

# The mediating effect of good governance on the relationship between managerial roles and personal development: A structural equation modeling (SEM) approach

Juhary Haji Ali<sup>1</sup>, Ilham Sentosa<sup>2</sup>

(1. School of Management, Asia e University, Kuala Lumpur 50000, Malaysia;

2. College of Business, University Utara Malaysia, Sintok Kedah 06010, Malaysia)

**Abstract:** One of the challenges faced by public sector managers particularly is the problem of identifying and determining their roles, their personal development and how to effectively implement the concept of good governance in their organizations. Given a dynamic changing and continuing insight into public organizational effectiveness, public sector managers are rethinking how best they could accomplish their roles in order to attain their organization roles and objectives. This study examines the mediating roles of good governance in the relationship between managerial roles, development roles, strategic roles and personal development. In determining this relationship, a hypothetical model of the relationship among roles of public sector managers, good governance and personal development is developed. The results suggest that the managerial roles has more positive and significant influence on personal development than the development roles and strategic roles. Empirical study supports the institutional theory (Scott, 2001) in the hypothesized model. The empirical findings confirm that good governance has a significant and positive impact on the relationship between managerial roles and development roles to the personal development of public sector managers. This proves that the management system theory (Katz & Kahn, 1966) is supported whereby public sector manager roles served as an input, while good governance as a process and personal development as an output. Based on empirical findings, it is suggested that personal development should be referred as an ideal social behavior of public sector managers. Overall, the study supports the hypotheses that good governance plays a mediating role in the relationship between public sector manager roles and personal development. This is consistent with governance theory (Lynn, 2001). One particular contribution of this study is the development of structural equation model to determine the relationships between managerial roles, good governance and the personal development of public sector managers. In conclusion, an understanding of the constructs of managerial roles is a prerequisite for better insight on personal development. The study confirms public sector managers to implement good governance to improve their personal development paths. The findings are discussed in the context of public sector managers in local government in Indonesia.

**Key words:** managerial roles; development roles; strategic roles; good governance; personal development

## 1. Introduction

---

Juhary Haji Ali, professor and dean at School of Management, Asia e University; research field: public sector management.  
Ilham Sentosa, College of Business, University Utara Malaysia.

“The challenge of effective public organization and their management depend on the roles of public sector manager” (Rainey, 2003; Turner, 1997; Mintzberg, 1996). In public organization, it wants public managers who can get results, to know how to improve their capacity and capability, make the right decisions, and reformulate principles and processes to get into the future quicker (Osborne, 1997 & Ohmae, 1990). Furthermore, the improvement of public sector managers totally relates with their personal development as the development of the individual person (Turner, 1997). The term “development” covers the enhancement of existing skills, the acquisition of new ones, the acceptance of new responsibilities, the acquisition of additional confidence and a whole range of processes designed to add breadth, depth and strength to a person’s individual capability and competence (Malhi, 2006).

Ulrich (1997) and Lawler (1994) assert that HRM model suggests that managers should be regarded as valued assets and that there should be an emphasis on commitment, adaptability and consideration of employees as a source of competitive advantages. HRM is an integrated strategy and planned development process for effective utilization of human resources for the achievement of organizational goals (Bernadin & Russels, 1998; Boyatzis, 1992; Mclagan, 1989). Practically, HRM in public sector is the development of abilities and the attitude of the individuals, leading to personal growth and self-actualization, which enables the individual to contribute to organizational objectives (Rainey, 2003; Keating & Davis, 2000; Caiden, 1991). Furthermore, in the public sector organization good governance requires all concerned to be clear about the functions of governance, their own roles and responsibilities and those of others, and to behave in ways that are consistent with those roles (Haque, 2005; Mayntz, 1998; Limerick, 1993). Clarity about roles also helps all stakeholders to understand how the governance system works (Lynn, 2001; Scott, 2001; Drucker, 1995).

The assumptions of public sector manager roles in the organizations relates to their figures as role model (Mintzberg, 1996; Kirkpatrick, 1996; Caiden, 1991), how they act and behave within the sub-system context, as explained above, will have an impact on the degree of creativity, social skills and personal capacities in the public sector organization (Ancok, 1997; Grindle, 1997; Garvey, 1997; Lane, 1993; Kotter, 1982). Based on the explanation of the relationship between public sector manager roles and their personal development (Rainey, 2003; Scott, 2001; Lynn, 2001), the question now arises as to which specific determinants of roles and good governance have an influence on the degree to personal development of public sector manager in the public sector organization.

This study examines the mediating roles of good governance in the relationship between managerial roles, development roles, strategic roles and personal development. The hypothesized model in the present study believes that human potential is limitless and it is the duty of the organization to help the individual to identify his/her strengths and make full use of them. The concept of personal development aims at understanding the needs and hopes of public sector managers in a better way.

## **2. Theoretical underpinning of the study**

This study integrates four famous theories, namely, institutional theory (Scott, 2001), system management theory (Katz & Kahn, 1966), governance theory (Lynn, 2001), and managerial roles theory (Mintzberg, 1978). Successful public sector manager roles must be able to identify clues in an environment and adapt their leader behavior to meet the needs of their followers and of the particular situation (Senge, 1990). Even with good diagnostic skills, leaders may not be effective unless they can adapt their managerial roles to meet the demands of

their environment (Mintzberg, 1978).

