

## The Antecedents of Employee's Performance: Case Study of Nickel Mining's Company, Indonesia

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**Abstract:** This research investigates the antecedents' effect on employee's performance of nickel mining's company at Indonesia, focused on the organizational learning culture (OLC) and organizational citizenship behavior (OCB). Utilizing the cross sectional design and the path analysis method, the current study analyzed data from 85 employees in various department at PT Inco Tbk in Indonesia. The result shows that (1) organizational learning culture have a direct positive and significant influence to employee performance; (2) organizational citizenship behavior also have a direct positive and significant influence against employee performance; and (3) organizational learning culture also have an indirect influence towards employee's performance through the organizational citizenship behavior.

### I. Introduction

Knowledge management and organizational learning is the main factors or become the key to organization success. Both knowledge management and organizational learning enable any firm or organization to quickly adapt. Ability for quick adaptation is needed as the level of technological change is fast, the changing macroeconomics environment, the market that constantly on-the-move, have become several of the industrial environment characteristics nowadays. In a condition such as this, a firm who intend to continue their business, must learn continuously to follow the ongoing change. Moreover, a firm must be able to anticipate any future change [1].

Learning culture could be built in many ways, training though is one of the option. Data obtained showed, in average, the employee at PT Inco Tbk (a nickel mining's company in Indonesia) have a formal training at least 25 to 35 hours per year. This training include technical training, work safety, managerial and professional development.

Nevertheless, formal training is only one of the indications on the existence of learning culture. Other factors also built on learning culture such as information collection and dissemination, leader behaviour that support an ongoing learning and mentoring system. Moreover, learning is not only occur at the individual level, but also at the organizational level as organization gain knowledge and new competence, hold it in a repository, develop and disseminate them within an organization. This is what is termed as *organization learning*. The experience found by an organization from coping with the challenges to survive would become part of the *organizational learning culture (OLC)* [2].

Other factors that become an antecedent effect on employee performance are the factor that reside within the individual employee his/herself. One of them is the behaviour as organizational citizen that support the attainment of organizational objectives exceeding those expected by work giver, this is what is called as *organizational citizenship behaviour* or OCB [3]. What is meant by 'giving more than expected' here include various work dimension, e.g. helping others without being asked, working more than the working hour without being told to, treats work with full heart, sincerity in interacting with others and in coping with various work challenges, and have hospitality in the interaction process [4].

Interdependence between OLC, OCB and organizational performance became a focus in this paper. Even though many research on each of the above variables have been conducted, nevertheless relation between these variables by means of the mediating relation of OCB have received less attention in the past.

### II. Research Problem

Based on previous background, the main issues to be examined in this study can be formulated as follows:

1. Is organizational learning culture (OLC) have positive influence toward employee's performance?
2. Is there a positive influence organizational citizen behavior (OCB) have on the employee's performance?

3. Is organizational learning culture (OLC) have a positive influence on organizational citizenship behaviour (OCB)?
4. Is the influence of organizational learning culture (OLC) have on employee's performance mediated by the organizational citizenship behavior (OCB)?

### **III. Research Objectives**

The determination of current research to view organizational learning culture (OLC) as its independent variables, whilst the organizational citizenship behavior (OCB) as a moderator variable and employee's performance as the dependent variable is in line with the following intention:

1. To analyze and assess the influence of organizational learning culture (OLC) on employee's performance.
2. To analyze and assess the influence of organizational citizen behavior (OCB) on the performance of employees
3. To analyze and assess the influence of organizational learning culture (OLC) on organizational citizen behavior (OLB)
4. To analyze and assess whether the influence of organizational learning culture (OLC) on employee's performance is mediated by organizational citizen behavior (OCB).

### **IV. Literature review**

#### **Organizational Learning Culture**

Corporate learning culture as a culture within the organization as a whole in their efforts to create, acquire, and transmit a variety of skills, knowledge and behavior in accordance with the demands of the knowledge and policies in the new business environment [5]. Meanwhile, organizational learning culture (OLC) as *'a system that supports teamwork, collaboration, creativity, and knowledge process knowledge that has meaning and collective value'* [6]. Therefore, we could state that both Garvin and Consessore see OLC as a process of learning which is different from knowledge management as knowledge management put more emphasis on the content of the learning process. Of the various definitions above, we then could define OLC as *'attributes, behaviors, habits, beliefs and systems which are built to create, acquire, deploy and maintain the skills and knowledge applied within an organization in order to maintain the continuity of the organization'*.

