



Non-economic benefits of standards

The “12345-Hotline Service” in Jinan

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1. Objectives and organization of the pilot project



The 12345 public service hotline of Jinan was chosen as the object to assess the non-economic benefits generated by standards.

The pilot project started from May 2013 and ended in September 2013. The main participants in this project include the Standardization Administration of the People's Republic of China, the China National Institute of Standardization, the 12345 Public Service Hotline of Jinan and the ISO Central Secretariat.

2. Introduction to the 12345 Public Service Hotline of Jinan

济南市 12345 市民服务热线
12345 Public Service Hotline of Jinan



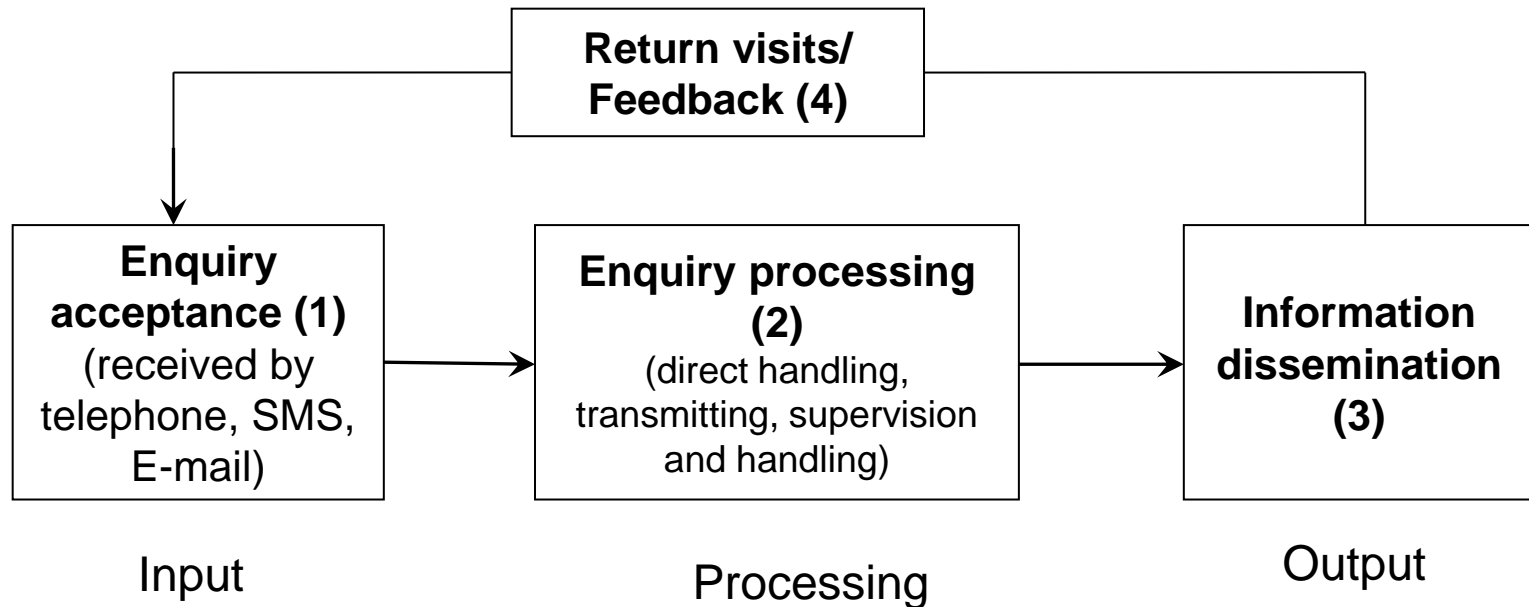
- 38 government hotline resources are integrated
- Legal, right protection services
- People's livelihood, science popularization hotline
- Traffic information service
- Fundraising enterprise services

- The service opened on 26 September 2008
- 60 worker seats, 200 staff
- Transmitting center, return visit and polling center, quality inspection center
- More than 13,000 information, more than 6,500,000 words
- Telephone, SMS and network are handled on 24/7 basis



