

# Effect of Ethical Leadership and Motivation on Pro-Environmental Behaviors: Evidence from Thai Automobile Industry

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## ABSTRACT

Despite extensive research on corporate sustainability, little is known about the factors that may instill employees taking part in sustainability initiatives. To address this gap, the main objective of this study is to identify factors that can enhance employees' pro-environmental behaviors that enable them to participate in sustainability initiatives. This study posits that leadership and motivation may influence employees to develop their pro-environmental behaviors through motivation. In order to test the hypothesis of the study, the partial least square-structural equation modeling (PLS-SEM) approach was used to examine data of 169 employees of the Thai automobile industry. The results show that ethical leadership significantly predicts employees' pro-environmental behaviors. In addition, employees' intrinsic motivation serves as a mechanism by partially mediating the relationship between ethical leadership and employees' pro-environmental behaviors. The study also investigates the relationship between extrinsic motivation with basic pro-environmental behaviors of employees, but no empirical support was found in this regard. This study recommends that organizations encourage employee intrinsic motivation to enhance their pro-environmental behaviors and focus on increasing their performance.

## ABSTRAK

Penelitian tentang sustainability perusahaan telah banyak dilakukan secara ekstensif, sayangnya hanya sedikit yang membahas tentang faktor-faktor yang dapat mendorong karyawan untuk mengambil bagian dalam inisiatif keberlanjutan. Untuk mengatasi kesenjangan ini, tujuan utama dari penelitian ini adalah untuk mengidentifikasi faktor-faktor yang dapat meningkatkan perilaku pro-lingkungan karyawan yang memungkinkan untuk berpartisipasi dalam inisiatif keberlanjutan. Penelitian ini berpendapat bahwa kepemimpinan dan motivasi dapat mempengaruhi karyawan untuk mengembangkan perilaku pro-lingkungan mereka melalui motivasi. Untuk menguji hipotesis penelitian digunakan pendekatan partial least square – structural equation modeling (PLS-SEM) dengan menggunakan data dari 169 karyawan industri otomotif Thailand. Hasil penelitian menunjukkan bahwa kepemimpinan etis adalah prediktor yang signifikan dari perilaku pro-lingkungan karyawan. Selain itu, motivasi intrinsik karyawan berfungsi sebagai mekanisme dengan memediasi sebagian hubungan antara kepemimpinan etis dan perilaku pro-lingkungan karyawan. Studi ini juga menyelidiki hubungan antara motivasi ekstrinsik dengan perilaku dasar pro-lingkungan karyawan, tetapi tidak ada dukungan empiris yang ditemukan dalam hal ini. Keterbatasan dan arah penelitian masa depan dibahas pada akhir penelitian. Penelitian ini merekomendasikan organisasi untuk mendorong motivasi intrinsik karyawan guna meningkatkan perilaku pro-lingkungan karyawan dan juga harus fokus pada karyawan untuk meningkatkan kinerja mereka.

## 1. INTRODUCTION

In the contemporary environment, within the other concepts, corporate sustainability (CS) has been

widely used to refer to the relationship between society and business development. It belongs to incorporate the sustainable advantage in the

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business, namely, economic efficiency, environmental improvement, and social equity, within the business to develop operational practices (Waqas et al., 2021). The specific interest of the corporate sector for sustainability has been evidenced by various corporation which has adhered towards the United Nations, along with various initiatives for the corporations that they are developing (Yuriev et al., 2018). CS success depends not only on implementing new processes and technologies in the business but also on the employees' pro-environmental behaviors (PEB) (Molnár et al., 2021; Yuriev et al., 2018). Even though, there are many studies has been conducted on the employees PEB (Graves & Sarkis, 2018; Robertson & Barling, 2013; Watts & Dick, 2014) but there is a need for time to research to understand them better mechanism which entirely provides facilitation to the PEBs, and, eventually, that could provide help to the organizations in the direction of that end. This study tested a mechanism by developing a model that emphasized the employees' PEBs. We had a major focus on the primary role of the managers. Even though an essential leadership which is based on top management is necessary for which the employees on behalf of the managers are considered to be organizations agents and are considered to be a critical factor to encourage the employees PEBs within the organization (Michalak & Chojnacka, 2013; Robertson & Barling, 2013; Wesselink et al., 2017). There are few recent studies (Graves et al., 2013b; Robertson & Barling, 2013) who suggested that the ethical leadership of the managers is essential, whereas the studies on the effect of such leadership are limited in the previous studies (Yuriev et al., 2018).