The three pillars of institutional theory (Scott, 2001) confirms the influence of regulative, normative and cognitive aspects of managers to their social behaviors. Institutional actors, (both individual and collective) are in the right time to create and embody the logics of the field of behavior (Rehffuss, 1989). Actors serve as both agents who are capable of exercising power to affect and alter events and rule systems and as carriers, who embody and reflect existing norms and beliefs (Miles, 1975). Furthermore, this study proposes good governance as mediating means performing effectively in clearly defined functions and roles (Lynn, 2001; Hughes, 1994; Turner, 1997). Good governance requires all concerned to be clear about the functions of governance, their own roles and responsibilities and those of others, and to behave in ways that are consistent with those roles (Lynn, 2001). Being clear about manager roles and how it relates to that of others increases the chance of performing the role well. Previous study found it advisable to focus on three measurable components types of actors or organizing models (normative elements), institutional logics (cognitive elements) and governance structures (regulative elements) (Lynn, 2001; Mintzberg, 1996; Hughes, 1994). This study replicates three components that are managerial roles (Mintzberg, 1978), development roles (Leibowitz, 1986) and strategic roles (Miles & Snow, 1975) as predictors of personal development of public sector managers.

System management theory by Thompson (1967) and Katz & Kahn (1966) provides an interaction to help better explain, analyze and understand complex roles of public sector managers' roles. Conceptual developments in this study explain management effectiveness in terms of good governance as situational mediating variables that are called the transformation in the management system theory. The present study proposes to confirm the model which figures out the direct relationship from institutional theory to personal development of public sector managers through good governance. The conceptual model of public sector manager roles in personal development becomes a critical means to successfully integrate the managerial roles (Mintzberg, 1978), development roles (Leibowitz, 1986) and strategic roles (Miles & Snow, 1975) as predictors of personal development though the good governance such as transparency, fairness, accountability, efficiency and effectiveness (Hughes, 1994; Limerick, 1993; Lynn, 2000, 2001).

### **2.1 Personal development**

The personal development, which has historically placed a higher value on action than reflection, is placing a newfound importance on reflective thinking (Turner, 1997; Turner & Hulme, 1997). Working with upper level managers as subjects, previous study concludes that "Managers need support in their efforts to make sense out of the events and transfer the learning to new situations, and that this support may be found in a process that has helped people learn since ancient times: reflection" (Haque, 2005; Mayntz, 1998; Limerick, 1993). The power of questions in the reflection process and the roles others can play in guiding reflection are critical aspects to consider (Mintzberg, 1996). Public sector manager as individual employees has the "power" to choose what to learn and how to develop themselves (March & Olsen, 1995). This perspective is consistent with existing research observations which suggests that individuals cannot be forced to learn or develop without their will (Turner, 1997).

### **2.2 Managerial roles**

What public managers must do and what they actually do, Mintzberg (1976) produces the nature of managerial work, which now stands as a classic in the field. A role can be a set behavior manager uses daily in the workplace. Mintzberg (1976) talks of ten sorts of managerial roles named as organized sets of behavior. Roles can help public sector managers to do their job more effectively and support each other to successfully drive the

organization (Lebovits & Rosansky, 1997; Senge, 1990). Moreover, it can provide the requisite behavior design of the authority function during daily activities and beyond, guidelines for hiring practices and development opportunities, and global managerial competencies for governance (Mintzberg, 1996).

### **2.3 Development roles**

The purpose of the development roles is to review job knowledge, skills and competencies in order to identify areas of strength and development need. In the development discussion of public sector managers is expected to act as a coach and mentor (Malhi, 2006; Turner, 1997). Previous findings suggest that the managers' willingness to coach, to appraise and to advice becomes referral agent in order to catch the stability of effectiveness (Leibowitz, 1986). The development roles play an important role in the follow-up phase after good governance (Kaul, 1997). One high potential argues that the development can be more effective if the managers could encourage good governance in the implementation level to apply their personal development to the workplace (Lynn, 2001).

### **2.4 Strategic roles**

Miles (1975) practices strategic roles types; one can identify a number of different approaches that are adopted in public organizations for handling strategic issues. Various attempts have been made to classify them. Milles and Snow (1984) provide a well-known for-fold classification of proposed strategic roles of manager. Previous study findings find that effective public manager have to understand that what they do is more influential than what they say, convey organizational objectives and values, learn their skills as leaders from bosses they have known, understand their own talents very well, and learn by private reflection about their personal development (Turner, 1997; Kotter, 1990; Rehfuss, 1989).

### **2.5 Good governance**

The good governance in public organization is the shared beliefs of its members (Lynn, 2001). Good governance beliefs are different from that held by public manager as individuals' privacy in that they are deemed to work well enough to be taught to new members what is the correct way to perceive, think about and feel about organizational life (Rainey, 2003; Osborne, 1997). Once shared beliefs exist, they function to provide meaning to daily events and make organizational life predictable (Lynn, 2001; Rainey, 2003).

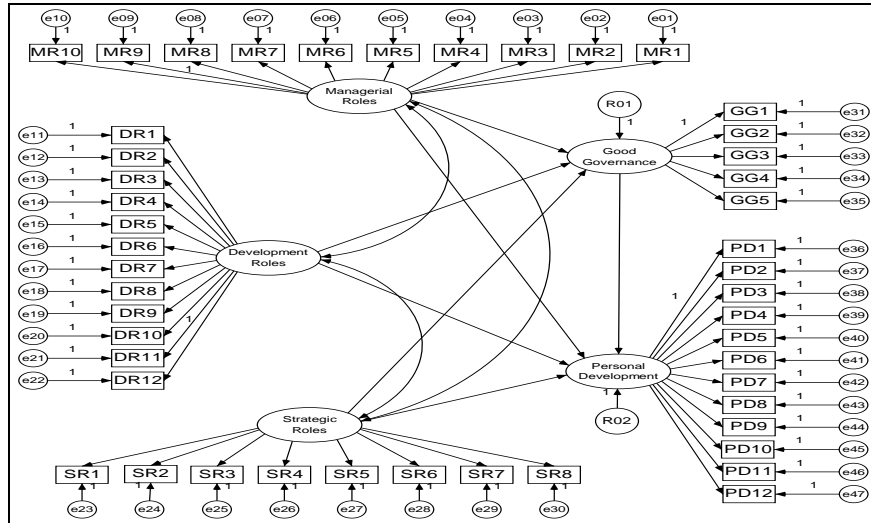
The underpinning of system management theory (Katz & Kahn, 1966) provides an interaction to help better explain, analyze and understand complex of public sector managers' roles conceptual development. When combining the direct relationship of institutional theory (Scott, 2001) to the personal development and mediate through good governance theory (Lynn, 2001), the conceptual model of public sector manager roles in personal development becomes a critical means to successfully integrate the behavior of public sector managers.

