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Corresponding author
E-mail: sypak21c@hanmail.net

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E-mail: editor@j-institute.jp

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Policy Reference for Improving Community SAFETY: Factors That Determine the Citizen Satisfaction with Police Service in KOREA and the U.S

Park Sun-young¹

Mokwon University, Daejeon, Republic of Korea

Park Min-woo^{2*}

National Police Agency, Seoul, Republic of Korea

Abstract

Police service include police protection for all citizens, including law enforcement and crime prevention. This service is distinct from other public services because it enforces governmental rule regardless of citizen agreement, and it is provided exclusively in special fields like crime investigation, construction, protection, etc.

As the government came to assume more responsibilities from citizens, assessment of police performance grew in importance. Perhaps the most effective way of evaluating performance is to focus on the degree of citizens' satisfaction.

Various preliminary studies have found citizen satisfaction with police service is an important factor to consider for many reasons. First, citizen satisfaction offers information and knowledge required for the police to make decisions. Second, it allows the police to identify the strengths and weaknesses of their own departments. Third, release of citizen evaluation promotes the sense of responsibility and accountability of the police. Fourth, the evaluations make up the limit of objective performance indices like crime rate, arrest rate, etc.

This study analyzed the factors that contribute to citizen satisfaction with police service in KOREA and in the U.S. To that end, NDSI model was used instead of SERVQUAL model, which is frequently used in public service fields. NDSI model is different from the existing model in that it stresses the importance of public services delivered, including location, facility, time, and method.

This study included 346 Koreans and 282 Americans. In KOREA, survey questionnaires were collected from citizens who have lived in Daejeon (Korea's fifth largest city, population 1.5 million) from January through June, 2016. In the United States (U.S.), residents of Cincinnati, OH were surveyed from June through October, 2016. The surveys here included online students as well.

The survey revealed that the two most important factors in both countries affecting citizen satisfaction with police service involve police facilities and processing capacity. KOREA was lower than the U.S. in the citizen satisfaction with police facility.

It was found that high evaluation of police facility and work processing capacity the common actors in KOREA and in the U.S. affected higher satisfaction of citizens. In KOREA police facility was shown to affect citizens satisfaction more than work processing capacity. Meanwhile in the U.S., work processing capacity was more influential. The remaining factors, police service development and services (KOREA) and police policy (U.S.) also displayed positive effects on citizen satisfaction.

[Keywords] *Police Service, Citizens Satisfaction, Determinant, Service Satisfaction, Korea and the U.S.*

1. Introduction

As the government came to assume more responsibilities on the citizens the voters, measurement of the performance of police

service grew more important. Perhaps the most effective way of evaluating performance is to focus on the degree of citizens' satisfaction.

The purpose of this study is to evaluate and compare factors that determine the citizen satisfaction with police service in Korea and in the U.S.

2. Theoretical Framework

2.1. Citizen satisfaction with public service

It is difficult to define public service and determine detailed characteristics, but several common factors can be explained. First, public service is a service provided by government to citizens. This service may be provided directly or indirectly through financing of service. Second, there is a social consensus that public service is made available to everyone, regardless of income[1].

Citizen satisfaction is an important part of measuring quality of public service. In the U.S., many cities and counties simultaneously use citizen satisfaction and internal performance indicator to measure quality of public services including the police and fire department[2]. However, citizen satisfaction is hard to define and, some theories even suggest it is a relative concept.

Citizen satisfaction originates from customer satisfaction (CS) because citizens are customers of public service. Understanding of CS is required to understand citizen satisfaction. There are diverse definitions and theories that explain CS. Representative theories on measurement of CS include the confirmation / disconfirmation paradigm, Equity Theory, and Comparison Level Theory.

The Expectancy-Disconfirmation Paradigm (EDP) describes how expectations can play an important role in determining satisfaction. A negative disconfirmation refers to a case in which the outcome is worse than expected, and a positive disconfirmation is when the outcome is better than expected. The former would result in high satisfaction and the latter in low satisfaction[3].

Equity Theory (Adams, 1965) establishes that satisfaction is determined by comparison of inputs and outputs. Individuals who

perceive that inputs and outputs are not balanced out will be distressed by the inequality. Such distress may cause individuals to try restore equality[4].

According to Thibaut and Kelley's comparison level theory (1959), the discrepancy between comparison level (CL) and outcome determines CS. Whereas outcomes above CL are satisfying, the opposite is dissatisfying. CL is determined by the average of similar outcomes that one has experienced or is aware of[5].

The CS theory can also be applied to public services including police service. If citizens were to have a specific level of expectancy about the police service, service outcomes that fulfill this expectancy level will be satisfying, and the opposite will be dissatisfying.