To be able to build and strengthen a strong learning culture, there arise the need to examined elements of the systems that shape the culture of learning. To became a learning organization, organizational elements such as rules, memories, values, relations system or structure, and other organizational dynamics or basic patterns that characterize an organization must change. Meyer bought us to an idea that a learning organization is an organization that can internalize the ability to adapt or to respond quickly and in a distinctive manner while continuing to work to remove barriers to learning. Such organizations improve their learning capacity by constantly adjusting the four elements that affect learning systems, namely: strategy, structure, unused capacity, and ideology [7].

#### **Organizational Citizenship Behaviour (OCB)**

Organizational Citizenship Behaviour (OCB) is defined as employee's behavior that contributes to "more than" his/her formal job descriptions and are usually neutral from organizational reward. In other words there are no additional incentives given to individuals from the organizations that contributed "more than" formal job description [8].

OCB is often defined as an individual work behavior that has the freedom to choose and contribute to the effectiveness and efficiency of organizational functions [9,10]. Hereafter, we could thought OCB can be seen widely as a factor that contributes to the work of the organization as a whole. Therefore it is very important for an organization to have a leader that encouraging the attainment of OCB by increasing positive attitudes. In this case, OCB as behavior and attitudes that is profitable to an organization or company that can not be nurtured by means of the role of formal obligations nor in the form of contracts or recompensation because employees are able to control himself to bring the best that he/she could for the best interest of an organization [9].

OCB includes five factors namely:[11,12]

- a. Altruism that is the behavior to help others or the interests of others, such as helping co-workers who have difficulties in their work when their own task is finished in a project.
- b. Seriousness, which is the behavior to fulfill minimum requirement such as attendance, obeying rules and working closely, including the use of available working time that is as effective as possible.
- c. Sportsmanship is a conduct exhibit by an employee that put emphasize on the positive aspects of the organization rather than its negative aspects, indicating a willingness to be tolerant to the circumstances without complaining.

- d. Thinking about public interest in the form of involving within the organizational function, e.g. to think about organizational life, for example by means of always looking for new information that supports the advancement of the organization.
- e. Keeping the good manners and have respect for others, including behaviors such as helping a person to prevent problems, do not miss the information about various events in the organization and the changes that happened or try to avoid or reduce the growing problem by conducting clarification, in order so that he/she is not not easily affected when provoked.

Emergence of OCB in organizations is influenced by several factors that are quite complex and intertwined with each other. These factors include: the culture and organizational climate, personality and mood of employees, perceptions on organizational support, perceptions toward the quality of superior-subordinate interaction and working period [e.g. 11, 13, 14]. There are several factors that affect the PWO [4]. These factors include individual characteristics, job characteristics, organizational characteristics, leadership and the exchange that occurred in the organization. Factors that influence the development of employee's PWO is the psychological characteristics of the working environment [15].

### **Employee Performance**

Employee's performance as an individual outcomes based on the size and behavioral standards for the related job [16]. Employee performance can also be defined as behavior that led to an outcome, especially behavior that can change the environment in certain ways [17].

Employee performance is a record of the results produced in a specific job function or activity during a specific time period associated with organizational objectives [18]. Employee's performance is the result produced by a specific functional unit or individual activity over a given period and not the personal characteristics of employees who performing the work.

In addition, employee's performance is affected by two general factors: work environment factors (situation) and individual factors. Work environment factors (situation) include the social environment, pressure situations, organizational culture, job involvement, competition, and interpersonal communication. Meanwhile, individual factors include the skills, motivation, knowledge, education level, perceptions, goals, organizational learning culture, the ability of self, and work experience [19].

The affecting factors to employee's performance such as age made performance became diminishing as employee get older. Another factor, gender, put women prefer to adjust to the authority, while men are said to be more aggressive in creating hope and success. Factor such as position / seniority put differences in a need to be satisfied in accordance with the position that they had [20].