## **3. Methodology**

Figure 1 proposes the hypothesized structural model for the study. It consists of three exogenous variables (managerial roles, development roles and strategic roles) and one endogenous variable (personal development). Good governance is hypothesized to act as a mediator between all relationships of exogenous and personal development.

Table 1 summarizes the operation definition of final latent variables used in this study. Afterwards, seven hypotheses are derived from the structural model for the study.

**The mediating effect of good governance on the relationship between managerial roles and personal development:  
A structural equation modeling (SEM) approach**



**Figure 1 Hypothesized model**

**Table 1 Operational definition of variables**

Managerial roles	What public managers must do as with what they actually do. Managerial roles confirmed a set of behaviors of managers in their activities.	Mintzberg (1973)
Development roles	Typical guidance to managers for the development of their roles as follows development needs be identified for a range of a reason. They may be identified as a result of shortfalls in behavior and also relate to achieving higher levels to recognize.	Leibowitz (1986)
Strategic roles	Manager's behavior in decision making process to select the best strategy to implement their roles.	Miles and Snow (1984)
Good governance	All concerned to be clear about the functions of governance, their own roles and responsibilities and those of others, and to behave in ways that are consistent with those roles.	Lynn (2001)
Personal development	The capacity and willingness to be critically observant of public sector behaviors by developing the capacity to manage their own behavior.	Turner (1997)

### 3.1 Hypotheses formulation

H1: Managerial roles is positively related to personal development;

H2: Development roles is positively related to personal development;

H3: Strategic roles is positively related to personal development;

H4: Good governance is positively related to personal development;

H5: Good governance mediates the relationship between managerial roles and personal development;

H6: Good governance mediates the relationship between development roles and personal development;

H7: Good governance mediates the relationship between strategic roles and personal development.

### 3.2 Sampling and instrument

A total of 335 public sector managers from various levels such as chief of department, chief of division and chief of sub division were requested to complete a questionnaire that contained measures of the concerned constructs. The questionnaires were distributed to the respondents by using proportionate stratified random sampling method. A response rate of about 92.5% was collected back corresponding to 310 responses.

The approach to testing the hypothesized model is based on that used by Lynn (2001). Measures of personal development (twelve items) and good governance (five items) are utilized based on past studies (Turner, 1997). The public sector managers questions focus on the three independent variables such as managerial roles (10 items),

**The mediating effect of good governance on the relationship between managerial roles and personal development:  
A structural equation modeling (SEM) approach**

development roles (12 items) based on Heibowitz (1986) instrument and strategic roles (8 items). All the questions use 5-Likert interval scales measurement (5—strongly agree and 1—strongly disagree). There are also eleven demographic questions included in the instrument which use ordinal and nominal scale such as age, gender, education, number of formal training, job level, number of employee in department, years in current structure, and time experience in public sector.

### 3.3 Data screening and analysis

The 310 dataset are coded and saved into SPSS version 16 and analyzed using AMOS version 7.0. During the process of data screening for outliers, six dataset are deleted due to Mahalanobis distance values more than the  $\chi^2$  value ( $\chi^2=82.72$ ;  $n=47$ ,  $p<0.001$ ) leaving a final 304 dataset to be analyzed. Several statistical validity tests and analysis are then conducted such as reliability test and composite reliability tests, validity tests using confirmatory factor analysis (CFA) for construct validity, discriminant validity for multicollinearity treatment, descriptive analysis, correlation and structural equation modeling analysis using AMOS 7.0 (SEM). The steps in SEM analysis are CFA analysis, measurement analysis, discriminant analysis, composite reliability, average variance extracted and direct indirect impact analysis (mediating effect), testing the fit for the hypothesized structural model, revised model and comparison analysis.

## 4. Results

On the sample, 87.8% of the subjects are male and 12.2% are female. The age distribution is as follows: 4.3% are 25-34, 55.9% are 35-44, 38.5% are 45-54 years and 1.3% are more than 55 years of age or older. Most of the managers held the Bachelor degree (72.4%) and Master degree (24.3%). Managers with their work experience in public sector organization less than 5 years are 2.0%, 5-10 years are 13.2%, 10-15 years are 13.7%, 15-20 years are 35.9%, 20-25 years are 2.6%, and more than 25 years are 1.3%. Numbers of formal training in last three years are 1-5 times (41.8%) and 6-10 times are 35.9%. The distribution of managers based on their job level is: 1.3% are head of department (Echelon II), 57.2% are head of division (Echelon III), and 30.9% are head of sub-division (Echelon IV). The job categories that are representing in the study are 1.3% manager in technical agencies, 74.4% are in services/operation and 31.3% as manager in technical office are 31.3%. Years of work in current structure level is as follows: less than 1 year is 18.4%, 1-2 years are 39.1%, 2-5 years are 33.9% and more than 5 years are 8.6%. Total number of employees in their department/unit less than 10 employees are 8.6%, 11-50 employees are 37.8%, 51-100 employees are 44.4% and more than 100 employee are 9.2%. A detailed profile is shown in Table 2.

