# The influence of perceived environmental friendly office program regulation and public service motivation on pro environmental behavior of civil servants with organizational citizenship behavior toward environment (OCBE) as intervening variable

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## ABSTRACT

Environmental problems such as air pollution, global warming and water scarcity pose a threat to environmental sustainability. One of the causes is rooted from the administration of public services. To reduce environmental damage, public organizations must support the implementation of activities that are more environmentally-friendly and their employees must display proenvironmental behavior. The research was expected to contribute practical ideas in the form of optimal implementation of environmentally friendly office programs, and theoretical contributions because there were still few researches on pro-environmental behavior of public employees. The study examined the influence of Perceptions of Regulations on the implementation of environmentally friendly office programs and public service motivation on the pro-environmental behavior of Civil Servants through Organization Citizenship Behavior Toward Environment (OCBE) as Intervening Variables. The research sample was West Semarang KPP Pratama employees who had implemented an environmentally-friendly program. The theoretical basis was TPB (Theory of Planned Behavior) which has been widely used to test pro-environmental behavior. The results showed that the perception of regulation had no significant effect on pro-environmental behavior. Meanwhile, Public Service Motivation and OCBE had a significant influence. Then OCBE mediated the perception of regulation with pro-environmental behavior fully, and public service motivation partially mediated pro-environmental behavior partially.

#### ABSTRAK

Permasalahan linkungan seperti polusi udara, pemanasan global, dan kelangkaan air menjadi ancaman bagi kelestarian lingkungan. Salah satu penyebabnya adalah penye-lenggaraan pelayanan publik. Untuk mengurangi kerusakan lingkungan, organisasi publik harus mendukung pelaksanaan kegiatan yang lebih ramah lingkungan dan karyawannya harus menunjukkan perilaku pro lingungan. Penelitian ini diharapkan dapat memberikan sumbangan pemikiran praktis berupa implementasi optimal program perkantoran ramah lingkungan, dan sumbangan teoritis karena masih sedikitnya penelitian tentang perilaku pro lingkungan pegawai negeri. Penelitian ini mengkaji pengaruh persepsi peraturan terhadap pelaksanaan program kerja ramah lingungan Business and Banking dan motivasi pelayanan publik terhadap perilaku pro lingkungan PNS melalui Organization Citizenship Behavior Toward Environment (OCBE) sebagai variabel intervening. Sampel ISSN 2088-7841 penelitian ini adalah pegawai KPP Pratama Semarang Barat yang telah melaksanakan program ramah lingkungan. Landasan teori menggunakan Theory of Planned Behavior yang selama ini Volume 11 Number 2 banyak digunakan untuk menguji perilaku pro lingkungan. Hasil penelitian menunjukkan November 2021 - April bahwa persepsi terhadap regulasi tidak berpengaruh signifikan terhadap perilaku pro lingkungan. Sedangkan motivasi pelayanan publik dan OCBE memiliki pengaruh signifikan. Kemudian OCBE memediasi persepsi regulasi dengan perilaku pro lingkungan secarapenuh, dan motivasi pelayanan pp. 213-229 publik secara parsial memediasi perilaku pro lingkungan.

## Keywords:

Pro environmental behavior, OCBE, Environmental friendly.

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Received 13 October 2021 Revised 28 December 2021 Accepted 17 April 2022

**IEL Classification:** E24, J24, O15

10.14414/jbb.v11i2.2776

# Journal of

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#### 1. INTRODUCTION

The world is faced with various environmental problems that pose a threat to environmental sustainability (such as air pollution, global warming, water scarcity, and surface pollution). The high level of environmental damage in Indonesia indicates a lack of concern by the community and stakeholders for the condition of the environment. It is a sign of a lack of awareness of environmental conditions. This statement was based on data on the Environmental Performance Index (EPI) performance ratings on high priority environmental issues reported in Indonesia. The report stated that Indonesia's environmental quality in 2020 was ranked 116th from of 180 countries with a score of 37.8,. It was lower than two closest neighbors country (Singapore and Malaysia), which were ranked 39th and 68th, respectively (Wendling, Emerson, de Sherbinin, & Esty, 2020).

Several studies have examined pro-environmental behavior in business environment aspects. However, there had not been much research on the government environment, in this case civil servants or public employees. According to data released State Personnel Agency, it was stated that the total number of civil servants (beside the Indonesian National Police and Armed Forces) was 4.168.118 (Civil Servant Statistics Book, December 2020). Surely, the number was very large and able to be a dominant factor for the success of environmental friendly programs in Indonesia.

