Innovation Capability

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Empirical Analysis of Determinant Factors in Building the Innovation Capability of Public Officers in Indonesia

Abstract: Government employees, as public officers, play an essential role in the development of a country through their services to society. However, monotonous and administrative routine work needs to be balanced with public officers' innovation capability to provide benefits and solutions to every problem in society. Therefore, this quantitative study was conducted with empirical analysis to determine the factors responsible for the development of public officers' innovation capability. The sample data consists of one hundred local public officers serving in Lebak Regency, Indonesia, with the descriptive analysis and inferential statistics used to examine the relationship between organisational, social, and human capital. Out of the 5 tested hypotheses, only 2 were accepted. The results showed that government institutions are promoted to consider human and organisational capitals as the main basis for increasing employees' innovation capability. Conversely, social capital harms human capital and innovation capability.

Keywords: Organisational Capital, Social Capital, Human Capital, Innovation Capability, Public Officers

1. Introduction

People play an extremely relevant role in organisational management processes, namely supervising and controlling the establishment's other components to successfully realize their goals. Fundamentally, every establishment requires intellectual capital, which is an intangible asset. It encompasses organisational, social, and human capital (Subramanian & Youndt, 2004). Organisational capital is a form of structured, repetitive repository knowledge and practices. Furthermore, social capital is described as the development of norms that facilitate interaction, relationships, and collaboration. Meanwhile, human capital involves recruitment, training, and employee talent development processes. Unfortunately, these three factors are not easily possessed by organisations.

Public service organisations are often considered as formal institutions with outdated standard procedural work systems (Arshad et al., 2020). Many studies seek to find strategies for creating high-performance value, particularly in public sector organisations in developing countries. According to Osborne and Brown (2005), innovation is part of government institutions' sustainable change to replace the irrelevant conventional system. However, routine and monotonous administrative tasks serve as an obstacle to public officers, thereby leading to poor performance, specifically at the regional level. Sahni et al. (2013) reported that poor innovation capability in public organisations is reflected in their performance, such as the lackadaisical provision of feedback while lacking the motivation to make improvements. Sihombing (2016) believed that the local government is dependent on employees' performance at the regional level.

Indonesia has 273 million people as 3.51% of the world's population (worldometer, 2021) with 13,677 islands and a total land area of 1.92 million square kilometres (Dana, 1999). This means that Indonesia is the largest archipelago in the world and ranked fourth globally by population, after China, India, and the USA. Indonesia has been recognized as having diverse ethnic groups, traditions, religions, and languages (Anggadwita et al., 2017a). Unfortunately, it is not accompanied by a significant increase in the national economic level. It is reflected when The World Bank downgraded Indonesia to lower-middle income status as of July 1, 2021, with a gross national income per capita of $3,870 (Jiao & Sihombing, 2021). In fact, the Indonesian government has long established several policies to develop and

increase the national economy (Dana, 2014) through small-medium enterprises (Anggadwita et al., 2017b) and family businesses (Ramadani et al., 2017). It means nothing without any support from local public officers. This warns Indonesia to build the innovation capability of public officers urgently.

Tajpour et al. (2020) found that innovation, which consists of service innovation, administrative process innovation, and technological process innovation, has a significant impact on organisational performance in a government institution. Unfortunately, not all public officers are given measurable targets, and this causes a decline in innovation capability. During the technological era, it tends to boost productivity along with effective and cost-efficient activities. Public officers need to embrace innovation capability to accelerate the development of their region. Hsiao and Lin (2008) also stated that government institutions need to expand customer-oriented ideas through service system design and management. Furthermore, high-quality public organisations help the government optimize policies that offer enormous and long-lasting benefits (Tanzi, 2000).

2. Literature review

2.1 Organisational capital

Prescott and Visscher (1980) first described the term organisational capital as the accumulation and the use of personal information to boost a company's production efficiency. Therefore, to become a competitive advantage source, it needs to be developed from the elements of organisational culture, structure, and learning. In subsequent developments, it is referred to as an institutionalized knowledge or codified experience stored in databases, patents, manuals, structures, systems, and processes (Al & Wu, 2016; Brown & Duguid, 1991; Meyer et al., 2014; Subramanian & Youndt, 2004). This means that information is carefully processed for the benefit of the organisation.

López et al. (2006) further reported that organisational culture, structure, and learning results in competitive advantage. It manifests as an organisational philosophy and system, which aids the employees to be able to offer a positive contribution to the progress of the establishment. Similarly, it also aids employees to carry out routine corporate activities because it stimulates them intellectually. However, as intellectual property, it manifests in corporate culture, management philosophy, and operational systems.

2.2 Social capital

Burt (2000) stated that social capital is defined as society's strength and ability to get attached to any organisation that aids in boosting the economy and other aspects of social life. It strengthens, promotes, and offers certain benefits, namely bonding through social activities. It also aids in the actualization of existent values as well as functions to maintain the integrity of the group or organisation.

Nahapiet and Ghoshal (1998) believed that social capital is the knowledge acquired from individuals' interactions or networking. Furthermore, Woolcock (2010) reported that it generally refers to the norms, networks, and mutual trust to resolve specific issues. Norms are concrete values that guide every individual to behave following the prevailing societal rules and regulations. Networks are the unifying values that unite a relationship, while trust is the public's confidence and support to the organisation.