3. Scope of the pilot project and analysis of the value chain

(1) Basic business activities



Schematic diagram of the basic business activity of the 12345 Hotline service




3. Scope of the pilot project and analysis of the value chain

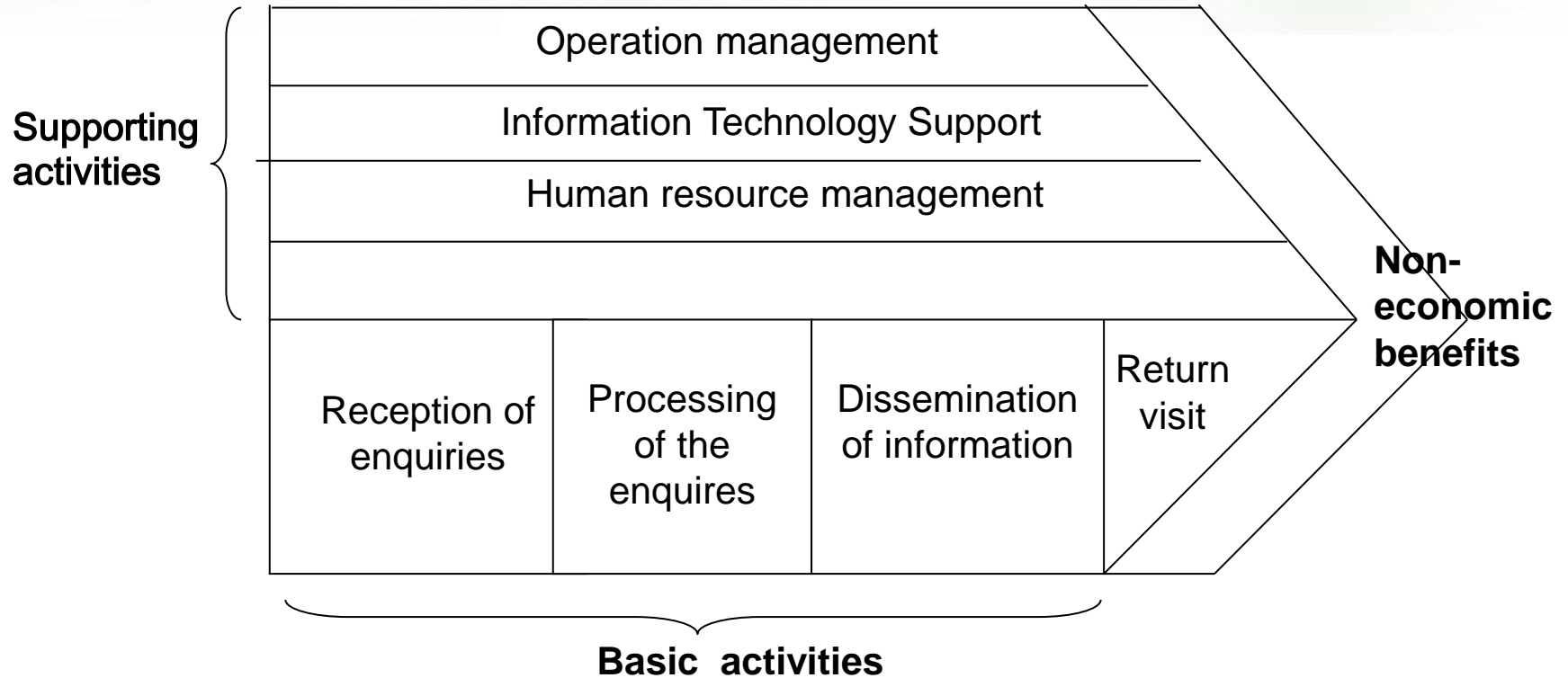
(2) Scope of evaluation

The basic business process of the “12345 Hotline service” includes acceptance of enquiries, their processing, dissemination of requested information, return visits of the enquiring persons.

The focus of the project is in terms of time are 2011 and 2012, the period during which standards were introduced to the service. A comparison is made before and after standards were introduced to determine and evaluate **non-economic benefits generated by the standards** on each business function in the value chain of the service. The Hotline-service is a social service. For this reason the assessment has been focused on the **social benefits of standards**.