**Table 2 The profile of respondents (N=304)**

	Number	%
Gender		
Male	267	87.8
Female	37	12.2
Age		
25-34 years	13	4.3
35-44 years	170	55.9
45-54 years	117	38.5
Over 55 years	4	1.3
Education level		
Diploma degree (DI/DII/DIII)	10	3.3
Bachelor degree (S1)	220	72.4
Master degree (S2)	74	24.3
Ph.D. degree (S3)	-	-

(to be continued)

**The mediating effect of good governance on the relationship between managerial roles and personal development:  
A structural equation modeling (SEM) approach**

Education background		
Public Administration/Politic/International Affairs	55	18.1
Economic/Management/Tourism	71	23.4
Finance/Banking/Accountancy	58	19.1
Law	64	21.1
Mechanical/Engineering	20	6.6
Medicine/Health Studies	6	2.0
History/Anthropology/Linguistic/Islamic Studies	7	2.3
Information Technology/Multimedia/ICT	10	3.3
Agriculture/Fishery	4	1.3
Others	9	3.0
Job level		
Head of Department (Echelon II)	36	11.8
Head of Division (Echelon III)	174	57.2
Head of Sub Division (Echelon IV)	94	30.9
Department		
Technical Agencies	95	31.3
Services/Operation	205	67.4
Technical Office	4	1.3
Years in current structure level		
<1 year	56	18.4
1-2 years	119	39.1
2-5 years	103	33.9
>5 years	26	8.6
Total number of employees in department/unit:		
<10	26	8.6
11-50	115	37.8
51-100	135	44.4
>100	28	9.2
Work experience in public sector		
<5 years	6	2.0
5-10 years	40	13.2
10-15 years	137	45.1
15-20 years	109	35.9
20-25 years	8	2.6
>25 years	4	1.3
Number of formal training in last three years		
0	40	13.2
1-5	127	41.8
6-10	109	35.9
>10	28	9.2

#### 4.1 Descriptive analysis of variables

The research framework consists of three exogenous and two endogenous variables (Table 3). Each construct shows Cronbach's alpha readings of acceptable values of above 0.60 (Nunnally, 1970). However, all variables are included in subsequent analysis since composite reliability calculated, thus conforming to Nunnally's standard.

**Table 3 Descriptive statistics of variables**

	Variable name	No of items	Mean (Std. Dev)	Cronbach's alpha	Composite reliability
Endo 1	Personal development	12	3.72 (0.87)	0.943	0.919
Endo 2	Good governance	5	3.78 (0.86)	0.919	0.921
Exo 1	Managerial roles	10	3.82 (0.72)	0.941	0.941
Exo 2	Development roles	12	3.57 (1.00)	0.956	0.956
Exo 3	Strategic roles	8	3.64 (0.83)	0.932	0.932
	Total Items	47			

#### 4.2 Confirmatory factor analysis (CFA) results

From the confirmatory factor analysis result in Table 4, we observed that the factor loadings of all observed variables or items are adequate ranging from 0.680 to 0.923. The factor loadings or regression estimates of latent to observed variable should be above 0.50 (Hair, et al., 2006; Bryne, 2001). This indicates that all the constructs conform to the construct validity test. The remaining numbers of items for each construct are as follows: managerial roles (8 items), development roles (8 items), strategic roles (6 items), good governance (5 items) and personal development (8 items).

**Table 4 Final confirmatory factor analysis results of construct variables**

Variable	Code	Attributes	Factor loadings
Factor 1: Managerial roles (8 items)	MR1	Have challenging work to do to get a personal sense of accomplishment.	0.686
	MR3	Investigate any activity within its terms of reference.	0.736
	MR4	Promote employee into another job.	0.923
	MR5	Have considerable freedom to adopt my approach to the job.	0.776
	MR6	Design working relationship with immediate employee.	0.780
	MR7	Push my teams/groups to revise their thinking as a result of solid group discussions.	0.820
	MR8	Empowering resources to improve the activity in this unit.	0.842
	MR10	Supports employee who take calculated risks.	0.738
Factor 2: Development roles (8 items)	DR2	Incentives and promotion policies are generally communicated.	0.757
	DR3	Employees are rewarded for their achievements as a team/group.	0.837
	DR4	Build alignment of visions across different levels work groups.	0.854
	DR5	Support requests for learning opportunities and training.	0.868
	DR7	Influential decisions made at employee levels.	0.883
	DR8	Share up-to-date information with employees about competitors, industry trends, and organizational directions.	0.874
	DR9	Employees are encouraged to speak out frankly even when they are critical of well established ideas.	0.844
	DR11	Taking an active and planned approach to responsibility to staff.	0.783
Factor 3: Strategic roles (6 items)	SR1	Set up authority in employee choices in their work assignments.	0.792
	SR3	Have an opportunity to take part in making job-related decisions.	0.846
	SR4	Have a confidence in the judgment and ability of my department's management.	0.842
	SR6	Create information systems to measure gaps between current and expected performance.	0.812
	SR7	I have authority to establish a determination of the businesses that the organization should be in and those that it should not be in.	0.723
	SR8	I have the policies and procedures in place to manage a reduction in force.	0.680

(to be continued)



**The mediating effect of good governance on the relationship between managerial roles and personal development:  
A structural equation modeling (SEM) approach**