Coleman (1988) stated that social capital is the ability of individuals to work together to achieve common goals. Furthermore, Fathy (2019) and Fine (2010) reported that it refers to an individual's capacity to obtain valuable information due to harmonious social relationships, membership, or social participation. Employees can indulge in social relationships with stakeholders based on societal norms, networks, and trust.

2.3 Human capital

The proposed human capital theory has undergone several developments in the past 4 decades. Initially, it was presumed that this theory is related to formal education, which effectively increases production capacity. This simply implies that human capital is formed or generated from a productive population. Subsequently, employees that offer their contributions to the firms are referred to as organisational assets and a source of competitive advantage because competitors do not easily imitate them.

Baron and Armstrong (2007) reported that human capital encompasses the knowledge, skills, experiences, creativities, and attributes possessed by an employee. It is believed that it effectively forms the basis for organisational management. According to Schuller (2000), it is described as the employees' skills, knowledge, and competencies. Babalola (2003) stated that organisations need to invest in human capital because the younger generations need to possess the relevant knowledge accumulated over the years. They need to be able to develop new products, processes, methods, and creative ideas. In addition, organisations that invest in employee training and development programs usually experience an enormous turnover on investment in the form of improved performance, productivity, flexibility, and innovation capability.

It is also an intangible asset that is not easily measured because humans are dynamic in nature and tend to change with changing situations and conditions (Hidayat, 2013). Therefore, human capital is not only related to employees' skills and expertise rather it is also based on character, attitude, health, and self-motivation (Sharma & Sahni, 2015).

2.4 Innovation capability

Innovation is a combination of the overall success of an organisation because of its efforts to modernise, improve and apply various aspects of innovation in the organisation (Tajpour et al., 2020). According to Yusr (2016), innovation is the process of creating and adopting new ideas as well as using them to improve organisational productivity and services. Furthermore, Certo et al. (2009) stated that it is the process of implementing new ideas for the enhancement of products and services. Meanwhile, Tidd and Bessant (2015) reported that properly-regulated and managed innovation helps run and sustain the business long. Therefore, it is driven by the ability to build connections, seize opportunities, and take advantage.

Ekawati and Soleha (2017) reported that it brings about the effective and efficient realization of targeted goals in an increasingly complex and dynamic environment. According to Patterson et al. (2014), innovation capability is therefore perceived as the ability to share new knowledge, experiences, and information related to work and colleagues supporting each other, add insight and be empathetic when resolving existing problems. Hurley and Hult (1998) reported that it is the measure of an individual's participation during decision-making, the support offered to the organisation, motivation to develop themselves, including the ability to multitask.

Innovation capability utilizes knowledge that is systematically strengthened or changed from the perspective of intellectual capital. Therefore, it is a process that mandates employees to carry out their tasks by communicating their intellectual capital to others. Unfortunately, it is being threatened due to lack of support, individual motivation, organisational budget to improve employee competencies, facilities to enhance the innovative abilities, including other related matters.

3. Data and methodology

This research was carried out based on empirical conditions to determine employees' innovation capability in government institutions. The effects of organisational, social, and

human capital on innovation capability were also analyzed. However, approximately 9,449 public officers serve the residents of Lebak Regency, Indonesia, daily. These respondents were found in 33 official organisations, 28 sub-district offices, and 1 Regional General Hospital. The research sample is based on those that have worked for over three years, including contract employees and volunteer labor. A random sampling of 100 respondents was carried out based on the Slovin formula for a population of 9,449 people to determine the data's accuracy.

In accordance with the literature review, organisational, social, and human capitals are independent variables. Furthermore, their effect on innovation capability was also tested. The theoretical framework for this relationship is shown as a research model in Figure 1.

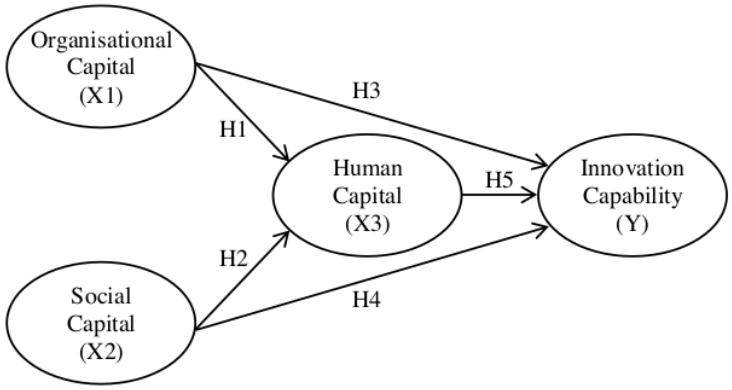

Figure 1. Theoretical framework for the research model

This study's research instrument was a questionnaire with closed questions related to each of the variables. The validity and reliability tests were used to examine it before it was utilized. The respondents provided answers based on their experiences using a Likert scale. Organisational capital, an independent variable, consists of 12 questions related to knowledge, information disclosure, employee discipline, and values. Furthermore, social capital encompasses 12 questions related to norms, networks, and trust. Human capital is based on 12 questions related to motivation, leadership, creativity, skills, competence, and performance. Meanwhile, innovation capability, which is a dependent variable, constitutes of 15 questions related to involvement in decision making, support in the process, motivation for self-development, the ability to delegate tasks, the process of sharing knowledge, and the attitude of empathy. The relationship between the independent and dependent variables led to 5 research hypotheses:

H1: Does organisational capital positively affect human capital?
H2: Does social capital positively affect human capital?
H3: Does organisational capital positively affect innovation capability?
H4: Does social capital positively affect innovation capability?
H5: Does human capital positively affect innovation capability?

