

## Increasing Employee Productivity through Human Capital and Organizational Capital

\*Tinneke Sumual<sup>1</sup>, Arie F. Kawulur<sup>2</sup>, JohnnyManaroinsong<sup>3</sup>

<sup>1,2,3</sup>(Economics Faculty, Manado State University)

Correspondence Author: Tinneke Sumual

**Abstract:** This study aimed to analyze the direct and indirect effects of human capital and organizational capital on employee productivity. The method used in this study was an explanatory survey with a questionnaire as the data collection technique which was circulated to 76 employees of a 4-star hotel in the city of Manado with a minimum 5-years active business. The data analysis technique used regression model of path analysis. The results of this study indicate that the human capital has positive and significant effects toward organizational capital (89.30%), but its effect to employee productivity, though positive, is not significant (0.01%). The next finding is that organizational capital has a very significant effect on employee productivity (64.64%), and there is a very significant influence between human capital and employee productivity through organizational capital (82.92%).

**Keywords:** Human Capital, Organizational Capital, Employee productivity

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### I. INTRODUCTION

Increased employee productivity has become a big challenge for Indonesia people because the level of labor productivity is still below some ASEAN countries such as Singapore, Malaysia, Thailand, and Philippina as shown in table 1 below:

**Table 1.** Labor productivity in ASEAN Countries

No	Negara	Output per worker (2005 ppp\$) 2005-2012	Hour worker per week (per employed worker) 2003-2012
1	Indonesia	9.536	-
2	Philiphina	9.571	-
3	Thailand	14.443	42.8
4	Malaysia	35.036	35.036
5	Singapura	96.573	-

Source : UNDP 2015

Indonesian labor productivity compared to Malaysian labor productivity in 2005 - 2012 is 1:3,67 whereas compared to Singapore is 1:10,12. We must recognize that the conditions of employee productivity in Indonesia must be increased because it is the lowest when compared to other ASEAN countries. Since the beginning of 2016, all ASEAN communities have plunged into the era of ASEAN economic community, an era filled with competition resulting in awareness that the improvement of employee productivity must be done in order to improve organizational performance and competitiveness of institutions.

One of the demands for improving employee productivity is in the field of hotel services. Since 2015, the local government has been very serious in making the tourism sector as a sector that can improve the nation's economy. Improvement of infrastructure began to be addressed and tourist services have attracted a lot of government attention resulting in the increasing number of tourists coming to the city of Manado. In 2015, 17.279 tourists were recorded which then increased to 9.465 tourists in 2016 and 40.624 tourists in 2016. The increase of tourists in quantity was not comparable with the quality of hospitality services because the human resources doing that work did not show productive work behavior. Low employee productivity can cause below maximum service to customers, which will consequently affect the performance and competitiveness of the organization. Therefore, increasing employee productivity becomes an actual problem that needs to be solved in hotel services.

The highs and lows of employee productivity, other than influenced by human factor with various capabilities known as human capital and other factor is organizational capital. Both of these factors can have an effect on productivity, performance, and organizational competitiveness. MudaSalwaand Rahman, Mara R.C.A (2016) explainsthat the emergence of a knowledge economy requires SMEs to be embedded with intellectual

capital, namely human capital, structural capital and relational capital in order to compete in the resilient business environment. The first factor affecting the increase in labor productivity is human capital. This factor becomes important in determining the level of employee productivity because the key to the success of an organization is on its main asset; that is human resources. The human capital variable is all personal capital that is owned by employees to perform their work assessed from education level, work experience, expertise, skill, knowledge, intrinsic motivation, and working commitment. Another factor is organizational capital as capital provided by the organization to make people work more productively. The organizational capital variable is capital provided by the organization through effective management in work safety, work facilities, organizational culture, systems, and organizational policies.

This study was conducted on four-star hotel employees in the city of Manado of the province of North Sulawesi which aimed to analyze the direct influence of human capital and organizational capital with employee productivity and to analyze the indirect effect of human capital on employee productivity through organizational capital.

