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Determinants of Police Performance in Korean National Police Agency Focusing on Personal Factors

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Abstract

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The way to evaluate the performance of the public sector, including police duty, is so complex and complicated that some people even think it is impossible or inappropriate to evaluate the public sector. However, after emergence of New Public Management, “managing for result” has been emphasized in the public sector. With this trend, performance management in the public sector also has been a big issue. Policing also is one of the areas in which performance management was considered as having an important role.

In 2006, South Korean government introduced performance management to all of the central administrative organizations by legislation of the Basic Act of Government Operation Evaluation to strengthen competitiveness of the public sector. By the same law, the Korean National Police Agency (KNPA) also enforced performance management system, i.e. Public Security Performance

Overall Evaluation (PSPOE), to all the provincial agencies, police stations, auxiliary organizations and the KNPA itself as well. The PSPOE is generally divided into two categories, which are department evaluation and personal evaluation. The result of evaluations is utilized for planning, personnel management, education, foreign affairs, and etc.

Every year, the KNPA tries to improve the PSPOE system. As a result, the KNPA was awarded as one of the top central government organizations in governmental evaluation from 2013 to 2016 in succession. However, there are still lots of criticisms inside and outside of the organization on the usefulness of the performance management and evaluation. Despite the controversy, there was little research on police performance management in South Korea, especially with regard to personal factors.

Therefore, this study tried to find out the determinants of police performance in South Korea by focusing on personal factors. The data source was the 2014 Survey on Satisfaction of Performance Management conducted by the KNPA between Oct. 16 and 22, 2014. The number of the samples was 12,821. Ordinary least squares (OLS) multiple regression analysis was used. As a result, Gender, Age, Rank, Seniority, Understanding of the Evaluation System, and Acceptance of the Evaluation System showed significant impacts on the Personal Performance Grade.

Keywords: Performance, Performance Management, Evaluation, Police, Personal Factors, Determinants

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Table of Contents

List of Table

List of Figure

1. Introduction

1. 1. Study Background

The way to evaluate the performance of the public sector, including police duty, is so complex and complicated that some people even think it is impossible or inappropriate to evaluate the public sector. It is true that there are many perspectives in the public sector, and some goals are even paradoxical because public agencies pursue many objectives simultaneously (Andrews, Boyne, & Walker, 2006).

However, despite the difficulties in precise performance measurement and evaluation in the police, the Korean National Police Agency (KNPA) of South Korea has emphasized meritocratic management of the organization, which has provoked complaints from policemen in the field (Lee & Lim, 2012). The evaluating system focusing on quantitative performance, like the rate of arrest, was criticized not only by policemen but also by citizens, because some police works, e.g. preventive activities, cannot be counted in the performance evaluation without difficulty. Furthermore, several cases of human rights abuses have occurred to get higher performance grades (Han, 2010).

In 2010, the Chief of Gang-book police station in Seoul criticized the overall performance management system of the South Korean Police. In fact, his action was considered as not only a criticism of the system, but also unprecedented disobedience to the chief of the Seoul Metropolitan Police Agency (SMPA) because he insisted that the previous torture case of Yang-chun police station originated from shortcomings of the performance management system, and the chief of SMPA must resign. The chief of Gang-book police station was

dismissed for disobedience after a disciplinary committee review, but reinstated after one and a half years of court battles (Park & Kim, 2012). There were many pros and cons of his action. Some people agreed with and supported him, but some thought that it was just a political power game inside the police. However, the key point of his contention was that the performance management system was not suitable for evaluating policing.

Every year, the KNPA tries to improve the evaluation system. As a result, in 2013, the KNPA was awarded as one of the top central government organizations in the Governmental Evaluation. However, many of the policemen in the field do not think the current system is reasonable. They think that the current performance evaluation system is not precise and fair. On top of that, sometimes they think that 'performance management' is one thing, and 'public safety' is totally another. Actually, many policemen do not trust performance evaluation score as an indicator of objective performance result, and many of them insist that the performance evaluation itself should be abolished, or at least reformed (Korean National Police Agency, 2014).[1]

Why is there such a gap between the system and the field? If the current performance management system is not beneficial to public safety, why do we evaluate the performance this way? In fact, the result of the performance evaluation is not used in various fields. The KNPA uses the results only in some personnel management areas, such as appointment and performance-based pay.

[1] On Oct. 2014, Korean National Police Agency conducted an on-line survey on the performance evaluation. 14,007 people participated that survey, 1,877 people suggested their opinion. Most of the opinions were negative and critical against the current system.

Moreover, the result is not used for the promotion process which is considered as one of the most important functions in personnel management. Behn pointed out that the measuring performance or data itself has no meaning. The important thing in performance management is using those measures to achieve something (Behn, 2003). Maybe, the limited use of performance management is the evidence of the irrelevance or uselessness of the system as many people say.

If policemen in the field do not think performance management is a useful tool for public safety, which is the main goal of policing, performance management would be an unnecessary burden, and ultimately, it means that considerable part of the police force is wasted in vain. Therefore, we need to understand the nature of performance management in police and the relationship between individual policemen and police performance. Although it has been ten years since the KNPA first evaluated the performance of its subordinate organizations and employees, unfortunately, there are very little research directly related to performance has been conducted. Therefore, it is necessary to understand what factors are related to the result of police performance as a first step.

1. 2. South Korean Police and Performance Evaluation System

South Korea has one national police system. The KNPA has five auxiliary organizations, "16 local police agencies as special local administrative facilities to divide local security duties, 251 police stations affiliated to these local police agencies, and 514 police-offices and 1,463 police-boxes under the police stations" (Korean National Police Agency). The total number of sworn officers is 109,364 as of 2014 (Korean National Police Agency, 2015b).

In 2006, the South Korean government introduced performance management to all of the central administrative organizations by the legislation of the Basic Act of Government Operation Evaluation to strengthen the competitiveness of the public sector. By the same law, the KNPA also enforced its own performance management system, i.e. Public Security Performance Overall Evaluation (PSPOE), in all the provincial agencies, police stations, auxiliary organizations and the KNPA itself as well. The PSPOE is generally divided into two categories, which are department evaluation and personal evaluation. The result of the evaluations is utilized for planning, personnel management, education, foreign affairs, etc., but mostly for few personnel management decisions (Director General for Planning and Coordination, 2014).

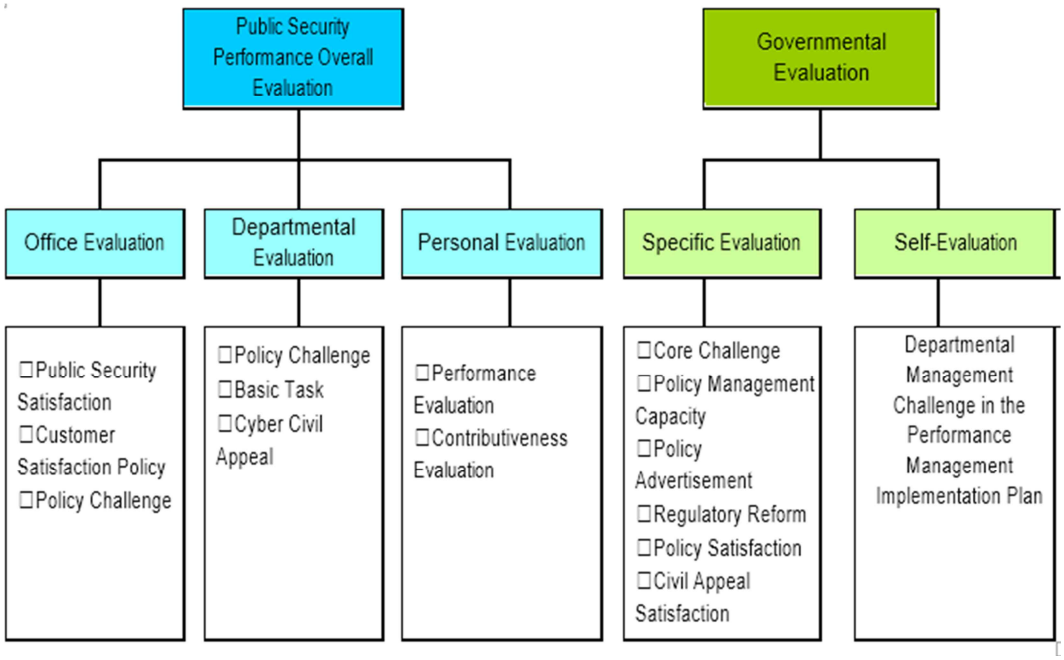

Figure 1 Outline of the Performance Management System of Korean National Police Agency