Moreover, the literature has well defined the importance of CS's workforce within the organization. Wu et al. (2021) underlined that the employees are as important as the consultancy firms or the board. Therefore, the desired environmental, social, or ethical outcome has been largely dependent on the willingness of the employees to work together (Li et al., 2020). Hence, the attention on CS has become a major topic from many for an environmental aspect. Past research on the CS has mostly focused on the external stakeholder, whereas understanding its internal impact has been depicted as uncertain in the current research stream (Fleming et al., 2013). It has little attention in the previous research within the relationship between CS and the involvement of the employees in the PEBs, which is addressed in the present research. The core objective of the present research is to examine how ethical

leadership influences employees' PEBs. The current study focuses on the automobile industry in the context of Thailand. For the last fifty years, the automobile industry of Thailand has been developed and has put a great effort to become the biggest industry in Thailand (Jones & Pimdee, 2017). Also, the contribution to the GDP of Thailand from the automobile industry is 12%, and employment is more than five lacs people (Das, 2018). Therefore, from a social and economic perspective, the automobile industry has become one of the important industries in Thailand. From the year 2020, the automobile industry aims to manufacture 3.5 million vehicle units to become one of the largest industries in the automobile market (Suraraksa & Shin, 2019).

Furthermore, from 2021, it has been an expectation that Thailand will be a global hub in producing the automobile vehicle equipped with the latest technologies competing for the international markets (Suraraksa & Shin, 2019). Consequently, the automobile industry will expand at a national level (Peng et al., 2021). The novelty of this study is that it sought to explore the circumstances in which ethical leadership was strongly linked to the pro-environmental responses of team members. We focus on the contingency role of team power distance because this construct relates to individual beliefs about status, authority, and power in organizations and thus has a more direct theoretical relationship to leadership reactions than other cultural values. Therefore, it is vital to examine the factors, including employees' PEBs, that might increase the sustainability performance of the automobile industry in Thailand. In this study, we connected ethical leadership with employees' motivation, which is a mechanism for enhancing employees' PEBs. The management literature highlighted the influence of leadership behavior on employees' motivation (Wu et al., 2021; Ng, 2017). Moreover, recent studies on sustainability have established the role of employees' motivation as a predictor of PEBs (Jefferies et al., 2016; Pelletier & Aitken, 2014). Thus, combining these two research streams, the present study contributes to the literature by assessing the relationship of ethical leadership with the employees' PEBs through motivation and ethical leadership.

## 2. THEORETICAL FRAMEWORK AND HYPOTHESES

### Ethical Leadership

Ethical behavior is a component of leadership and ethical development that is important for the

advancement of an individual as a leader and must provide services as an ethical guide for many people (Yulk, 2013). Ethical leadership is the way leaders lead behavior based on norms, create strong ethical messages, set clear ethical standards and regulations for ethical behavior for followers and follow ethical principles in the process when they want to make decisions and create a process of observation for followers (Brown et al., 2005). According to Piccolo et al. (2014), ethical leadership is a term that emphasizes someone using ethical considerations and making it the basis for making a decision or action. When building a business, for example, opening a business operation in a particular place, the consideration is not only the profit obtained from expanding the business. The impact of the expansion of the business on many parties, especially for the local community, must be considered and used as a basis for decision making (Den Hartog & Belschak, 2012). It is very unethical when the company gets big profits or profits, but the surrounding community suffers losses, such as pollution or environmental damage, and so on. When post mortems are conducted on various corporate scandals over the years, it usually becomes apparent that wrongdoing could have been avoided if strong ethical leadership had been in place and managers had questioned or prevented wrongdoing before it spread (Brown et al., 2005).