Factor 4: Good governance (5 items)	GG1	Transparent about how decisions are taken.	0.792
	GG2	Ensuring that the internal information and communications channel work effectively in order to promote, sell ideas and service internally.	0.863
	GG3	State clear objectives for every decision.	0.769
	GG4	Make sure an effective risk management system is in operation.	0.915
	GG5	To ensure that an organization fulfill its overall purpose.	0.836
Factor 5: Personal development (8 items)	PD3	Create a new ideas and new approaches to problems.	0.766
	PD4	Continuously look at old problem with a new/fresh approach.	0.760
	PD5	Design a plan to re-align training and development programs to meet new needs.	0.795
	PD6	Improve new and better ways of doing things.	0.819
	PD7	Perform all the tasks assigned conscientiously.	0.780
	PD10	I usually consider more than one solution to address a problem in my organization.	0.697
	PD11	I only implement a new process when I have proof that it worked somewhere else.	0.768
	PD12	When everything seems to be going wrong, I can still make good decisions to solve the problem.	0.741
Total	35		

### 4.3 Discriminant validity of constructs

Table 5 shows the result of the calculated variance extracted (VE) to support discriminant validity of constructs. Average variance extracted (AVE) is the average VE values of two constructs (Table 6). According to Fornell and Larcker (1981), average variance extracted (AVE) should be more than the correlation squared of the two constructs to support discriminant validity (compare Table 6 and Table 7). Each AVE value is found to be more than correlation square, thus discriminant validity is supported or multicollinearity is absent (Bryne, 2001).

**Table 5 Variance extracted of variables**

Observe variable	std loading	R <sup>2</sup>	Error $\epsilon_j$	Variance extracted
GG1	0.792	0.627	0.373	0.700
GG2	0.863	0.745	0.255	
GG3	0.769	0.591	0.409	
GG4	0.915	0.837	0.163	
GG5	0.836	0.699	0.301	
Total	4.175	3.500	1.500	
MR1	0.686	0.471	0.529	0.625
MR3	0.736	0.542	0.458	
MR4	0.923	0.852	0.148	
MR5	0.776	0.602	0.398	
MR6	0.780	0.608	0.392	
MR7	0.820	0.672	0.328	
MR8	0.842	0.709	0.291	
MR10	0.738	0.545	0.455	
Total	6.301	5.001	2.999	
DR2	0.757	0.573	0.427	
DR3	0.837	0.701	0.299	
DR4	0.854	0.729	0.271	
DR5	0.868	0.753	0.247	
DR7	0.883	0.780	0.220	
DR8	0.874	0.764	0.236	
DR9	0.844	0.712	0.288	
DR11	0.783	0.613	0.387	
Total	6.700	5.625	2.375	

(to be continued)

**The mediating effect of good governance on the relationship between managerial roles and personal development:  
A structural equation modeling (SEM) approach**

SR1	0.792	0.627	0.373	0.616
SR3	0.846	0.716	0.284	
SR4	0.842	0.709	0.291	
SR6	0.812	0.659	0.341	
SR7	0.723	0.523	0.477	
SR8	0.680	0.462	0.538	
Total	4.695	3.696	2.304	
PD3	0.766	0.587	0.413	0.588
PD4	0.760	0.578	0.422	
PD5	0.795	0.632	0.368	
PD6	0.819	0.671	0.329	
PD7	0.780	0.608	0.392	
PD10	0.697	0.486	0.514	
PD11	0.768	0.590	0.410	
PD12	0.741	0.549	0.451	
Total	6.126	4.700	3.300	

**Table 6 Average variance extracted (AVE) matrix of exogenous variables**

Variable name	1	2	3	4	5
Managerial roles (1)	1.00				
Development roles (2)	0.664	1.00			
Strategic roles (3)	0.620	0.659	1.00		
Good governance (4)	0.662	0.701	0.658	1.00	
Personal development (5)	0.606	0.645	0.602	0.644	1.00

**Table 7 Correlation & correlation square matrix among exogenous variables**

Variable name	1	2	3	4	5
Managerial roles (1)	1.00				
Development roles (2)	0.382 (0.145)	1.00			
Strategic roles (3)	0.450 (0.202)	0.297 (0.088)	1.00		
Good governance (4)	0.634 (0.407)	0.506 (0.256)	0.511 (0.261)	1.00	
Personal development (5)	0.604 (0.364)	0.453 (0.205)	0.548 (0.300)	0.748(0.559)	1.00

Note: Correlation is significant at 0.01 level (2-tailed), values in brackets indicate correlation squared.

#### 4.4 Goodness of fit indices

Confirmatory factor analysis is conducted on every construct and measurement models (see Table 8). All CFAs of constructs produce a relatively good fit as indicated by the goodness of fit indices such as CMIN/df ratio (<2); p-value (>0.05); goodness of fit index (GFI) of >0.90; and root mean square error of approximation (RMSEA) of values less than 0.08 (<0.08).

The measurement model has a good fit with the data based on assessment criteria such as GFI, CFI, TLI, RMSEA (Bagozzi & Yi, 1988; Anderson & Gerbing, 1988). Table 8-a and Table 8-b show that the goodness of fit of generated or re-specified model is better compared to the hypothesized model.