(Adapted from: 2014 Public Security Performance Overall Evaluation Plan of the Korean National Police Agency)

Organizationally, the KNPA is subject to two governmental evaluations. First is Specific Evaluation which is conducted to 42 central administrative organizations by the Office for Government Policy Coordination in the Prime Minister's Secretariat. Specific Evaluation evaluates central organizations placing great importance on 140 national agendas. Another is Self- Evaluation. The KNPA makes Performance Management Implementation Plan by itself, in which there are 52 management tasks to check. Specific Evaluation and Self-Evaluation are called Governmental Evaluation all together (Director General for Planning and Coordination, 2014).

Under the Self-Evaluation, the KNPA suggests the vision and direction for subordinate agencies, and evaluates the agencies through Public Security Performance Overall Evaluation (PSPOE). PSPOE is divided into three tiers. They are Office Evaluation, Departmental Evaluation, and Personal Evaluation. The objects of Office Evaluation are Provincial Police Agencies, Police Stations, Police Offices, and Police Boxes. The objects of Department Evaluation are bureaus, departments, sections, and teams of offices. Personal Evaluation consists of quantitative performance evaluation and contributiveness evaluation, which mostly using 360-degree evaluation. Personal Evaluation is not applied for chiefs of offices higher than Police Stations, they are evaluated by the score of their offices only (Director General for Planning and Coordination, 2014).

One cycle of the performance evaluation of the KNPA consists of two evaluations a year, on September and November. After all procedures of evaluation are complete, policemen are graded by the combined score of them as an individual and its office or department. The result of the performance

evaluation is used for performance pay (Director General for Planning and Coordination, 2014).

1. 3. Study Objective and Significance of the Study

The main objective of this study is to find out the determinants of police performance in South Korea by focusing on personal factors. The process is as follows. First, this study will examine the factors which affect police performance through a literature review. Second, this study will explain the limitations of former research. Third, this study will investigate the determinants of police performance by analyzing the survey data of the KNPA. Lastly, implications and recommendations will be suggested.

As mentioned before, it has been ten years since first evaluation of the KNPA conducted; however, there is still small number of research that has been conducted on the performance management of police. After all the processes, this study will shed more light on the understanding of the relationship between the current performance management system and personal factors and make it possible to seek to establish more ideal police performance management system for citizens in South Korea.

2. Literature Review

2. 1. Performance Management in the Public Sector

Since the 1990s, performance management in the public sector has been strengthened as a core measure of renovation responding to a financial setback (Poister, 2008). As a result, performance management in the public sector has focused on the results, not the traditional processes or values. Behn averred that performance management had one purpose: "to improve the performance of public agencies; to enhance the results and value produced by government" (Behn, 2002, p. 6).

However, performance management in the public sector has fundamental limitations in nature. First, there are many stakeholders in the process of goal setting the public arena, and the performance itself is abstract and multifaceted compared to the private sector (Nutt & Backoff, 1992). In the private sector, the objective is singular and always clear, i.e. maximizing profit. With this simple objective, the private sector can manage its performance relatively without difficulty. Yet, the objective of the public area is comparatively not clear at all. Government acts as a regulator and a service provider, which are the opposites in administrative nature, at the same time. Government is always in-between different stakeholders like the poor and the rich, developmentalists and conservationists, capitalists and socialists and so on. Each stakeholder demands government to meet their necessities, and government cannot ignore either of them because coordination of different interests is one of the key roles of government.

Second, as mentioned above, the performance of public sector actors is so complex that it is hard to develop appropriate indices and methods to evaluate performance. Therefore, any evaluation tool used in measuring performance in public organizations might lead to distorted results of performance (Pidd, 2005). In other words, it is hard to find the right or precise measure of the performance of the public sector because every aspect of public value or purpose cannot be considered perfectly while making indices of performance due to the variety of the stakeholders. Known values of public service, such as responsiveness, accountability, efficiency, effectiveness, employee rights, and social equity, sometimes conflict with each other, so government must decide the order of priority. However, when we make that decision, some values are exaggerated and some are relatively neglected because of the priority of the policies or agendas. Sometimes, the decisions tend to be made by the atmosphere or trend of the society or the schemes of the government. One of the problems is that the people who make that decision of priority are public officials themselves. When employees or staff of a public organization set goals, indices of performance, and method of appraisal, there is a high possibility that they may select those of performance management tools advantageous to them (Propper & Wilson, 2003).

Third, the performance of the public sector is influenced by various external factors and should be measured for a long term period. Therefore, it is extremely difficult to define the cause and effect of a public program at a certain point. Put differently, even though a program resulted in good results, we cannot conclude the result is solely made by the program. However, the performance evaluation of the South Korean police is evaluated every year and only within the year which is relatively short-term. Of course, three main criteria for nomothetic causal relationships in social research are (1) the variables must be correlated, (2)

the cause comes before the effect, and (3) the relationship is not spurious (Babbie, 2015). A case or program can be examined by the criteria, but we need many other cases or programs to compare and check the validity. It is especially difficult to inspect if there are any political, societal, historical, and geographical factors that affect the case or program. In this situation, it is more difficult to determine who or what contributed most to the performance.

It is true that performance management has a broad meaning and there are various perspectives on the subject. Defining perfomance managemant in the public sector is challenging. However, despite those difficulties, it is undeniable that performance management is crucial in managing an organization because "what cannot be measured, cannot be managed" (Rupšys & Boguslauskas, 2007, p. 9). If an employee's task is difficult to be evaluated or measured, it is also hard to be controlled or executed effectively. Moreover, the public sector should be coltrolled more intensely because public workers cost tax money. Therefore, even though it is difficult to set criteria and to measure actual peformance, proper and objective performance management is necessary sepecially in the public sector where people are meant to act for the common good.

Performance management has many purposes. For instance, Hatry asserted that performance information can be used for ten different purposes; to (1) respond to elected officials' and the public's demands for accountability; (2) make budget requests; (3) do internal budgeting; (4) trigger in-depth examinations of performance problems and possible corrections; (5) motivate; (6) contract; (7) evaluate; (8) support strategic planning; (9) communicate better with the public to build public trust; and (10) improve (Hatry, 1999). Behn categorized eight purposes for measuring performance: "to (1) evaluate, (2) control, (3) budget, (4)

motivate, (5) promote, (6) celebrate, (7) learn, and (8) improve" (Behn, 2003, p. 588). Generally, performance management is used for setting a goal for staff or an organization and for improving the acheivement of the goal. By evaluating the tasks of employees, teams, or organizations, one can define an organization's vison or direction and can manage its personnel and tasks more effectively. Therefore, eventually, performance management uses performance measurement information to effect positive changes in organizational cultures, systems, and processes (Hopf, Pratsch, Executive, Welch, Denett, Litman, Ustad, & Tychan, 2008).

As shown, to improve an organization's business or organization itself, the management of employees' work is essential and performance management is inevitable. Setting goals and mobilizing resources, including manpower, are core elements of performance management. On top of that, perfomance managemant includes setting and running the highest strategic priorities of an organization and transforming them into strategic outputs narrowing down through organization to individuals (Pollitt, 2001).