This study adopted primary data to test the causal relationship between the variables. In addition, data analysis was carried out descriptively and inferentially. Descriptive statistics are used to understand the characteristics of the data obtained, including its average, standard deviation, mode, median, and other values based on the frequency distribution. Inferential

statistics were used to determine the validity of the data based on normality and homogeneity tests. Furthermore, the path analysis approach in accordance with linearity and hypothesis testing was adopted.

4. Results and findings

4.1 Descriptive analysis

In this analysis, all the questionnaires distributed to 100 samples were declared valid. Each questionnaire comprises 51 questions for both the independent (3) and dependent (1) variables. Conversely, each question has a minimum and maximum score of 1 and 5, respectively. A recapitulation of the values for each variable is shown in Table 1.

Table 1. Recapitulation of the values for each variable

Variable		Organisational Capital (X1)	Social Capital (X2)	Human Capital (X3)	Innovation Capability (Y)
N	Valid	100	100	100	100
	Missing	0	0	0	0
Mean		47.73	49.57	49.28	61.65
Std. Error of Mean		.468	.430	.454	.543
Median		48.00	50.00	50.00	61.00
Mode		49	51	46	61
Std. Deviation		4.677	4.302	4.535	5.426
Variance		21.876	18.510	20.567	29.442
Skewness		-.150	-.134	-.476	.037
Std. Error of Skewness		.241	.241	.241	.241
Kurtosis		.108	-.024	.384	-.248
Std. Error of Kurtosis		.478	.478	.478	.478
Range		24	22	23	25
Minimum		36	38	36	49
Maximum		60	60	59	74
Sum		4773	4957	4928	6165

Subsequently, the primary data obtained from organisational capital values includes an average of 47.73 out of 60 with a median, mode, and standard deviation of 48, 49, and 4.667, respectively. The average value was detected to be less than the median, and empirically, it implies the respondents' poor response. However, many of them also have a fairly strong response because the mode is greater than the median. Based on the standard deviation of the average value, it was discovered that the respondents had varying opinions of organisational capital. The values of the skewness and kurtosis are -0.150 and 0.108, respectively. This implies that their responses are evenly distributed because the skewness is between -2 and 2 while the kurtosis is between -1.96 and 1.96.

The primary data realized from social capital values encompasses an average of 49.57 out of 60 with a median, mode, and standard deviation of 50, 51, and 4.302, respectively. The average value was also detected to be less than the median, which empirically depicts respondents' poor response. However, several of them have a fairly strong response because the mode is greater than the median. Concerning the standard deviation of the average value, it was observed that the respondents had varying opinions regarding social capital. The values of the skewness and kurtosis are -0.134 and -0.024, respectively. This indicates that their responses are evenly distributed because the skewness is between -2 and 2 and the kurtosis is between -1.96 and 1.96.

In accordance with the primary data obtained from the values of human capital includes an average of 49.28 out of 60 with a median, mode, and standard deviation of 50, 46, and 4.535, respectively. The average value was detected to be less than the median, and

empirically indicates the respondents' poor response. This is proven by the fact that the value of the model is smaller than the median. In accordance with the standard deviation of the average value, it was discovered that the respondents had varying opinions concerning human capital. The values of the skewness and kurtosis are -0.476 and 0.384, respectively. However, it implies that their responses are evenly distributed because the skewness is between -2 and 2 and the kurtosis is between -1.96 and 1.96.

The primary data obtained from the values of innovation capability comprises an average of 61.65 out of 75 with a median, mode, and standard deviation of 61, 61, and 5.426, respectively. The average value was realized to be greater than the median, which implies an excellent response. This is confirmed by the fact that the values of the mode and median are similar. Based on the standard deviation of the average value, it was realized that the respondents had varying opinions regarding innovation capability. Sequentially, the values of skewness and kurtosis are 0.037 and -0.248. In addition, it means that their responses are evenly distributed because the skewness is between -2 and 2, and the kurtosis is between -1.96 and 1.96.

4.2 Normality test

However, before the commencement of further analysis, the distribution of primary data was subjected to a normality test to ensure that all phenomena were observed. The results from the normality test using the Kolmogorov-Smirnov approach are shown in table 2.