2.2. Importance of citizen satisfaction with police service

Prominent scholars Joseph Wholey and Harry Hatry claimed that monitoring of service quality is a core component of improved public sector performance. According to them, citizens have a right to receive regular reports on the performance of major public programs[6].

The Governmental Accounting and Standards Board summarized the utilities of performance measures. They are required to set goals, devise plans for accomplishing the goals, allocate available resources, confirm the results, and modify the plans to improve performance[7].

However, while various performance measurement methods are presented, a CS-centered performance measurement that puts an emphasis on the desire of customer is the most effective. It is optimal to examine citizen satisfaction as customers of the police and to do this, we need to make some assessments of the police service.

First, it is necessary to delineate features unique to the police service, in comparison to other public services. Perhaps the most important differences are their ability to use state-sanctioned force, their near total monopoly over their specific service sector,

and their capacity to deliver their 'services' involuntarily to clients, for example by arresting or using force against them.

Second, police activities have been framed as roles not services. The role of the police was traditionally criminal law enforcement and peacekeeping. But it is ideal that police service should be considered a concept that includes all activities for citizens. In other words, it is advisable that police service should be viewed in a wider sense. Police's non-criminal duties have increased along with the appearance of community policing. Taken together police service can be defined as all activities provided to citizens to keep an order, prevent crimes, and relieve inconvenience[8].

2.3. Determinants of citizen satisfaction with police service

Studies reported that demographic variables of respondents like age, gender, and race affect their view on police. For example in the U.S. African Americans are less satisfied with the police service than their Caucasian counterparts. However, the influence of demographic variables is unlikely help police service policies because policymakers cannot control these factors[9].

Therefore, measurement of citizen satisfaction with police service remains crucially important towards improving and controlling the police force.

There is no consensus about the effect of education, gender, and social status on perception of the police. There are variables that affect perception such as race, but the full effects and outcomes of these more complex variables have not been clarified yet[10].

Studies were not limited to demographic variables. Many previous studies showed the effects of contact with the police on perception of the police by citizens. A study divided contact into voluntary and involuntary, arguing that involuntary contact leads to negative perception of the police. Another study found that negative perception of the police increases with growing number of police contacts with the

police, regardless of whether they're voluntary or involuntary[11].

According to Scaglione & Condon (1980), contact experience with the police has greater effect on perception of the police than socioeconomic factors like gender, age, and income[12].

The results of Scaglione & Condon (1980) were further evidenced by a study conducted by Cheurprakobkit 20 years later. Cheurprakobkit (2000) claimed that police contact has greater effect on the outcome of police service than the crime-fighting function of the police. Positive police contact experience ameliorated existing negative attitudes of citizens towards the police[13].

Brown & Coulter (1983) presented measurement factors to conduct a survey on citizen satisfaction about police services: "(1) Satisfaction with police response time, (2) satisfaction with police treatment of people, (3) perceived equity of police protection, (4) perceived equity of police response time, (5) perceived equity of police treatment of people, (6) perceived equity of amount of crime." Brown & Coulter explained that such measurement factors were presented because, "Citizens' satisfaction with a particular domain of their lives is determined by their assessment of the different parts of that domain"[14].

Mastrofski (1999) suggested six traits of 'good service' depicted by Americans, which include (1) attentiveness, (2) reliability, (3) responsiveness, (4) competence, (5) manners, and (6) fairness[15].

On the one hand, the SERVQUAL model (Parasuraman, Parasuraman, Zeithaml & Berry, 1988) has been receiving attention as an approach for measuring service quality. The SERVQUAL model is designed based on an assumption that the level of service quality felt by customers is determined by the difference between expected service quality and actual outcome of service they experience[16]. The SERVQUAL model can be very useful in assessing satisfaction with police service.

3. Methods

3.1. Research hypotheses and method

The objective of the questionnaire survey was to identify the factors that determine citizen satisfaction with police service in Korea and in the U.S.

Major questions include:

- What are the factors that determine the citizen satisfaction with police service?
- What are the determining factors that are different between Korea and the U.S.?

By answering these questions, this study will identify the factors determinant of citizen satisfaction with police service in both countries. This study will also examine the critical weak points in each country, which will need to be addressed in order to raise the citizens satisfaction with police service.

This study utilized the NDSI (Newly Developed Service Index) model. NDSI model is different from the existing model in that it stresses the public service components of police service, and considers the degree of satisfaction with each component[17].

3.2. Data and sample

Korean data was collected from 350 adults over six months (January-June 2015) in Daejeon. The questionnaire consisted of two main components. The first section is dedicated to collecting demographic

information, and the second portion covered satisfaction with the police performance. Questionnaires were collected from 346 out of 350 surveyed subjects for a response of 98%.