**Table 8-a Goodness of fit analysis-confirmatory factor analysis (CFA) of variables (N=304)**

**The mediating effect of good governance on the relationship between managerial roles and personal development:  
A structural equation modeling (SEM) approach**

Final models	Managerial roles	Development roles	Strategic roles	Personal development	Good governance
Items remain	10	12	8	12	5
CMIN	49.386	63.869	25.097	61.149	6.264
Df	35	54	20	54	5
CMIN/df	1.411	1.183	1.255	1.132	1.253
p-value	0.054	0.168	0.198	0.412	0.281
GFI	0.966	0.968	0.979	0.951	0.992
CFI	0.933	0.997	0.997	0.997	0.999
TLI	0.991	0.996	0.996	0.996	0.998
RMSEA	0.037	0.025	0.029	0.021	0.029

**Table 8-b Goodness of fit analysis-confirmatory factor analysis (CFA) of models (N=304)**

Final models	Measurement model (Exogenous)	Measurement model (Endogenous)	Hypothesized model	Revised model
Items remain	27	17	47	35
CMIN	340.333	340.333	122.105	577.168
Df	321	118	1024	550
CMIN/df	1.060	1.023	1.196	1.049
p-value	0.219	0.412	0.000	0.204
GFI	0.926	0.951	0.856	0.903
CFI	0.997	0.999	0.982	0.997
TLI	0.997	0.999	0.981	0.996
RMSEA	0.014	0.009	0.025	0.013

#### 4.5 Hypotheses results

Since the hypothesized model (Figure 4) does not achieve model fit ( $p < 0.000$ ), hence, the explanation of hypotheses result is based on generated or re-specified model (Table 9 and Figure 5). Table 9 demonstrates that hypothesis H1 is asserted, i.e. managerial roles have a positive and direct impact on personal development ( $\beta = 0.124$ ;  $CR = 2.140$ ;  $p < 0.05$ ). While development roles do not have a direct significant impact on personal development ( $CR < 1.96$ ;  $p > 0.50$ ), thus H2 is rejected. Strategic roles have a direct significant impact on personal development ( $\beta = 0.186$ ;  $CR = 3.587$ ;  $p < 0.05$ ), H3 is asserted. Similarly, good governance also has a direct significant impact on personal development ( $\beta = 0.581$ ;  $CR = 7.708$ ;  $p < 0.05$ ), hence, H4 is asserted.

**Table 9 Direct impact of respecified model: Standardized regression weights**

H	Relationships between exogenous and endogenous	Std. estimate	S.E.	C.R.	P-value
H1 (Asserted)	Managerial roles → Personal development	0.124	0.071	2.140	0.032
H2 (Rejected)	Development roles → Personal development	0.044	0.038	0.936	0.349
H3 (Asserted)	Strategic roles → Personal development	0.186	0.051	3.587	0.000
H4 (Asserted)	Good governance → Personal development	0.581	0.083	7.708	0.000
-	Managerial roles → Good governance	0.447	0.067	7.444	0.000
-	Development roles → Good governance	0.251	0.035	5.174	0.000
-	Strategic roles → Good governance	0.271	0.047	5.139	0.000

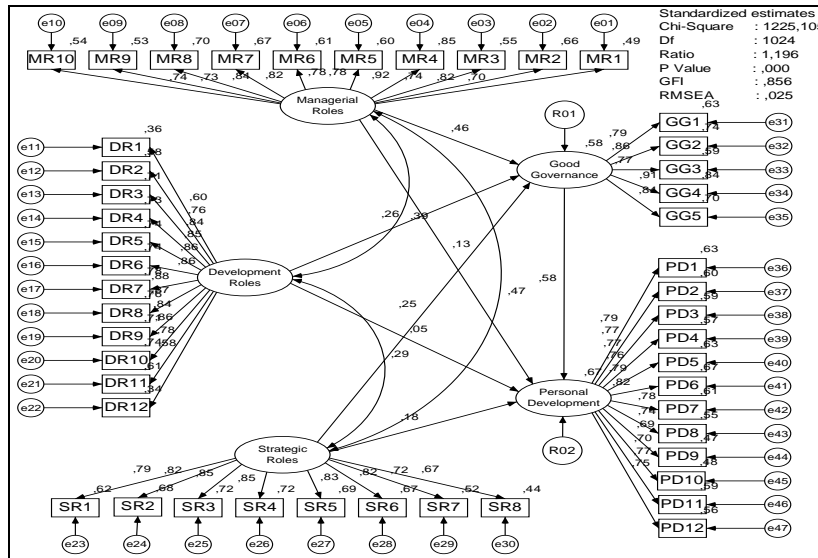
This structural path model result is depicted diagrammatically in Figure 5. Table 10 indicates that the three exogenous variables (managerial roles, development roles and strategic roles) jointly explain 57.9% variance in good governance. Subsequently, managerial roles, development roles, strategic roles and mediating effect of good

**The mediating effect of good governance on the relationship between managerial roles and personal development:  
A structural equation modeling (SEM) approach**

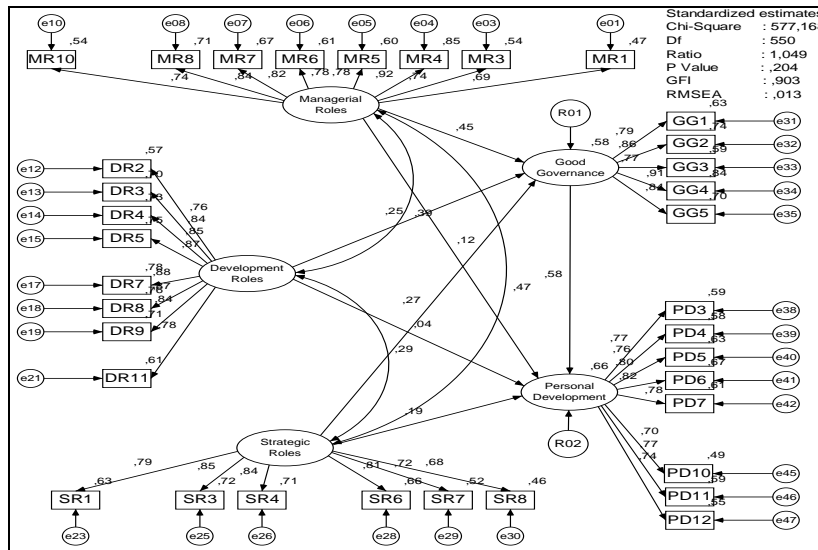
governance collectively explain 66.4 percent variance in personal development.