Furthermore, to maximize the utility of performance management, some requirements need to be met. First, the goal of an organization must be clear, and it must be acceptable to the staff. Second, activity and result of task of employees or teams must be measurable. Third, confounding variables which affect the accomplishment of the organization's goal must be controlled. Lastly, the evaluated task must be routine so that feedback can be done (Hofstede, 1981). Those imply that the role of employees is crucial to accomplish positive impact of performance management.

Others argued that during the process of performance management, the role of line managers is also important. Armstrong & Baron defined that "Performance management is a process which is designed to improve organisational, team and individual performance and which is owned and driven by line managers" (Armstrong & Baron, 2000, p. 69). Line managers need to understand the specific goal of the organization, and also help employees to understand the same goal. Without properly understanding goals of an organization, an organization cannot attain significant results from performance management.

In conclusion, many scholars stressed that the management of an organization's employees is one of the most important elements of effective and efficient performance management. It means that whether employees understand the goal of the organization or not could determine the success of performance management. Without understanding the goals of the organization, employees cannot perform their role in the right direction. According to Seldon and Sowa's research, employees should be educated about the importance of performance management so that employees consider performance management as a constructive process rather than simply another management activity (Selden & Sowa, 2011), which means that the role of employees can decide if a performance management of an organization is successful or not. Therefore, it is necessary, and it would be the first step to identify and understand what factors of employees influence performance management to get the best result of performance management.

2. 2. Police Performance

When we discuss the performance of the police, in general, the simplest indicator is the crime-related factors. Therefore, many scholars used crime and manpower as the indicators of police performance. Thanassoulis (1995) assessed police forces in England and Wales. He thought that police performance could be measured by the number of the crimes, the number of arrests, and the number of policemen. Nicholson-Crotty & O'Toole (2004) estimated the impact of management on police performance. They calculated police performance with the number of arrests divided by the number of reported crimes in a year. Surely, crime-related indicators are one of the most important factors in the traditional police job, and it is easy to evaluate compared to other performance indicators.

However, the performance of the police in reality cannot be simply judged by the number of arrests and the crime rate. For instance, Davidoff (1996) showed six groups of indicators of police performance in England and Wales; (a) Call management; (b) Crime management; (c) Traffic management; (d) Public order management/Police visibility on patrol; (e) Community policing management; and (f) Resources/Costs. The Korean National Police Agency (KNPA) had 14 groups of 224 performance indicators to assess its agencies and divisions in 2016 (Korean National Police Agency, 2016)[2].

Some consider that the more effective way of policing is preventing crimes before they occur, not arresting after a crime, because it is more costly to

2 The KNPA announced that it will reduce the number of the groups of performance into three and the number of the performance indicators into 91 in 2017 (Korean National Police Agency, 2016).

maintain law enforcement and to impose judicial sanctions against criminals than prevention. Therefore, other complicated factors, for instance customer satisfaction (Moore & Braga, 2003) and public safety (Collier, 2006), can be added to manage police performance more effectively.

2. 3. Police Performance System in South Korea

In South Korea, the Basic Act of Government Operation Evaluation (BAGOE) is based on the Balanced Scorecard (BSC) System. The Balanced Scorecard is a strategic performance evaluation tool created by Kaplan and Norton in 1992. Previous management tools were developed only on the basis of financial indicators, so they could not reflect intangible properties and had limits on predicting the future. The BSC is a tool for managing financial and non-financial elements, process and result, short-term and long-term, and inside and outside of the organization (Kaplan & Norton, 1992).

To get a high performance score, police agencies or stations should get high scores in various sections of the organizations (Director General for Planning and Coordination, 2014). If a police station gets high evaluation score, the chief of the police station has greater chance to be promoted and the policemen in the police station will get higher performance pay. One study concluded that performance evaluation score achievement in a police station was related more to the chief of the police station than to normal policemen in the field (Chang, 2010). It was because the chief of the police station was more eager to obtain high score in performance evaluation and also had wider vision and information. On the other hand, Lee (2013) concluded that police performance was related more to community policing than to traditional policing. In that of community policing,

the role of the policemen in the field is more important than the supervisors, because community policing puts more importance on the contact and exposure of policemen to citizens (Lee, 2013). Thus, it is observed that most of the research about police performance in South Korea has focused on organizational factors like management and culture.

The same goes for other countries. After emergence of New Public Management, "managing for results" has been emphasized in the public sector (Moynihan, 2006). With this trend, performance management in the public sector also has been a big issue. Policing also is one of the areas in which performance management was considered as having an important role. However, as Sanders (2008) pointed out, existing studies of police performance are focused on organizational performance rather than personal performance. The performance of an individual policeman was relatively ignored because police duty is mainly executed by a team or department and the hierarchical structure of the police can be another reason. However, policemen have more power compared to other public workers. Therefore, it is also important to investigate individual policemen and their performance.

2. 4. Police Performance and Its Determinants

Researchers have tried to determine what personal factors affect police performance. Fabricatore, Azen, Schoentgen, & Snibbe (1978) tested 16 personalities of Los Angeles patrolmen factors to identify reliable predictors of successful police performance. Their study showed that "tough-minded" and "aggressive" characters were the predictors for good performance (Fabricatore et al., 1978). However, Sanders claimed that "age" and "attitude" were better

predictors than personality traits (Sanders, 2008). Several scholars asserted that high level of education was a factor in performance (Lefkowitz, 1977; Smith & Aamodt, 1997). However, it did not always showed positive result. Lefkowitz (1977) claimed that both positive and negative results were witnessed. Smith & Aamodt (1997) researched data from 299 officer of the state of Virginia, and found that college education was beneficial after police officers get experienced. However, interestingly, according to Smith & Aamodt's study, police officers with only high school education showed decrease of performance after five years of experience.

Other scholars claimed that seniority would drop productivity and motivation (Brown, 1988; Robinette, 1982). In fact, Robinette (1982) pointed out that frustration and losing enthusiasm were the main reasens why seniority affected performance, because when the expectations, such as promotion, pay increases, and enlarging job responsibilities, could not be fulfilled, police officers lost their eagerness and got frustrated. On the other hand, other researchers found that seniority had positive and negative effects at the same time on performance (Holgersson & Knutsson, 2012). Holgersson & Knutsson (2012) found that 40.4% of the high active group were with three years of service or less, but only 7.4% were with 15 years of service or more. However, with regard to the quality of policing, only police officers with 4-14 years of service reached the highest level of performance. According to Holgersson & Knutsson, police officers with the highest performance level were "about 10 years of service and were about 35 years of age, but they had nothing in common "in background, education, and earlier job experiences, as well as in personality (Holgersson & Knutsson, 2012, p. 216)". However, they were "highly motivated, had high competence, had a strong

sense of integrity, and were in good physical shape (Holgersson & Knutsson, 2012, p. 216)".

While there are many studies of police performance in the Western countries, few studies have been conducted on the performance management of police in the Korean context. Moreover, it is hard to find empirical research on individual policemen and performance of South Korean police. One study was done by Lee and Lim (2012) using performance survey data of the KNPA. Lee and Lim's study was the first and only study that researched the relationship between the personal factors and the personal performance of the South Korean police for now. Lee and Lim put personal performance grade as the dependent variable and personal factors, such as age, gender, seniority, rank, degree of understanding and acceptance, level of education, type of duty, and function, as the independent variables. They analyzed the relationship between the variables with a Ordered Logistic Regression model, and found that degree of understanding and acceptance of performance management system, type of duty, and function were the factors correlated with police performance (Lee & Lim, 2012).

However, there were some limitations in Lee and Lim's study. First, R^2 was not explained at all in the study. R^2 is used to know how much a linear regression model can explain variable variation in a regression analysis, but Lee and Lim did not explain R^2 in their paper. Second, type of duty and function were not ordinal variables, but nominal variables, so type of duty and function should have been treated and analyzed as dummy variables. Furthermore, despite the fact that some literature showed that age and seniority affected the result of performance, Lee and Lim's study could not find any significant difference. It will

be significant to check if their study is valid or not. Therefore, this study will develop Lee and Lim's model to find out more precise results.