U.S. data was collected from 300 adults in Cincinnati, OH from June-October 2015. Similar to the Korean questionnaire, the Americans reported their demographic information and satisfaction with police performance. Of the 300 participants surveyed, 282 responded for a response rate of 94%.

4. Result

4.1. The demographic characteristics

<Table 1> displays the demographic information characteristic of the study participants. Although the proportions of men and women in Korea and in the U.S. were different, no gender bias was observed. Compared to the U.S., Korea has higher rates of self-employment, and a higher proportion of non-college education adults. The U.S. subjects were also asked to report their race and ethnicity. The American cohort included 165 white (58.5%), 22 African Americans (7.8%), 48 Asians (17%), 2 Pacific Islander (0.7%), 1 American Indian (0.4%), and 44 other (15.6%). The survey also recorded that 30 subjects were of Hispanic descent (10.7%) and 251 non-Hispanic (89.3%).

Table 1. Descriptive statistics for American and Korean citizens.

	Korea (n = 346)		U.S. (n = 282)	
	Mean	SD	Mean	SD
Gender (male = 1)	.57	.50	.44	.50
Age	38.76	13.76	29.18	12.02
	Frequency	%	Frequency	%
Vocational status				
Employee	46	13.29	53	18.79
Public servant	10	2.89	27	9.57
Student	109	31.50	146	51.77
Self-employed	102	29.48	9	3.19

Other	79	22.83	47	16.67
Education				
High school	290	83.82	196	69.50
Some college	56	16.18	86	30.50
Race				
White	---	---	189	67.02
African American			46	16.31
Others			47	16.67
Ethnicity				
Hispanic	---	---	30	10.64
Non-hispanic			252	89.36

4.2. Factor analysis

Survey questions were factor analyzed and rotated using orthogonal rotation (i.e. Varimax method) and factors with an eigenvalue ≥ 1.0 were extracted (see below). <Table 2> presents the result of a factor analysis of the U.S. participants. Q1 ~ Q6 refer to work processing capacity (reliability coefficient 0.90). Q22 ~ Q24 refer to police policies (reliability coefficient 0.85). Q7 ~ Q11 refer to police facility (reliability

coefficient 0.86). <Table 3> presents a similar factor analysis of Korean participants. Q12 ~ Q16 refers to creation and provision of police service (reliability 0.91). Q9 ~ Q11 refer to police facility (reliability 0.85). Q4 ~ Q5 refer to work processing capacity (reliability 0.88). The factors that affect citizen satisfaction with police service in both countries included police facility and police work processing capacity. <Table 4> compares the two countries, with Korea reporting lower levels of citizen satisfaction with police facilities.

Table 2. Factor loading of citizen satisfaction with police service – The U.S.

Question	Factor 1	Factor 2	Factor 3	Citizens satisfaction	Validity
	Work processing capacity	Police policies	Police facility		
SV04	.76	.20	.14	.29	0.72
SV03	.72	.25	.09	.23	0.65
SV02	.66	.37	.13	.22	0.64
SV01	.65	.41	.20	.20	0.67
SV05	.65	.23	.30	.28	0.64
SV06	.58	.33	.31	.34	0.66
SV16	.41	.38	.04	.65	0.73
SV20	.35	.35	.31	.62	0.73
SV12	.03	.19	.48	.62	0.65
SV17	.26	.44	.14	.59	0.63
SV21	.33	.06	.21	.58	0.50
SV13	.44	.07	.32	.58	0.63
SV23	.30	.80	.19	.13	0.78

SV24	.26	.73	.20	.16	0.66
SV22	.30	.70	.19	.29	0.71
SV10	.11	.08	.86	.16	0.79
SV09	.13	.17	.81	.23	0.75
SV07	.43	.19	.69	.03	0.69
SV11	.05	.15	.66	.42	0.63
SV08	.29	.32	.59	.13	0.54
SV14	.47	.28	.25	.56	0.67
SV19	.36	.54	.15	.55	0.75
SV15	.52	.37	.21	.44	0.65
SV18	.31	.57	.25	.41	0.65
Eigenvalue	12.3	1.9	1.0	1.9	
Reliability	0.90	0.85	0.86	0.87	

Table 3. Factor loading of citizen satisfaction with police service – Korea.

