

## The Impact of Social Capital on Knowledge Sharing and Work Performance of NPOs in Public Web Portals

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### **Abstract**

*The purpose of this paper is to show that NPOs' social capital affects the knowledge sharing and the work performance of public web portals. Accumulated social capital influence collaboration in government projects. Building of social capital as an asset for network, trust, participation etc, effectively enhances the collaboration of government web portals. A survey was conducted and data was collected from those NPOs participating in The CulturalWeb Portal. SEM data analysis indicated that resource network and common goal participation directly influenced knowledge sharing and work performance of public web portals. Especially, inter-organization knowledge sharing (IKS) indirectly impacted the relationship between social capital elements and the work performance of NPOs. For NPOs to have trust in government policy efforts are required. This study provides an understanding of why social capital is essential for NPOs' IKS and work performance through public web portals.*

**Keywords:** *Social capital, Inter-organizational Knowledge Sharing, Work Performance, Public Web Portal*

### **1. Introduction**

The recent growth in the various forms of collaboration between government and NPOs has been astounding. This growth has caused changes in governance and has put great pressure on governments, shifting government's role largely to that of a manager of a network of organizations.

The Korean Government has become significantly linked NPOs. Recently, the government has granted greater autonomy to NPOs, allowing them to actively participate in government projects. There has been a considerable increase in collaboration, especially, with more NPOs participating in government web portals.

With this background in mind, we have tried to analyze social capital and the performance of government web portals. NPOs' accumulated social capital effectively enhances collaboration of government web portals. Social capital between NPOs and government becomes available with their internalization of inter-organizational assets. Unlike many other forms of capital, social capital is a long-term asset accumulated by mutual cooperation, trust, common goals, shared norms, and participation. It influences the collaboration between NPOs and government for providing public services.

The Korean Central Government built several web portals with their Knowledge Resource Management Project. The purpose of The Knowledge Information Resource Management Project is to provide knowledge to citizens, and to facilitate inter-organizational knowledge sharing through public web portals. It helps share public knowledge resources that are useful and worthy of being preserved regardless of their location and storage medium. For the country, it is important preserve and make easily available such resources. To this end NPOs participate and provide their knowledge to public web portals.

In particular, the building of the Culture Portal was accomplished through a new collaborative method which integrated multiple NPOs' diverse knowledges from various genres such as the performing arts, music, traditional culture *etc.*, The Cultural Portal's collaboration is influenced by social capital because it needs the various knowledges of voluntarily participating NPOs. In order for NPOs to voluntarily participate in collaborative government projects, they must have sufficient social capital.

This paper focuses on social capital established between The Korean Central Government and Korean NPOs. In particular, we investigate the Korean Culture Web Portal's collaboration context and social capital in relation to participating Korean NPOs. We analyse how NPOs' accumulated social capital affects the collaboration and performance of government web portals.

While previous research dealt mainly with social capital within one organization, this research focuses on the interorganizational relationships between government and NPOs. And this research investigates how IKS between multiple participating organizations occurs and what role social capital plays in these organizations' IKS and work performance through public web portals. A social capital theoretical framework provides the essential tools for our analyses of collaborative performance through public web portals and for managing participating NPOs.

## **2. Social Capital**

Social capital is recognized as an important form of capital for the relationships between individuals and organizations, helping them to renew intellectual capital, innovate and improve their organizational performance and government performance [1]. Social capital has been conceptualized as a set of social resources, such as, norms and values which are embedded in relationships [2]. According to Putnam, the essence of social capital is that it can create norms for reciprocal action and generalized trust in social interactions, leading to positive results. Putnam's empirical research has shown that social capital can be used to explain positive social and economic outcomes and government effectiveness. Thus social capital has also be understood as a voluntarily and socially produced resource which can promote government economic effectiveness by reducing transaction costs. Following Putnam's pioneering research which attempted to determine the relationship between regional social capital and Italian regional governments, there have been recent attempts to study the mutual causality between reciprocal benefits of social capital and effective governance.