Table 2. Variable normality test results

Variable		Organisational Capital (X1)	Social Capital (X2)	Human Capital (X3)	Innovation Capability (Y)
N		100	100	100	100
Normal Parameters[a,b]	Mean	47.73	49.57	49.28	61.65
	Std. Deviation	4.677	4.302	4.535	5.426
Most Extreme Differences	Absolute	.070	.077	.078	.068
	Positive	.063	.060	.049	.068
	Negative	-.070	-.077	-.078	-.042
Test Statistic		.070	.077	.078	.068
Asymp. Sig. (2-tailed)		.200[c,d]	.147[c]	.141[c]	.200[c,d]

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.
d. This is a lower bound of the true significance.

The results from the normality test using the Kolmogorov-Smirnov show that all variables are normally distributed. However, this is because each variable's 2-tailed Asymptotic Significance value is greater than 0.05 as expected. This means that the distribution of the observed data tends to deviate at both ends insignificantly.

4.3 Linearity test

The relationship between each variable is tested with the regression analysis to ensure linearity. The results from the linearity test using the ANOVA approach is shown in table 3.

Table 3. Variable linearity test results

			Sum of Squares	df	Mean Square	F	Sig.
X1 and X3	Between Groups	(Combined)	467.803	21	22.276	1.108	.358
		Linearity	68.998	1	68.998	3.431	.068
		Deviation from Linearity	398.806	20	19.940	.992	.481
	Within Groups		1568.357	78	20.107		
	Total		2036.160	99			
X2 and X3	Between Groups	(Combined)	358.950	17	21.115	1.032	.434
		Linearity	12.109	1	12.109	.592	.444
		Deviation from Linearity	346.842	16	21.678	1.060	.406
	Within Groups		1677.210	82	20.454		
	Total		2036.160	99			
X1 and Y	Between Groups	(Combined)	394.541	21	18.788	.581	.919
		Linearity	34.552	1	34.552	1.069	.304
		Deviation from Linearity	359.989	20	17.999	.557	.930
	Within Groups		2520.209	78	32.310		
	Total		2914.750	99			
X2 and Y	Between Groups	(Combined)	356.176	17	20.952	.671	.822
		Linearity	59.085	1	59.085	1.894	.173
		Deviation from Linearity	297.091	16	18.568	.595	.879
	Within Groups		2558.574	82	31.202		
	Total		2914.750	99			
X3 and Y	Between Groups	(Combined)	876.872	19	46.151	1.812	.035
		Linearity	199.782	1	199.782	7.843	.006
		Deviation from Linearity	677.090	18	37.616	1.477	.121
	Within Groups		2037.878	80	25.473		
	Total		2914.750	99			

Based on the linearity test results using the ANOVA approach, the entire relationship between variables has linear regression because all significance values are greater than 0.05 as mandated. This means that the entire relationship between linear variables is equal to the F value obtained.

4.4 Homogeneity test

Conversely, the data realized from the relationship between each of the variables was tested for diversity using the homogeneity test to ensure that it is derived from a homogeneous population. The results from the homogeneity test are shown in table 4.

Table 4. The results of data homogeneity test on the relationship between each variable

	Levene Statistic	df1	df2	Sig.
X1 and X3	1.735	15	78	.061
X2 and X3	1.009	16	82	.456
X1 and Y	.791	15	78	.684
X2 and Y	.868	16	82	.607
X3 and Y	1.120	16	80	.352

Table 4 shows that the data realized are homogeneous because all the significance values are greater than 0.05 as expected. It simply means that the data was derived from a slightly diverse population. Therefore the relationship between the variables is generalized.

4.5 Correlation test

To test the hypothesis, the relationship between each of the variables was examined for correlation. Based on the theoretical framework (Figure 1), 2 substructures were also discovered. The correlation of the first substructure, which includes variables X1 and X2 to X3, was used to test for H1 and H2, as shown in tables 5 and 6. On the contrary, the second substructure's correlation is X1, X2, and X3 to Y, which were used to test H3, H4, and H5 as shown in tables 7 and 8.

Table 5. First substructure correlation coefficient

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	45.311	6.654		6.809	.000
	Organisational Capital (X1)	.187	.097	.193	1.932	.056
	Social Capital (X2)	-.100	.105	-.095	-.950	.345

a. Dependent Variable: Human Capital (X3)

According to table 5, the standard coefficient for beta X1 is 0.193, which implies that 19.3% of the organisational capital (X1) has a positive and insignificant direct effect on human capital (X3) while the remaining 80.7% comprises of the impact of factors besides the variables reviewed in this research. This is different from the standard coefficient for beta X2, which is -0.095. However, it implies that 9.5% of the social capital (X2) has a negative and insignificant direct effect on human capital (X3) while the remaining 90.5% constitutes the impacts of other factors besides the variables analyzed in this study.

Table 6. Summary of the first substructure model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.207[a]	.043	.023	4.483

a. Predictors: Organisational Capital (X1), Social Capital (X2)
b. Dependent Variable: Human Capital (X3)

Table 6 shows that organisational (X1) and social capital (X2) do not have a positive and significant effect on human capital (X3). This is proven by the value of R Square in the first substructure model, which was determined to be 0.043. It means that they simultaneously have an effect of 4.3%, while the other factors that were not reviewed in this research encompass the remaining 95.7%.

