Analysis on the Effectiveness of Quality Improvement in Guizhou Province From the Perspective of Public Satisfaction

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ABSTRACT
The public satisfaction of quality work is one of the most intuitionistic data that reflects the effectiveness of quality work in various regions and the changes in the public's demand for quality work. It is one of the most effective channels to link the government and the masses. This paper investigates the public satisfaction of quality work in Guizhou Province from the aspects of product quality, engineering quality and service quality, and analyzes the effectiveness of quality improvement in Guizhou Province in the last two years through the changes in the scores of various indicators in the past two years. In view of the weakness of the existing quality work and the people's latest demand for quality work, suggestions are put forward in order to promote the overall quality of Guizhou Province.

Keywords: Guizhou Province, quality work, satisfaction

I. INTRODUCTION
Quality involves various fields of national economy, production, consumption and social activities. It is a strategic issue of economic and social development. In recent years, with the progress of economy and society and the improvement of people's living standard, people's demand for "high quality" has also been improved step by step, and the importance of quality improvement has been highlighted step by step. In this regard, the Central Committee of the Communist Party of China and the State Council specially issued the Guiding Opinions on the Implementation of Quality Improvement Actions to deploy quality improvement work. Local governments at all levels have also significantly increased the importance of quality work, and quality improvement has achieved relatively obvious results. The quality work satisfaction of the masses is undoubtedly the most intuitive and scientific way to test local quality improvement results. In view of this, the authors has carried out the third-party evaluation of the public satisfaction of quality work in Guizhou Province for two consecutive years, and analyzed the changes in the scores of various indicators, with a view to objectively and truly show the actual results of quality improvement in Guizhou from the perspective of the masses. This paper report the quality issues that the public cares most about and the most urgently needed improvement to local governments, and promotes accurate implementation of local governments to effectively improve the quality and efficiency of development and benefit the people.

II. RESEARCH METHODS
Taking the content of the public easy to feel and closely related to daily life as the monitoring indicator, this paper evaluates the public satisfaction of the quality work in 10 cities, such as Guiyang City, Zunyi City, Liupanshui City, Anshun City, Bijie City, Tongren City, Qiandongnan Prefecture, Qiannan Prefecture, Qianxinan Prefecture, Gui’an New Area, and so on. The interviewees covered different age groups, educational levels and income groups to ensure the comprehensiveness and objectivity of the data as much as possible.

A. Indicator system design
The evaluation is based on the public's satisfaction with the local government's quality work and a measure of the public's perception of the local government's quality work. The content of the evaluation includes four major areas: product quality, engineering quality, service quality and quality awareness. Four first-level indicators will be set, and a corresponding second-level indicator will be set for each first-level indicator. The evaluation content is closely related to the daily life of the public. For specific evaluation content, see "Table I".
TABLE I. CONTENT OF THE THIRD-PARTY EVALUATION OF QUALITY WORK IN GUIZHOU PROVINCE

| First-level indicator | Second-level indicator | Measurement indicator |
|-----------------------|------------------------|-----------------------|
| Product quality       | Food and drug quality  | Drugs                 |
|                       | Quality of agricultural products | Edible agricultural products |
|                       | Quality of consumer products | Fertilizer, pesticides, feed and feed additives |
|                       | Quality of special equipment | Elevator, large-scale amusement facilities, passenger ropeway |
| Engineering quality   | Construction engineering quality | Housing municipal engineering |
|                       | Traffic engineering quality | Long-distance and short-distance public transport services |
|                       | Productive service quality | Communications and network services |
|                       | Living service quality | Banking service |
|                       |                          | Insurance service |
|                       |                          | E-commerce, logistics and express delivery services |
| Service quality       |                          | Primary and secondary school education service |
|                       |                          | Medical service |
|                       |                          | Old-age service |
|                       |                          | E-commerce service |
|                       |                          | Public service and style service |
|                       |                          | Tourism service |
|                       |                          | Home decoration service |
| Quality awareness     | Quality complaint       | Quality complaint satisfaction |
|                       | Information disclosure and publicity | Notification of quality and safety issues, and quality publicity |
|                       | Quality improvement     | Quality improvement of product, engineering, environment and service |

B. Data acquisition

This sampling activity is based on the principle of proportionality of probability scale, and the number of samples in each city is determined according to the proportion of the population of each city and state to the total population of the city. A total of 2,900 effective samples are recovered, covering 10 cities in the province. From the perspective of age, young people accounts for 59.8%, middle-aged people accounts for 34.4%, and the elderly people accounts for 5.8%; from the perspective of education, respondents with junior high school and above accounts for 50%, respondents with college degree accounts for about 19%, and respondents with bachelor degree or above accounts for about 31%; from the perspective of income, income of 2,000 yuan and below accounts for about 19.1%, income of 2,000-4,000 yuan accounts for about 20.2%, income of 4,000-6,000 yuan accounts for about 26.8%, income of 6,000-10,000 yuan accounts for about 15.9%, and income of 10,000 yuan or above accounts for about 18%.