## **3. IKS and Work Performance of Public Web Portals**

Improving IKS of public web portals is one of the purposes of The Knowledge Information Resource Projects in Korea. The definition of IKS is an interactive providing or transferring of knowledge between organizations [3-4]. IKS can reduce transaction costs and risks due to uncertainty and can increase interactive activities among participating organization so as to improve the capacity of participating organizations [5-6]. This paper focuses on how IKS helps the relationships between government and participating NPOs. When NPOs participate, IKS of government web portals enhances these web portals work performance. That means better work performance of the NPOs participating in The Cultural Web Portal in terms of its benefits for participating organizations (decrease in workload, decrease in work time, increase in productivity, increase in effectiveness as evaluated participating organizations). NPOs which improve their IKS through public web portals also improve their work performance. Consequently, with improved IKS they are more likely to benefit from their organization performance.

#### 4. Social Capital, IKS and Work Performance of Public Web Portals

Along similar lines as these recent attempts, we found that social capital positively impacts the collaboration between The Korean Central Government and NPOs for providing public services. The presence of social capital can also enhance government knowledge management projects because it contributes to government ability to integrate knowledges from NPOs and facilitates the combination and exchange of resource through web portals. We examine the social capital between The Korean Central Government and the NPOs participating in the the Culture web Portal.

We follow what Putnam considers to be the main components of social capital, namely social network, trust, and civic participation [7].

First, network as an interconnected system increases collaboration. Alter and Hage (1993) defined a network as “the basic social form that permits interorganizational interactions of exchange, concerted action, and joint production. O’Toole’s (1997) defines a network-structure of interdependence as involving multiple hierarchical arrangements. Kimsukjun (2000) regards a network as cooperative systems in which all members *e.g.*, public institutions, corporations, and NPOs have a common understanding regarding the delivery of public services [8-10]. Researches have emphasized that network is essential for collaborative outcomes [11]. A resource network is the main factor determining the participation and the performance of NPOs in public web portals [12]. Because NPOs have insufficient resources, resource networks between *government* and NPOs are established through which NPOs participate in public web portal projects. Thus, a resource network (government finance, manpower and IT support) has a positive effect on IKS and NPO work performance through public web portals.

##### 1.) Government Support

Government support is the main resource network between governments and NPOs. Government financial support helps NPOs’ capacity for public services. The Korean Government’s financial support for NPOs consists of Local Government Subsidies, The Arts of Council of Korea’s “Arts Fund”, and The Ministry of Strategy and Finance’s “Lottery Fund”. Through the influence of these financial support NPOs are encouraged to participate in the government web portals projects. Financial support helps for provide for public services, they accumulate their knowledges to voluntarily provide government web portals increase IKS through public web portals which knowledges abundant, more various, increase their work performance.

**Hypothesis 1-1.** Government financial support has a positive influence on IKS.

**Hypothesis 1-2.** Government financial support has a positive influence on work performance of NPOs through public web portals.

Manpower support helps prevent NPO’s failures of expertise. The Korean Cultural Ministry has provided expert manpower to NPO’s from 2007 to 2009. Government expert manpower support helps to NPOs to provide public services. This expertise through planning and education, helps NPOs increase their capacity, thus increase their work performance, result, NPOs received manpower support, can provide for public services and various NPOs provide their accumulated knowledge (educational programs, culture programs), it increase IKS through public web portals, increase work performance.

**Hypothesis 2-1:** Government manpower support positively influences NPOs' sharing of web portal.

**Hypothesis 2-2:** Government manpower support positively influence NPOs’ work performance through web portal.

IT support can help to facilitate interorganizational knowledge sharing easily. The Korean Cultural ministry provides software programs, web page production, standardization programming, crawling system for enhancing inter-organizational knowledge sharing to NPOs. IT support is provided to NPOs, portal' interoperability with organizations, can share knowledge and work performance of public web portals more effective. Thus IT support influence NPOs share knowledge through the public web portals. Activating IKS impact work performance. In this process, knowledge of portal enhance NPOs work for pulic services.

