A Study of Governmental Quality Effort Satisfaction Evaluation—with Puer City as an Example

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Abstract. Conducting quality effort satisfaction evaluation is an effective way to connect quality management departments with the general public and one of the important ways to propel local governments to improve quality efforts. This paper, with Puer City as an example, acquired the results of public satisfaction with the quality efforts in Puer City through questionnaire survey, analyzed the current status and deficiencies of quality efforts in Puer City using data and proposed resultant opinions and suggestions with a view to helping raise the quality level in Puer City and driving the implementation of the city's strategy of getting stronger through quality.

1. Introduction

Quality is an important symbol of social productivity level and a concentrated reflection of overall national quality and comprehensive strength of local regions. Currently, China's economy has turned from high-speed growth stage to high-quality development stage, where emphasis on quality is urgently need to drive economic transformation and upgrading and a practical move to safeguard and improve people's livelihood. In recent years, the national government at all levels paid great attention to quality efforts by energetically conducting quality improvement campaigns.

Quality efforts are closely related to public interests, and the general public is the direct percipients of effectiveness of quality efforts as the service recipients of quality efforts. Implementing the evaluation of public satisfaction with governmental quality efforts is intended to fully, objectively and fairly reflect the local quality efforts from the perspective and position of the general public, and to understand the gap between the effectiveness of governments' quality improvement campaigns and consumers' quality perception and demands. In 2014, the General Administration of Quality Supervision, Inspection and Quarantine proposed to include the third-party evaluation mechanism in the governmental quality effort performance appraisal, and local governments across the country have conducted evaluations of public satisfaction with quality efforts in succession in recent years. This paper, with Puer City as an example, where the evaluation of public satisfaction with governmental quality efforts was conducted in 2020, is intended to understand the quality status of the city in terms of product quality, engineering, quality, environment quality and service quality, identify the deficiencies in quality efforts, improve and raise the quality level in a targeted manner and provide a point of reference and suggestions for accelerating the quality improvement in the city, driving high-quality development and sparking the regional economic vitality.

2. Research Content

According to the Quality Development Outline (2011-2020), the "13th Five-Year" Plan for Advancing Equalization of Basic Public Services and other related documents, in light of the socioeconomic development characteristics of Puer City, the contents of satisfaction evaluation selected five fields of product quality, engineering quality, service quality, environmental quality and quality awareness and set them as 5 level-1 indicators, for each of which corresponding level-2 indicators are set for measurement on a 1-to-5 scale, as detailed in Table 1.

Table 1. Contents of evaluation of public satisfaction with governmental quality efforts in Puer City.

Level 1 indicator	Level 2 indicator	Measurement method
Product quality	Food and drug quality	Very unsatisfied i=1; Unsatisfied i=2; Ordinary i=3; Satisfied i=4; Very satisfied i=5
	Agricultural product quality	
	Consumer goods quality	
	Special equipment quality	
Engineering quality	Construction engineering quality	
	Transportation engineering quality	
Service quality	Productive service quality (quality of communications and network, banking and insurance, e-commerce, logistics and courier service)	
	Quality of life services (public education, medical care, post-retirement service, public utilities, tourism, public cultural and sports services)	
Environmental quality	Aquatic environment quality	
	Air quality	
Quality awareness	Quality complaint	
	Information disclosure and publicity	
	Quality improvement	

3. Research Method

3.1. Data Acquisition

This satisfaction evaluation mainly employed stratified sampling method and questionnaire survey process that combines intercept interview and online survey for data acquisition. The questionnaire survey covered 10 counties (districts) of Puer City, with 2411 valid samples collected. The distribution of sample size is shown in Table 2:

Table 2. Distribution of survey sample size.

Simao District	240
Ninger Hani & Yi Autonomous County	200
Mojiang Hani Autonomous County	281
Jingdong Yi Autonomous County	281
Jinggu Dai & Yi Autonomous County	228
Zhenyuan Yi, Hani & Lahu Autonomous County	200
Jiancheng Hani & Yi Autonomous County	200
Menglian Dai & Lahu & Wa Autonomous County	200
Lancang Lahu Autonomous County	381
Ximeng Wa Autonomous County	200

3.2. Data Calculation

The questionnaire was designed with 5 point Likert scales, in which 20 points for option 1 ("Very dissatisfied"), 40 points for option 2 ("Unsatisfied"), 60 points for option 3 ("Ordinary"), 80 points for option 4 ("Satisfied"), and 100 points for option 5 ("Very satisfied"). The formula is as follows:

$$Q = \frac{\sum_{i=1}^{r} m_i q_i}{\sum_{i=1}^{r} q_i} \quad (r=5,4,3,2,1) \tag{1}$$

$$S = \sum_{k=1}^{5} \beta_k \sum_{j=1}^{k} \alpha_j \cdot Q \tag{2}$$

Wherein, S is the total score of satisfaction with governmental quality efforts; Q is the satisfaction score of level 2 indicator; mi is the value assigned to satisfaction measurement option of the indicator i (m1=20, m2=40, m3=60, m4=80, m5=100); βk means the weight of the level 1 indicator k. The weights of indicators of each level are determined based on historical survey data and Delphi method.