The issue above is interesting to study. The research was conducted to determine the influencing factors of pro-environmental behavior from the employee's perspective. In the study, the influence of the perception of environmental friendly office program regulations and public service motivation on pro-environmental behavior moderated by Organizational Citizenship Behavior toward Environment (OCBE) were studied. The research population was the employees of KPP Pratama Semarang Barat (as one of the working units under Ministry of Finance). In the study, the factors that had the most influence on pro-environmental behavior were also determined. The conclusion of study was expected to provide findings, ideas for future research, and implications for the formulation of environmentally friendly policies and practices in governmental scope.

Practically, the research was expected to be able to encourage the implementation of environmentally friendly office programs in the scope of public or governmental organizations. With the large number of civil servants and their fairly distribution in Indonesia and with good human resource management, the implementation of environmentally friendly office program would have a broad and comprehensive impact in Indonesia (Stritch & Christensen, 2014).

Theoretically, the study examined the influence of external and internal factors that encourage pro-environmental behavior of civil servants in relation to the application of environmentally friendly offices program. Research on the influence of perceived regulation as an external factor with an interest in regulating and forcing a person to behave pro-environmentally was still limited (Graafland & Bovenberg, 2020). In the other hand, research on pro-environmental behavior of civil servants or public employees in Indonesia was also still limited. Therefore, the research was expected to be able to bridge the theoretical gap. Based on several desceiption above, a research on the influence of perceived

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regulation and public service motivation moderated by *Organizational Citizenship Behaviour toward Environment* (OCBE) on pro environmental behavior was considered to be urgent to conduct.

## 2. THEORETICAL FRAMEWORK AND HYPOTHESIS

The theoretical basis of the research was the Theory of Planned Behavior (TPB) introduced by Ajzen (1991) as a planned behavior which had been widely used to test pro-environmental behavior and positive relationship between attitudes and behavior. Some efforts to minimize and prevent pollution caused by office activities was carried out by implementing environmental management from ISO 14000 in office environment, through eco-office or green office program (Miraj, Berawi, & Utami, 2021). An environmentally- friendly Office is an office that cares about environmental conditions and applies an environmental management system at various office activities. The goal is to create a beautiful, clean, comfortable and healthy office environment (Ivone, Sarwono, & Hayat, 2013).

#### **Pro Environmental Behavior**

Pro-environmental behavior includes all behaviors carried out by an individual to minimize negative impacts on the environment with a clear intention to change the environment (Stern, 2000), (Kollmuss & Agyeman, 2002), (Blankenberg & Alhusen, 2019). (Boiral, 2015) stated that pro-environmental behavior was all types of voluntary or determined activities carried out by individuals with the aim of protecting natural environment or improving organizational practices in environment. Therefore, the premise of pro-environmental behavior revolved around voluntary, initiative, and stakeholder behavior at the micro level, macro level, and outside the workplace.

## **Hypotheses Development**

# Perceived Environmentally-Friendly Office Regulation

Orbach (2012) stated that regulation was government intervention in private domain or rule that implemented it. Indonesia had formulated it through the 1945 Constitution Article 28 H Paragraph 1, which stated that "Everyone has the right to live in physical and spiritual prosperity, to live and to have a good and healthy living environment and the right to health services". As a derivation was Law Number 32 of 2009 concerning Environmental Protection and Management. This was then carried out within the scope of the Ministry of Finance as the vertical head office through SE-06/MK.1/2019 concerning implementation of environmentally friendly office (eco-office) within the Ministry of Finance. The main rules were (i) reduction of plastic and paper waste, (ii) saving of electrical energy, (iii) saving of water use, (iv) cleanliness / comfort of work space, (v) waste management.

Previous research by (Fatima & Azhar, 2020) with the tittle of "Examining The Pro-Environmental Behavior Of Employees In Private Organizations Of Pakistan" stated that the perception of regulation in organizational policies related to the environment positively influenced pro-environmental behavior. Then, research conducted by (Widisatria & Nawangsari, 2021) with the title of "The Influence of Leadership Style, Organizational Culture, and Work Motivation on Organizational

Citizenship Behavior for Environment (OCBE) of the Directorate General of Fiscal Balance's Employees" concluded that the perception of regulation (included in the culture of an organization) positively influenced OCBE. Therefore, the first hypotheses formulated is as follows.