Table 7. Second substructure correlation coefficient

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
2	(Constant)	51.572	9.490		5.434	.000
	Organisational Capital (X1)	.090	.116	.077	.774	.441
	Social Capital (X2)	-.165	.124	-.131	-1.334	.185
	Human Capital (X3)	.284	.119	.237	2.386	.019

a. Dependent Variable: Innovation Capability (Y)

The standard coefficient for beta X1 is 0.077, as shown in Table 7, which implies that 7.7% of the organisational capital (X1) has a positive and insignificant direct effect on innovation capability (Y) while the impact of other factors constitutes 92.3%. On the contrary, the standard coefficient for beta X2 is -0.131, which implies that 13.1% of the social capital (X2) has a negative and insignificant direct effect on the innovation capability (Y). In comparison, the remaining factors besides the variables studied encompass 86.9%.

Meanwhile, the standard coefficient for beta X3 is 0.237. It means that 23.7% of the human capital (X3) has a positive and significant direct effect on innovation capability (Y), and 76.3% comprises the remaining factors besides the variables reviewed in this research.

Table 8. Summary of second substructure model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
2	.299[a]	.089	.061	5.259

a. Predictors: Organisational Capital (X1), Social Capital (X2), Human Capital (X3)
b. Dependent Variable: Innovation Capability (Y)

Table 8 shows that organisational (X1), social (X2), and human capital (X3) simultaneously have a positive and significant effect on innovation capability (Y). The value of the R Square indicated this in the second substructure model was determined as 0.089. It simply means that organisational, social, and human capital simultaneously encompasses of 8.9% effect, while 91.1% constitutes the impact of the other factors that were not reviewed in this study.

The effect of the variables (both independent and dependent) was compared, and it was discovered that human capital (X3) has the largest positive direct effect on innovation capability (Y), which was realized as 23.7%. Meanwhile, organisational capital (X1) has the largest positive indirect effect on innovation capability (Y), determined as 43% or a total of 50.7%. Social capital (X2) also has a positive indirect effect on innovation capability (Y), which was detected as 14.2% or a total of 1.1%. A summary of the contribution of each variable is shown in table 9.

Table 9. Summary of the influence of contribution of each variable

Correlation	Direct Effect	Indirect Effect through X3	Total
X1 → X3	0.193	-	0.193
X2 → X3	-0.095	-	-0.095
X1 → Y	0.077	0.430	0.507
X2 → Y	-0,131	0.142	0.011
X3 → Y	0.237	-	0.237

4.5 Hypothesis testing

In addition, each hypothesis was tested by comparing the t-count with the t-table based on α=0.05 and n-2=98, which led to the realization of 1.660. Therefore, supposing the t-count is greater than 1.660, the hypothesis is accepted and vice versa.

According to table 5, the t-count for X1 on X3 is 1.932, therefore the first hypothesis is accepted. This means that organisational capital (X1) has a positive direct effect on human capital (X3). Meanwhile, the t-count for X2 on X3 is -0.950, however, the second hypothesis is rejected. This implies that social capital (X2) does not have a positive direct effect on human capital (X3).

Based on table 7, it is evident that the t-count for X1 on Y is 0.774, therefore the third hypothesis is rejected. This means that organisational capital (X1) does not have a positive direct effect on innovation capability (Y). This is also similar to the fourth hypothesis, which was rejected because the t-count for X2 on Y is -1.334. This simply implies that social capital (X2) does not directly affect innovation capability (Y). The fifth hypothesis is accepted, meaning that human capital (X3) has a positive direct effect on the innovation capability (Y), which is realized by the t-count for X3 on Y as 2.386.

Conclusively, out of the 5 hypotheses studied, only 2 were accepted. Therefore, firms are driven to develop organisational capital because it aids in boosting human capital, which is an important factor that needs to be considered. This is because effective human capital

tends to shape the innovation capability of individuals in an organisation. Meanwhile, social capital slightly enhances human capital and innovation capability.

5. Analysis and application

5.1 Organisational capital on human capital

The data analysis results show that the first hypothesis states that organisational capital affects human capital and is accepted. This is certainly because there is knowledge, information, structures, systems, and processes in the organisation. However, it is necessary to ensure that the organisational capital adds value to the establishment. Therefore, it needs to be stored in a structured and integrated database system. An organisation has the potential to boost its human capital to achieve certain goals by manufacturing products and rendering services that satisfy stakeholders. Organisational capital is triggered by means of effective and efficient implementation, superb division of authority, and competent employees that are able to resolve issues in the respective work units. Briefly, the effective management of organisational capital by an establishment aids in triggering its human capital.

In government institutions, employees are considered valuable human capital, supposing they can manage its organisational capital. Therefore, it is not surprising that Austen and Zacny (2015) discovered a reciprocal influence between public service motivation and organisational culture, which is moderated by organisational commitment. Subsequently, routine jobs, particularly those related to administrative purposes, need to be digitally transformed. Therefore, public officers need not only function as administrators or clericals. Rather they have to develop their potentials into valuable individual competency regarded as human capital. Currently, big data management is a concern for both private and government institutions. Data collection management in a structured and integrated manner makes it easier for employees to render optimal services to the people they serve, including various important decisions that need to be taken in the field based on empirical facts.