4. Evaluation Results

In 2020, the total score of evaluation of public satisfaction with governmental quality efforts in Puer City was 73.90, a rather satisfactory level that is 0.78 point higher than the 2019's score (73.12 points). Of them, the score of environmental quality was the highest, at 76.24 points, while the score of product quality was relatively low, at 72.15 points. The scoring results in each field are shown in Figure 1.
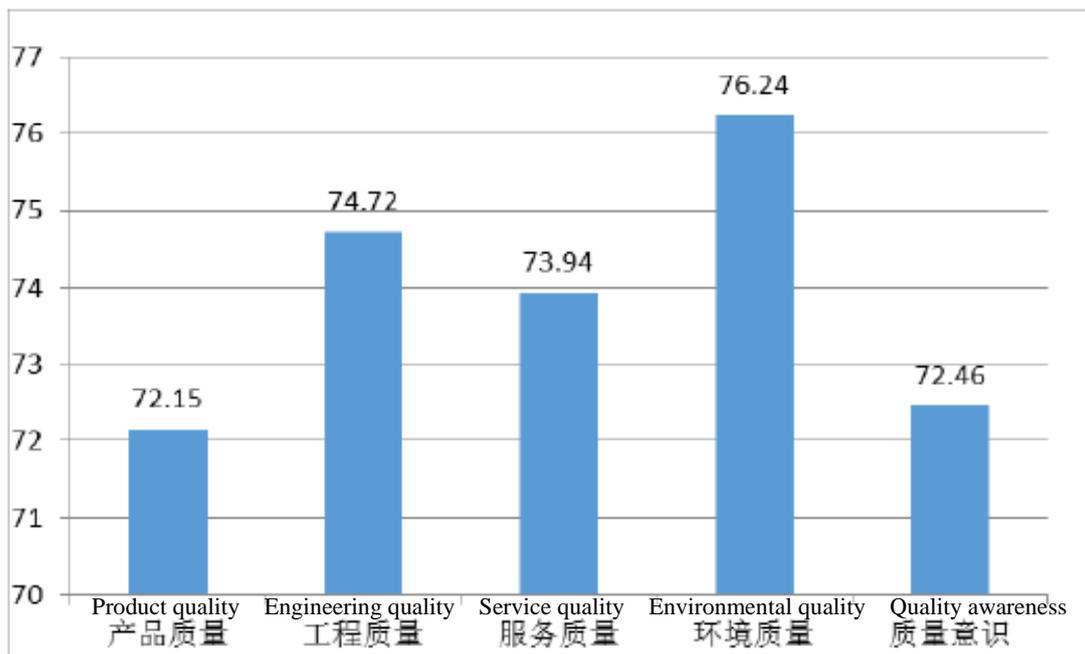

Figure 1. Scores of public satisfaction with governmental quality efforts in Puer City in 2020.

Among various indicators in the field of product quality, the satisfaction with consumer goods quality was rather high, at 74.06 points, followed by agricultural product quality and special equipment quality at 72.39 points and 71.09 points respectively; the satisfaction with food and drug quality was scored the lowest, at 71.07 points. According to survey findings, unclear drug description, presence of fake drugs and false publicity and poor efficacy of drugs are the main factors affecting the satisfaction with drug quality. Of them, unclear drug description accounted for 31%, prevalence of fake drugs 25%, false publicity 23%, poor efficacy of drugs 18% and others 3%.

Among various indicators in the field of engineering quality, the score of construction engineering quality was rather high, at 75.24 points, followed by transportation engineering quality, at 74.15 points. According to survey findings, among the numerous factors affecting the satisfaction with transportation engineering quality, presence of cutting corners accounted for 34%, presence of safety hazards 23%, unclear indication signs 20%, poor quality of main structures 18% and others 5%.

Among various indicators in the field of service quality, the score of productive service quality was 74.25 points and that of quality of life services 73.63 points.