In this study then, the employee's performance factors that being used for the appraisal of employee's performance, namely:[21]

- a. Job skills, or the ability and expertise of employees who support the execution of tasks, which includes the ability, knowledge, interpersonal skills and technical prowess.
- b. Discipline, namely the ability of employees to comply with the regulations and policies to behave in organizations that include the timeliness of work, task completion, attendance, work break, and work end.
- c. Responsibility, as a person's ability to perform or complete a job properly, e.g. the time being used for work and the quality of the work.
- d. Cooperation, namely the ability to establish good interaction with colleagues and help each other in carrying out the task.
- e. Creativity, which refers to the ability of employees to behave and try new things by keeping an eye on the risks it may causes.

### **Hypothesis**

Based on our literature review, we could propose research hypothesis that would guide us on our further study. First, we state that when OLC within a company is good, then the process of dissemination or distribution of skills and knowledge enacted by leader to his/her employees or from employee to other employee tends to be better. Improvement of knowledge and skills could lead to better work implementation, which in the end, increase the performance of employees.

Second, by referring to previous definition on OCB, one can concluded that (1) OCB is a voluntary behavior by employees, (2) OCB is not included in the job description of employees, (3) OCB can support the effectiveness of the attainment of company or organization objectives. Cascio states that (1) OCB is an employee behavior enacted beyond what is required by the company, (2) OCB is a behavior that the employee did voluntarily, (3) OCB is a behavior that is not directly rewarded nor resides in a formal structure of the company, and (4) OCB is an important behavior to improve company performance and support the company's success [19].

Third, we could conceptualized that OLC is all the attributes, behaviors, habits, beliefs and systems to create, acquire, deploy and maintain the skills and knowledge enact within an organization in order to maintain

the continuity of the organization. This conception suggests that there is a correlation between the OLC with OCB (behavior). And as the OLC is getting better or stronger, then the behavior of employees is also expected to be better, including their voluntary behaviors (OCB). Therefore, one could put a hypothesis as follows:

*"The culture of organizational learning has a positive affect on organizational citizenship behavior".*

Fourth, conceptually OLC can influence OCB, whereas OLC and OCB can be an antecedent to employee's performance. This fact does not rule out the possibility that OCB will mediate (to intervene) the influence of OLC have on employee's performance. Thus it can be hypothesized as follows:

*"The influence of organizational learning culture on employee's performance is mediated by organizational citizenship behavior".*

### Research Design

The following research could be categorized as confirmatory quantitative research in our effort to unearth the correlation between variables. Quantitative research is an information-based research in which data were analyzed by means of statistical techniques through appropriate statistical test procedures [22]. The research was also confirmatory in the sense that would employ a statistical hypothesis testing. By knowing the correlation between variables, it is expected that researchers understand the behavioral patterns of the relationships between variables, and thus can predict the likelihood of what would happen to a variable when another variable changes. The variables of this study are as follows:

1. Independent variables: Organizational Learning Culture (OLC)
2. Dependent variable: Employee's Performance (EP)
3. Intervening variable: Organizational Citizen Behavior (OCB)

The research will be conducted on employees at PT Inco Tbk, a nickel company that operates in South Sulawesi, Indonesia that includes a concession area in Sorowako, Bahudopi and Pomalaa. PT Inco Tbk is a publicly traded company whose shares are owned jointly by Vale (Brazil), Sumitomo (Japan) and the wider community or the public.

### Population and Sample Design

Population is a comprehensive collection of an object which is in the concern of researchers [22]. This study uses a population of employees of PT. Inco, Sorowako, South Sulawesi. In particular, the study population were all employees of PT. Inco Tbk. Sorowako. The number of members of the population is the number of employees at PT Inco as many as 323 people. The sample in this study were part of the members of the population. Sampling was done by purposive sampling, e.g. sampling with particular consideration. Considerations used in the sampling study were: (1) employees of PT Inco Tbk, (2) has been working as permanent employees of at least 2 years, (3) Not having a specific structural position (e.g. head of department, supervisor, and etc.), (4) has at least high school education.