5.2 Social capital on human capital

Various literature has reported that social capital is formed by the norms and values that aids in building cooperation through a network of harmonious and conducive interactions. Field (2010) stated that it is bound by trust, mutual understanding, and shared values. However, based on the data analysis carried out in this study, the second hypothesis was rejected. This simply means that the development of social capital slightly aids in triggering human capital. Organisations need to realize that social and human capital is a collective and individual effort, respectively. Social capital has an insignificant effect on the ability of employees in the organisation.

In government institutions, it tends to weaken human capital. Public officers' ability diminishes because they are hindered by the existent norms and values of the communities they serve. The development of emotional bonding with the public, particularly kinship relationships, potentially reduces public officers' professional attitude. With respect to human capital within government institutions, there is a need to ignore social capital. However, based on the results of this study, social capital indirectly offers few positive contributions to boost public officers' innovation capability.

5.3 Organisational capital on innovation capability

Organisational capital enables the establishment to carry out routine work processes, although it does not guarantee an increase in employees' innovation capability. This is due to the differences in their principles. Conversely, organisational capital tends to support routine or repetitive work processes, while innovation is a process of developing new ideas. This argument is the reason the third hypothesis in this research was rejected.

In government institutions, organisational capital is the key to the successful development of human capital, although it does not automatically guarantee the enhancement of public officers' innovation capability. Demircioglu and Audretsch (2017) reported that in public organisations, including government institutions, it is important to create conducive conditions in order to boost innovation. Furthermore, it also serves as the organisational capital, which has an impact on innovation capability. However, innovation capability is generally regarded as an individual effort. Therefore there is a need to create awareness concerning ways of developing this capability. Organisations tend to facilitate innovative individuals, while their success depends on each of them. Furthermore, Sihombing (2016) stated that the local governments' policies need to support innovations that reform the bureaucracy. Based on the findings from this study, government institutions are promoted in accordance with the continual development of individual abilities rather than concentrating on the provision of physical support.

5.4 Social capital on innovation capability

Social capital refers to the ability of individuals to be bound with society, while innovation capability is described as the capacity to develop ideas that generate improved values and added benefits. As believed by Ramadani et al. (2020), both of them can improve the public-sector reforms in developing countries, including Indonesia that has been known as a developing country with a considerably stable economic growth and socio-cultural diversity (Dana, 2014). This is also consistent with the study carried out by Rahmani and Mousavi (2011), which stated that the emergence of social capital in organisations tends to boost growth and competitive advantage through the resulting innovations. However, its benefits depend on the absorption capacity of the respective individuals. Therefore, it seems that the possessed social capital does not offer any guarantee for these employees. In accordance with the findings from this study, the fourth hypothesis, which does not recommend the development of social capital to boost innovation capability, was rejected.

In government institutions, it has an insignificant on human capital and employees' innovation capability. Based on these findings, it was discovered that government institutions that need employees with innovation capability need to ignore social capital. Those that rely on social capital are unable to cause a dramatic increase in the innovation capability of their employees. This is also consistent with the research carried out by Rahmani and Mousavi (2011), which stated that organisations need to consider the absorption capacity of individuals supposing they intend to improve their innovation capability through managerial behaviour.

5.5 Human capital on innovation capability

Based on various literature, human capital is summarized as collective intellectual abilities in the form of individual competencies, knowledge, and skills. Several findings from previous studies reported that it is a source of organisational innovation and reform. The fifth hypothesis proposed in this study further proves this argument. The data analysis shows that human capital development tends to support the improvement of an employee's innovation capability.

In government institutions, this variable depends on decision-makers to invest in improving the capabilities of their employees. These institutions are no longer organisations in traditional hierarchical systems. Therefore they need to focus on customers from the private sector, as well as indulge in customer-oriented innovation (Hsiao & Lin, 2008). This argument is also supported by Vasilieva and Rubtcova (2017) who believe that public officers need special professional skills to serve their civil clients. For those who are young,

the satisfaction of client needs has been a priority in the services provided. This gives hope that the professional skills of public officers will change over time.

Subsequently, human capital needs to be considered an investment, not cost or waste. This is because it aids employees to be able to develop knowledge, ideas, creativity, skills, as well as work productivity. It is triggered by certain opportunities such as education and training, assignments, transfers, promotions, and the provision of appropriate benefits. Another thing worth considering is the development of public officers' behaviour courage, as Bibi and Afsar (2020) found that it is positively associated with innovative work behaviour which is moderated by managerial level and gender. The investments of these institutions in human capital illustrate the government's sincerity in rendering the most effective services in the community.

5. Conclusion

In this research, human capital is the major variable that contributes or triggers the success of employees' innovation capability. Meanwhile, organisational and social capital has an insignificant effect on innovation capability. An increase in human capital triggers innovation capability, which is extremely relevant in government institutions because it reflects employees' collective ability to offer the best solutions when rendering services to the public. However, it needs a proper work design that affects readiness for change as proved by Azzuhri (2018).