## **II. THEORY AND HYPOTHESIS**

### **2.1. Productivity**

The concept of productivity is often compared to predefined standards. If more outputs are generated from the same number of inputs, or even fewer inputs can be used to obtain the same output, then productivity is improved (Wibowo, 2010). Productivity that rises from employee effectiveness has different facets. The quantity of output such as employees' ability to produce a high volume of work, to work quickly and accurately, and to meet deadlines, is important. The quality of output is also key and is affected by employees' attitude, stamina, and ongoing learning, and by their ability to focus and to share knowledge and ideas to improve processes and products (BuruddanTumulo, 2004). According to Sumual (2013), by quoting Gilmore and Erich Fromm, the concept of productivity is seen from productive behaviors such as: constructiveness, self-reliance, responsibility, love for work, having a vision to for the future, ability to overcome problems and adapt to an ever changing environment (creative, imaginative, and innovative), and having the power to realize their own potential. An employee's productivity usually manifests as an employee's achievement in his workplace (Gaol, 2014).

In this article, the employee productivity relates to productive work behaviors undertaken by employees in performing services that are reflected from the completeness of work, quality of work, compliance with working hours, creativeness, responsiveness, constructiveness, cooperativeness, communicativeness, and continuous improvement.

### **2.2. Human Capital**

Human capital becomes one of the determinant variable for the improvement of employee productivity. Human capital, viewed from the education quality, health quality, and Human Development Index has positive effects on economic growth (Arabi and Abdalla, 2013). There are powerful links between human capital and the labour productivity in shipping and the quality of the workforce (Lottum, JelleVan Zanden, Jan L.V : 2014). There is recognition that human capital has a positive significant relationship toward organizational performance (Mahmood and Azhar, 2015). The return on investments in human capital is expected to be improvements in performance, productivity, flexibility and the capacity to innovate which should result from enlarging the skill base and increasing levels of knowledge and competence (Baron Angela and Armsthong Michael : 2007). According to Turner E, M and Fogerty Rebecca (2010) by quoting Albelda and Tilly, Becker, Mincer, Mincer and Polachek that more formal education and experience at work as a part of human capital positively shapes productivity; in addition, ability is also thought as a key to understanding productivity differences.

Human capital consist of education, knowledge, skills, competencies, work habits and motivation, personal relationships (Mello Jeffrey, 2005). Another opinion explains that human capital is a combination of factors such as the following: 1) the traits one brings to the job: intelligence, energy, a generally positive attitude, reliability, commitment; 2) one's ability to learn: aptitude, imagination, creativity, and what is often called "street smarts", savvy or how to get things done; 3) one's motivation to share information and knowledge: team spirit and goal orientation (Jac Fitz-enz, 2009). Thus, it can be said that human capital is all the personal capital that can add value to any of the work done or the product or the service produced. In short, human capital is the personal capital of human resources to do a job that is reflected in the level of education, work experience, expertise, skills, knowledge, intrinsic motivation, and work commitment.

### **2.3. Organizational Capital**

One factor that cannot be ignored for increasing employee productivity is organizational capital. Organizational capital is one of the sources for organizational competitive advantage. (Georgia Martin-de-Castro, et al., 2011). Organizational capital or structural capital consists of knowledge owned by the organization rather than by individual employees. It can be included explicit knowledge that has been recorded on a data base or in manuals and standard operating procedures, or tacit knowledge that has been captured,

exchanged and, as far as possible, codified (Baron Angela and ArmsthongMichael, 2007). Organizational capital or structural capital classified into two components: internal structure (organizational capital) and external structure (customer capital). The internal structure is the organizational ability to process employee productivity, such as hardware, data base, information, intellectual material, and organizational structure, while the external structure (customer capital) is a relationship developed with key customers, such as the form of corporate image, customer loyalty, patent, and trademarks (Edvinsson and Malone, 1977). Structural capital or organizational capital is to give the possibility to human capital to be more productive, more innovative, and more intelligent in creating value for the company (Sangkala, 2006). Organizational capital or structural capital is the infrastructure that supports people to do their work. It included elements like the fitness of the organization structure, operational and management processes, procedures, routines, general use of information, IT systems and databases, existence of knowledge center, explicit knowledge and know how (Ingham Jon, 2007). Jac Fitz-enz (2009) used term organizational capacity is the ability of a company to extract the value of the organization's physical and intellectual assets, or relational and human capital. Organizational capital includes the following main elements: 1) Organizational culture, values and attitudes includes the level of cultural homogeneity, or level of coherence, acceptance and general commitment to cultural values, business philosophy and ethics, social climate, or managerial commitment towards some concrete cultural values and attitudes; 2) Information and telecommunications capability, refers to the firm's ability, commitment and effective use of information and telecommunications technologies to ensure storage, disseminate, absorb, transfer, and refine useful information and knowledge across the firm; 3) Organizational structure, refers to the formal organizational design, and it includes formal mechanisms for structuring the firm (Nezam, Mohammad H.K, 2013).