**Table 10 Squared multiple correlation results**

Endogenous variable	Squared multiple correlation (SMC)=R <sup>2</sup>
Personal development	0.664
Good governance	0.579



**Figure 2 Hypothesized model**



**Figure 3 Respecified model**

**4.6 Mediating effect analysis of re-specified model**

Table 11-a shows the indirect effect estimates to test the mediating effect of good governance on the three relationships as hypothesized in H5 to H7. Accordingly, the re-specified model generates two mediating effects for H5 and H6 (good governance mediates the relationship between managerial roles and development roles to personal development), thus, H5 and H6 are asserted. Unfortunately, the indirect effect estimates for last hypothesis (H7) was small and insignificant implying the absence of mediating effects of good governance on the relationships between

**The mediating effect of good governance on the relationship between managerial roles and personal development:  
A structural equation modeling (SEM) approach**

strategic roles and personal development. In other words, the direct effect ( $\beta=0.186$ ) from strategic roles to personal development was higher influence compared to indirect effect ( $\beta=0.157$ ). Thus, H7 was rejected.

**Table 11-a Indirect effect of variables interaction**

H	Exo.	Mediated	Endo.	Path	Indirect effect estimate	Mediating hypothesis
H5 Asserted	Managerial roles	Good gov.	Personal dev.	Managerial roles→Good governance→Personal development (0.447*0.581)	0.259	Partial mediating
H6 Asserted	Development roles	Good gov.	Personal dev.	Development roles→Good governance→Personal development (0.251*0.581)	0.145	Full mediating
H7 Rejected	Strategic roles	Good gov.	Personal dev.	Strategic roles→Good governance→Personal development (0.271*0.581)	0.157	Not mediating

**Table 11-b Total effect of mediating variable**

Exogenous	Mediated	Endogenous	Path	Total effect
Managerial roles	Good governance	Personal development	Managerial roles→Good governance→Personal development (0.124+0.259)	0.383
Development roles	Good governance	Personal development	Development roles→Good governance→Personal development (0.044+0.145)	0.189
Strategic roles	Good governance	Personal development	Strategic roles→Good governance→Personal development (0.186+0.157)	0.343

Note: Standardized path estimates are reported.

## 5. Discussions

This study attempts to examine the goodness of fit of the hypothesized structural model by integrating managerial roles, development roles, strategic roles, good governance and personal development. As expected, the hypothesized model does not achieve model fit ( $p\text{-value}=0.000$ ,  $p<0.001$ ). This implies that hypothesized model is not supported. However, the re-specified model accomplished model fits and supports two direct effects. Firstly, managerial roles have a direct significant effect on personal development. Mintzberg (1983) has found similar finding while Malhi (1997) found otherwise. This implies that public sector managers could enhance their personal development through the implementation of managerial roles. Second, development roles were found to have a indirect significant impact on personal development. Past studies have obtained the similar result (Ulrich, 2001; Lynn, 2001). Thirdly, strategic roles have a direct significant and positive effect on personal development. This is supported by numerous past studies (Miles & Snow, 1983; Lynn, 2001).

In the hypothesized model, good governance was found a mediator between exogenous variables and personal development. When all the three factors were present at the same time, public sector manager tend to have their improvement in personal development. This means that in most cases public sector managers have to implement good governance in order to increase their personal development. For mediating effects of good governance on each hypothesized paths, we found partial and full mediating effects of good governance. The first effect was the partial mediating effects of good governance on the relationship between managerial roles and personal development. The second was the full mediating effect of good governance on the relationship between development roles and personal development. Mediating effects is not substantiated in hypothesized of strategic

roles, the direct effect has a higher influence to personal development of public sector managers.

The study confirmed system management theory (Thompson, 1967; Katz & Kahn, 1966) through the examination of the model fit as an interaction to help better explain, analyze and understand complex of public sector managers' roles conceptual development. When combining the direct relationship of institutional theory (Scott, 1983) to the personal development of manager (Turner, 1997) and mediating through good governance theory (Lynn, 2001), the conceptual model of public sector managers' roles in personal development (Martin, 2000; Meier, 1998; Senge, 1990) becomes a critical means to successfully integrate the roles components such as managerial roles, development roles and strategic roles (Mintzberg, 1983; Liwbowitz, 1986; Miles & Snow, 1978) as new processes to generate manager commitment through good governance implementation in the public sector organization. This study has implications for leveraging the power of managerial roles and personal development as behavior. Such research can lead to a clearer awareness and understanding of the conscious and unconscious assumptions that public manager roles have regarding that roles during a period where a transformational process needs to immediately gain and maintain synergy. An integrating framework in this research designs a connection between managerial roles, good governance and employee development in public sector organization. Public sector managers need to include the parts from each perspective that are relevant to their situation and apply them using both good governance as system management approach (Lynn, 2001; Mintzberg, 1996).

## **6. Suggestion for further research**

Future research shall investigate the model in a different setting of public sector organization such as prefecture, or state region. There is also a need for research into how potential public sector managers can be assured that particular behavior can be relied on. In addition, more research needs to be done on refining the measures used here and employing them in a study specially aimed at investigating managerial roles, development roles, strategic roles and its antecedents.

## **7. Conclusion**

Personal development will help public sector managers to define, explore managerial and individual goals and map out ways to turn them into reality (Malhi, 2006; Turner, 1997). It will enable them to articulate the skills in order to open up opportunities in the future. It will grow according to their input and shall prove an excellent tool to manage their own development. The research investigates the mediating effect of good governance in the relationship between managerial roles and personal development of public sector managers. This paper concludes that the hypothesized integrated between managerial roles, development roles, strategic roles, good governance and personal development succeeded to achieve the model fit. However, managerial roles and strategic roles as direct paths are found to be significantly related to personal development. The model also succeeds to assert the mediating effect of good governance in all instances except strategic roles. Generally, the revised model is the best model to explain the mediating effect of good governance.