3. Research Design and Methods

3. 1. Unit of Analysis and Data

The unit of analysis of this research is individual policemen in the Korean National Police Agency (KNPA). The data source is the 2014 Survey on Satisfaction of Performance Management conducted by the KNPA between Oct. 16 and 22, 2014. The population is all of the active policemen (103,343) in South Korea and the respondents of the survey were 14,007. The response rate was 13.6%. However, there were 390 respondents who were exempted from the evaluation, and 796 respondents who did not know their performance. This study will analyze the data excluding those respondents. Therefore, the sample size of this study is 12,821. The characteristics of respondents are shown in Table 1.

Table 1 Characteristics of Respondents

Classification		Frequency	%
Total		12,821	100.0
Gender	Male	12,406	96.8
	Female	415	3.2
Age	20s	210	1.6
	30s	1,462	11.4
	40s	5,484	42.8
	50s and Over 50s	5,665	44.2
Rank	Senior Superintendent and Upper	100	0.8
	Superintendent	370	2.9
	Senior Inspector	1,559	12.1
	Inspector	7,518	58.6
	Assistant Inspector	2,459	19.2
	Senior Policeman	619	4.8
	Policeman	196	1.5
Seniority	Less than 1 Year	15	0.1
	1 ~ Less than 5 Years	454	3.5

	5 ~ Less than 10 Years	847	6.6
	10 ~ Less than 15 Years	953	7.4
	15 ~ Less than 20 Years	1,952	15.2
	20 ~ Less than 25 Years	3,820	29.8
	25 and over 25 Years	4,780	37.3
Office	National Police Agency	150	1.2
	Provincial Police Agency	1,135	8.8
	Police Station	5,485	42.8
	Police Unit and Box	5,810	45.3
	Auxiliary Police Unit	183	1.4
	Educational Organization	37	0.3
	The Others	21	0.2
Function	General Affairs	676	5.3
	Public Safety	6,897	53.8
	Women & Juvenile	454	3.5
	Investigation	848	6.6
	Detective	900	7.0
	Public Security	511	4.0
	Traffic Affairs	871	6.8
	Intelligence	419	3.3
	National Security	223	1.7
	Public Relation	15	0.1
	Foreign Affairs	116	0.9
	Internal Inspection	350	2.7
	ICT	129	1.0
	The Others	412	3.2
Type of Duty	Work Inside	4,695	36.6
	Work Outside	8,126	63.4
Understanding of the Evaluation System	Very Well Aware	5,187	40.5
	Well Aware	4,551	35.5
	Average	2,434	19.0
	Unfamiliar	616	4.8
	Very Unfamiliar	33	0.2
Acceptance of the Evaluation System	Very Positive	2,494	19.4
	Positive	4,610	36.0

	Average	4,064	31.7
	Negative	1,336	10.4
	Very Negative	317	2.5
Personal Performance Grade	S	3,038	23.7
	A	5,803	45.3
	B	3,321	25.9
	C	659	5.1

(Adapted from: 2014 Survey on Satisfaction of Performance Management conducted by the KNPA)

3. 2. Measurement

3. 2. 1. Dependent Variable

The dependent variable of this study is personal performance. According to the Public Security Performance Overall Evaluation (PSPOE) of the Korean National Police agency (KNPA), personal performance consists of four grades. They are *S*, *A*, *B*, and *C*. *S* is the highest, and *C* is the lowest. The grade is determined by a mixture of individual and departmental performance grade, which are based on quantitative and qualitative performance. The respondents of the survey reported their own performance grades of 2013. In this study, the scale of *S*, *A*, *B*, and *C* was changed into 4, 3, 2, and 1.

3. 2. 2. Independent Variable

Building on prior research, the independent variable is established as personal factors which consists of several categories; demographic, work, and system.

First, the indicators of the demographic factors are Gender and Age. Gender is divided into two categories; man and woman. Age is divided into four categories; 20's, 30's, 40's, and 50 and over 50's.

Second, the indicators of the work factors are Rank, Seniority, Office, Function, and Type of Duty. Rank is divided into seven categories; Policeman, Senior Policeman, Assistant Inspector, Inspector, Senior Inspector, Superintendent, Senior Superintendent and Upper. Seniority is divided into seven categories; less than 1 year, 1 ~ less than 5 years, 5 ~ less than 10 years, 10 ~ less than 15 years, 15 ~ less than 20 years, 20 ~ less than 25 years, 25 and over 25 years. Office is divided into seven categories; National Police Agency, Provincial Police Agency, Police Station, Police Unit and Box, Auxiliary Police Unit, Educational Organization, the Others. As Office is a nominal variable, it will be changed into dummy variables, and the Others will be the basis of comparison. Function is divided into seven categories; General Affairs, Public Safety, Investigation, Public Security, Intelligence, Internal Inspection, the Others[3]. Each function will be explained in Appendix. Function also will be changed into dummy variables, and the Others will be the basis of comparison. Type of duty is divided into two categories; Work Inside and Work Outside.

[3] Generally, a police station has six to eight departments depending on its level, and departmental performance evaluation is done by the departments. Therefore, for convenience of the analysis, categories are merged into organizational structure of an ordinary police station. General Affairs includes ICT and Public Relation. Public Safety includes Women & Juvenile. Investigation includes Detective. Public Security includes Traffic Affairs. Intelligence includes National Security and Foreign Affairs.

Lastly, the indicators of the system factors are Understanding of the Evaluation System and Acceptance of the Evaluation System. Understanding of the Evaluation System was measured by the question, "How much do you know about the performance evaluation system of the KNPA in general?" Acceptance of the Evaluation System was measured by the question, "What is your opinion about the current performance evaluation system of the KNPA?"

Table 2 Measurements

Variables	Questionnaire	Scale
Dependent variable: *Personal Performance*		
Personal Performance Grade	What was your grade of personal performance in 2013?	1. C, 2. B, 3. A, 4. S
Independent variable: *Personal Factor*		
1. Demographic Factors		
1-1. Gender	What is your gender?	1. Male, 2. Female
1-2. Age	How old are you?	1. 20's, 2. 30's, 3. 40's, 4. 50 and over
2. Work Factors		
2-1. Rank	What is your rank?	1. Policeman, 2. Senior Policeman, 3. Assistant Inspector, 4. Inspector, 5. Senior Inspector, 6.Superintendent, 7. Senior Superintendent and Upper
2-2. Seniority	How long have you been working as a policeman?	1. less than 1 year, 2. 1 ~ less than 5 years, 3. 5 ~ less than 10 years, 4. 10 ~ less than 15 years, 5. 15 ~ less than 20 years, 6. 20 ~ less than 25 years, 7. 25 and over 25 years

2-3. Office	What is your affiliation?	1. National Police Agency, 2. Provincial Police Agency, 3. Police Station, 4. Police Unit or Box, 5. Auxiliary Police Unit, 6. Educational Organization, 7. the others
2-4. Function	What is your department?	1. General Affairs, 2. Public Safety, 3. Investigation, 4. Public Security, 5. Intelligence, 6. Internal Inspection, 7. the others
2-5. Type of Duty	What is your type of duty?	1. Work Inside, 2. Work Outside
3. System Factors		
3-1. Understanding of the Evaluation System	In general, how much do you know about the performance evaluation system of the KNPA?	1. Very Unfamiliar – 5. Very Well Aware (5 Scales)
3-2. Acceptance of the Evaluation System	What is your opinion about the current performance evaluation system of the KNPA?	1. Very Negative – 5. Very Positive (5 Scales)

(Source: author's own work)

3. 3. Research Design and Hypothesis

3. 3. 1. Research Design

The primary goal of this study is to find out the determinants of police performance in South Korea by focusing on personal factors. Using survey data of the KNPA, personal factors are categorized into several groups. As shown above, Lee and Lim (2012) classified personal factors that affected personal performance of the police into five categories; demographic, working condition, function, type of work, and performance evaluation system. Among those factors, working condition, function, and type of work factors are related to workplace, and can be merged into one group.