Organizational capital becomes a determinant factor for the increase of employee productivity because employees need organizational support that may help make them work more productively and give all their potential for their organizational progress. Various opinions assess organizational capital from aspects of organizational structure, data base, patent, trademark, organizational culture, and learning, but this article examines the organizational capital as capital provided by the organization through effective management of aspects of occupational safety, work facilities, organizational culture, systems and human capital policies.

#### **2.4. Research Hypothesis**

The research hypothesis is formulated as follow: 1) There is direct influence between human capital and organizational capital; 2) There is direct influence between human capital and employee productivity; 3) There is direct influence between organizational capital and employee productivity; and 4) There is indirect influence between human capital and employee productivity through organizational capital.

### **III. RESEARCH METHOD**

This study is classified as a quantitative research design with an explanatory survey method that aims to test the factual proposition of influence between variables, namely the human capital variable, organizational capital to employee productivity and to explain the phenomenon behind the relationship between variables. Methods of data collection used a questionnaire that was circulated to 105 employees of (a) four-star hotels in the city of Manado with a minimum of 5-years active business. As many as 29 questionnaires were not returned, which makes the total number of respondents at 76 people/employees. The questionnaire uses the Likert scale with 5 answer choices. To obtain the quality of research data, the questionnaire distributed has passed the validity and reliability test. Validity testing was done by the Pearson correlation technique. The items were declared valid only if the alpha coefficient obtained equal or less than 0.05 ( $\alpha \leq 0,05$ ). Reliability testing was analyzed by the Cronbach Alpha technique from each instrument on each variable. The instruments are said to be reliable when the coefficient Cronbach Alpha approaches 1, the higher the internal coefficient of reliability. Testing of reliability refers to Ghozali (2006) which states that a construct of variable is said to be reliable if it provides a Cronbach Alpha value greater than 0.60. Based on the results of the analysis compared with the criteria used, it can be stated that the instrument for the principle capital variable, organizational capital, and employee productivity meet the requirements of reliability and validity so that the third instrument of this variable is good to be used to encompass research data.

### **IV. RESULT AND DISCUSSION**

The data of the research results described in Table 1 show that the human capital variable (X1) obtained a maximum score of 57.000, a minimum score of 44.00, a range of 13.00, and an average of 49.7237. Furthermore, the organizational capital variable (X2) obtained a maximum score of 49.00, a minimum score of 37.00, a range of 12.00, and an average of 43.2237. Whilst the employee productivity variable (X3) obtained a maximum score of 33.00, a minimum score of 23.00, a range of 10.00, and an average of 28.5000.

**Tabel 1** Data Description

	N	Range	Minimum	Maximum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
X1	76	13.00	44.00	57.00	49.7237	.38870	3.38860	11.483
X2	76	12.00	37.00	49.00	43.2237	.38644	3.36887	11.349
X3	76	10.00	23.00	33.00	28.5000	.25718	2.24202	5.027
Valid N (listwise)	76							

To test the direct and indirect effect of human capital and organizational capital toward employee productivity, path analysis was used as seen in Tables 2 and 3:

Table 2. Coefficient Variable X2 – X1

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
	1 (Constant)	-3.469	1.892				-1.834	.071	-7.238	.300		
X1	.939	.038	.945	24.742	.000	.863	1.015	.945	.945	.945	1.000	1.000