H1a: Perceived Environmentally Friendly Office Implementation Regulations influences employees' pro-environmental behavior.

H1b: Perceived Environmentally Friendly Office Implementation Regulations influences Organizational Citizenship Behavior for Environment (OCBE).

#### **Public Service Motivation**

Public Service Motivation can be interpreted as an individual's tendency, as motivated to serve the public in an institution or organization (Perry & Wise, 1990) (Wang, van Witteloostuijn, & Heine, 2020). This motivation is really relevant to the civil servants because it can influence their behavior and performance in public institutions, non-profit organizations, and public service providing institutions. Public Service Motivation is implemented to explain employee participation and behavior in the workplace and pro-social behavior outside the workplace.

Public Service Motivation is a multidimensional construct with four types of motives. They are compassion, interest in public service, commitment to public values, and self-sacrifice (Wang et al., 2020). Because the theory of Public Service Motivation is not limited to the workplace or outside the workplace, it tends to influence pro-environmental behavior because of its pro-social nature.

It is relevant to the research conducted by Stritch & Christensen (2014) with the title of "Going Green in Public Organizations, Linking Organizational Commitments, & Public Service Motives, to Public Employees Workplace Eco-Initiative" which provides evidence that Public Service Motivation in public organizations positively influenced participation in pro-environmental behavior. Then, Widisatria & Nawangsari (2021) in a study entitled "The Influence of Green Transformational Leadership and Motivation to Sustainable Corporate Performance with Organizational Citizenship Behavior for the Environment as a Mediating: Case Study at PT Karya Mandiri Sukses Sentosa" concluded that motivation employees positively influenced Organizational Citizenship Behavior for the Environment (OCBE). Therefore, the second hypotheses is as follows:

H2a: Public service motivation of employees positively influences proenvironmental behavior.

H2b: Public Service Motivation of employees positively influences Organizational Citizenship Behavior for the Environment (OCBE).

## Organizational Citizenship Behaviour for the Environment (OCBE)

According to Paillé & Boiral (2012), Organizational Citizenship Behavior for the Environment (OCBE) was the voluntary and explicit act of employees not being recognized in the formal reward system and contributing to more effective environmental management. OCBE was a derivative of OCB. OCBE describes voluntary behavior that is less general but specific to the environment. On the contrary, OCB is a voluntary behavior that is

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general in nature and provides benefits to the wider organization (Lamm, Tosti-Kharas, & Williams, 2013). For that reason, it can be stated that OCB is a behavior that benefited the organization and OCBE is a behavior that benefited the environment. Previous research by Fatima & Azhar (2020) in "Examining The Pro-Environmental Behavior Of Employees In Private Organizations Of Pakistan" concluded that Organizational Citizenship Behavior for the Environment (OCBE) positively influenced pro-environmental behavior. Hence, the third hypothesis is as follows:

H3: Organizational Citizenship Behavior for Environment (OCBE) positively influences pro-environmental behavior.

# The Role of Organizational Citizenship Behaviour for the Environment (OCBE) as Intervening Variable

Furthermore, research conducted by Nosheen Anwar et al. (2020) entitled "Green Human Resource Management for Organizational Citizenship Behavior towards the Environment and Environmental performance on a University Campus" found that OCBE was able to be a mediator for the influence of environmental motivation, employee environmental activities on environmental performance (in the case was the campus environment). Meanwhile, the research by (Ong & Riyanto, 2020) entitled "Green Human Resource Management in Manufacturing Company" concluded that OCBE did not have a significant influence as a mediator for the influence of environmental motivation, employee environmental activities and environmental performance (in the case was manufacturing companies). Thus, the fourth hypotheses are as follows:

H4a: Perceptions of Environmentally Friendly Office Implementation Regulations influences employees' pro-environmental behavior through Organizational Citizenship Behavior for Environment (OCBE).

H4b: Public Service Motivation of employees influences pro-environmental behavior through Organizational Citizenship Behavior for the Environment (OCBE).

# 3. RESEARCH METHODS

The study applied census method to the entire population of research object (KPP Pratama of West Semarang). The total number of employees based on gender was 68 males and 48 females. The age distribution of employees is fairly even. The number of young employees under (30 years) is 21 while the number of employees over 50 years old was 22. Primary data were obtained through distribution of closed questionnaire in a Likert scale. The answers to each question item were graded from very positive to very negative (from Strongly Agree to Strongly Disagree). The score on the interval scale is 1 to 5.