### **Motivation**

The power that propels a person to develop and guide activity is motivation (Shunck, 2012). A genuinely driven person will engage in pro-environmental conduct because he feels what he is doing is the correct thing to do (Linder, 2015). According to Werff et al. (2012), intrinsic motivation successfully moderates the association between environmental self-identity and ecologically friendly behavior. As a result, an incentive may play a role in influencing employee pro-environmental behavior. Hence, it is believed that extrinsic motivation will be associated with the basic PEBs only. Whereas, it was examined in the various studies that Self-determination theory (SDT) regards extrinsic motivation as essential for organizational functioning (Gagné & Deci, 2005; Moran et al., 2012). The extrinsic motivation ought to be facilitated by any basic PEBs that placed the lowest workers' demands (Graves & Sarkis, 2012). However, extrinsic motivation comes with all the features, which are psychological properties and the continued effort required to perform "advanced PEBs" within the organizations (Pelletier & Aitken, 2014).

### **Pro-Environmental Behaviors (PEBs)**

Pro-environmental behavior is a behavior that consciously seeks to minimize the negative impact of one's actions on nature, both natural and artificial (Kollmus & Agyeman, 2002). Pro-environmental behavior is a behavior that consciously seeks to minimize the negative impact of one's actions on nature (both natural and artificial), for example, minimizing the consumption of resources and energy, the use of non-toxic substances, reducing the production of waste, and others (Kollmus & Agyeman, 2002). Meanwhile, according to Khashe et al. (2015), pro-environmental behavior is defined as all actions that directly or indirectly contribute to environmental conservation and sustainability. Furthermore, Brody et al. (2012) define pro-environmental behavior as individual participation in an activity to increase behavior to reduce or eliminate negative impacts on the environment. It is necessary to have awareness and concern for the environment raised through pro-environmental behavior to prevent and minimize the physical and psychological effects of the environment.

### **Relationships between Ethical Leadership and Motivation**

Ethical leadership is considered one of the key mechanisms that play a vital role in boosting the workers' motivation (Yulk, 2013; Buckley & Doyle, 2016; Deci & Ryan, 2016). Ethical leadership is likely related to employees' performing PEBs in organizations. Therefore, ethical leaders could help strengthen employees' intrinsic motivation by fostering involvement in developing and achieving environmental goals and values of the organization (Den Hartog & Belschak, 2012). Their commitment to sustainability is better ought to enhance the willingness of employees for collective working to achieve environmental goals (Jones et al., 2014; Sider, 2014). Also, ethical leaders could facilitate intrinsic motivation of employees through increasing their beliefs to handle the environmental issues (Ng, 2017; Pelletier & Aitken, 2014). Moreover, the leader's optimism regarding environmental issues and concentration on increasing workers' ability to handle all of these challenges facilitates the employees' beliefs that they would generate a distinction, thereby enhancing intrinsic motivation (Graves & Sarkis, 2018). We additionally expect that ethical leadership is also associated with employees' extrinsic motivation in organizations (Graves et al., 2013). Besides concentration on intrinsic motivation, ethical leaders could also use the rewards concerning performance

as a tool of leadership (Piccolo et al. 2014)

### Relationships between Motivation and PEBs

The scholarship on SDT inferred that intrinsic motivation has more association with employees' PEBs than extrinsic motivation within the organization (Aitken et al., 2014; Graves et al., 2013a). However, the direct association between motivation and PEBs entirely depended on the type of PEBs (Pelletier & Aitken, 2014). Furthermore, "advanced and basic PEBs" place various demands on the workers. The "basic PEBs" usually need little ability, innovation, and initiative. In other sense, advanced PEBs "(e.g., learning much regarding the environmental problems, finding need initiative, superior psychological feature and current commitment of workers" (Graves & Sarkis, 2012; Pelletier & Aitken, 2014). We believe that intrinsic motivation is associated with advanced and basic PEBs. The advantages gained from the intrinsic motivation ought to be quite comfortable to suggest basic PEBs. Furthermore, the engagement of high tasks derived from intrinsic motivation should simplify the "advanced PEBs" by improving psychological functioning (Pelletier & Aitken, 2014; Moran et al., 2012). The extreme extrinsic motivation could also increase the feelings that prejudice the philosophy and interfere with the basic and advanced PEBs in the organization (Pelletier & Aitken, 2014).