a. Dependent Variable: X2

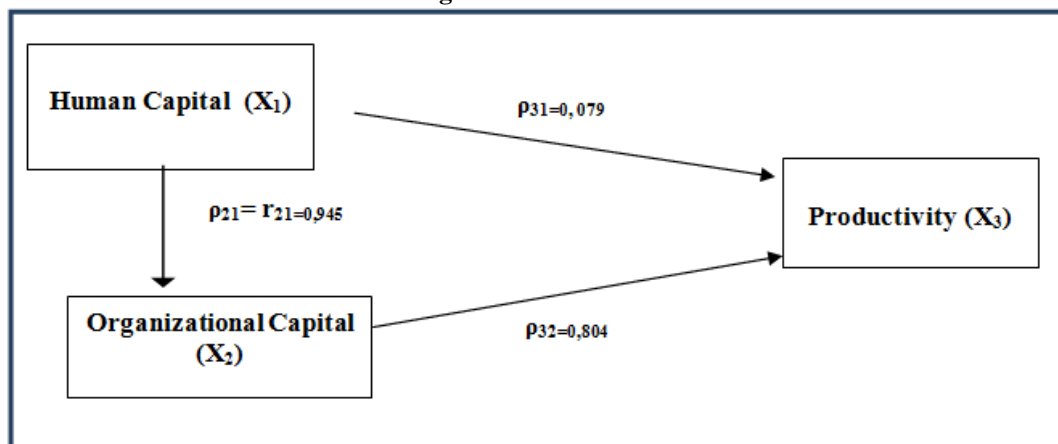
Table 3. Coefficient Variable X1 - X3

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
	1 (Constant)	2.786	1.884				1.478	.144	-.970	6.541		
X1	.052	.113	.079	.463	.645	-.172	.277	.838	.054	.026	.108	9.272
X2	.535	.113	.804	4.723	.000	.309	.761	.878	.484	.264	.108	9.272

a. Dependent Variable: X3

The research model as shown in Figure 1 is with the coefficient value of each path as follows:

Figure 1. Research Model



Ket: X1 = Human Capital  
 X2 = Organizational Capital  
 X3 = productivity

Based on the analysis, the output obtained is expressed in the form of a partial substructure equation and two forms of multiple substructure equations as follows:

- Substructure-1 :
- Regression :  $X_2 = \rho_{21}X_1 + e_1$
- Regression :  $X_2 = 0,945 + e_1$
- t-count : 24,742
- Significance : 0,000
- Substruktur-2 :

Regression :  $X_3 = \rho_{31}X_1 + \rho_{32}X_2 + e_2$   
 Regression :  $X_3 = 0,079X_1 + 0,804X_2 + e_2$   
 t-count : 0,463 4,723  
 Significance : 0,645 0,000

After the path coefficient test was conducted, next is to know the magnitude of direct and indirect influence between principle capital variable, organizational capital, and employee productivity, which was done by squaring the causal coefficient obtained or said to be a coefficient of determination. The results of the calculation are in Table 4 below:

**Table 4. Influence between Variables**

Coefficient causal	Influence		Total Influence
	Direct	Indirect	
$\rho_{31}$	0.006241	$X_2 = 0, 8930$	0.8992
$\rho_{32}$	0.646416	-	0.6464
$\rho_{21} = r_{21}$	0.893025	-	0.8930

The test result of the amount of influence between variables as shown in Table 4 that the influence of human capital with organizational capital is positive and significant (0.8930 or 89.30%). The strength of influence between these two variables is higher than the effect of other variables. These findings indicate that high human capital can enhance the organization capital, otherwise the capital organization becomes low if the human capital condition is also low.

The next finding is that there is a direct influence of human capital on employee productivity with test results that are positive but not significant (0.0062 or 0.01%). This finding means that the power of human capital owned by the organization directly has not been strong enough to create an increase in the productivity of its employees. However, in the next test it is showed that the influence of human capital on employee productivity becomes stronger through organizational capital (0.8992 or 89.92%). These results provide clues that the organizational capital, as an intervening variable, is a very strategic variable to strengthen the influence of human capital on employee productivity. Evidently, organizations that only pay attention to human capital alone do not strongly affect the increase in employee productivity, but they must also be supported by the availability of organizational capital. Thus it is recognized that organizational capital becomes very important for the improvement of employee productivity if through human capital. Human capital that is supported by organizational capital is increasingly recognized to also give a strong influence to increase employee productivity in the hotel sector. There are various factors that can affect the low productivity of employees, but this study proves that the human capital factor and organizational capital become the determinant for the improvement of employee productivity. The vision of the organization will be achieved through the productive work of all human resources with education, work experience, expertise, skills, knowledge, intrinsic motivation, work commitment, and organizational capital support of the organization belonging to the organization through effective management in terms of safety, work facilities, work culture, organizational systems, and policies.

The next finding is that there is a positive and significant influence between organizational capital and employee productivity (0.6464 or 64.64%). These findings indicate that the role of organizational capital should not be ignored in the framework of improving employee productivity due to organizational attention to employees in terms of providing safety assurance, availability of work facilities, having a work culture and the application of effective organizational systems and policies in the development and performance appraisal systems will make employees happy and more productive in their work. The important role of organizational capital / structural capital is to allow human capital to be more productive, more innovative, and smarter in creating value for the company (Sangkala: 2006).

