	0.53**	0.58**	1		
EC	7.11	2.32	0.32**	0.46**	0.36**	0.39**	0.38**	1	
EF	7.73	1.68	0.47**	0.62**	0.51**	0.55**	0.50**	0.46**	1

\*\* p<0.05

OS= Overall Satisfaction, EQ= Education Quality, ET= Education Transparency

QO= Quality-Oriented Education, EP= Education Participation, EC= Education Expense, EF=Education Fairness

## RESULTS

Regression analysis was utilized to evaluate the impact of the factors above on public satisfaction with education. The regression results with overall satisfaction as dependent variable are presented in Table 4. Model 1 described the effects of performance evaluation on overall citizen satisfaction with education. As shown in Table 4, most of the regression coefficients are statistically significant and conform to priori expectations. The service quality performance variables explain about half of the variance of the overall satisfaction. However, the effects of education expense and education participation on overall satisfaction are not significant. A possible explanation is that China in recent years has increased educational investment and adopted tuition fees waiver scheme, which may reduce the negative perception on education. Although previous studies show that the active participation of the students' parents into school education has some impacts on their children (Comer & Haynes, 1991), public in China has not yet paid sufficient attention to this issue, which to some extent, can explain why the coefficient of educational participation is not significant.

Education transparency, which the public are most dissatisfied with, is the most significant predictors of satisfaction. Traditionally, because of the lack of openness in administrative decision-making of the Chinese government, it is difficult for the public to obtain the necessary education information. With the introduction of the concepts of service-oriented governments, public administrations are expected to further enhance educational transparency. Education quality also plays an important role in explaining public satisfaction with education. Since all

parents wish their children obtain more knowledge in the school, the teachers' occupational quality and school resources are crucial in choosing and rating the education.

The coefficients for education fairness and quality-oriented education are significantly positive, suggesting that the higher the perceptions of education fairness and quality-oriented education, the higher the overall satisfaction with education. In contrast, the importance of education quality rated by parents is higher than that of quality-oriented education. Examinations and examination-oriented education still dominate the Chinese schooling despite the quality-oriented education reform (Dello-Iacovo, 2009).

In short, performance of educational services has significant impact on the public attitudes. Regression analysis shows that public satisfaction with educational service is mainly determined by education transparency, education quality, education fairness and quality-oriented education.

**TABLE 5**  
**RESULTS FROM REGRESSION MODELS**

Explanatory Variable	Model1 Coefficient (Standard Error)	Model2 Coefficient (Standard Error)
Intercept	1.075***(0.288)	1.529***(0.326)
Education Quality	0.245***(0.052)	0.248***(0.051)
Quality-Oriented Education	0.090**(0.043)	0.091**(0.043)
Education Expense	0.007(0.027)	0.017(0.028)
Education Fairness	0.090**(0.045)	0.086**(0.044)
Education Transparency	0.426***(0.039)	0.381***(0.040)
Education Participation	-0.023(0.038)	-0.015(0.038)
Gender <sup>a</sup>		
Male		0.101(0.111)
Residence <sup>b</sup>		
Urban Area		-0.546***(0.138)
Age <sup>c</sup>		
Below 40 years old		0.009(0.108)
Highest Education <sup>d</sup>		
Primary & Junior School		0.302**(0.150)
High School		0.060(0.129)
R Squared	.479	.502
F Statistics	90.562***	96.141***

\*\*\* p<0.01; \*\* p<0.05

a. Female as reference group;

b. Rural as reference group;

c. 40 years old and above as reference group;

d. College and above as reference group.

We further added demographic characteristics in Model 2 to evaluate the impact of demographics. Consistent with the research of Fitzgerald and Durant (1980), the background characteristics of individuals, in comparison to performance factors above, are modest predictors of the overall satisfaction with educational service. R-square is only increased by 0.023, but F test is statistically significant.

The impact of gender and age on overall satisfaction are not significant. It must be noted that the concept of gender effect here differs from that in previous studies (Rong & Shi, 2001; Hannum et al., 2009), in which the gender inequality mainly refers to whether the students have access to public education. In this study, gender effects refer to whether there is significant difference between male parents and female parents in evaluating education service.

The overall satisfaction of respondents with primary or junior school education is significantly higher than that of respondents with college education or above, and the overall satisfaction of the respondents living in urban area is significantly lower than that of those living in rural area. In other words, the advantaged group with higher education degree and living in urban areas is relatively more dissatisfied with education. These findings on demographical attributes are interesting as it is generally assumed that conditions of school in villages and suburbs are worse than those in urban areas and therefore the advantaged group with high education degree and living in urban areas would have been more satisfied with public service. This study arrives at a completely different conclusion that the advantaged group enjoying more education resources feels more unsatisfied in comparison with the disadvantaged group lacking education and social resources.

A possible explanation is that parents with high education degree and living in urban areas may have higher expectations with educational service provided by the government. In the consumer behavior literature, the discrepancy or gap between prior expectations and actual performance termed expectancy disconfirmation is important in determining customer satisfaction (Oliver, 1997). Citizen satisfaction surveys also demonstrated that expectations have a large, negative effect on disconfirmation, which in turn, positively and powerfully affects overall citizen satisfaction (Van Ryzin, 2006). Thus the advantaged group with higher expectations may be disappointed with education service and therefore not satisfied.

In order to better understand the differences of expectations on education of citizens, we carried out supplementary in-depth interviews in March 2008. We choose 4 interviewees at random from the sample giving upper 20% and lower 20% satisfaction evaluations to do interviews to know what they are expecting from the education of their children. Results are shown in Table 6.

