

# The Nexus of Green Organizational Culture on Corporate Sustainability by Mediating Green Intellectual Capital base on study at PT. TMMIN Karawang Plant

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**Abstract:-** Corporate sustainability on global issues is very often associated with how a company can manage the environment well. Likewise, the manufacturing industry must balance its production process. The purpose of this study is to describe a conceptual approach that describes the relationship between the variable Green Intellectual Capital of automotive industry companies in Indonesia and Corporate Sustainability. This research methodology is descriptive and quantitative using Smart PLS 3.3.3 to analyze several theoretical concepts from Green Organizational Culture to Corporate Sustainability with Green Intellectual Capital as a mediating variable which is expected to develop research objectives. Based on the results of the analysis, it is known that Green Organizational Culture does not have a direct effect on Corporate Sustainability, but if mediated by Green Intellectual Capital it can have a significant effect. This requires improvements for companies to survive which can also be applied to the automotive industry in the same sector.

**Keywords:-** Green organizational culture, green intellectual capital, corporate sustainability.

development but still paying attention to environmental aspects (Yusoff et al., 2019).

PT. TMMIN has an important role in the development of automotive manufacturing in Indonesia as well as opening job opportunities for the supply chain, especially in the development of environmental activities in Indonesia. The company is expected to be able to implement green intellectual capital in running business processes to achieve national corporate sustainability. Currently, PT. TMMIN has five world-class factories located in North Jakarta (Sunter) and Karawang to support the manufacturing and assembly processes of Toyota vehicles.

The dimensions of corporate sustainability measurement can be seen from 3 aspects: economic aspects, social aspects and environmental aspects (Chow & Chen, 2012). The phenomenon of optimizing corporate sustainability from an economic aspect can be seen from the report cards of the Car Automotive Industry in Indonesia, which has decreased due to the Covid-19 Pandemic (PSBB) since 2020 and is now starting to experience a recovery since the Covid-19 Vaccine in 2021.

## I. INTRODUCTION

The aggressive development of industrial manufacturing processes throughout the world has resulted in environmental damage that results in too large a use and utilization of natural resources. The process of developing the manufacturing industry has resulted in a decrease in environmental quality resulting in global warming, ozone depletion, water pollution, acid rain and desertification. One of the impacts of several world environmental conferences such as the Montreal Convention, the Kyoto Protocol, the prohibition of the use of certain hazardous materials and the increasing environmentalism of consumers can change the context of competition in manufacturing industries around the world to be more loving and environmentally friendly.

Sustainability as green businesses, namely green, clean, environmentally friendly, compostable, recyclable, renewable, natural, organic, etc., all of which can be applied to the green concept. The basic core of a green business is its focus on sustainability, in terms of the environment and resources (Ernst & Young's, 2012). Sustainability is an increase in the ability of business organizations that refers to organizational goals in achieving profit, increasing social

## II. THEORETICAL REVIEW

Green Organizational Culture (GOC) is a culture that refers to a system of shared meaning environments formed by its members as well as organizational differentiators. There are seven characteristics of organizational culture, namely innovation, dare to take risks, team oriented, have a sense of aggression, consistency, attention to detail, results and individuals. (Hussain Bakhsh Magsi et al., 2018)

Green Intellectual Capital (GIC) is the total wealth stored in the company which includes intangible assets, knowledge, capabilities and other matters related to environmental protection and green innovation at the individual level and organizational level within the company Josephine et al. (2020).

Corporate Sustainability (CS) is a business approach taken by the company so that it can create the interests of consumers and employees in the long term that creates a green strategy, namely a business strategy that not only prioritizes profit, but also how the business can run in its social, cultural and economic environment simultaneously. (Chow & Chen, 2012).

**III. RESEARCH METHODS**

The study used quantitative methods with statistical data analysis to test hypotheses. This type of research uses experimental research where the method has a goal to explain causality between variables. The research design uses a causal research design to test the hypothesis about the effect of the independent variable on the dependent variable (Sekaran, 2017). The use of unit of analysis in research is individuals who are in the company where the object of research is. Data collection can be done through questionnaires and observations. This research uses primary data from questionnaires and secondary data owned by the company. Questionnaire is a data collection technique carried out by giving a set of questions or written statements to respondents who have been determined in research to answer them (Silalahi, 2018).