III. EVALUATION RESULTS

A. Overall situation of quality work satisfaction in Guizhou Province

In 2019, the public satisfaction evaluation of quality work in Guizhou Province is 69.31 points, which is at a relatively satisfactory level, an increase of 0.40 points from last year. Among the various first-level indicators, the quality awareness performance is outstanding, with a score of 70.22; the service quality and product quality scores are ranked next, followed by 70.17 points and 68.46 points; the engineering quality score is lower, 66.26 points.

Compared with 2018, in addition to engineering quality and quality awareness, there are small differences in changes of other first-level indicators in 2019. Among all first-level indicators, the minimum difference is 0.35 points, the maximum difference is 3.68 points, and the average difference is 0.40 points. From the change direction of each first-level indicator, the scores of quality awareness, service quality and environmental quality show a positive growth trend. Satisfaction evaluation scores increase by 3.68 points, 0.78 points and 0.54 points in turn, and engineering quality and product quality have a negative growth trend, decreasing by 2.62 points and 0.35 points in turn, as shown in "Fig. 1".
Fig. 1. Score changes in social public satisfaction of first-level indicator.

B. Satisfaction of each sub-item indicator

1) Product quality: In the product quality evaluation results, the consumer products quality score is the highest, 70.37 points, and special equipment quality score is the lowest, 61.54 points. The indicator in the middle is food and drug quality, with a score of 70.06 points; the score of the agricultural products quality is 68.33 points. Compared with 2018, the overall product quality satisfaction score has decreased by 1.23 points. Except for food, drugs and consumer products, other second-level indicators have declined to varying degrees. Among them, the quality of special equipment has the largest decline, which is 6.73 points lower than last year. Food and drug quality has increased by 2.40 points from last year, and consumer products quality has increased by 1.40 points from last year, as shown in "Fig. 2".

2) Engineering quality: Among the engineering quality, the traffic engineering quality score is the highest, 66.80 points; the construction engineering quality is the lowest, 65.72 points. Compared with 2018, the overall score of engineering quality is decreased by 2.62 points. Both the construction engineering quality and the traffic engineering quality are reduced to varying degrees; the scores are decreased by 3.60 points and 1.64 points respectively, as shown in "Fig. 3".

Fig. 2. Score changes in public satisfaction of product quality in 2018-2019.

Fig. 3. Score changes in public satisfaction of engineering quality in 2018-2019.
3) Service quality: Among the service quality, the evaluation score of the productive service quality is higher, 70.48 points; the evaluation score of the living service quality is lower, 69.75 points. Compared with 2018, nearly half of the indicators of the living service quality show a downward trend. Among them, the old-age service quality score is the lowest, 68.33 points; the quality of e-commerce has the largest decline, 1.74 points. In the monitoring indicators of the living service quality, except for the decline in the quality scores of medical service, tourism service and home decoration service, the scores of other monitoring indicators have been improved, as shown in "Fig. 4" and "Fig. 5".

Fig. 3. Score changes in public satisfaction of engineering quality in 2018-2019.

Fig. 4. Evaluation scores in public satisfaction of productive and living service quality in 2018-2019.

Fig. 5. Score changes in public satisfaction of productive and living service quality in 2018-2019.
4) Quality awareness: The second-level indicator of public satisfaction of residents' quality awareness mainly includes quality complaint, information disclosure and publicity, and quality improvement. Among them, the score of quality improvement is higher, 72.42 points, and the score of information disclosure and publicity is lowest, 68.48 points.

Compared to 2018, quality complaints have improved significantly, with an increase of 6.15 points. Information disclosure and publicity have declined by 0.95 points, as shown in "Fig. 6". This shows that the government's ability to respond and deal with quality complaints has improved, information transparency needs to be improved, and publicity capacity needs to be strengthened.

![Fig. 6. Score changes in public satisfaction of quality awareness in 2018-2019.](image)

C. Analysis of the factors influencing the evaluation results

The evaluation of public satisfaction of government quality work is based on the actual effect of public perception and the expectation indicators of quality. Therefore, the satisfaction result will be influenced by many factors, such as social background, personal needs, previous experience and living environment. Hence, the survey results should take the above variables factors into account.

Judging from the evaluation situation, different age groups have large differences in the evaluation of government quality work on most first-level indicators. Among them, there are significant differences in product quality, service quality, environmental quality and quality awareness among 18-44 year-old youth groups, 45-59 year-old middle-aged groups and 60-79 year-old elderly groups, and the difference in engineering quality is less obvious. Overall, middle-aged groups have the highest overall evaluation of government quality work, with a satisfaction score of 73.35 points. The evaluation of the youth group is second, with a score of 71.81 points, and the evaluation of the elderly group is relatively low, with a score of 64.88 points.