**Hypothesis 3-1:** Government's IT support positively influence NPOs' knowledge sharing of public web portals

**Hypothesis 3-2:** Government's IT support positively influence NPOs' work performance of public web portals

## **2.) NPOs Trust in Government**

Second, NPOs trust in government affects web portal collaboration performance. The role of trust is to solve collective community problems by promoting social interactions [13]. Trust occurs in community cooperation regularly on the basis of shared norms as a form social capital. These agreed upon norms which are generally already present in the community and do not require legal regulations, allow for mutual trust [14]. Trust between organizations reduces opportunistic behavior and thereby reduces the need for protective governant mechanisms. On the organizational level, trust can facilitate the exchange of resources and information. According to our model, NPO trust in government is an important factor for government-centered web portal collaboration. In this way, NPOs' trust in government influences the work performance of public web portals.

**Hypothesis 4-1.** Trust in government has a positive influence on IKS.

**Hypothesis 4-2.** Trust in government has a positive influence on work performance through IKS.

## **3). NPO Common Goal Participation**

Third, portal network participation motivation is a critical factors in collaboration of public web portals. Thus we focus on the common goals of participation, including the altruistic motivation to provide public services. Both government and NPOs wish to contribute to society and this shared goal as a reciprocal norm motivates NPOs to participate in government web portal projects. Shared values in pursuit of a larger societal goal binds a network together and are critical for motivating the equitable exchange of resources, information and power among participating organizations [15]. Common goal participation of public web portals motivates NPOs to provide their knowledge to government web portals. In this way, common goal participation incentives increase IKS and work performance through government web portals.

**Hypothesis 5-1.** Common goal participation of NPOs positively influences on IKS

**Hypothesis 5-2.** Common goal participation of NPOs positively influences the performance of public web portals.

## **4). IKS and Work Performance**

Fourth, public web portal IKS is the mediate variable. This IKS is the providing and receiving of knowledge between organizations through public web portals. When

government web portal projects are successful through the participating NPOs, NPO IKS and work performance can be achieved. Work performance is an important benefit motivating NPOs to provide their knowledges to government. Recently there has been much research focusing on the the relationship between knowledge sharing and performance. It has been shown that knowledge sharing positively effects the performance of organizations [16].

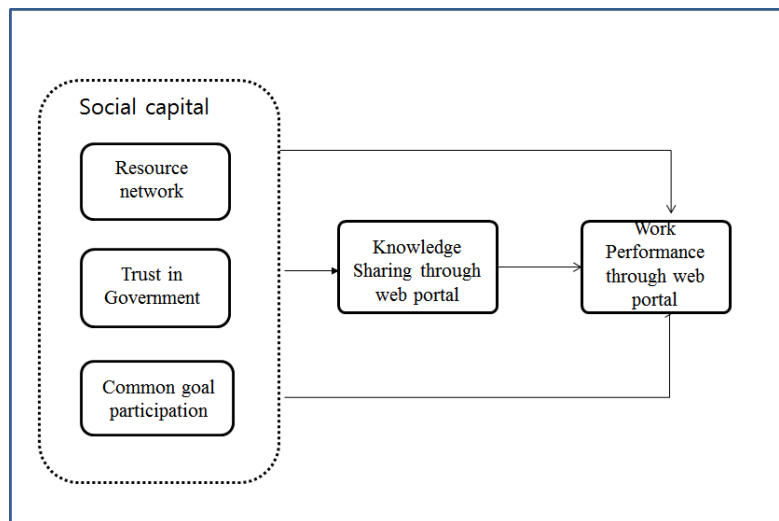
**Hypothesis 6.** IKS has a positive influence on work performance.

**Hypothesis 7-1,2,3.** Government financial, manpower and IT support have a positive influence on work performance through IKS.

**Hypothesis 7-4.** Trust in government has a positive influence on work performance through IKS.

**Hypothesis 7-5.** Common goal participation of NPOs has a positive influence on work performance through IKS.

The research model is as follows Figure 1.



**Figure 1. Social Capital and Public Web Portal Knowledge Sharing and Work Performance**

Figure 1, shows the structural model.