### Direct Relationships between Ethical Leadership and PEBs

Even though the main emphasis of the study is not mainly based on direct links within the self-reported PEBs and perceived ethical leadership. Such direct links posited that leadership could also be associated

with the worker's performance through the mechanism apart from the motivation (Ng, 2017). For example, workers who see their leaders as ethical leaders could experience positive feelings for their jobs and organizations that help enhance their PEBs (Ng, 2017). The ethical leaders within the organization also implement the process and systems which provide help to enhance the PEBs.

Figure 1 shows the hypothesized model of ethical leadership, extrinsic motivation, intrinsic motivation, and basic and advanced PEBs. All of these variables have been assessed from the employee's perspective. The employees' perception of leadership is suitable for assessing the study as employees' internal behaviors depend upon their perceptions. Therefore, this approach could also be recognized in the leadership scholarship (Robertson & Barling (2017). The self-rating of the employees could assess the motive of the employee. Although the self-rating did not seem ideal in assessing the PEBs, it might have been useful to acquire objective information from the coworkers. In the extant literature, there are various types of analysis which the various researcher has done on PEBs within the workplace and communities by using the self-ratings in the organizations (Robertson & Barling, 2017; Wesselink et al., 2017). As shown in Figure 1, we tend to propose that the perception of employees about the leadership of managers is associated with intrinsic and external motivation. Accordingly, it is also considered that intrinsic motivation is entirely associated along with the self-reported basic and advanced PEBs. In contrast, extrinsic motivation is associated with the basic self-reported PEBs. The sections below give the various source for all such relationships.

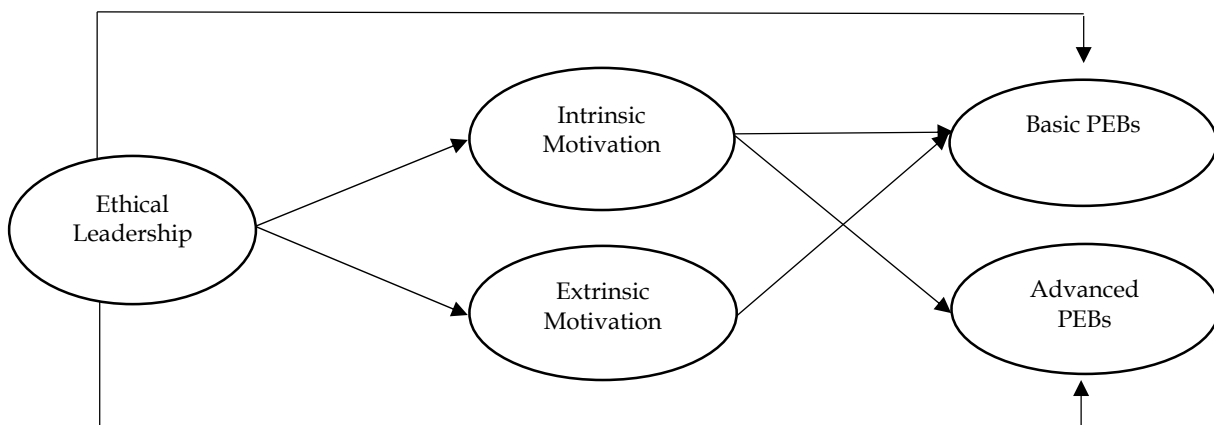


Figure 1. Hypothesized model

Therefore, based on this, it is hypothesized that:

- H<sub>1</sub>:** Employees' perceptions of managers' ethical leadership significantly associate employees' intrinsic motivation to accomplish PEBs.
- H<sub>2</sub>:** Employees' perceptions of managers' ethical leadership significantly associate employees' extrinsic motivation to accomplish PEBs.
- H<sub>3</sub>:** There is a significant association between intrinsic motivation and basic and advanced PEBs.
- H<sub>4</sub>:** There is a significant association between extrinsic motivation and basic and advanced PEBs.
- H<sub>5</sub>:** Employees' perception of ethical leadership is significantly associated with basic and advanced PEBs.

### **3. RESEARCH METHOD**

#### **Research Sample**

For the current study, the researcher asked questions from the 609 employees of the Thai automobile industry by using the online survey by using the convenient sampling that was consisted of all the study variables. Two hundred fifty-one responses were received, consisting of 41.2% of the total response. During the survey, 29 responses were discarded because they missed providing their personal information.