Government institutions carry out tasks that are different from non-governmental establishments. The work or tasks carried out are based on service to society and not to generate profits. However, Osborne and Brown (2005) reported that government institutions' innovations have a similar basic understanding of the private sector. All decisions made are based on data, information, and facts. The development of the state depends on the performance of local public officers. Therefore they need to be dedicated and always oriented towards the public interest. Innovation capability is necessary for every public officer to provide solutions to every problem faced by society and to fairly and equitably improve the community's welfare. This study proves that this variable is derived from human capital.

The findings in this research are not only consistent with the hypothesis. It is also used to identify other factors that influence innovation capability besides organisational, social, and human capital. The limitations of the research object are that some other facts were not reported in this study. The expansion of respondents' coverage, which serves as the research sample, makes it possible to realize different findings. The exploration of literature as a source of reference for the variables is highly recommended to enrich this study. Therefore, a comprehensive follow-up research needs to be carried out to obtain more accurate findings regarding efforts required to boost public officers' innovation capability.

References

Al, C. H. and Wu, H. C. (2016) 'Benefiting from external knowledge? a study of telecommunication industry cluster in Shenzhen, China', *Industrial Management and Data Systems*, Vol.116, No.4, pp.622-645. doi: 10.1108/IMDS-06-2015-0229

Anggadwita, G., Luturlean, B. S., Ramadani, V. and Ratten V. (2017) 'Socio-cultural environments and emerging economy entrepreneurship: women entrepreneurs in Indonesia', *Journal of Entrepreneurship in Emerging Economies*, Vol.9, No.12, pp.85-96. doi: 10.1108/JEEE-03-2016-0011

Anggadwita, G., Ramadani, V., Alamanda, D. T., Ratten, V. and Hashani, M. (2017) 'Entrepreneurial intention from an Islamic perspective: a study of Muslim entrepreneurs in Indonesia, *International Journal of Entrepreneurship and Small Business*, Vol.31, No.2, pp.165-179. doi: 10.1504/IJESB.2017.10004845

Arshad, M. A., Kalimullah, Khan, S. and Shahid, Z. (2020) 'High performance organization: the only way to sustain public sector organisations, *International Journal of Public Sector Performance Management*, Vol.6, No.6, pp.806-816. doi: 10.1504/IJPSPM.2020.110985

Austen, A. and Zacny, B. (2015) 'The role of public service motivation and organizational culture for organizational commitment', *Management*, Vol.19, No.2, pp.21-34.

Azzuhri, M. (2018) 'Techno-structural intervention and its effect on readiness for change in the Indonesian government-owned corporation, *International Journal of Public Sector Performance Management*, Vol.4, No.4, pp.482-497. doi: 10.1504/IJPSPM.2018.095253

Babalola, H. (2003) *Economic Growth and Human Development*, University Press, Nsukka.

Baron, A. and Armstrong, M. (2007) *Human Capital Management: Achieving Added Value through People*, Kogan Page, London.

Bibi, A. and Afsar, B. (2020) 'Behavioural courage and its effect on innovative work behaviour of public sector employees: the role of managerial position and gender, *International Journal of Public Sector Performance Management*, Vol.6, No.1, pp.124-142. doi: 10.1504/IJPSPM.2020.105092

Brown, J. S. and Duguid, P. (1991) 'Organizational learning and communities-of-practice: toward a unified of working, learning, and innovation', *Organization Science*, Vol.2, No.1, pp.40-57. doi: 10.1287/orsc.2.1.40

Burt, R. S. (2000) 'The network structure of social capital', *Research in Organizational Behaviour*, No.22, pp.345-423.

Certo, T., Moss, T. W. and Short, J. C. (2009) 'Entrepreneurial orientation: an applied perspective', *Business Horizons*, Vol.52, No.4, pp.319-324. doi: 10.1016/j.bushor.2009.02.001

Coleman, J. S. (1988) 'Social capital in the creation of human capital', *American Journal of Sociology*, No.94, pp.S95-S120.

Dana, L. P. (1999) *Entrepreneurship in Pacific Asia: Past, Present & Future*, World Scientific, Singapore.

Dana, L. P. (2014) *Asian Models of Entrepreneurship - From the Indian Union and Nepal to the Japanese Archipelago: Context, Policy and Practice*, World Scientific, Singapore.

Demircioglu, M. A. and Audretsch, D. B. (2017) 'Conditions for innovation in public sector organizations', *Research Policy*, Vol.46, No.9, pp.1681-1691. doi: 10.1016/j.respol.2017.08.004

Ekawati, R. and Soleha, L. K. (2017) 'Meningkatkan kemampuan inovasi organisasi melalui human capital', *Jurnal Intekna*, Vol.17, No.2, pp.79-147. doi: 10.31961/intekna.v17i2.479

Fathy, R. (2019) 'Modal sosial: konsep, inklusivitas dan pemberdayaan masyarakat', *Jurnal Pemikiran Sosiologi*, Vol.6, No.1, pp.1-17. doi: 10.22146/jps.v6i1.47463

Fine, B. (2010) *Theories of Social Capital: Researchers Behaving Badly*, Pluto Press, London.