# **Operational Definitions**

# **Pro Environmental Behavior**

The defined pro-environmental behavior includes all behaviors carried out by a person to minimize negative impacts on the environment with a clear intention to change the environment (Stern, 2000), (Kollmuss & Agyeman, 2002), (Blankenberg & Alhusen, 2019). Pro-environmental behavior variable was based on the General Ecological Behavior (GEB)

scale developed by Kaiser (1998). Measures were adapted to conform to formal workplace regulations (Febriyanti, 2016). The dimensions measured were Energy Conservation, Mobilty and transportation, Waste avoidance, Consumerism, Recycle, and Vicarious social behavior toward conservation. The indicators of the five dimensions were electricity saving, pollution reduction, paper reuse, plastic use reduction, waste segregation awareness, and contribution to environmental activities.

# Perceived Environmentally Friendly Office Regulation

Ramadani & Cheisviyanny (2019) defined perception as an internal process that allowed a person to select, organize, and interpret stimuli from the environment and these processes influenced behavior. In the research, perception of the application of environmentally friendly offices application were investigated. The indicators of the regulatory perception were adapted from research indicators of (Fatima & Azhar, 2020). Some of these indicators were knowledge of environmental office friendly program regulations, support for regulations, curiosity of regulations, the need for regulation socialization, awareness of the importance of regulations, and compliance with regulations.

# **Public Service Motivation**

Public Service Motivation is individual tendency motivated to serve the public in an institution or organization (Perry & Wise, 1990) (Wang et al., 2020). Measurement of Public Service Motivation was adapted from previous research referring to the study entitled "Measuring Public Service Motivation: An Assessment of Construct Reliability and Validity" by (Perry, 1996). Some indicators included interest in making public policies related to the environment, responsibility to the public interest, feelings of sympathy or pity, and self-sacrifice.

## Organizational Citizenship Behavior for the Environment

Organizational Citizenship Behavior for the Environment (OCBE) was defined by Daily, Bishop, & Govindarajulu (2009) as an optional action by employees in organizations that were not formally reward-oriented but it is aimed at improving the environment (Daily, et al., 2009 in Fatima & Azhar 2020). The OCBE measurement was built on 3 indicators, namely Eco-initiatives, Eco-civic engagement and Eco helping. It is in accordance with the research on "Organizational Citizenship Behavior for the Environment: Measurement and Validation" by (Paillé & Boiral, 2012). The indicators for each of these variables were arranged in questions in a systematic questionnaire and then submitted to the respondents. Later, the answers from the respondents were processed with SmartPLS 3.2.9 to test the validity and reliability and apply path analysis to ensure the occurrence of direct or indirect relationships of the variables. The Partial Least Squares (PLS) modeling applied was SmartPLS 3.2.9 (Ringle, Wende, & Becker, 2015).

## 4. DATA ANALYSIS AND DISCUSSION

Following the advice of Anderson and Gerbing (1988), the study applied two-step testing approach, a measurement model and a structural model. Assessment of the measurement model was done to test the validity

(convergent and discriminant) and the reliability of the variables forming indicators.

Data processing in the first step showed that loading value of all indicators in each variable were than 0.70 except for the X1.6 indicator in the Regulatory Perception variable (loading value was less than 0.70, 0.256). Then through Construct Reliability and Validity test there was still an AVE which was less 0.5 on the Regulatory Perception variable where the X1.6 indicator was located. From the loading value obtained in this first step, the loading value greater than 0.70 has a high level of validity and convergent validity. While the variable indicator that performed a loading value of less than 0.70 had a low level of validity. The X1.6 indicator on the Regulatory Perception variable. Therefore, to ensure the validity of study, the indicator variables had to be eliminated or removed from the model. After invalid indicators were deleted and then reprocessed in the second step in SmartPLS, indicators that met convergent validity could be displayed.

It also applies the Average Variance Extracted (AVE) test as average value of extracted variance. The expected AVE value is higher than 0.5. To measure discriminant validity, steps could be carried out using AVE method for each variable. It was known that AVE value of each variable had exceeded 0.50, namely MPP was 0.588, OCBE was 0.647, PPL was 0.535, and PR was 0.584. Therefore, the problem of convergent validity in the model being tested was not detected.