On the other hand, fifty-four respondents were eliminated during data screening and cleaning due to missing data. The missing value for these items was common; imaginably, the respondents had difficulty evaluating the manager's environmental leadership. There were 169 useable responses, 103 were men, and 66 were women. There were 82.7% nonsupervisory employees from the overall respondents, and 17.3% were operational managers.

#### **Variable Measurement**

In the present study, ethical leadership has been measured by the ten items adopted by the study of (Brown et al., 2005). These items were tested before with the Cronbach alpha (0.83). The questionnaire was measured by the five-point Likert scale that ranges from strongly disagree (1) to strongly agree (5).

The motivation of employees for the PEBs was measured on 12 items scale, which several studies have adopted (Charbonneau et al., 2001; Gagné et al., 2010; Graves et al., 2013a). These were based on

the five-point Likert scale that ranged from strongly disagree (1) to strongly agree (5). The PEBs have been measured by the seven items adapted from the study of Graves et al. (2013b). All of these times were based on the five-point Likert Scale that was ranged from strongly disagree (1) to strongly agree (5).

Prior studies suggested that demographic variables that are gender and age may affect individuals' perceptions about certain phenomena (Buschlen & Johnson, 2014; Trauth, 2011). The gender was assessed as a categorical variable coded 1 for male and 2 for female.

#### **Analyses Technique**

To analyze structural equation modeling (SEM), we use Amos 21. The current study has determined the cross-sectional design and quantitative approach. First, to assess the measurement model, a confirmatory factor analysis (CFA) was performed to confirm the convergent validity of the scales. Standardized root means square residual (SRMR) and comparative fit index (CFI) were applied to assess the model fit, the chi-square statistics. Afterward, structural equation modeling was applied for hypothesis testing.

### **4. DATA ANALYSIS AND DISCUSSION**

#### **Descriptive statistics and confirmatory factor analysis**

SPSS was used to assess the descriptive statistics of the variables (see Table 1). The mean value of ethical leadership is 3.01, which explains that employees perceive a medium level of ethical leadership in their organizations. The average intrinsic motivation score is 3.91, which is higher than the average of extrinsic motivation (i.e., 2.51). The average value of basic PEBs is 4.12, and advanced PEBs is 3.51). PEBs. In addition, perception of employees regarding ethical leadership has positive relationship with intrinsic motivation of employees ( $r = 0.41$ ), extrinsic motivation of employees ( $r = 0.23$ ), basic ( $r = 0.14$ ) and advanced PEBs of employees ( $r = 0.75$ ). Intrinsic motivation was positively related to basic ( $r = 0.57$ ) and advanced ( $r = 0.42$ ) PEBs. The extrinsic motivation was positively related to employees' advanced PEBs ( $r = 0.36$ ); however, it has an insignificant correlation with basic PEBs of employees ( $r = 0.09$ ). Both basic and advanced employees' PEBs are significantly and positively related ( $r = 0.58$ ).

**Table 1.** Descriptive statistics and correlations among variables

Variable	Mean	SD	Ethical Leadership	Extrinsic Motivation	Intrinsic Motivation	Basic PEBs	Advanced PEBs	Gender
Ethical leadership	3.01	0.81						
Extrinsic motivation	2.51	0.88	0.23					
Intrinsic motivation	3.91	0.71	0.41	0.19				
Basic PEBs	4.12	0.59	0.75	0.09	0.57			
Advanced PEBs	3.51	0.89	0.42	0.36	0.42	0.58		
Gender	1.27	0.49	-0.05	-0.02	0.21	0.17	-0.03	
Age	45.17	6.28	0.14	0.04	0.05	-0.11	0.04	-0.17

Notes: N = 169

The fit of different factors models, i.e., five, four, three, two, and one, were assessed. The results inferred that the five-factor model has the best model fit among all other models. The CFA of five-factor model produced acceptable fit statistics, with a

significant chi-square results ( $\chi^2 = 354.05$ ,  $df = 199$ ,  $p < .001$ ; CFI = 0.94; SRMR = 0.06). Table 2 explains that the loadings of all the indicators vary from 0.57 to 0.93.