Hidayat, C. (2013*)* 'Analisis model pengukuran human capital dalam organisasi', *Binus Busines Review*, Vol.4, No.2, pp.879-885. doi: 10.21512/bbr.v4i2.1403

Hsiao, C. and Lin, J. (2008) 'A study of service quality in public sector', *International Journal of Electronic Business Management*, Vol.6, No.1, pp.29-37.

Hurley, R. F. and Hult, G. T. M. (1998) 'Innovation, market orientation, and organizational learning: an integration and empirical examination', *Journal of Marketing*, Vol.62, No.3, pp.42-54.

Jiao, C. and Sihombing, G. (2021) 'Indonesia loses upper-middle income status amid pandemic'. Retrieved at 15 July 2021 from https://www.bloomberg.com/news/articles/2021-07-08/indonesia-loses-prized-upper-middle-income-status-amid-pandemic.

López, J. E. N., Salazar, E. A., Castro, G. M. and Sáez, P. L. (2006) 'Organizational capital as competitive advantage of the firm', *Journal of Intellectual Capital*, Vol.7, No.3, pp.324-337. doi: 10.1108/14691930610681438

Meyer, C. R., Skaggs, B. C. and Youndt, M. (2014) 'Developing and deploying organizational capital in services vs. manufacturing', *Journal of Managerial Issues*, Vol.26, No.4, pp.326-344.

Nahapiet, J. and Ghoshal, S. (1998) 'Social capital, intellectual capital, and the organizational advantage', *The Academy of Management Review*, Vol.23, No.2, pp.242-266. doi: 10.2307/259373

Osborne, S. P. and Brown, K. (2005) *Managing Change and Innovation in Public Service Organization*, Routledge, New York.

Patterson, F., Kerrin, M. and Gatto-Roissard, G. (2014) *Characteristics & Behaviours of Innovative People in Organisations*, NESTA Policy and Research Unit, London.

Prescott, E. C. and Visscher, M. (1980) 'Organizational capital', *The Journal of Political Economy*, Vol.88, No.3, pp.446-461.

Rahmani, Z. and Mousavi, S. A. (2011) 'Enhancing the innovation capability in the organization: a conceptual framework', *Proceeding in the 2nd International Conference on Education and Management Technology*, pp. 285-291.

Ramadani, V., Anggadwita, G., Welsh, D. H. B. and Permatasari, A. (2020) 'Social innovation in public sector services', *International Journal of Public Sector Performance Management*, Vol.6, No.3, pp.416-433. doi: 10.1504/IJPSPM.2020.107770

Ramadani, V., Hisrich, R. D., Anggadwita, G. and Alamanda, D. T. (2017) 'Gender and succession planning: opportunities for females to lead Indonesian family businesses', *International Journal of Gender and Entrepreneurship*, Vol.9, No.3, pp.229-251. Doi: 10.1108/IJGE-02-2017-0012

Sahni, N. R., Wessel, M. and Christensen, C. M. (2013) 'Unleashing breakthrough innovation in government', *Stanford Social Innovation Review*, Vol.11, No.3, pp.27-31.

Schuller, T. (2000) 'Social and human capital: the search for appropriate technomethodology', *Policy Studies*, Vol.21, No.1, pp.25-35. doi: 10.1080/014428700113991

Sharma, P. and Sahni, P. (2015) 'Human capital and economic growth in India: a co-integration and causality analysis', *Ushus – Journal of Business Management*, Vol.14, No.2, pp.1-18. doi: 10.12725/ujbm.31.1

Sihombing, T. (2016) 'Public service innovation and reform towards good local governance', *Global Journal of Politics and Law Research*, Vol.4, No.1, pp.64-72.

Subramanian, M. and Youndt, M. A. (2005) 'The influence of intellectual capital on the types of innovative capabilities', *Academy of Management Journal*, Vol.48, No.3, pp.450-463. doi: 10.5465/AMJ.2005.17407911

Tajpour, M., Hosseini, E. and Salamzadeh, A. (2020) 'The effect of innovation components on organizational performance: case of the governorate of Golestan Province', *International Journal of Public Sector and Performance Management*, Vol.6, No.6, pp.817-830. doi: 10.1504/IJPSPM.2020.110987

Tanzi, V. (2000) 'The role of the state and the quality of the public sector', *IMF Working Paper*, WP/00/36.

Tidd, J. and Bessant, J. (2015) *Innovation and Entrepreneurship*, Wiley, Chichester.

Vasilieva, E. and Rubtcova, M. (2017) 'A self-awareness of public servants: an introduction in methodology', *International Journal of Public Sector Performance Management*, Vol.3, No.1, pp.103-11. doi: 10.1504/IJPSPM.2017.082505

Woolcock, M. (2010) 'The rise and routinization of social capital, 1988-2008', *Annual Review of Political Science*, Vol.13, No.1, pp.469-487. doi: 10.1146/annurev.polisci.031108.094151

Worldometer. (2021) 'Countries in the world by population'. Retrieved at 14 July 2021 from https://www.worldometers.info/world-population/population-by-country/.

Yusr, M. M. (2016) 'Innovation capability and its role in enhancing the relationship between TQM practices and innovation performance', *Journal of Open Innovation: Technology, Market, and Complexity*, Vol.2, No.6, pp.1-15. doi: 10.1186/s40852-016-0031-2

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