### **References:**

- Ancok, D. (1997). Managing change through leadership development program. *Social Psychological Approach Indonesia Economic and Business Journal*, 12.
- Anderson, J. & Gerbing, D. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411-423.
- Bagozzi, R & YI Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16,

**The mediating effect of good governance on the relationship between managerial roles and personal development:  
A structural equation modeling (SEM) approach**

---

74-94.

- Bernadin, H. & Russels, A. (1998). *Human resource management: An experiential approach*. Boston: Irwin McGraw-Hill.
- Boyatzis, R. (1992). *The competent manager: A model for effective performance*. New York: John Wiley & Sons.
- Byrne, B. (2001). *Structural equation modeling with AMOS basic concept application and programming*. Lawrence Erlbaum Associates.
- Caiden, G. (1991). *Administrative reform comes of age*. Berlin: Walter de Gruyter & Co.
- Davis, G. & Keating, M. (Ed.). (2000). *The future of governance*. NSW: Allen-Unwin.
- Drucker, P. (1995). *Management: Task, responsibilities, practices*. Oxford: Butterworth and Heinemann.
- Fornell & Larcker. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 48, 39-50.
- Garvey, G. (1997). *Public administration: The profession and the practice*. Boston: St. Martin's.
- Grindle, M. (1997). *Getting-good government: Capacity building in the public sectors of developing countries*. Boston, MA: Harvard Institute for International Development.
- Hair, J., Black, B. Babin, B., Anderson, R. & Tatham, R. (2006). *Multivariate data analysis (6th ed.)*. Upper Saddle River, NJ: Prentice-Hall.
- Haque, M. (2005). Reforming public administration in southeast Asia: Trends and impacts. *Public Organization Review: A Global Journal*, 4, 361-371.
- Hughes, O. E. (1994). *Public management and administration*. New York: St. Martin's Press.
- Kaul, M. (1997). The new public administration: Management innovations in government. *Public Administration and Development* 17(1), 13-26.
- Katz, D. & Kahn, R. (1966). *The social psychology of organizations*. New York: John Wiley & Sons.
- Kirkpatrick, D. L (1996). *Evaluating training programs: The four levels*. San Francisco: Berrett-Kochler Publisher.
- Kotter, J. P. (1982). What effective general managers really do. *Harvard Business Review*, 60(6).
- Kotter, J. P. (1990). *A force for change: How leadership differs from management*. New York: The Free Press.
- Lane, J. (1993). *The public sector: Concepts, models and approaches*. London: Sage.
- Lawler, E. (1994). From job-based to competency-based organizations. *Journal of Organizational Behavior*, 15, 3-15.
- Lebovits, G. & Victor R. (1997). *The power of alignment: How great companies stay centered and accomplish extraordinary things*. New York: John Wiley and Sons.
- Limerick, D. (1993). *Managing the new organization: A blueprint for networks and strategic alliances*. Australia: Business & Professional Publishing.
- Lynn, L. (2000). *The empirical study of governance: Theories, models, and methods*. Georgetown University Press.
- Lynn, L. (2001). *Improving governance: A new logic for empirical research*. Washington, DC: Georgetown University Press.
- Malhi, R. (2006). *Enhancing managerial performance; empowering yourself to become a high-performance manager*. Kuala Lumpur -Malaysia: TQM Consultants SDN. BHD.
- March, J. & Olsen, P. (1995). *Democratic governance*. New York: Free Press.
- Mayntz, R. (Ed.). (1998). *New challenges to governance theory*. Florence: Robert Schuman Centre of the European University.
- Mclagan, P. (1989). *Models of HRD practice*. ASTD Press.
- Miles, R. E. (1975). *Theories of management: Implication for organizational behavior and development*. New York: McGraw-Hill.
- Miles, Raymond E. & Charles C. Snow. (1978). *Organizational strategy, structure, and process*. New York: McGraw-Hill.
- Miles, R. E. (1984). Designing strategic human resources systems. *Organizational Dynamics*, 13.
- Mintzberg, H. (1978). *The nature of managerial work*. New York: Harper & Row.
- Mintzberg, H. (1996). Managing government, governing management. *Harvard Business Review*.
- Nunnally, J. C. (1970). *Introduction to psychological measurement*. New York: McGraw-Hill.
- Ohmae, K. (1990). *The borderless world*. New York: Harper & Row.
- Osborne, D. (1997). *Banishing bureaucracy: The five strategies for reinventing government*. Reading. Addison-Wesley Publishing Company, Inc.
- Rainey, H. G. (2003). Understanding and managing public organizations. *The Jossey-Bass nonprofit and public management series*.
- Reh fuss, J. (1989). *The job of the public manager*. Sacramento: Richard D. Irwin, Inc. California State University.
- Scott, W. (2001). *Institutions and organizations (2nd ed.)*. Thousand Oaks, CA: Sage Publications.
- Senge, P. (1990). *The fifth discipline: The art and practice of the learning organization*. New York: Doubleday.
- Thompson. (1967). *Organizations in action*. New York: McGraw Hill.
- Turner, D. (1997). *Managing personal development*. Selangor-Malaysia: Pelanduk Publications.
- Turner, M. & Hulme, D. (1997). *Governance, administration and development*. London: MacMillan.
- Ulrich, D. (1997). *Human resource champions: The next agenda for adding values and delivery result*. Boston: Harvard Business School Press.

(Edited by Amanda and Jennifer)