## 5. Method and Analysis

The total number of cultural NPOs participating in The Cultural Portal was 173. A survey, using questionnaires and semi-structured interviews, was conducted with the CEOs of these NPOs, and the managers of museums and cultural centers in Korea. This survey resulted in a total of 114 effective responses, an 83.24% response rate, with responses from 19 historical museums, 24 modern museums, and 101 cultural centers. Finally, a structural equation model (SEM) was used to examine the extent to which social capital influences IKS and performance. The overall fit indices of the structural model are well satisfied:  $P=.002$ ,  $\chi^2/DF = 1.395$ ,  $RMSEA=0.053$ ,  $IFI=0.978$ ,  $TLI=0.972$ ,  $CFI=0.977$  except  $GFI=0.885$  is a little bit lower than 0.9 (see Table 1)

**Table 1. Means, Correlations, and Reliabilities**

RESULT									
variable	Mean	S.D	Correlation						
			Financial support	Manpower support	IT support	Trust	CPI	K S	W P
Financial support	11.655	17.741							
Manpower support	6.384	15.769	-.103						
IT support	1.252	.476	.085	.085					
Trust	3.248	.604	.143*	-.103	.145				
Common goal Participation	3.277	.586	.083	-.062	.211	.348*			
KS	2.085	.872	.326**	.177*	.250**	.140*	.211**		
WP	2.445	.762	.158*	-.007	.300**	.158*	.293**	.557**	
Absolute Fit Index					Incremental Fit Index				
x <sup>2</sup> test				RMR	GFI	RMSEA	IFI	TLI	CFI
x <sup>2</sup>	DF	x <sup>2</sup> /DF	P						
133.501	96	1.395	.002	.053	.885	.051	.978	.972	.977

## 6. Results

The overall fit indices of the structural model are well satisfied:  $\chi^2/DF = 1.295$ ,  $P = .001$ ,  $RMSEA = 0.045$ ,  $IFI = 0.970$ ,  $TLI = 0.964$ ,  $CFI = 0.969$  except  $GFI = 0.851$  is a little bit lower than 0.9 (see Table 2). The final analysis model is as follows (see Figure 2).

**Table 2. Fit Index of Analysis Model**

Absolute Fit Index				Incremental Fit Index		
Chi-square				GFI	RMSEA	CFI
x <sup>2</sup>	D F	x <sup>2</sup> /DF	P			
331.459	256	1.259	.001	.851	.045	.969

\*\*\*p<0.01, \*\*p<0.05 \*p<0.1 RMSEA LO:0.028, HI:0.072

### Structural Equation Model Results

The final analysis is as follows. Financial support ( $\beta = .303^{***}$ ), manpower support ( $\beta = .224^{**}$ ) and IT support ( $\beta = .187^*$ ), trust in government ( $\beta = .048$ ), common goal participation ( $\beta = .170^{**}$ ) directly increased knowledge sharing. And IT support ( $\beta = .158^{**}$ ) and common goal participation ( $\beta = .137^{**}$ ) directly increased work performance in public web portals. But trust in government did not influence IKS and trust in government did not influence work performance. Neither financial support ( $\beta = .029$ ) nor manpower support ( $\beta = .212$ ) influenced work performance.

The results indicated that there was a significant mediate effect between predictor and outcome. Also, the results revealed that the relationship between mediate variable, knowledge sharing and work performance was significant ( $\beta = .539^{***}$ ).