Therefore, personal factors are divided into three categories to test the hypotheses of this paper. First, the demographic factors are Gender and Age, which show the basic demographic characteristics of the sample. Second, the work factors are Rank, Seniority, Office, Function, and Type of Duty which indicate the characteristics of the sample in the workplace. Third, the system factors are Understanding and Acceptance of the System which show the relationship between the sample and the evaluation system. The conceptual model of this study is as shown in Figure 2.

Since the purpose of the study is to check the impacts of the personal factors on the Personal Performance Grade in a holistic view, the hypotheses will be set to test each indicator's impact. Ordinary least squares (OLS) multiple regression analysis is the most appropriate method to analyze. However, the personal factors consist of ordinal and nominal variables. Therefore, nominal variables will be changed into dummy variables. To test the hypotheses, IBM SPSS Statistics version 22 will be used as an analysis tool.

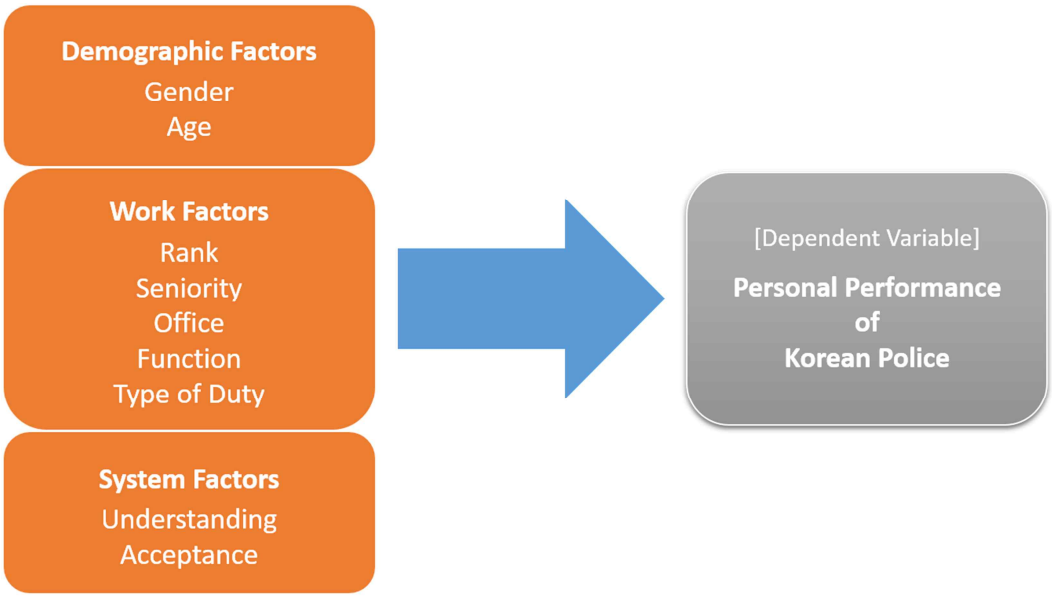

Figure 2 Conceptual Model of the Study

(Source: author's own work)

3. 3. 2. Hypothesis

The hypotheses of this study are as follows;

The first group of hypotheses is with respect to the demographic factors. Policing is close to physical labor. Holgersson & Knutsson suggested good physical shape as one characteristic of high police performance (Holgersson & Knutsson, 2012). Niland claimed that female officers could not fully be accepted into the police because of a "masculine", in other words "aggressiveness and competitiveness" culture in the Australian Federal Police (Niland, 1996). Horne found that there were positive changes but female officers were not acknowledged as "full and equal partners" because of prejudice and doubts about female officers'

ability (Horne, 1994, p. 40). Therefore, it is reasonable to assuming that male can obtain higher performance score than female in South Korea too.

H_1 *Male* will get a higher personal performance grade than *female*.

It is difficult to find discussing Age as a determinant of police performance in former research. In spite of that, many scholars claimed that seniority affected negatively on police performance (Brown, 1988; Robinette, 1982; Thurman & Zhao, 2004). However, Lee & Lim (2012) asserted that seniority had no significant impact on personal police performance in South Korea. Age can have a positive effect on performance because, generally, growing older is accepted as getting wiser and skillful. That is why a pay scale is based on seniority. However, aging brings about low physical capability which affects negatively on police performance as shown in the H_1. Therefore, this study hypothesizes that age has a negative relationship with performance.

H_2 *Age* will have a negative impact on personal performance grade.

The second group of hypotheses is with respect to the work factors. The performance score of a police station is more related to the chief of the police station than the policemen in the field (Chang, 2010). It is true that a police officer with higher rank has more information and wider span of control that can affect

the performance. Therefore, when a policeman gets higher rank, he will get higher performance, too.

H_3 *Rank* will have a positive impact on personal performance grade.

As examined in previous literature, seniority had a negative effect on police performance (Brown, 1988; Robinette, 1982; Thurman & Zhao, 2004). Therefore, this study also assumes that seniority has a negative effect on personal police performance.

H_4 *Seniority* will have a negative impact on personal performance grade.

Lee and Lim (2012) could not find significant differences between the performances of policemen working at different levels of offices. However, Lee and Lim's study did not treat Office as a dummy variable. Since office is not an ordinal variable, this study will reexamine if there are significant differences between different offices when they are treated as dummy variables.

H_5 *Office* will have significant impact on personal performance grade.

Lee and Lim (2012) claimed that there were significant differences between the performances of policemen working at different levels of functions. However, again, Lee and Lim's study did not analyze function appropriately, either. Therefore, this study will reexamine if there are significant differences between different functions when they are treated as dummy variables.

H_6 *Function* will have significant impact on personal performance grade.

Lee and Lim (2012) concluded that Type of Duty has significant impact on personal performance. They averred that inside policemen got a higher performance score than policemen on the street. Therefore, this study sets the following hypothesis as the result of Lee and Lim's study.

H_7 *Inside policemen* will get a higher personal performance grade than *outside policemen*.

The third group of hypotheses is with respect to the system factors. Knowledge of the evaluation system can affect a personal performance grade. In other words, if one has little information on the metrics of the evaluation system, he will get lower grade than someone who has more information, because he does not know what should be done to get a high grade. Also, low acceptance of the evaluation system can result in low reliability of the system, and this can lead to

low performance grade because someone who does not believe in the evaluation system would not follow the system. Therefore, both Understanding and Acceptance of the evaluation system will affect the performance grade positively. Lee and Lim's study also showed those two factors affecting the personal performance positively (Lee & Lim, 2012).

H_8 *Understanding of the Evaluation System* has positive impact on personal performance grade.

H_9 *Acceptance of the Evaluation System* has positive impact on personal performance grade.

4. Analysis and Results

4. 1. Descriptive Statistics

The unit of analysis of this study is individual policemen in the KNPA. The number of sample is 12,821. The descriptive statistics of the sample is as Table 3 and 4. Table 3 is the descriptive statistics of the ordinal and scale factors, and Table 4 is the descriptive statistics of the nominal factors.