The next step was the Fornell-Larcker Criterion Test where an indicator was considered to be valid by comparing the root value of the AVE (Fornell-Larcker Criterion) with the correlation value between variables. The AVE root value had to be greater than the correlation between latent variables. The results of testing all the roots of the AVE of each variable were greater than the correlation with other variables. For example MPP = AVE value was 0.588 then the AVE root was 0.767. The value of 0.767 was greater than the correlation with other constructs, OCBE (0.685), PPL (0.766) and PR (0.718).

Then, the next test was Discriminant Validity test. Discriminant validity was the value of cross loading factor that was useful for knowing whether the variable had an adequate discriminant, namely by comparing the loading value on the intended variable where the value had be greater than the loading value of other variables. From the results of cross loading processing in the Discriminant Validity test through SmartPLS, it was shown that the loading value of each indicator item on the variable was greater than the cross loading value. Therefore, it could be concluded that the variable already had good discriminant validity. Furthermore, in the Composite Reliability Test and the Cronbach Alpha Test, if the data has a composite reliability greater than 0.7 then it has high reliability.

The reliability test was reinforced by Cronbach Alpha as the expected value was greater than 0.6 for all variables. From the test, it was known that the composite reliability was greater than 0.7 and the Cronbach alpha value was greater than 0.6 which meant that the data was reliable. Furthermore, the multicollinearity test was carried out to ensure the absence of multicollinearity relationships between indicators. This step was done by determining the tolerance value and the Variance Inflation Factor (VIF) value. A VIF value of less than 10 indicated that the

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indicator did not perform multicollinearity. In accordance with the test results through SmartPLS, it was known that the VIF value was less 10, so it disappeared multicollinearity.

#### **Inner Model Test**

The R-square test can indicate the determination lever of the exogenous variables on the endogenous variables. The greater the R-Square value, the better the level of determination. Chin gave criteria for R-Square values of 0.67, 0.33 and 0.19 as a strong, moderate, and weak level of determination (Chin, 2003) (Ghozali & Latan, 2015).

From Table 1, the simultaneous influence of PR and MPP on OCBE was 48.4% (moderate) while the remaining 51.6% is influenced by other factors including leadership style and organizational culture. Yet, the effect of PR, MPP and OCBE simultaneously on PPL was 79.9% (strong) where 20.1% is influenced by other factors including organizational transformational leadership. Furthermore, f-square testing was carried out to ensure a significant relationship between Effect Size or f-square. The f-square value of 0.02 is small, 0.15 is moderate, and 0.35 is large. Values less than 0.02 might be ignored or the effect did not occur (Sarstedt, Ringle, & Hair, 2017).

From Table 2, the influence of PR on OCBE was 0.050, which meant that the influence is weak. The influence of PR on PPL was 0.002 or no influence. Then, the influence of MPP on OCBE was 0.260 which meant that it has a moderate influence, and the influence of MPP on PPL is 0.191 which meant that it has a moderate influence. The influence of OCBE on PPL was 1.042 which meant that it had a great influence.

## **Hypotheses Testing**

In SmartPLS, each relationship is tested through bootstrapping method. To test the mediation hypothesis, bootstrapping the indirect influence was carried out based on advice of Preacher & Hayes (2008). Test results with bootstrapping method for direct influence is shown in Table 3

Table 1 R-Squarred Test

Variable	R-Square	R Square Adjustment
OCBE	0,495	0,484
PPL	0,805	0,799

Source: SmartPLS Output Result

Table 2 F-squared Test

Variabel	OCBE	PPL
MPP	0,260	0,191
OCBE	-	1,042
PR	0,050	0,002

Source: SmartPLS Output Result

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Table 3
Direct Influence

Relationship	Original Sample	Sample Mean	Standar deviasi	T Statistics	P Values
MPP à OCBE	0,521	0,521	0,101	5,131	0,000
MPP à PPL	0,311	0,310	0,077	4,057	0,000
OCBE à PPL	0,634	0,635	0,064	9,933	0,000
PR à OCBE	0,229	0,241	0,094	2,437	0,015
PR à PPL	0,028	0,031	0,078	0,359	0,719

Source: SmartPLS Output Result

Table 4
Indirect Influence

Relationship	Original Sample	Sample Mean	Standar deviasi	T Statistics	P Values
MPPàOCBEàPPL	0,330	0,330	0,069	4,809	0,000
PRàOCBEàPPL	0,145	0,153	0,063	2,313	0,021