*A. Population and Sample*

Population is the entire object or phenomenon, group of people, events or interesting things that are studied to determine the nature of the population in question (Sekaran, 2017). The population used in this study are company employees who are part of the Environmental Committee of PT. TMMIN Karawang Plant. The total population of all employees is 62 people. The research sample is part of the number and characteristics possessed by the population so that the sample taken from the population must be truly representative. The sampling technique used in this research is non-probability sampling with census sampling type saturated (Sugiono, 2017).

*B. Data Analysis Method*

The analytical model used in this study is regression analysis by building a predictive equation that connects the dependent variable to one or more independent variables to explain, predict, and control the dependent variable on the basis of the independent variable. The data analysis technique used in this study is the SEM (Structural Equation Modeling) data analysis technique where the data processing uses the Partial Least Square (Smart-PLS) version 3.3.3 program with the aim of being able to map the relationship between independent variables into a structural model, which grouped into exogenous and endogenous variables (Budhiana, 2016).

**IV. RESEARCH RESULT AND DISCUSSION**

The results of this study indicate the validity criteria based on the reflexive indicator model as measured by convergent validity and discriminant validity. The indicator is said to meet convergent validity if the loading factor value > 0.7 and is indicated by the Average Variance Extracted (AVE) value > 0.5. Construct reliability was measured by Composite Reliability and Cronbach's Alpha. A construct is said to be reliable if it has a Composite Reliability value > 0.7 and Cronbach's Alpha > 0.6 (Imam Ghazali, 2016). Table. 1 Composite Reliability Value

Variable	Composite Reliability	Req.	Cronbach's Alpha	Req.	Remark
GOC(X)	0.987	>0.7	0.985	>0.6	Reliable
GIC(Y1)	0.981	>0.7	0.976	>0.6	Reliable

Variable	Composite Reliability	Req.	Cronbach's Alpha	Req.	Remark
CS(Y2)	0.981	>0.7	0.976	>0.6	Reliable

The evaluation of the inner model of the research is done by looking at the coefficient of determination to measure how far model's ability to explain the variance of dependent variable is. The value of R<sup>2</sup> explains how much independent variable that is hypothesized in the equation is able to explain the dependent variable. The criteria for limiting this R<sup>2</sup> value in three classifications, namely the value of R<sup>2</sup> = 0.67, 0.33, and 0.19 as substantial, moderate, and weak (Yamin & Kurniawan, 2011).

Based on the data above, the relationship between constructs based on the R-square Adjusted value can be explained that the green intellectual capital variable is 0.899, this shows that 89.9% of the green intellectual capital variable can be influenced by the green organizational culture variables while the remaining 10.1% is influenced by the other variables. other than those studied. While the relationship between constructs based on the R-square Adjusted value can be explained that the corporate sustainability variable is 0.926, this shows that 92.6% of the corporate sustainability variable can be influenced by the green organizational culture and green intellectual capital variables, while the remaining 7.4% is influenced by the variables. other than those studied.

Construct	R Square	R Square Adjusted
Green Intellectual Capital (Y1)	0.905	0.899
Corporate Sustainability (Y2)	0.929	0.926

Table 2: R Square (R<sup>2</sup>) Value

Hypothesis testing between constructs was carried out using the bootstrap resampling method. Calculation of hypothesis testing using Smart PLS 3.3.3 can be seen from the Path Coefficient value, namely the t-statistical value of the relationship between variables in the study. In the statistical table, the value of t table with a value of 57 is 1,672 with a significance level (α) of 0.05, thus the decision making is:

Relationships Between Constructs	Original Sample (O)	T Statistic ((O/STDEV))	P Values	Remark
<b>Direct Influence</b>				
GOC → GIC	0.418	3.576	0.000	Positive Influence
GOC → CS	-0.185	1.687	0.092	No effect
<b>Indirect Influence</b>				
GOC → GIC → CS	0.226	2.761	0.006	Positive Influence

Table 3: Path Coefficient, t-Statistics, and P-Values

Based on the results, it can be concluded the evaluation result in this research:

- Based on the condition of the company, especially in terms of involvement between parts of the company, it will affect the company's performance. The company has a good Involvement system where the divisions are team-oriented to be competitive and creativity in each part will provide optimal performance that affects environmental KPIs related to sustainability. So that the company is obliged to integrate the activities of achieving Environmental KPIs by increasing the relationship approach to employees through improving the quality of the company's organizational culture in cooperative relationships between departments in order to increase the intellectual relations of the company's environmental performance.
- Based on the results of the analysis of company conditions and comparisons to the characteristics of similar manufacturing automotive companies, there are indeed different views on the environment in particular, most automotive manufacturing companies tend to prioritize production efficiency systems. This is of course very different from the characteristics of Power Plant, Mining, Oil and Gas companies which tend to target their companies more towards Beyond Compliance. Meanwhile, based on research, it is shown that one of the ways to increase Customer Loyalty is Environment Awarding (Corporate Image).