**Table 2.** Confirmatory factor analysis (CFA)

Construct and Item	Loadings
<b>Ethical leadership (<math>\alpha = 0.93</math>, AVE = 0.57, CR = 0.95)</b>	
Conduct personal life in an ethical manner.	0.782
Defines success not just by the results but also the way that they are obtained.	0.821
Listens to what employees have to say.	0.576
Disciplines employees who violate ethical standards.	0.607
Makes fair and balanced decision.	0.921
Can be trusted.	0.621
Discuss business ethics or values with employees.	0.756
Sets an example of how to do things the right way in terms of ethics.	0.869
Has the best interest of employees in mind.	0.667
When making decisions, asks "what is the right thing to do?"	0.852
<b>Intrinsic motivation (<math>\alpha = 0.94</math>, AVE = 0.61, CR = 0.95)</b>	
I would feel bad if I did not do it.	0.885
I would feel guilty if I did not do it.	0.572
It would bother me if I did not do it).	0.565
It allows me to achieve goals I consider important.	0.745
It fits my values.	0.869
It is personally important to me.	0.952
I would feel bad if I did not do it.	0.941
I would feel guilty if I did not do it.	0.725
It would bother me if I did not do it.	0.685
<b>Extrinsic motivation (<math>\alpha = 0.78</math>, AVE = 0.57, CR = 0.80)</b>	
I will be rewarded for doing it.	0.750
I am paid to do it.	0.836
I will get recognition from others.	0.664
<b>Basic PEBs (<math>\alpha = 0.72</math>, AVE = 0.52, CR = 0.76)</b>	
Try to reduce energy use.	0.875
Try to reduce the use of supplies and materials.	0.864
Recycle materials that can be recycled.	0.816
<b>Advanced PEBs (<math>\alpha = 0.85</math>, AVE = 0.51, CR = 0.87)</b>	
Learn more about the environmental issues facing (name of company).	0.809
Find ways of working that are better for the environment.	0.923
Offer ideas for reducing the impact on the environment.	0.741
Encourage others to think about the environment.	0.828

### Structural model

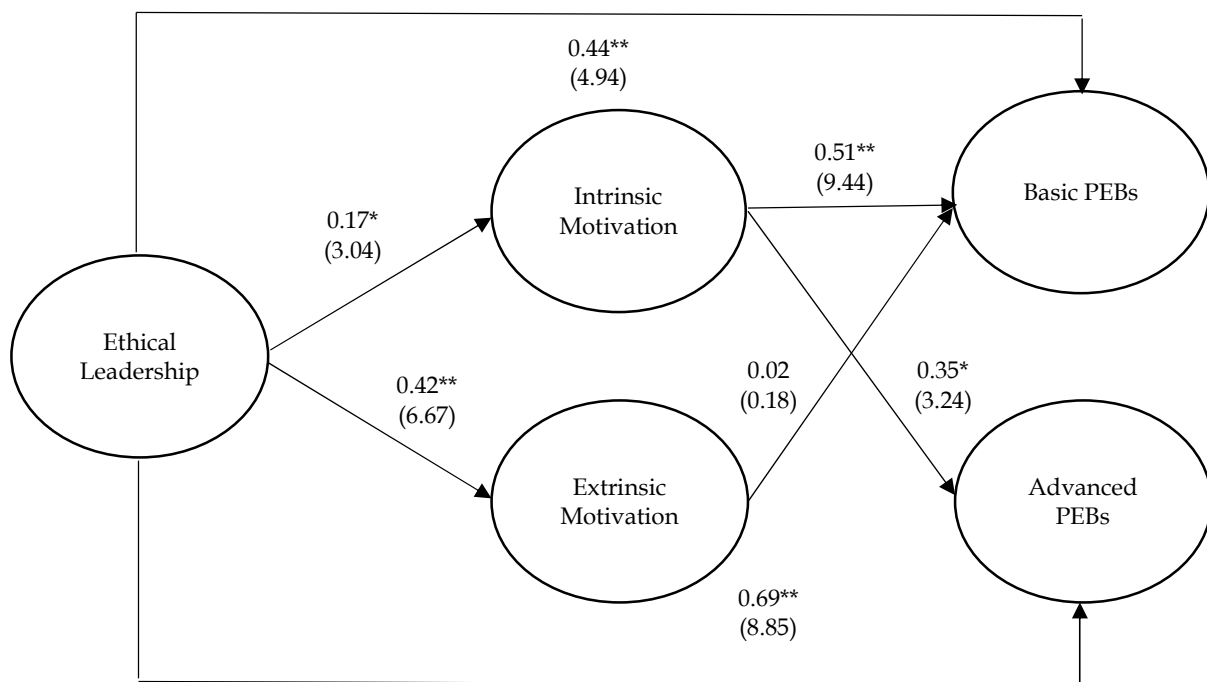
The standardized results of structural model are presented in Figure 2 and table 3 including the control variables (age and gender). Chi-square statistics provide significant results,  $\chi^2 = 459.53$ ,  $df = 271$ ,  $p < .001$ , with acceptable model fit (CFI = 0.93, SRMR = 0.06). The residuals of ethical leadership = 0.82,