Source: SmartPLS Output Result

Based on Table 3, a direct influence occurs if the p-value is less than 0.05 and conversely, a direct influence did not occur if the p-value is more than 0.05. From this research, it is known that the relationship between MPP $\rightarrow$ OCBE has a p-value of 0.00, MPP $\rightarrow$ PPL was 0.00, OCBE $\rightarrow$ PPL was 0.00, PR $\rightarrow$ OCBE was 0.015 which all indicated a direct influence. Meanwhile, PR $\rightarrow$ PPL is 0.719, which meant that there is no direct influence. Yet, the explanation for the indirect influence is:

Indirect influence occurs if the p-value is less than 0.05 and indirect influence occurs if the p-value is more than 0.05. From the research, it was known that MPP $\rightarrow$ OCBE $\rightarrow$ PPL performed a p-value of 0.000, and MPP $\rightarrow$ OCBE $\rightarrow$ PPL was 0.021, which indicated an indirect influence.

## **Summary of Path Coefficients (Direct and Indirect Influences)**

The application of the bootstrapping method in research could be summarized in Table 5. According to Hartono (2004), the significance probability value that supports the hypothesis can be detected through comparison between T-statistics and T-table. Hypothesis testing can be done by ensuring the value of t-statistics and probability values. Hypothesis testing was carried out at a significance level or alpha of 5% and a t-statistic value of 1.96. Based on the significance probability value, the hypothesis is accepted if the p-value is less than 0.05.

#### **Discussions**

The discussion of the results of the research is as described through the following explanation.

# Table 5 Summary of Path Coefficients

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Relationship	Original Sample	Sample Mean	Standar deviasi	T Statistics	P Values
MPP à OCBE	0,521	0,521	0,101	5,131	0,000
MPP à PPL	0,311	0,310	0,077	4,057	0,000
OCBE à PPL	0,634	0,635	0,064	9,933	0,000
PR à OCBE	0,229	0,241	0,094	2,437	0,015
PR à PPL	0,028	0,031	0,078	0,359	0,719

Source: SmartPLS Output Result

# Influence of Perceptions of Environmentally Friendly Office Implementation Regulations on Organizational Citizenship Behavior for the Environment (OCBE)

Based on hypothesis testing, it was proven that the perception of the application of environmentally friendly offices regulation positively influenced OCBE (with significance probability value of 0.015). As public employees, the respondents understood the regulations for environmentally friendly programs implemented in the work unit. This conclusion was in line with previous research conducted by Widisatria & Nawangsari (2021) entitled "The Influence of Leadership Style, Organizational Culture, and Work Motivation on OCBE of the Directorate General of Fiscal Balance's Employees" which concluded that the perception of regulation included in the culture of an organization positively influenced OCBE.

The study stated that the perception of the regulation of the application of environmentally friendly office programs had a fairly high criterion value, although there were 4 respondents who answered that they did not know. The high value of this category was reasonable because the field of work at the Directorate General of Taxes is in charge of many regulations, especially taxation, so that employees are familiar with regulations. Actually, the regulation on the implementation of an environmentally friendly office program is a very different matter from the core business unit, namely taxation. Of course, the perception of regulations that are not core businesses has received less attention. Nevertheless, the number of respondents who support the regulation of the implementation of an environmentally friendly office program carried out within the Ministry of Finance for the condition of protecting the environment was very high. Thus, basically the activities of conserving the environment were fully supported by employees.

# Influence of Perceptions of Environmentally Friendly Office Implementation Regulations on Employees' Pro environmental Behavior

Hypothesis testing concluded that statistically the perception of the application of environmentally friendly office regulations did not influence pro-environmental behavior of employees (with a significance probability value of 0.719 and a *t*-statistic of less than 1.96). Therefore, the hypothesis was rejected. This rejection was actually quite reasonable because Boiral et al. (2009) stated that pro-environmental behavior was all types of voluntary or determined activities carried out by individuals with the aim of protecting the environment or improving organizational

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practices in fields related to the environment. So that the coercive factor, namely regulation, did not directly influence pro-environmental behavior of civil servants.

As stated by Theory X and Theory Y in a book entitled "The Human Side Enterprise" (McGregor, 1960), it is indeed in accordance with Theory Y which stated that basically employees who work in a company enjoyed their work and they were motivated, creative, proud of their work. Good work, work full of responsibility and happy to accept challenges. Theory Y assumed that employees were fully responsible for all their work and have a strong motivation to do all the tasks given. It was in line with research findings where public service motivation had a high value, so that the pro-environmental behavior of employees became intrinsic motivation and it was not influenced by regulations.