Table 3 Descriptive Statistics (Ordinal and Scale Factors)

	N	Minimum	Maximum	Mean	Std. Deviation
Dependent Variable					
Personal Performance Grade	12821	1	4	2.88	.828
Personal Factors					
Age	12821	1	4	3.30	.731
Rank	12821	1	7	3.87	.901
Seniority	12821	1	7	5.73	1.392
Understanding	12821	1	5	4.11	.893
Acceptance	12821	1	5	3.59	.993

Table 4 Frequency Distribution (Nominal Factors)

Personal Factors	Category	Frequency	Percentage
Gender	Male	12,406	96.8 %
	Female	415	3.2 %
Office	National Police Agency	150	1.2 %
	Provincial Police Agency	1,135	8.8 %
	Police Station	5,485	42.8 %
	Police Unit or Box	5,810	45.3 %
	Auxiliary Police Unit	183	1.4 %
	Educational Organization	37	0.3 %
	The Others	21	0.2 %
Function	General Affairs	820	6.4 %
	Public Safety	7,351	57.3 %
	Investigation	1,748	13.7 %
	Public Security	1,382	10. 8 %
	Intelligence	758	5.9 %
	Internal Inspection	350	2.7 %
	The Others	412	3.2 %
Type of Duty	Inside Work	8,126	63.4 %
	Outside Work	4,695	36.6 %

4. 2. Correlation Analysis

Table 5 shows the correlation between the variables. The personal factors which showed significant correlation with the dependent variable, Personal Performance Grade, are Age (-.047), Rank (.029), Seniority (-.036), Type of Duty (.042), Understanding of the Evaluation System (.108), and Acceptance of the Evaluation System (.080). Among Office, Police Station (.023), and Police Unit or Box (-.023) showed significant correlation with the dependent variable. Among Function, General Affairs (.054), Public Safety (-.017), Investigation (-030), and Internal Inspection (.025) showed significant correlation with the dependent

variable. Understanding of the Evaluation System (.108) showed the strongest correlation with the dependent variable.

To check the problem of multicollinearity in the ordinary least squares regression analysis, the variance inflation factor (VIF) was tested. Table 6 shows the VIF of the variables. Police Unit or Box (154.89), Police Station (151.47), and Provincial Police Agency (50.59) showed the VIF over 10. To secure the credibility of the regression model, Police Unit or Box, Police Station, and Provincial Police Agency were excluded from the regression model.

Table 5 Correlations between Variables

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1. Personal Performance	Pearson Correlation	1																				
	Sig. (2-tailed)																					
2. Gender	Pearson Correlation	.010	1																			
	Sig. (2-tailed)	.273																				
3. Age	Pearson Correlation	**-.047****	.248**	1																		
	Sig. (2-tailed)	.000	.000																			
4. Rank	Pearson Correlation	**.029****	.147**	.587**	1																	
	Sig. (2-tailed)	.001	.000	0.000																		
5. Seniority	Pearson Correlation	**-.036****	.217**	.869**	.670**	1																
	Sig. (2-tailed)	.000	.000	0.000	0.000																	
6. National Police Agency	Pearson Correlation	-.007	-.001	-.021*	.068**	-.017	1															
	Sig. (2-tailed)	.412	.946	.017	.000	.052																
7. Provincial Police Agency	Pearson Correlation	-.001	-.033**	-.062**	.086**	-.051**	-.034**	1														
	Sig. (2-tailed)	.873	.000	.000	.000	.000	.000															
8. Police Station	Pearson Correlation	**.023****	-.065**	-.079**	.022*	-.068**	-.094**	-.269**	1													
	Sig. (2-tailed)	.010	.000	.000	.011	.000	.000	.000														
9. Police Unit or Box	Pearson Correlation	**-.023****	.081**	.142**	-.078**	.125**	-.099**	-.284**	-.787**	1												
	Sig. (2-tailed)	.008	.000	.000	.000	.000	.000	.000	0.000													
10. Auxiliary Police Unit	Pearson Correlation	.017	.011	-.091**	-.040**	-.093**	-.013	-.038**	-.104**	-.110**	1											
	Sig. (2-tailed)	.061	.219	.000	.000	.000	.138	.000	.000	.000												
11. Educational Organization	Pearson Correlation	.001	.002	-.018*	.006	-.022*	-.006	-.017	-.047**	-.049**	-.006	1										
	Sig. (2-tailed)	.902	.854	.045	.480	.014	.508	.058	.000	.000	.464											

12. the others	Pearson Correlation	-.013	.007	.002	.012	.002	-.004	-.013	-.035**	-.037**	-.005	-.002	1									
	Sig. (2-tailed)	.156	.402	.810	.163	.784	.618	.153	.000	.000	.581	.805										
13. General Affairs	Pearson Correlation	**.054****	-.008	-.051**	.073**	-.049**	.069**	.114**	.153**	-.237**	-.015	.075**	-.003	1								
	Sig. (2-tailed)	.000	.363	.000	.000	.000	.000	.000	.000	.000	.083	.000	.759									
14. Public Safety	Pearson Correlation	**-.017***	.032**	.117**	-.053**	.105**	-.085**	-.245**	-.542**	.735**	-.124**	-.048**	-.039**	-.303**	1							
	Sig. (2-tailed)	.050	.000	.000	.000	.000	.000	.000	0.000	0.000	.000	.000	.000	.000								
15. Investigation	Pearson Correlation	**-.030****	-.013	-.067**	-.025**	-.055**	.008	.037**	.354**	-.360**	-.048**	-.017	-.010	-.104**	-.461**	1						
	Sig. (2-tailed)	.001	.130	.000	.004	.000	.396	.000	0.000	0.000	.000	.052	.236	.000	0.000							
16. Public Security	Pearson Correlation	.004	.000	-.106**	-.050**	-.106**	.023**	.111**	.173**	-.310**	.289**	-.005	.017	-.091**	-.403**	-.138**	1					
	Sig. (2-tailed)	.691	.966	.000	.000	.000	.009	.000	.000	.000	.000	.600	.054	.000	0.000	.000						
17. Intelligence	Pearson Correlation	.009	-.018*	-.003	.036**	-.007	.034**	.130**	.154**	-.227**	-.030**	-.013	.014	-.066**	-.291**	-.100**	-.087**	1				
	Sig. (2-tailed)	.285	.045	.695	.000	.428	.000	.000	.000	.000	.001	.127	.103	.000	.000	.000	.000					
18. Internal Inspection	Pearson Correlation	**.025****	-.037**	.030**	.067**	.039**	.035**	.051**	.122**	-.153**	-.016	-.009	-.007	-.044**	-.194**	-.067**	-.058**	-.042**	1			
	Sig. (2-tailed)	.005	.000	.001	.000	.000	.000	.000	.000	.000	.068	.308	.442	.000	.000	.000	.000	.000				
19. the others	Pearson Correlation	-.010	.006	.036**	.073**	.041**	.009	.040**	-.004	-.041**	.008	.097**	.091**	-.048**	-.211**	-.072**	-.063**	-.046**	-.031**	1		
	Sig. (2-tailed)	.262	.509	.000	.000	.000	.310	.000	.666	.000	.371	.000	.000	.000	.000	.000	.000	.000	.001			
20. Duty	Pearson Correlation	**.042****	-.145**	-.089**	.161**	-.082**	.074**	.184**	.430**	-.562**	.018*	.065**	.021*	.341**	-.393**	.050**	.162**	.006	.148**	.103**	1	
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	0.000	0.000	.045	.000	.016	0.000	0.000	.000	.000	.464	.000	.000		
21. Understanding	Pearson Correlation	**.108****	.067**	.218**	.222**	.236**	-.011	-.028**	.044**	-.013	-.038**	-.026**	-.001	.087**	-.007	-.050**	-.043**	.031**	.042**	-.009	.072**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.210	.001	.000	.134	.000	.003	.936	.000	.409	.000	.000	.000	.000	.294	.000	
22. Acceptance	Pearson Correlation	**.080****	.066**	.123**	.071**	.129**	-.013	-.052**	-.021*	.060**	-.017	-.037**	.007	.035**	.055**	-.034**	-.032**	-.037**	-.011	-.019*	-.029**	.494**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.154	.000	.020	.000	.052	.000	.441	.000	.000	.000	.000	.000	.205	.034	.001	0.000

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 6 Variance Inflation Factor (VIF) of the Variables