intrinsic motivation = 0.61, extrinsic motivation = 0.88, basic PEBs = 0.59 and advanced PEBs = 0.48. The findings support the hypotheses 1 and 2; ethical leadership has positive relation with employees' intrinsic ( $\beta = 0.17$ ,  $p < .05$ ) and extrinsic motivation ( $\beta = 0.42$ ,  $p < 0.01$ ).

**Table 3.** Standardized estimates of the structural model

Hypothesized relationship	Standardized Estimates	Standardized Error	T-Value
Ethical leadership → Intrinsic motivation	0.17 *	0.056	3.036
Ethical leadership → Extrinsic motivation	0.42 **	0.063	6.667
Intrinsic motivation → Basic PEBs	0.51 **	0.054	9.44
Intrinsic motivation → Advanced PEBs	0.35 *	0.108	3.241
Extrinsic motivation → Basic PEBs	0.02	0.110	0.181
Ethical leadership → Advanced PEBs	0.44 **	0.089	4.944
Ethical leadership → Basic PEBs	0.69 **	0.078	8.846

\*  $p < 0.05$ , \*\*  $p < 0.01$  (two tailed test)



**Figure 2.** Structural model.

### Discussion

Intrinsic motivation has positive correlation with basic ( $\beta = 0.51$ ,  $p < 0.01$ ) and advanced PEBs ( $\beta = 0.35$ ,  $p < 0.01$ ) that supported hypothesis 3. The relationship between extrinsic motivation and basic behaviors was not significant ( $\beta = 0.02$ ,  $n.s.$ ) that provides no empirical evidence to support hypothesis 4. Finally, ethical leadership is significantly and positively related with basic ( $\beta = 0.44$ ,  $p < .001$ ) and advanced ( $\beta = 0.69$ ,  $p < .001$ ) PEBs that is substantial

evidence to support hypothesis 5. This study confirms that motivation has an important role in fostering more awareness of environmentally friendly behavior. Motivation based on the desire to improve the work environment is crucial to support sustainable environmental sustainability ((Graves & Sarkis, 2012; Pelletier & Aitken, 2014).

The findings also revealed the significant effect of the control variables. Age had a positive relation with ethical leadership ( $\beta = 0.10$ ,  $p < 0.05$ ) and

negative relation with basic ( $\beta = -0.18, p < 0.01$ ) and advanced PEBs ( $\beta = 0.08, p < 0.05$ ). Older personnel perceived their managers as ethical leaders but described less PEBs. The employee gender had a relationship with intrinsic motivation of employees ( $\beta = 0.16, p < 0.05$ ) and advanced PEBs of employees ( $\beta = 0.12, p < 0.05$ ). Females described higher intrinsic motivation and lower advanced PEBs. In this study, the indirect effect of ethical leadership upon PEBs by internal motivation was assessed through applying Sobel's test (Sobel, 1982). Ethical leadership had significant indirect relation with basic PEBs ( $0.17 \times 0.51 = 0.09$ , Sobel = 2.37, SE = 0.04;  $p < 0.05$ ) and advanced PEBs of employees ( $0.17 \times 0.35 = 0.06$ , Sobel = 2.24, SE = 0.05;  $p < 0.05$ ) through employees' internal motivation.