In relation to these findings, the management of the hotel must continuously consider its organizational capital both quantitatively and qualitatively so as to encourage employees to display productive work behaviors.

## V. CONCLUSION AND RECOMMENDATION

The results of this study indicate that human capital has a positive and significant effect towards organizational capital (89.30%), but its effect to employee productivity, though positive, is not significant (0.01%). The next finding is that organizational capital has a very significant effect on employee productivity (64.64%), and there is a very significant influence between human capital and employee productivity through organizational capital (89.92%). Organizational capital as an intervening variable is a very strategic variable to strengthen the influence of human capital on employee productivity. Building employee productivity in the field of hotel services was not strong enough just to have a good human capital, but must also have the support of organizational capital in the hotel services.

In relation to the findings of this study, to obtain an increasingly productive work behavior that will also improve the performance and competitiveness of the organization, in addition to human capital support such as

the level of education, work experience, expertise, skills, knowledge intrinsic motivation, and work commitment, it is also necessary to have the support of organizational capital both in quantity and quality in terms of work safety, work facilities, organizational culture, systems, and organizational policies.

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### **REFERENCES**

- [1] Baron Angela and Armsthong Michael. 2007. *Human Capital Management: Achieving Added Value through People*. USA: Kogan Page Limited.
- [2] Burud, Sandra and Tumulo, Marie. 2004. *Leveraging the new Human Capital: Adaptive Strategies, Result Achieved and Stories of Transformation*. California: Davies Black Publishing.
- [3] Edvinsson, L and Malone, M.S. 1997. *Intellectual Capital: Realizing Your Company's True Value by founding it Hidden Brainpower*. New York: Harper Business.
- [4] GaoJemmy. L. 2014. *A to Z Human Capital: Manajemen Sumber Daya Manusia*. Jakarta: Gramedia
- [5] Ghozali, I. 2006. *Structural Equation Modeling: Metode alternatif dengan Partial Least Square*. Semarang: Universitas Diponegoro
- [6] Gregorio Marti'n-de-Castro, et.al. 2011, Towards 'An Intellectual Capital-Based View of the Firm: Origins and Nature. *Journal of Business Ethics*. Vol. 98. pp. 649–662
- [7] Ingham Jon. 2007. *Strategic Human Capital Management: Creating Value through People*. First Edition. Netherlands : Elsevier Ltd.
- [8] Jac Fitz-enz. 2009. *The ROI of Human Capital*. Second edition. USA: Jamacom American Management Association
- [9] Khalafalla A. M. Arabi and Suliman Z. S. Abdalla, 2013, The Impact of Human Capital on Economic Growth: Empirical Evidence from Sudan, *Research in World Economy* Vol. 4, No. 2, pp. 43-53.
- [10] Lottum, Jelle Van Zanden and Jan L.V. 2014. *Exploration in Economic History*. Vol 53. pp. 83-100,
- [11] Mahmood, K and Azhar, S M. 2015. *Impact of Human Capital on Organizational Performance a case of Security Forces*. Pakistan Journal of Science. Vol. 67 issue 1, pp. 102-108.
- [12] Mello Jeffrey. A. 2005. *Strategic Human Resource Management*. Second Edition. South-Western College Pub
- [13] Muda Salwa and Rahman Mara R.C.A 2016. *Human Capital in SMEs Life Cycle Perspective*. *Procedia Economics and Finance*. Vol. 35. pp 683 – 689.
- [14] Nesam, Mohammad H.K, et.al. 2013. *The Impact of Structural Capital on New Product Development Performance Effectiveness, The Mediating Role of New Product Vision and Competitive Advantage*. *International Journal of Human Resource Studies*, Vol. 3, No. 4. pp. 281-301
- [15] Sangkala. 2006. *Intellectual Capital Management: Strategi Baru Membangun Daya Saing Perusahaan*. Edisi Pertama, Jakarta : Ikatan Penerbit Indonesia.
- [16] Sumual, Tinneke. 2013. *Manajemen Sumber Daya Manusia*, Surabaya: CV.R.A.De.Rozarie.
- [17] Turner Elizabeth Monk and Fogerty Rebecca. 2010. *Chilly Environments, Stratification, and productivity Differences*. *Am Soc*. Vol 41, pp 3–18.
- [18] UNDP. 2015. *Human Development Report: Work for Human Development*. New York.
- [19] Wibowo. 2010. *Manajemen Kinerja*. Jakarta: Rajawali Pers.

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