Interviewee A and B have lower satisfaction with their children's education, while Citizen C and D have higher satisfaction with their children's education. A once worked in Germany, so she always looks at child education with Western standard, and thinks more about comprehensive quality of education and complete overall growth of her child. B is one of those who come to Beijing and wish their dreams come true, so he hopes his child will have a brighter future by receiving better education. C is a common industry worker and education is only a path for her child to find a good job. D is a farmer who doesn't expect too much from education. Although it is an individual case survey without statistical significance, we can find that citizens with lower satisfaction have higher expectations on the education of their children, while citizens with lower expectations have higher satisfaction. Thus, as relative socio-economic status rises, the probability of being satisfied with education declines (Lewis & Pattinasarany, 2009).

**TABLE 6**  
**IN-DEPTH INTERVIEW OF CITIZENS ON THEIR EXPECTATIONS**

Interviewee	Experience	Key expectations
Citizen A	Female, official of department of science and technology in Beijing, with several years of working experiences in Germany, well-educated and affluent	School education is still examination-oriented today, and both children and parents face great pressure. In Germany, child education is focused on cultivating individual interests and moral. I hope my child can get education for all-round development and make significant contributions to the society.
Citizen B	Male, owner of a private company, having immigrated to Beijing and worked for 10 years, college education, high income.	The main starting point to set up own business is to allow my child to receive better education. There is little good school, and enrollment standards are not transparent enough. As social competition is rather fierce, I hope my child can get out of the common in the future.
Citizen C	Female, worker of a state-owned enterprise, having a high school diploma, needs to support the elders, low income.	The policy of entering school near home brings convenience for my child. Unlike the situation in our age, enrollment rate now is very high. I just hope my child can go to a university and get a stable job.
Citizen D	Male, farming in rural district of Beijing, graduated from primary school; work in the city during slack season, low income.	After the implementation of tuition and fees waiver program, my pressure is reduced. I didn't have enough education, so I hope my child can receive more education and gain more knowledge, and whether he can go to university is decided by him.

## CONCLUSION AND POLICY IMPLICATION

This study develops an exploratory investigation of citizen satisfaction with education in Beijing city as a special case of China. Results of the study show that education transparency, education quality, quality-oriented education, and education fairness are important factors affecting perceptions of citizens in Beijing. Education quality and quality-oriented education are special indicators for educational service, which have unparalleled importance for expectations and satisfaction of citizens. Education transparency and fairness are also essential to education, which have been neglected in traditional models. Nevertheless, the impacts of education participation and expense are not significant. The results suggest that the public in Beijing expect high-quality school education and values the all-round development of their children. Moreover, the public in Beijing also value more open government and more transparent information, as well as guaranteed education fairness and campus safety.

This study also demonstrates that the advantaged group is more dissatisfied with the educational service than the disadvantaged group is. Satisfaction with education of urban residents, with a higher educational degree, is significantly lower than that of rural residents with relatively low education degree. The gap in the attitude of urban and rural residents echoed a series of policies implemented by Chinese Government in recent years, including enlarged

educational investment in rural areas, compulsory education, and exemption from tuition fees for poor families, which have raised the level of educational services in rural areas, and have significantly improved satisfaction of the disadvantaged group.

Results of this study have several implications for public management, especially for Beijing educational service administrations. First, with the rapid economic growth and the acceleration of market-oriented transformation in China, the government function has gradually transformed from economic development to public services provision, which leads to the continuous increase of public expectations on educational services. Accordingly, the educational development should shift from being quantity-oriented to quality-oriented to raise the overall quality of basic education, which is important to create satisfaction of the public and parents. Meanwhile, China's ongoing administrative reform, aimed at building a transparent government, further promote education transparency and information disclosure as the key to public satisfaction with educational service.

Secondly, the attitude of citizens with various demographic characteristics provides a rich understanding in marketing segmentation. The advantaged group is the major dissatisfaction group as compared to the disadvantaged group with higher expectations on the educational service, such as quality of education, education transparency, etc. Due to the scarcity problem of education resources, however, it is not rational to cater for appeals of this group by simply enlarging government investment, which will damage interests of other groups. Thus, the educational service administrations should apply the marketing segmentation concept in the industry and fulfill the advantaged group's demand by providing diversified education options, such as offer various educational programs that may make them satisfied.

Finally, the educational service administration should also apply the promotion strategy by effectively communicating with citizens. The administration should make a more pertinent communication based on different attitudes of citizens/parents. As higher expectation and preference leads to the advantaged group feel unsatisfied and the group's opinions are often exaggerated, it often covers up the voice of other groups and dominates the public view. For the administrations, it is not a best choice to response to citizens' attitudes passively. Inter-communication of information is helpful for citizens to reevaluate the quality of educational services. In the short term, this is a more effective and practical approach as the problem of insufficient public investment on education could not be solved. In the long run, it is necessary for the government to enlarge investment in education to enhance educational service.

This study also has some weakness that merits future research. First, it should be noted our research investigates the citizen satisfaction with education in the city of Beijing. Although Beijing can be an example of China, whether the results could be extended to the whole China needs further empirical evidences. Moreover, some of our explanations need to be explored further with additional research. For instance, the impacts of education expenses and participation on overall satisfaction with education are not significant, and the effect of quality-oriented education is relatively lower than that of education quality. These effects may change over time together with the unfolding public education reform.

\* Dr. Xia Wang is the corresponding author; she can be reached by email at: wangxia.bao@gmail.com

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