### Research Design and Data Collection

Data collected in this study by means of using a questionnaire that consists of a list of questions to uncover the personal response of the subject in a series or set of statements that are prepared in advance. Scale of measurement used in the questionnaire study were 5-points Likert scale. Before being used for data retrieval, we perform the validity and reliability test on the questionnaires. Only when the questionnaire is valid and reliable, the questionnaire would be suitable as data collection instrument. Data collected from a questionnaire will then be analyzed with the quantitative method and qualitative method. Analysis of the qualitative/descriptive method is used to describe the identity of the respondents/sample and to further describe the study variables. Analysis used in this descriptive analysis is (1) the frequency distribution, (2) the average score, and (3) standard deviation score and also deeply information about the phenomena issue. As for the quantitative data analysis, we employed the inferential hypothesis testing that would be accompanied with the path analysis. The model used in the path analysis serve as an overview of the relationship among the study variables can be depicted as follows:

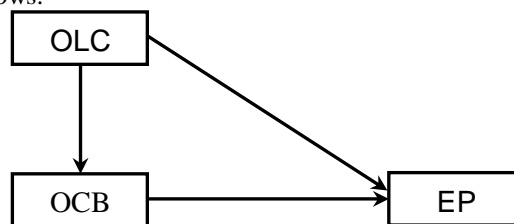


Figure 1. Research Model

This research model could be expressed in a mathematical model as follows:

$$OCB = b_1 OLC + \varepsilon_1$$

$$EP = b_2 OLC + b_3 OCB + \varepsilon_2$$

Description:

EP: Employee's Performance

OCB: Organizational Citizenship Behavior

OLC: Organizational Learning Culture

b1: coefficient of influence of OCB path to the OLC

b2: Coefficient of influence of OLC path to the EP

b3: Coefficient path OCB influence on EP

$\epsilon_1$ : Disturbance error

$\epsilon_2$ : Disturbance error

## V. Data Analysis and Model Testing

### Validity and Reliability Test

Essentially, validity and reliability test on the questionnaire or research instrument is intended to test the psychometric feasibility of the questionnaire. Valid and reliable questionnaire will ensure the data obtained from our sample did not experience significant bias. In order to test the validity of each item in the statements within our questionnaire, we employed the method of product moment correlation between the item score with total score from the instrument. Only when an item has a significant correlation ( $r_{yx} > r_{tables}$ ), then the item is considered to have valid statement. In this validity test, the number of respondents is 85 and with a significance level of 5%, the values of  $r_{tables}$  is 0.361. Furthermore in relation with the reliability test, this study used the Alpha-Crobach method. According to Hair, the questionnaire must have a reliability coefficient of Alpha-Crobach  $> 0.70$  in order to be deemed as reliable [23].

The validity and reliability test performed on the questionnaire item related to OLC give us an indication that each statement has a total correlation value or validity coefficient greater than 0.361. Thus, we could conclude that each statement in the questionnaire is valid. Moreover, reliability test give an indication that this questionnaire has a Cronbach-Alpha reliability coefficient of 0.917. And as the value is greater than 0.70, we conclude that the item related to OLC in our questionnaire deemed as reliable. To summarize, we state that OLC is suitable psychometrically to be used as the data collector instrument.

In our questionnaire, measurement of OCB variable consists of 28 item statements. The validity and reliability test on OCB give us an indication that each item in the questionnaire statements has a value of correlation or validity coefficient greater than 0.361. It can be concluded that each item in the questionnaire are valid. Further reliability test indicate that this questionnaire has a Cronbach-Alpha reliability coefficient of 0.958 and as the value is greater than 0.70, we could conclude that an item used to measure OCB in this questionnaire is reliable.

Finally, the validity and reliability test was also performed on each item to measure the statement related to Employee's Performance. The validity coefficient was found to be greater than 0.361, and we could conclude that each Employee's Performance item in the questionnaire are valid. Reliability test results indicate that a Cronbach-Alpha reliability coefficient of 0.963 and as this value is greater than 0.70, we conclude that the Employee's Performance item used in this study is reliable.