(3) Value chain of the 12345 Hotline Service



(4) Main value drivers for the 12345 Hotline service

Main value drivers



4. Use of standards in the 12345 Hotline Service

	Activity	Relevant standards
Basic activities	Reception of enquiries	5 local standards and 1 enterprise standard, including management specification of government affairs service center
	Processing of enquiries	4 national standards, 1 local standard and 1 enterprise standard, including quality management system performance improvement guidance
	Dissemination of information	6 national standards and 1 local standard, including information security management and practice rules
	Return visits	1 enterprise standard, including hotline service standard
Supporting activities	Human resource management	2 national standards and 1 local standard, including occupational health and safety management system
	Information technology support	25 national standards, 1 industry standard, 1 local standard and 1 enterprise standard, including information technology equipment safety
	Operation management	2 national standards, 1 local standard and 1 enterprise standard, including safety sign and use guidelines

5. Selection of key indicators to measure the impacts of the standards

Indicators system to evaluate non-economic benefits of standards for the 12345 Hotline Service

Area	Level-1 indicators	Level-2 indicators	Level-3 indicator	
Social benefits of standards	Service efficiency	Number of enquiries handled		
		Time needed to handle the enquiries		
		Man-hour utilization rate		
	Service quality	% of enquiries processed within defined time limits		
		Level of service		Service skills
				Service standardization
				Errors and responsibility complaint
				Problem solving ability
		Service attitude		Kindness
				Service consciousness
			Politeness	
	Service cost	Degree of satisfaction		
		Human cost for the handling of 1,000 enquiries		
Service cost	Equipment cost for the handling of 1,000 enquiries			
	Management cost for the handling of 1,000 enquiries			

Table 2 Description of evaluation indicators

Number	Evaluation indicators	Description of the indicators
1	Number of appeals handled	The number of civil appeals handled every day
2	Handling time of appeals	The average handling time of each appeal
3	Man-hour utilization rate	$(\text{Call duration} + \text{busy hours}) \div \text{working hours} \times 100\%$
4	Handling rate as scheduled	$\text{Total number of appeals handled as scheduled} \div \text{total number of appeals} \times 100\%$
5	Expression and communication skills	The accepting personnel listen to and comfort the citizens, correctly guide, asking questions, explain, communicate, express, and make appropriate summary
6	Control ability	The accepting personnel's ability to effectively control their emotion and call
7	Service standardization	Use standard mandarin, use standard service terms
8	Business mistake and responsibility complaint	Number of errors and responsibility complaints when the accepting personnel handle the business
9	Problem solving ability	The accepting personnel analyze and judge problems reflected by citizens, take relevant countermeasures and matching degree to achieve a specific service objective, and put forward the solution. The acceptance of citizens and citizens' recognition of the results
10	Specialized knowledge ability	The accepting personnel's of depth, breadth, and proficiency of knowledge required to accept the citizen's problems
11	Kindness	Comfort and warm feelings brought by voice, speed, intonation, tone and other voice transmission effects to the listeners
12	Polite ness	In communication service language shall be well used. Professional language training shall be provided on how to accept enquiries. Use of colloquial words shall be avoided
13	Service consciousness	Personnel that accepts an enquiry has the consciousness and willingness to help the citizens. They can help the citizens in accordance with the standard of "three left, four improvement"
14	Satisfaction	The satisfaction of enquiring person to hotline service
15	Human cost for handling of 1,000 appeals	$\text{Total annual cost of human resources} \div \text{number of appeals handled per year} \times 1000$
16	Equipment cost for handling of 1,000 appeals	$\text{Total annual cost of equipment} \div \text{number of appeals handled per year} \times 1000$
17	Management cost for handling of 1,000 appeals	$\text{Total management cost of equipment} \div \text{number of appeals handled per year} \times 1000$

6. Evaluation of the impact of standard on non-economic benefit of value chain link

Grading scheme to measure the impacts of standards: 0 to 6 points
(points below shown as an example only)

Indicators	Indicator not applicable (= 0 points)	Limited impact (= 2 points)	Medium impact (= 4 points)	High impact (= 6 points)	Max. points
Indicator 1		√			6
Indicator 2			√		6
Indicator 3		√			6
Indicator 4	√				6
Indicator 5				√	6
Indicator n			√		6
	0	4	8	6	36 (=100%)