Within the scope comprising quality of productive services, the quality of logistics and courier

services was scored the highest, at 76.25 points, followed by quality of e-commerce service, communication and network services and banking services, at 76.18 points, 73.64 points and 73.24 points respectively, while the quality of insurance services was scored the lowest, at 72.98 points. Within the scope comprising quality of life services, the quality of public education services was scored the highest, at 76.89 points, followed by quality of public utility services, public cultural and sports services, tourism services and medical services, at 75.56 points, 73.88 points, 73.59 points and 72.58 points respectively, while the quality of post-retirement services was scored the lowest, at 70.47 points.

Further surveys were conducted for the post-retirement service indicator which is least publicly satisfying. Among them, 34% of residents considered the quality of healthcare workers as low, 22% of residents considered healthcare facilities insufficient, 21% of residents considered they are underserved and 18% of residents believed charges are unreasonable.

Among various indicators in the field of environmental quality, air quality was scored highest, at 76.60 points; aquatic environment quality was scored lowest, at 75.87 points. With respect to the reasons for dissatisfaction with aquatic environment quality, 34% of residents reported domestic garbage abandoned in rivers and lakes; 22%, 21% and 18% of residents believed rivers and lakes had been polluted by agricultural, industrial and biological sources.

Among various indicators in the field of quality awareness, quality improvement was scored highest, at 78.21 points, followed by quality complaints, at 70.58 points and then by information disclosure and publicity, at 68.60 points.

The level of resident quality awareness can indirectly reflect the effectiveness of governmental quality efforts. Further surveys were conducted for government information communication and publicity indicators which were regarded by residents as poor. Among them, 46% of residents reported "few channels for publicity and information disclosure and few beneficiary citizens", 30% of residents reported "limited numbers and small scales of publicity activities", and 24% of residents reported "delayed and inaccurate publicity of quality safety information".

5. Suggestions

In light of the results of this survey for evaluation of public satisfaction with the governmental quality efforts, the following suggestions are raised for fully increasing the quality level and advancing the city's drive to make it stronger through quality improvement:

5.1. Pay More Attention to Deficiencies in Quality Efforts and Raise The Overall Quality Level

Conduct quality improvement activities in a purposeful and focused manner, strengthen quality efforts in areas where product quality and quality awareness are poor, advance steady growth in engineering quality and environmental quality in a planned manner, focus on hotspot and difficult issues of concern to the general public, work hard on implementation of quality efforts and take targeted measures to effectively address public appeals.

5.2. Strengthen Quality Supervision Activities and Improve Product Quality

To address the poor quality of products, Puer City Government should actively conduct product quality improvement campaigns and work hard on standardized food production, brand building and quality safety supervision. Implement the food and drug access and exit mechanisms, effectively improve the quality of foods, drugs and agricultural products, continuously improve product quality and enhance the public satisfaction with product quality.

5.3. Establish Quality Complaint Mechanisms and Optimize Service Quality

While ensuring proper quality efforts across the board, related departments should pay much attention to the public supervision forces, strengthen social supervision and public opinion supervision of quality issues and reinforce public opinion monitoring of quality issues. Establish quality effort complaint and feedback systems, make public complaint and whistle-blowing

channels obstacle free, make available complaint platforms such as WeChat, microblog, SMS and government websites by using the "internet +" model, understand quality issues encountered by general public through various means, carry out response and feedback activities in a timely manner, increase the efficiency of handling public complaints and seriously hold handling departments accountable for "shirking responsibilities, delaying and circumventing" and personnel accountable for inaction and malpractice, so as to improve the quality of government services across the board.

5.4. Solidify the Foundation for Quality Development and Drive Development with Innovation

Insist on improving development quality and efficiency as the center and quality improvement as the core direction, and solidly conduct product, engineering, service and environmental quality development efforts. First, continuously strengthen the supporting role of the foundation and vigorously enhance the industry standards and quality level by implementing standard upgrading and increasing certification and accreditation rates; second, stick to the approach to innovation-driven development and lead industry development with innovation. Vigorously drive companies to pursue quality and technical innovation through encouraging and guiding policies, support and encourage companies to make key technological breakthroughs in quality, foster quality innovation demonstration bases centered on technology, standard, brand and service, launch new products and give birth to new forms of business. Facilitate the quality efforts with quality innovation and improvement in quality capabilities.

6. Conclusion

In 2020, quality improvement activities in Puer City made leap-forward progress from the satisfaction scores of 2019, but imbalanced quality development still existed, especially in terms of drug quality safety supervision, construction engineering management level and quality of post-retirement services, which still need focused attention and to be improved. In this regard, the relevant regulatory departments should carry out special rectification actions to promote the overall level of quality, so as to improve the satisfaction of the masses and meet the needs of the masses.

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