Based on the results of observations of the company's internal conditions, it shows that the company's environmental experts are very limited and lacking in regeneration. This can cause the company's environmental performance to be less than optimal in terms of updating the development of environmental science. The development of the era in globalization which now demands a lot towards the transformation of environmentally friendly technology which of course must be relevant to government regulations. Thus, companies need to improve the implementation of green organizational culture, in particular they must be able to improve the performance of environmental experts to be able to adapt to innovate by daring to take risks (having an innovative attitude and daring to take risks in the organization). In influencing corporate sustainability on the Economic side, the company is obliged to make many innovations such as reducing input costs with the same level of output, this performance can collaborate with government officials to protect the interests of the company. Thus the company can integrate activities to achieve Environmental KPIs through improving the quality of human resources for leaders or preparing to accelerate the regeneration of new superior employees to be ready to adapt to compete with current developments so that it can simultaneously maintain the company's business sustainability, especially helping business sustainability in the company's economic development.

- Based on the observation that the green organizational culture owned by the company is a culture that refers to an environmental system in an organization that is formed by company employees as well as being able to differentiate the organization. Through green intellectual capital, a company's employee performance mechanism is related to the environmental management and monitoring system that

can be formed and reflected by individuals or employees of a company. The implementation of the company's green intellectual capital can be seen from the employee's performance mechanism related to the environmental management and monitoring system that can be formed and reflected in the employee's work rhythm. From the direct and indirect effect hypothesis testing, it can be seen that the value of green organizational culture 's influence on corporate sustainability is directly negative but if by means of an intermediary the green intellectual capital variable is positive and significant. Therefore, companies need to improve employee performance mechanisms related to environmental management and monitoring systems that can be formed and reflected by individuals or employees of a company. Companies need to develop intangible organizational capital that includes total capabilities, knowledge, culture, strategies, processes and relational networks to create competitive advantage.

## V. CONCLUSION

Based on the results and discussion, it can be concluded that the conclusions of the study are as follows:

- Green organizational culture has a positive and significant effect on green intellectual capital at PT. TMMIN Karawang Plant. Based on the highest factor loading value obtained from indicators that contribute to the environment, it is found in the green involvement dimension. This means that the better the implementation of the company's organizational culture, especially in terms of green involvement owned by company members, will support the employee performance mechanism of a company related to a good environmental management and monitoring system.
- Green organizational culture has no effect on corporate sustainability at PT. TMMIN Karawang Plant. Based on the lowest factor loading value obtained from indicators that contribute to the environment, it is found in the green adaptability dimension. This means that companies need to improve the application of corporate organizational culture, especially in terms of green adaptability owned by company members to support employee performance within the company to reduce energy consumption, reduce waste and emissions from operations, reduce the use of traditional fuels by replacing some energy sources that are not non-polluting, undertake voluntary actions for environmental restoration, conduct environmental audits, public disclosure, employee training and immunity.
- Green organizational culture has a positive and significant effect on corporate sustainability through the green intellectual capital variable at PT. TMMIN Karawang Plant. From the direct and indirect effect hypothesis testing, it can be seen that the value of the influence of green organizational culture on corporate sustainability directly or indirectly is negative, but if by means of an intermediary the green intellectual capital variable is positive and significant. This means that companies need to improve the application of corporate organizational culture, especially in terms of green adaptability owned by company members to improve employee performance in a company to reduce energy consumption, reduce waste and emissions from operations, reduce the use of traditional fuels by replacing several energy sources. that do not pollute, take voluntary

actions for environmental restoration, carry out environmental audits, public disclosures, employee training and immunity through strengthening employee performance mechanisms related to environmental management and monitoring systems that can be formed and reflected by individuals or employees of a company.

## VI. SUGESTION

Based on the identification of problems in the company, including those related to corporate sustainability, starting from the company's economic recovery process after the Covid-19 pandemic and the performance of environmental awards which tend to decline. So the suggestions that the author can give to the company is that the company's management must evaluate the company's vision and mission to better direct in supporting employees to innovate in the efficient use of the company's natural resources. Modify the system and perform benchmarking with similar companies to optimize the efficiency of natural resources and energy consumption. Collaborating with the Government to participate in building and promoting Environmental Sustainability, one of which is the use of Solar Panels and the Production of Environmentally Friendly Vehicles.

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