# The Influence of Public Service Employee Motivation on Pro Environmental Behavior

Through hypothesis testing, it was proven that statistically, Public Service Motivation positively and significantly influenced pro-environmental behavior (with a significance probability value of 0.000). This conclusion was in line with previous research by (Stritch & Christensen, 2014) entitled "Going Green in Public Organizations Linking Organizational Commitment & Public Service Motives to Public Employees Workplace Eco-Initiative" which concluded that Public Service Motivation positively influenced participation in pro-environmental behavior.

In the study, Public Service Motivation had a value with higher criteria than all variables and this was reasonable because the research was conducted on public employees. The t-statistical coefficient was 4.057 and the value was quite high, more than 1.96. So that the influence of public service motivation on pro-environmental behavior was quite significant. This high level of public service motivation was a good opportunity to improve pro-environmental behavior in public organizations. With public service motivation, public employees already have a fairly good initial capital and of course this public service motivation must always be improved by public organizations because it is related to employee performance.

# The Influence of Public Service Motivation on OCBE

Statistically, public service motivation performed a positive and significant influence on OCBE (with a significance probability value of 0.000). The conclusion was in accordance with previous research conducted by Widisatria & Nawangsari (2021) "The Influence of Green Transformational Leadership and Motivation to Sustainable Corporate Performance with Organizational Citizenship Behavior for the Environment as a Mediating: Case Study at PT Karya Mandiri Sukses Sentosa" which concluded that employee motivation positively influence OCBE.

Public Service Motivation had a high criterion value. This is reasonable because the research was conducted on public employees. The t-statistic value of 5.131 is also quite high because it is higher than 1.96. Therefore, the influence of public service motivation is quite significant on OCBE. Voluntarily and without thinking about rewards, employees will act more in the interests of the environment.

# Influence of OCBE on Pro Environmental Behavior

Hypothesis testing indicated that statistically OCBE had a positive and significant influence on pro-environmental behavior (with a significance probability value of 0). The conclusion was in accordance with previous research by (Fatima & Azhar, 2020) entitled "Examining The Pro-Environmental Behavior Of Employees In Private Organizations Of Pakistan" which stated that OCBE had a positive influence on pro-environmental behavior.

OCBE and pro-environmental behavior had almost the same mean value and they were classified as high criteria. The t-statistical value was 9.933 (higher than 1.96) so that the influence of OCBE on pro-environmental behavior is significant. From this study, it is known that employees with high OCBE scores would also behave pro-environmentally. Thus, efforts to realize pro-environmental behavior needed to be carried out by increasing the OCBE of employees.

# The Influence of Perceived Regulations on the Implementation of Environmentally Friendly Offices on Employees' Pro Environmental Behavior through OCBE

Based on hypothesis testing, Perception of Environmentally Friendly Office Implementation Regulations had a positive influence on employee pro-environment behavior through OCBE as an intervening variable (with a significance probability value of 0.021). There are two analytical models that involve the mediator variable (in terms of OCBE), namely Full Mediation, which means that the independent variable is not able to significantly influence the dependent variable without mediator variable. While Part Mediation states that the independent variable is able to directly influence the dependent variable without mediator variable. To ensure it, the research applied the VAF (Variance Accounted For) method. VAF is a measure that shows how much the mediating variable is able to absorb a direct influence. If the VAF value is greater than 80%, then the mediating variable is able to display full mediation. If the VAF value ranges from 20% to 80%, then the role of the mediating variable is partial mediation. If the VAF value is less than 20%, there is almost no mediation at all (Sarstedt et al., 2017).

The *t*-statistic value of the direct influence of regulatory perception on pro-environmental behavior was 0.359, and the t-statistic of indirect influence of regulatory perception on pro-environmental behavior through OCBE was 2.313. Therefore, the total effect value is 2,672 and the VAF value is 86.60% (2,313/2,672). The VAF value is higher than 80%. Thus, the mediating role of OCBE in terms of its relationship with regulatory perceptions and pro-environmental behavior is full mediation because regulatory perception is not significant in influencing pro-environmental behavior. As the results of hypothesis testing, the perception of regulation had no influence on pro-environmental behavior, but when it is mediated by OCBE, the influence occurred.