Judging from the educational background, there are large differences in the evaluation of government quality work satisfaction among groups with different levels of education. Among them, residents with an education level of undergraduates have a higher satisfaction evaluation of various indicators of government quality work, with a total score of 75.44 points. In general, with the improvement of educational background, people's attention to government quality work is increasing, so the degree of satisfaction is on the rise.

Judging from the income, the urban respondents with a household income of more than 20,001 yuan have a higher evaluation of government quality work, with a score of 76.30 points; the respondents with an income of 2,001-4,000 yuan have a lower evaluation of government quality work, with a score of 69.74 points. The rural respondents with a household income of more than 10,001 yuan have a higher evaluation of government quality work, with a score of 75.81 points; the respondents with an income below 1,000 yuan have a lower evaluation of government quality work, with a score of 71.76 points. The survey data shows that rural respondents with different incomes are more satisfied with government quality work than respondents with different incomes in cities. The government has made remarkable achievements in favoring and paying attention to low-income people, as well as in the policy of coordinated development between urban and rural areas.

IV. CONCLUSION

Although the public's satisfaction with quality work has a definite subjectivity, to a great extent, it can objectively reflect the real experience of the public, and it can also timely reflect the changes of the public's demands for quality work. From the situation of public satisfaction of quality work in Guizhou Province in the
past two years, all kinds of quality work in Guizhou Province have achieved a definite result, especially in the aspect of quality awareness, but at the same time, some problems have been found in the quality work of Guizhou Province, such as low quality products in some areas, insufficient use of added value of products, and great room for improvement of engineering quality. At the same time, with the changes of social economy and people's life style, the public has a higher demand for the old-age service, e-commerce service, etc., which requires the government to pay attention to. Based on the survey results of public satisfaction of quality work in Guizhou Province and the regional characteristics of Guizhou Province, the author puts forward the following suggestions, hoping to push the quality work of Guizhou Province to a new level.

A. Promoting industrial transformation, upgrading with innovation and improving quality and efficiency

In recent years, Guizhou Province has made good achievements in the development of characteristic agricultural industry and the building of Guizhou brand. It is suggested that Guizhou Province should continue to focus on characteristic superior industries and carry out reform and innovation. On the one hand, development strategy is innovated to improve the added value and competitiveness of products and provide more high-quality products for the society so as to move towards the middle and high end of global value chain. On the other hand, develop new materials, new technologies and new processes, build new pillars of the industrial system, transform traditional industries and break industrial dilemmas to make traditional industries realizes overtaking in corners. At the same time, improve the quality of personnel, cultivate the "soft power" of enterprises, enhance the overall management ability of enterprise managers, strengthen the training of high-level workers and managers, build the spirit of craftsmen, and truly realize strong leading, variety increasing, quality improving and brand building. And promote industrial transformation and upgrading with innovation and improving quality and efficiency.

B. Accelerating the improvement of engineering quality and upgrading the top-level design

In recent years, with the change of the international situation and the changes of national economic policies, the problems and requirements in the engineering field have also changed. The construction contractor's behavior of compressing the reasonable construction period under the premise of saving the cost under the pressure, failing to carry out the statutory construction procedure as required, subcontracting, illegal subcontracting and subcontracting management are emerging. To improve engineering quality, it is necessary to fully understand the new situation and new requirements in the engineering field. Drawing on the excellent experience at home and abroad, we should improve the risk assessment system, strengthen the safety risk monitoring and risk investigation, explore the quality evaluation system, promote the establishment of the indicator system of qualification rate and competitiveness indicator, implement the defect insurance system, make full use of the market mechanism to strengthen the quality risk control, strengthen the top-level design, specifically reform and improve the engineering quality assurance system, and precisely implement measures to promote the construction of the project to a higher quality.

C. Improving service quality with international standards

Facing the complex and changeable international market environment, many regions of our country have chosen to further open the market and create a good business environment. Although Guizhou Province is inland, the opening of the market is also an important path for economic growth in inland areas. With the increasing vitality of the market in Guizhou Province, Guizhou Province should keep up with first-class standards, continuously improve the efficiency and service quality of the government, deepen comprehensive reform of the business environment, focus on handling the relationship between the government and the market, fully respect the laws of the market economy, give full play to the role of the market, and clear away the artificial obstacles to the improvement of the service quality. At the same time, Guizhou Province should strengthen the basic support of the quality, strengthen the quality management, improve the market efficiency, provide quality services to all social parties, such as enterprises, consumers and government departments, improve the quality certification system, stimulate the vitality of industry development, and effectively improve the service quality. At the same time, Guizhou Province should attach great importance to the problems arising in the field of e-commerce and old-age service, and work together to solve the pain points and difficulties of the society.

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