Variable	VIF	1/VIF
Agency 4 (Police Unit or Box)	**154.89**	0.006456
Agency 3 (Police Station)	**151.47**	0.006602
Agency 2 (Provincial Police Agency)	**50.59**	0.019765
Agency 5 (Auxiliary Police Unit)	9.71	0.102963
Function 2 (Public Safety)	8.69	0.115097
Agency 1 (National Police Agency)	8.12	0.123167
Seniority	5.01	0.199769
Function 3 (Investigation)	4.93	0.203041
Age	4.18	0.239381
Function 4 (Public Security)	4.16	0.240216
Function 1 (General Affairs)	2.92	0.342641
Function 5 (Intelligence)	2.87	0.348923
Agency 6 (Educational Organization)	2.77	0.361596
Rank	2.07	0.483822
Function 6 (Internal Inspection)	1.85	0.539757
Duty	1.77	0.563558
Understanding of the Evaluation System	1.42	0.702500
Acceptance of the Evaluation System	1.34	0.744322
Gender	1.09	0.913631
Mean VIF	22.10	

4. 3. Regression Analysis

The result of OLS Multiple Regression Analysis is as shown in Table 7. With respect to the model, the R^2 is .025 and the F value is 20.582. According to the regression table, approximately 2.5% of the variation in the dependent variable, Personal Performance Grade, can be explained by this model. 2.5% is a quite low figure. There can be two explanations for the low R^2 value. First, there can be important missing variables. For instance, job satisfaction, level of education, or physical condition can be one of the missing variables. However, there is no absolute determinant of the personal performance grade of the KNPA because the grade is determined by combination of lots of performance results. Moreover, original data source had no information about other factors. Second, the personal performance grade of the KNPA can be determined by the mixture of the organizational performance evaluation and the personal performance evaluation, which means that the final grade of the personal performance includes the result of the organizational performance evaluation. The portion of the organizational evaluation and the personal evaluation is varied by rank and position. Middle and high level managers gets the personal performance grade with more portion of organizational performance evaluation.

Even though the R^2 value is relatively low, it is possible to picture a rough image of relationship between personal factors and personal performance grade because the regression analysis presents a significant result by the high F value. As shown by the overall F test, the independent variables are jointly significant at less than the .1% level.

As a result, Gender (.100), Age (-.088), Rank (.074), Seniority (-.032), Understanding of the Evaluation System (.085), and Acceptance of the Evaluation System (.035) have significant impacts on the dependent variable, Personal Performance Grade. As might be expected, Rank, Understanding of the Evaluation System, and Acceptance of the Evaluation System show positive impacts on the dependent variable, and Age and Seniority show negative impacts. Male have better Personal Performance Grade than female. Among Function factor, only General Affairs (.145) and Internal Inspection (.148) have significant impacts on the dependent variable. However, Office, Type of Duty, and the other factors of Function have no significant impacts on the dependent variable because the coefficients before those independent variables are not significant at any acceptable confidence level. The results of the statistical hypotheses test are as shown in Table 8.

Table 7 Result of OLS Multiple Regression Analysis

Dependent Variable: Personal Performance Grade	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Demographic Factors					
Gender	**.100***	.043	.021	2.351	.019
Age	**-.088*****	.020	-.078	-4.380	.000
Work Factors					
Rank	**.074*****	.011	.081	6.499	.000
Seniority	**-.032****	.012	-.054	-2.764	.006
Office					
National Police Agency	-.128	.068	-.017	-1.880	.060
Auxiliary Police Unit	.088	.064	.013	1.378	.168
Educational Organization	.001	.136	.000	.007	.995
Function					
General Affairs	**.145****	.050	.043	2.906	.004
Public Safety	.046	.042	.028	1.096	.273
Investigation	-.017	.045	-.007	-.369	.712
Public Security	.032	.047	.012	.690	.490
Intelligence	.064	.051	.018	1.272	.203
Internal Inspection	**.148***	.060	.029	2.481	.013
Duty	.011	.010	.092	.617	.537
System Factors					
Understanding	**.085*****	.010	.092	8.857	.000
Acceptance	**.035*****	.008	.042	4.160	.000
(Constant)	2.439***	.071		34.337	.000

Note1. N = 12,821, R^2=.025, Adjusted R^2= .024, F (Sig.) = 20.582 (.000)
Note2. *p < .05; **p< .01; ***p<.001

Table 8 Result of Statistical Hypothesis Test

	No.	Hypotheses	Result
Demographic Factors	H_1	*Male* will get a higher personal performance grade than *female.*	○
	H_2	*Age* will have a negative impact on personal performance grade.	○
Work Factors	H_3	*Rank* will have a positive impact on personal performance grade.	○
	H_4	*Seniority* will have a negative impact on personal performance grade.	○
	H_5	*Office* will have significant impact on personal performance grade.	×
	H_6	*Function* will have significant impact on personal performance grade.	△
	H_7	*Inside policemen* will get a higher personal performance grade than *outside policemen*.	×
System Factors	H_8	*Understanding of the Evaluation System* has positive impact on personal performance grade.	○
	H_9	*Acceptance of the Evaluation System* has positive impact on personal performance grade.	○

4. 4. Discussion

According to Lee and Lim (2012), Gender, Age, Rank, and Seniority had no significant impacts on Personal Performance Grade because the coefficients before those independent variables were not significant at any acceptable confidence level.

On the other hand, this study shows that those variables have significant impacts on the dependent variable. In fact, Gender, Age, and Seniority were suggested as important independent variables by various studies (Brown, 1988; Fabricatore et al., 1978; Holgersson & Knutsson, 2012; Robinette, 1982; Sanders, 2008; Thurman & Zhao, 2004). Rank was also treated as one of the important variables of personal performance (Chang, 2010). Therefore, the analysis results of this study reaffirmed the significant impact of those factors on personal performance in Korean context.

4. 4. 1. Demographic Factors

The result of the analysis shows that male officers have better Personal Performance Grades than female officers. There were 10,348 (9.4%) female officers out of 110,212 policemen in KNPA in 2015. The number has been rapidly increased from 6,392 (6.5%) out of 98,512 in 2009 (Korean National Police Agency, 2015a). Although the number of the female officers in the KNPA was rapidly increased from 6.5% in 2009 to 9.4% in 2015, the result of analysis shows that gender still plays a key role on personal performance in the KNPA.

There could be various other explanations of the gap between male and female officers' performance grades. Kwon (2009) pointed out that female-dominated public organization showed conspicuously low performance than male-dominated public organization in South Korea. However, the result implies that the Korean police still has male-dominated environment as well. Although, the number of female officers is increasing, it is still small number compared to male officers. Female

officers under male-dominated culture cannot fully be accepted into the workplace like the case of the Australian Federal Police (Niland, 1996).

The result of the analysis also shows that Age and Seniority have negative impacts on the police performance. It has been natural to consider age and seniority as more experiences and being more skillful. However, age and seniority is not positive factors for personal police performance in South Korea. Moreover, the KNPA takes a pay scale based on seniority. In other words, policemen with more seniority are paid higher wage. This might aggravate inefficiency in performance management of the KNPA.

4. 4. 2. Work Factors

Among the factors of Function, General Affairs and Internal Inspection show significant impact on personal performance. It can be explained by the fact that General Affairs Division is in charge of the Performance Evaluation System in all levels of police organizations. Although the metrics of the performance evaluation is designed by each department, the final evaluation data is collected and regulated by General Affairs Division. Therefore, a police officer who works in a General Affairs department can be more knowledgeable about the performance management system, and can get a higher performance grade. Moreover, it is generally believed that General Affairs Division can get higher evaluation score because it has the role of supporting function beside a chief of a police organization, which means that a chief might grade a police officer in a General Affairs department higher than others in a qualitative evaluation. Internal Inspection Division is close to a chief of a police

organization as well, because the function generally carries out confidential tasks ordered by a chief.

4. 4. 3. System Factors

With regard to System factors, Understanding of the Evaluation System and Acceptance of the Evaluation system showed positive impacts on a Personal Performance Grade. The result means that if a policeman has high level of Understanding of the Evaluation System, he or she will know how to get a high performance grade, because he or she understands how to get higher performance with a certain task, which leads to a higher performance grade.