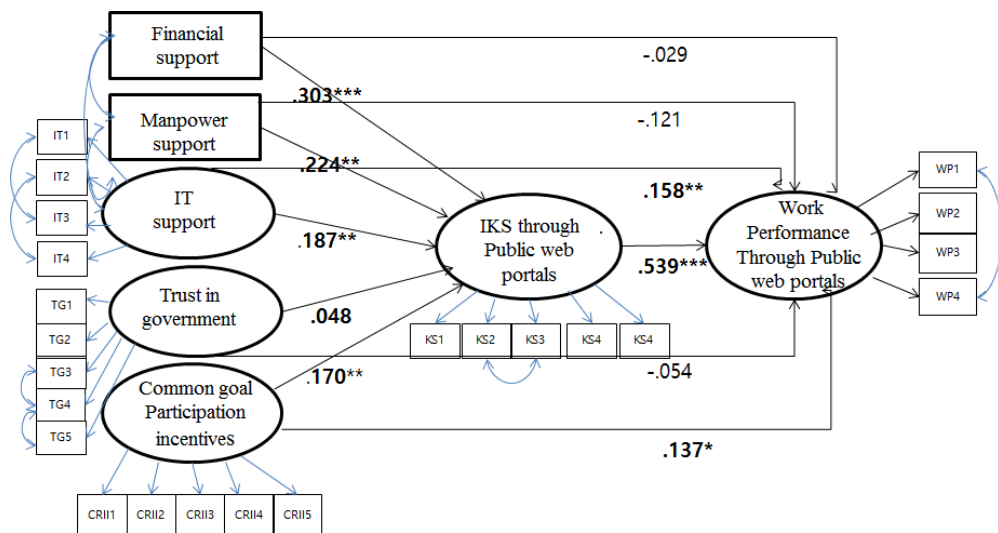
In terms of the indirect effect of financial support through IKS on work performance of public web portals ( $\beta = .163317$ ) and manpower support through IKS on work

performance ( $\beta=.120736$ ), IT support support through IKS impacted work performance ( $\beta=.110793$ ), and common goal participation through IKS on work performance ( $\beta=.09163^{**}$ ).

We should examine why trust in government did not impact IKS and work performance. All NPOs did not receive sufficient government financial, manpower and IT support. IT support was especially low (1.252). And cultural centers did not receive any manpower or support.

**Table 3. Results of Measurement Model Testing**

Dependent variable			Exogenous variable	S.E	Estimate	S.E.	C.R.	P
KS		<---	F_S	.302	.014	.004	3.909	***
KS		<---	MP_S	.171	.009	.004	2.227	.026
KS		<---	IT_S	.187	.407	.178	2.282	.023
KS		<---	CGP	.170	.267	.129	2.070	.038
KS		<---	Trust	.048	.141	.245	.575	.565
WP		<---	KS	.539	.428	.068	6.288	***
WP		<---	CGP	.137	.171	.093	1.836	.066
WP		<---	IT_S	.158	.272	.129	2.104	.035
W P		<---	F_S	.029	-.001	.003	-.405	.685
WP	<---	MP_T		.121	.005	.003	1.737	.082
WP	<---	Trust		.054	.126	.175	-.718	.473



**Figure 2. Structural Model**

## 7. Conclusion

This paper is a contribution to the research on social capital between government and NPOs, focusing especially on the impact of IKS and work performance on NPOs. Through empirical research, new light has been shed on social capital on the organizational level, allowing for a better understanding of IKS between NPOs and government in the context of government web portals. This supports the claim that social capital can lead to more effective knowledge sharing through government web portals and their NPOs work performance. The findings of this research support Putnam's argument that social capital effects the performance of government web portals. However, how the three dimension (network, trust, common goal participation) of social capital have very different effects on government web portal collaboration performance should be kept in mind.

This research empirically validates the claim that a resource network (finance, manpower, and IT support) directly effects IKS and work performance through public web portals. We found that the resource network influenced IKS and work performance of public web portals. And this research also offers an explanation of why trust in government did not effect IKS and work performance. Contrary to previous research which claimed that trust in government plays a significant role in inter-organizational knowledge sharing, our findings did not show that trust in government significantly impacts IKS and work performance. Why did our research not confirm the positive relationship between trust in government and knowledge sharing and work performance? According to depths interviews, those NPOs which did not get support from the central government, lost their trust in government. Our research suggests NPOs trust in government is activated by an exchange of resources. And we found that when NPOs have common goal incentives, they collaborate more in government projects. Common goal motivation is embedded in reciprocal values which induce NPO participation in government web portals.

We tried to examine the effect of social capital on the relationship between government and NPOs on the organizational level. According to aggregated data from and social capital analysis on the organizational level there is a clear relationship between government and an NPO network. Follow-up studies, using aggregated data, could extend the implications of this research. One such follow-up study could address the relevant managerial question of how social capital affects knowledge sharing and work performance of NPOs through government web portals.

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