Question	Factor 1	Factor 2	Factor 3	Validity	
	Work processing capacity	Police facility	Work processing capacity		Citizens satisfaction
SV16	.83	.05	.12	.21	0.72
SV15	.81	.15	-.02	.24	0.65
SV13	.80	.22	.05	.16	0.64
SV12	.75	.14	.04	.14	0.67
SV14	.75	.30	.04	.26	0.64
SV23	.17	.27	.09	.73	0.66
SV19	.29	.27	.15	.71	0.73
SV22	.26	.24	.19	.70	0.73
SV24	.26	.32	.00	.69	0.65
SV20	.45	.12	.18	.69	0.63
SV10	.21	.82	.16	.26	0.50
SV09	.31	.75	.07	.24	0.63
SV11	.51	.67	.09	.11	0.78
SV04	.09	.06	.88	.03	0.66
SV05	-.03	.24	.83	.17	0.71
SV02	.19	.02	.65	-.02	0.79
SV06	.05	.49	.59	.35	0.75
SV07	.04	.57	.54	.31	0.69
SV03	.02	.48	.50	.34	0.63
SV08	.03	.64	.48	.27	0.54
SV17	.67	-.02	.27	.32	0.67
SV18	.40	.28	.25	.53	0.75
SV01	-.32	-.06	-.01	.39	0.65
SV21	-.37	-.15	-.14	-.72	0.65
Eigenvalue	4.9	3.5	3.3	4.3	
Reliability	0.91	0.85	0.88	0.88	

Table 4. Comprison with Korea and the U.S.

	Korea (N=346)		U.S(N=282)		T-test
	MEAN	SD	MEAN	SD	
Police facility	3.03	0.93	3.79	0.73	t=-11.40**
Work processing capacity	3.48	0.95	3.52	0.79	t=-0.58
Citizens satisfaction	3.13	0.58	3.44	0.76	t=-5.51**

Note: *p<.05, ** p<.0

4.3. Regression analysis

<Table 5> presents the results of a regression analysis. This data shows that high evaluation of police facilities and work processing capacity are the biggest common contributors to satisfaction among citizens in both countries. In Korea police facilities were found to affect citizen satisfaction more than work processing capacity. Conversely in the U.S., work processing capacity was more

influential. Police service development and offering (Korea) and police policy (U.S.), were also shown to positively affect satisfaction.

With respect to demographics, sex was a significant determining factor for Koreans, and educational background for Americans. Satisfaction with police service was lower among women in Korea, and among individuals with a higher educational background in the

Table 5. Regression analysis.

	Korea (N=323)			U.S. (N=281)		
	B	SE	T	B	SE	T
Factors of citizens satisfaction						
Police facility	.446	.015	18.735**	.299	.046	6.918**
Work processing capacity	.354	.014	15.656**	.422	.050	8.024**
Creation and provision of	.451	.016	19.502**			
Police service						
Police policies				.187	.042	3.862**
Demographic variables						
Gender	-.048	.025	-2.216*	-.069	.056	-1.900
Age	-.001	.023	-.015	-.073	.020	-1.933
Work	.096	.050	.906	-.010	.024	-.239
Education	.079	.075	.839	-.096	.031	-2.505*
R ²		0.88			0.67	

5. Discussion

In this study we've established that "police facility" and "police work processing capacity"

are critical determining factors of CS common to both countries.

Citizens have a growing desire for a hospitable enforcement and protection authority (i.e. police service). Both Korean and American participants would like to see better police facility, and highly competent policemen by extension. This result suggests that citizens consider police to be an authority service in addition to enforcement.

Work processing capacity is a more advanced characteristic of police service than police facility. Therefore, the influence of the former will be more important than the latter in Korea's future. Importantly, police authorities in both countries must continue to develop and improve CS if they want to maintain funding and the trust and respect of the citizens they serve.

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Lead Author

Park Sun-young / Mokwon University Associate Professor
B.A. Korea National Police University
M.A. Korea University
Ph.D. Korea University

Research field

- The Relationship between the Social Capital and Police Service Satisfaction, *Korean Police Studies*, 15(1) (2016).
- The Social Capital in Police System, *Journal of Police Studies*, 11(1) (2016).

Major career

- 1995~2009. Korea National Police Agency, Senior Inspector.
- 2009~present. Mokwon University, Professor.

Corresponding Author

Park Min-woo / National Police Agency Senior Inspector
B.A. Korea National Police University
M.A. Korea University
Ph.D. Korea University

Research field

- Consideration of a Change in Requirements for Admissibility of Hearsay Evidence and Resulting New Matters, *Korean Criminological Review*, 27(3) (2016).
- Criminal Responsibility of Hologram Assembly Host and Technicians, *Justice*, 155 (2016).

Major career

- 2008~present. Korea National Police Agency, Senior Inspector.
- 2010~present. Legal Research Institute of Korea University, Researcher.