# The Influence of Public Service Motivation on Pro Environmental Behavior through OCBE

Finally, from hypothesis testing, it was proven that statistically Public Service Motivation had a positive and significant influence on employee pro-environment behavior through OCBE as an intervening variable

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(with a significance probability value of 0.000). Therefore, the hypothesis is supported.

In the mediating role of OCBE related to public service motivation and pro-environmental behavior, the VAV value needs to be calculated. The *t*-statistic value of the direct influence of public service motivation on pro-environmental behavior was 4.057, and the *t*-statistic value of the indirect influence of public service motivation on pro-environmental behavior through OCBE was 4.809. Therefore, the total influence value is 8.866 and the VAF value is 54.20% (4,809/8,866). The VAF value is 20 to 80%. Therefore, the mediating role of OCBE related to public service motivation and pro-environmental behavior is partial mediation because the independent variable is able to directly influence the dependent variable without mediator variable.

# 5. CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

Practically, the research was conducted to encourage the implementation of an environmentally-friendly office program within the scope of public organizations (either through the role of regulation or from employee awareness) in order to reduce environmental damage and pollution. In addition, the large number of civil servants and their distribution within the territory of Indonesia, it is expected that the research could provide a broad and comprehensive influence in Indonesia related to the environmentally-friendly office program. The role of employees in carrying out public service tasks and in making public policies can simultaneously maintain environmental sustainability (Stritch & Christensen, 2014). Some conclusions are the perception of regulation influenced employees' OCBE, perception of regulation did not directly influence the pro-environmental behavior of employees, public service motivation significantly influenced OCBE, public service motivation significantly influenced pro-environmental behavior, OCBE significantly influenced pro-environmental behavior, perceptions of regulations on the implementation of environmentally- friendly offices influenced pro-environmental behavior of employees through ocbe, public service Motivation of employees significantly influenced pro-environmental behavior through OCBE, from all the hypotheses proposed, only one hypothesis was rejected, namely the influence of regulatory perceptions on the pro-environmental behavior of employees. It happened because employees tended to behave pro-environmentally based on intrinsic volunteerism and they were not significantly influenced by regulations.

Employees who display pro-environmental behavior (both in their personal and work lives) are people who begin to behave pro-environmentally in general (Daily et al., 2009). Therefore, to increase pro-environmental behavior, it suggested that increasing the degree of legal basis for regulation was carefully considered and adopted by all government organizations and implemented properly. From the study, it was found that the Public Service Motivation which was commonly found in public employees had a high influence on pro-environmental behavior. Based on same noble goals and background for the benefit of many people, the role of the organization to maintain and improve the

public service motivation of employees had to be increased in order to develop pro-environmental behavior.

From all variables studied related to their influence on proenvironmental behavior, the key variable was OCBE. The study provided empirical evidence that OCBE influenced pro-environmental behavior both directly and indirectly. OCBE strongly mediated the influence of research variables on pro-environmental behavior. OCBE played a strategic and significant role and it could be applied by public organizations to support the development of pro-environmental behavior which in turn could affect environmental performance for the success of the eco-friendly office program.

The improvement of OCBE is carried out through the initiative to discuss environmental policies and pro-environmental behavior among employees. The assignment of agents of change to several employees is carried out to provide examples and encourage pro environmental behavior in the organizational environment. Another role of organizations in increasing pro-environmental behavior could be done by improving infrastructure that provides support in the development of pro-environmental behavior within the scope of public organizations. It includes providing recycling facilities for employees, electronic devices that consume less energy, and water-saving technologies. Then, at operational level, measurable targets related to the implementation of environmentally friendly policies must be used as the Main Performance Index (KPI) of each organization so that the role of the organization increases significantly.

There were several limitations in this study that had be considered and refined. First, the study only examined one work unit of Ministry of Finance. Second, the study only examined organizations located in one city in Central Java where the results might be different if the research was conducted in another city with different environmental quality. Third, the research was conducted during the COVID-19 pandemic so that employee attendance was not optimal. Fourth, the study only considered internal factors that were limited to Public Service Motivation, external factors that were limited to regulatory perceptions, and environmental factors that were limited to Organizational Citizenship Behavior for the Environment (OCBE). Fifth, the study had limitations on indicators of regulatory perception where there was a vagueness of one question on the questionnaire which made respondents have different perceptions.

Future research should be conducted on the study of the influence of regulation on environmental-related behavior and develop research on organizational culture and transformational leadership to examine the influence of the role of leaders in the development of pro-environmental behavior.

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