Preliminary test need to be conducted before the path analysis model used to perform hypothesis testing. As a consequences, results of the path analysis model was subjected to compatibility test (goodness of fit). Result of the compatibility test are presented in the following Table 1. The result from compatibility test on Table 1. shown that the model has been qualified. Thus, we could state that the model parameters (path coefficients) used to test the hypothesis feasible.

Table 1. Result of the Model Compatibility Test

Statistics	Requirement	Model	Note
$\chi^2$	Not significant ( $p > 0.05$ )	$p = 0.211 > 0.05$	Significant
RMSEA	$\leq 0.08$	0.067	Significant
GFI	$\geq 0.90$	0.987	Significant
AGFI	$\geq 0.90$	0.935	Significant
CMIN/DF	$\leq 2.00$	0.776	Significant
TLI	$\geq 0.95$	0.972	Significant
CFI	$\geq 0.95$	0.981	Significant

### Path Analysis

The path analysis in this research is performed with the help from AMOS 4.1 and the value obtained from the program could be graphically presented as follows:

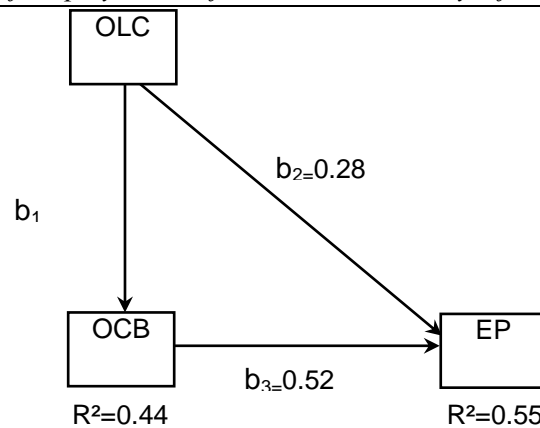


Figure 2. Path Diagram of The Antecedents of Employee's Performance

The mathematical relationship between variables in the above path diagram could be expressed as follows:

$$OCB = 0.666 OLC + \varepsilon_1 ; R^2 = 0.444$$

$$EP = 0.285 OLC + 0.520 OCB + \varepsilon_2 ; R^2 = 0.550$$

The results of path analysis shows the magnitude of the coefficient of determination or the  $R^2 = 0.550$  or 55%, this suggests that the level of employee performance at PT Inco Tbk is 55% determined by OLC and OCB, while 45% were determined by variables not included in the model, such as leadership, working conditions, organizational communication, and job satisfaction. The results of this study also has shown empirically that OCB could have a positive intervening influence on OLC affect on employee's performance. As a consequences, the influence of OLC toward employee's performance will tends to be stronger when they have a high or strong OCB.

## VI. Discussion and Conclusion

This research have shown that organizational learning culture (OLC) have a significant positive influence on employee performance. This means that as OLC getting better, employee's performance tends to increase. In contrary, when OLC is not better then the employee's performance tends to decline. Moreover, organizational citizen behavior (OCB) also has a positive and significant impact on employee's performance. That is as OCB getting better, the performance of an organization's employees tend to increase. The opposite could also be conclude by stating that as OCB are not good, employee's performance tends to decline.

OLC has a positive and significant impact on OCB as shown by the path coefficient of 0.666 ( $p = 0.000$ ). This means that the better OLC, OCB tends to increase. Conversely, as OLC is not better then OCB tend decline. Finally, our study has shown that OLC influences on employee's performance is mediated by OCB. This give suggestion that as the impact of OCB on employee's performance increased, the influence of OLC on employee's performance will also be stronger. And on the contrary, when OCB influence on employee's performance is weaker then the influence of OLC on employee's performance will also decrease.

## VII. Limitation and Further research

Actually this research also several limitation, although the majority of relational between variables on this research were valid and significance. It would be better in the future research we make a modification to the construct model to be more complex. Otherwise the limitation of this research came from the sampling technique, better if we using the proportionate random sampling to strenghten generalization aspect of finding.

Next, it also would be better if we try to change the object research by using this model into the service companies, or comparing the model to between nikel and another mining companies. Finally, we can use another research methodologies to convince the validity of theory in real condition.

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## *The Antecedents Of Employee's Performance: Case Study Of Nickel Mining's Company, Indonesia*

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