Also, if a policeman has a high level of Acceptance of the Evaluation System, he or she might get a reasonable performance grade, because he or she might be positive to the system and tries harder within the evaluation system. However, the result can be interpreted the other way. Because of the distrust of the evaluation, system, policemen did not do their best to get high performance grades (Lee & Lim, 2012).

5. Conclusion

5. 1. Conclusion and Suggestions

The purpose of this study was getting an explanation of the determinants of personal performance in Korean context. As a result, this study found out that Gender, Age, Rank, Seniority, Understanding of the Evaluation System, and Acceptance of the Evaluation System had significant impacts on Personal Performance Grade. In other words, male had better Personal Performance Grade than female, and a policeman with lower age and seniority, and higher rank had better Personal Performance Grade than a policeman with higher age and seniority, and lower rank. Also, higher Understanding of the Evaluation System and Acceptance of the Evaluation System caused higher Personal Performance Grades. The findings of this study suggest several things to enhance the Police Performance Evaluation System of the KNPA.

First, male police officers have better Personal Performance Grade than female police officers. Even though the ratio of the female officers was rapidly increased from 6.5% in 2009 to 9.4% in 2015, gender still has an impact on personal performance. This implies that the South Korean police still has male-dominated culture which is disadvantageous to female officers. Or, the organizational culture is not favorable to female officers. Therefore, the KNPA should make efforts to foster a gender-equal working environment or develop incentives specially targeted for female officers.

Second, age and seniority have negative impacts on the police performance in the KNPA. Traditionally, age and seniority have meant more wisdom and skill. However, age and seniority might not be advantageous any more in a modern dynamic society with the rapid development of ICT, because aged policemen had little opportunities to learn new technology in South Korea. They might have more experiences in policing, but cannot utilize all the new high-tech devices. Moreover, memorizing all of the rules and regulations is not possible anymore. Therefore, reeducation or retraining aimed at aged policemen to get used to the Internet and new technology can be an option to solve this problem.

Third, General Affairs and Internal Inspection show better Performance Grade than other functions. Some people believe that those functions get better Performance Grades only because they have a close relationship with a boss. Maybe it is not true, but it would be a reasonable doubt for the believers, if the KNPA cannot show them the evaluation process is fair. Therefore, the KNPA should make efforts to develop and to show the policemen that the evaluation process is clean and fair to wipe out that distrust. One of the solutions is making performance evaluation system with more of quantitative metrics to ensure objectivity.

5. 2. Limitations and Recommendations

Although this study tried to widen the territory of the knowledge in police performance management in South Korea, there were some limitations.

First, even though this study was conducted with improved analysis model, the results were different from a similar study conducted by other scholar (Lee & Lim,

2012). It is not clear whether this study found new significant result, because research in this field has not been accumulated enough. Therefore, further research, especially with time-series data, needs to be conducted to test the difference.

Second, the use of the secondary data provided an intrinsic limit on this study. The causal relationships might not be clear enough because the questionnaire was not structured for the study only. For example, the independent variable of the study, Personal Performance Grade, was reported by the respondents, and was of 2013. However, the survey of this study was conducted on Oct., 2014. There is a possibility that high Personal Performance Grade can result in "nice" answer in Understanding and Acceptance of the Evaluation System. Therefore, precisely designed questionnaire is needed to get an accurate result.

Third, the dependent variable, Personal Performance Grade, cannot be absolute criteria for the police performance. In South Korea, Personal Performance Grade is calculated not only from quantitative performance, but also from subjective and qualitative evaluation of a superior or colleagues. Furthermore, some of quantitative police performance is not directly related to traditional police duty. Therefore, it is necessary to create more reliable criteria for the police performance.

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Appendix (Functions of the KNPA)

Division	Main Duty
General Affairs	Police Administration, Budget, Personnel Management, Performance Management, Planning, Education, and Law
Public Safety	Crime Prevention, Private Security, and Patrol
Women & Juvenile	Crime Prevention and Investigation for Women and Juvenile
Investigation	Crime Investigation
Detective	Violent Crime Investigation
Public Security	Riot Police, Disaster Response, and Counter Terrorism
Traffic Affairs	Traffic Control, Traffic Accident Investigation, and Driver's License
Intelligence	Collecting and Management of Information on Public Safety
National Security	Counterespionage
Public Relation	Public Relation
Foreign Affairs	Crime Investigation of Foreigners, Cooperation with Foreign Police Agencies, and Security Management of Airports and Seaports
Internal Inspection	Internal Inspection, Audit, Civil Complaint, and Civil Right
ICT	ICT, Police Equipment, and Uniform

(Adapted from: Organization of Korean National Police Agency and Affiliated Organizations of 2016, Presidential Decree 27619, §§ 5-15.2)

국문초록

공공분야의 성과관리는 매우 복잡다단하여 어떤 이들은 공공분야에 대한 성과관리는 불가능하거나 적절치 못하다고 주장하는 경우도 있어 왔다. 하지만 신공공관리론(New Public Management)의 등장 이후 공공분야에서는 “결과를 위한 관리(managing for result)”가 강조되어왔다. 이러한 결과지향적 관리 경향과 함께, 공공분야에서의 성과관리는 항상 주요한 관심의 대상이 되어 왔다. 경찰 활동 역시 성과관리가 중요한 역할을 하고 있는 분야의 하나로 여겨져 왔다.

2006 년에 대한민국 정부는 공공분야의 경쟁력 강화를 위해 정부업무평가기본법(법률 제 7928 호 신규제정 2006. 03. 24.)을 제정함으로써 모든 중앙 행정기관에 성과관리를 도입하였다. 같은 법에 의해 경찰청 역시 치안종합성과평가라는 명칭으로 모든 지방경찰청, 경찰서, 부속기관, 그리고 경찰청 자체에도 성과관리체계를 적용하였다. 치안종합성과평가는 일반적으로 기관(부서)평가와 개인평가의 두 개의 범주로 분류된다. 평가 결과는 기획, 인사, 교육, 외사 등의 분야에 활용된다.

경찰청은 매년 치안종합성과평가 체계를 보완·개선해 오고 있다. 그 결과, 2013 년부터 2016 년까지 연이어 4 년간 정부평가에서 중앙행정기관 중 최우수 기관으로 선정되기도 하였다. 그러나, 조직 내·외부에서는

여전히 성과관리와 평가에 대한 많은 비판이 존재하고 있다. 실제로 지난 2010 년에는 강북경찰서장이 성과평가 체계 전반에 대해 공개적으로 비판 의견을 제시하여 파면되었다가 법정투쟁을 통해 복직한 사례도 발생하였다. 그러나, 이러한 논란에도 불구하고 한국 경찰의 성과관리에 대한 연구는 매우 부족하며, 특히 개인적 요인과 관련한 연구는 없다시피 한 실정이다.

이에 본 연구는 개인적 요인을 중심으로 한국 경찰의 성과 결정요인을 확인하고자 하였다. 분석을 위한 자료는 2014 년 10 월 16 일부터 22 일까지 경찰청 내부망에서 경찰관들을 대상으로 실시한 “성과관리 만족도에 대한 설문조사”를 사용하였다. 전체 조사대상자 103,343 명 중 응답자는 14,007 명이었으며, 이 중 평가제외자와 성과등급을 모른다고 응답한 이들을 제외한 총 12,821 명의 자료를 분석하였다. 성별, 나이, 계급, 근속기간, 근무기관, 근무기능, 근무형태, 성과시스템에 대한 이해도 및 수용도 등의 개인적 요인과 개인성과평가등급 간 다중회귀분석을 통해 결과를 도출하였으며, 최종적으로 성별, 나이, 계급, 근속기간, 성과평가 시스템에 대한 이해도와 수용도 등이 개인성과등급에 유의미한 영향을 미치는 것으로 나타났다.

주요어: 성과, 성과관리, 평가, 경찰, 개인적 요인, 결정인자

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