Grading scheme with points: 0 to 6 (for each indicator) → 18 out of 36 = 50%

Table 3 Impact of standard on non-economic benefit of the basic activities of value chain

Business functions (in the value chain)	Value drivers	Evaluation indicators	Degree of impact by standards on indicators	Overall degree of impact of standards on business function
Enquiry reception	Service efficiency	Number of appeals accepted per person a day	4	73.33%
		Average man-hour utilization rate	6	
	Service quality	Expression and communication skills	6	
		Service standardization	6	
		Control ability	2	
		Problem solving ability	2	
		Kindness	2	
		Polite language	6	
		Service consciousness	6	
		Satisfaction	4	
	Service costs	Human resource costs for handling 1,000 appeals	4	
		Equipment costs for handling 1,000 appeals	4	
		Management costs for handling 1,000 appeals	4	

Table 3 Impact of standard on non-economic benefit of the basic activities of value chain (continued)

Business functions	Value drivers	Evaluation indicators	Degree of impact of standards on indicator	Overall impact of standards on business function
Processing	Service efficiency	Handling time of appeals	6	70.83%
		Average man-hour utilization rate	6	
	Service quality	Handling rate as scheduled	6	
		Service standardization	4	
		Problem solving ability	2	
		Specialized knowledge ability	2	
		Service consciousness	4	
		Satisfaction	4	
	Service costs	Human resource costs for handling 1,000 appeals	4	
		Equipment costs for handling 1,000 appeals	4	
Management cost for handling 1,000 appeals		4		
Dissemination	Service quality	Satisfaction	6	50%
	Service costs	Human resource costs for handling 1,000 appeals	2	
		Equipment costs for handling of 1,000 appeals	2	
		Management cost for handling of 1,000 appeals	2	
Return visit	service quality	Kindness	4	75%
		Politeness	4	
		Service consciousness	6	
		Level of satisfaction	4	

Number	Key indicators	Change of indicators before and after the use of Standards	Table 4 - Evaluation of the impact of standard on key indicators					Change of the key indicators because of the impact of the standard	
			No impact	Limited impact	Moderate impact	High impact	Maximum impact		
1	Number of appeals accepted per person a day	Increase by 14.29%			4		6	Increase by 9.53%	
2	Handling time of appeals	10-15 days are reduced to 5 days				6	6	10-15 days are reduced to 5 days	
3	Average man-hour utilization rate	Increase by 7%				6	6	Increase by 7%	
4	Handling rate as scheduled	Increase by 1%				6	6	Increase by 1%	
5	Expression and communication skills	Improved				6	6	Improved	
6	Control ability	Improved		2			6	A certain degree of improvement	
7	Service standardization	Improved				6	6	Improved	
8	Business mistake and responsibility complaint	Decrease by 10.77%				6	6	Decrease by 10.77%	
9	Problem solving ability	Improved		2			6	A certain degree of improvement	
10	Specialized knowledge ability	Improved		2			6	A certain degree of improvement	
11	Kindness	Enhanced		2			6	A certain degree of enhancement	
12	Service consciousness	Improved				6	6	Improved	
13	Use of polite language	Improved				6	6	Improved	
14	Satisfaction	Increase by 1.3%			4		6	0.87%	
15	Human cost for handling of 1,000 appeals	Decrease by 14.55%			4		6	9.70%	
16	Equipment cost for handling of 1,000 appeals	Decrease by 27.35%			4		6	18.23%	
17	Management cost for handling of 1,000 appeals	Decrease by 14.60%			4		6	Decrease by 9.73%	
Total			76					102 (=100%)	74.51%



7. Conclusions



1

Standardization can ensure the quality of the public service organization, improve the service level, and effectively promote social benefits of public services

2

Non-economic benefit evaluation of standards should pay attention to the combination of quantitative and qualitative aspects

3

Public service organizations should strengthen the development and use of standards in order to further improve service efficiency

4

Pay attention to the comparative analysis of multiple perspectives, and evaluation of non-economic benefit of standard on industrial level and social macro level