This study confirms that ethical leadership provides a positive and significant prediction of PEB, thus indicating that ethical leadership that focuses on the problem environment is very important for environmentally friendly employee behavior in the workplace. Ethical leadership with inspirational characteristics can motivate employees to be more environmentally friendly. In general, current studies show that leadership behaviors addressing environmental issues can effectively facilitate employee PEB in the workplace (Li et al., 2020). The results are consistent with the prior studies on transformational leadership that has shown the same findings (Bono & Judge, 2003; Ng, 2017), along with the latest study on the ethical leadership of (i.e., Graves et al., 2013). Transformational leadership could affect intrinsic motivation by increasing the environmental values of the employees and increasing the capacity to take the solution of the environmental issues (Ng, 2017). In the same vein, ethical leadership also helped to create extrinsic motivation through the rewards to complete the environmental goals. Moreover, there was a strong direct positive association within the employees' perception of the managers for basic and advanced PEBs. These results recommended that ethical leadership is worked as a mechanism to affect intrinsic and extrinsic motivation (Ng, 2017).

Another key finding has also shown that intrinsic motivation has a positive relationship with the basic and advanced PEBs, which is in line with the SDT (Koestner & Losier, 2002). This indicated that intrinsic motivation has contributed to both of the perceptions of the PEBs. It means that intrinsic motivation facilitates both aspects of the PEBs. The intrinsic motivation employees are engaged in the PEBs to lead that they should work hard and keep it up over time. Additionally, a possible explanation for this is

that extrinsic motivation is only related to the advance PEBs, whereas intrinsic motivation has a greater effect on both PEBs types. These findings align with the previous study of who (Graves et al., 2013) failed to find the significant relationship between extrinsic motivation and PEBs. It might also be possible that low extrinsic motivation practiced through our respondents was considered insufficient to the facilities the basic PEBs, and the organizational rewards were not adequate for generating the more extrinsic motivation.

## 5. CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

The current study contributes a mechanism that could help underline the PEBs and add the extant literature that examines the role of immediate manager's ethical leadership to facilitate the employees' PEBs. Furthermore, also contribute to the motivation of the employees as a mechanism by which good managerial leadership has affected the PEBs. The current findings have shown that managers' perception of ethical leadership positively affected the intrinsic and extrinsic motivation to perform the basic and advanced PEBs. In contrast, extrinsic motivation has not had a positive relationship with the PEBs. Furthermore, the results also showed a positive relationship between ethical leadership and intrinsic and extrinsic motivation and supported the hypothesis. On the other hand, the key findings have also shown that intrinsic motivation is positively related to the basic and advanced PEBs. It means that intrinsic motivation facilitates both aspects of the PEBs. This study added partial evidence on the mechanism that underlined the employees' PEBs and extended the previous work on ethical leadership. Moreover, the current study examined the most comprehensive association between ethical leadership, motivation, and PEBs.

From the previous discussion, it is recommended to encourage the employees' intrinsic motivation to enhance the PEBs. Firstly, the organization should be recognized that environmental issues are essential for the organization, not only for the top management. Secondly, the employees' ethical leadership is considered to be critical to make the initiative more effective, which is environmental. Thirdly, organizations should also focus on the employees to increase their performance.

There are some main limitations of this study. Firstly, the study was limited to one organization. The findings could not be generalized across the



organization. Therefore, future research is needed on more organizations to increase the generalizability of the findings. Secondly, the participants included in the current study were working in Thailand, even though the motivation construct and fundamental leadership have been used in the various previous studies over the culture. The study on the effect of cultural factors for determining the PEBs is too considered a little attention, and it could not be assured that the results are more appropriate for another cultural context. Hence, future research could be investigated across these respondents. Lastly, the data has been collected from the employees, as discussed before, in which the leader behavior is to be considered more important as they could affect employee's behavior. Nevertheless, employees' self-rating of the PEBs was not considered ideal, which provides biased results. To overcome this, it might be collecting the additional leader's behavior data, more specifically the aggregation of data for every manager. The current research findings also guide future research and suggest that the organizations who need to attain the environmental goals should focus on improving ethical leadership with the managerial perspective.

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