

Organization Sustainability through Employee Green Behaviour and Ethical Leadership: The Influencing Role of Employee Machiavellianism

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Abstract

Objectives. The objective of the present research is to investigate the impact of ethical leadership on employee green behaviour and sustainability, along with the moderating role of Machiavellianism. In today's global era, it is challengeable for the employees to practice green behaviour in the workplace. The current study analytically analyses the relationships among ethical leadership, employee green behaviour, Machiavellianism and sustainability.

Method. Self-administered questionnaires were administered to gather data from 390 managerial level employees of Pakistan Telecommunication Company. Five-point Likert scale has been used as a measurement scale.

Results. Partial least square (PLS) SEM is used to test the survey results of the proposed model. The study findings support the argument that ethical leadership has a significant positive effect on employee green behaviour. Also, Employee green behaviour positively mediates the relationship between ethical leadership and sustainability. Besides, Machiavellianism and green practice negatively moderates the relationship on sustainability. The present study is one of its kind to expand the scope of employee Machiavellianism by revealing that Machiavellianism negatively influences green behaviour and sustainability.

Conclusion. Our findings show various ways which will help the organisations to focus on employee green behaviour and reduce the effect of employee Machiavellianism to get sustainable environment. Also, the present study suggests human resource managers to understand employee green behaviour in the workplace more better.

Keywords. *Ethical leadership, employee green behaviour, sustainability and machiavellianism.*
JEL classification: M10 general



Introduction

In today's world, the vital issue to pay attention is the environmental condition. There is a strong need to pay attention to such severe problems in the rules, procedures, and practices of the organisations. Many multinational organisations are nowadays taking different initiatives to participate in eco-friendly behaviour (Amisano, 2017; Saleem, Qadeer, Mahmood, Ariza-Montes, & Han, 2020). In organisational behaviour, employee green behaviour is a significant and researchable area to study. Leaders or managers are the ones that motivate and encouraged employees to become actively participate in green behaviour practices. Leadership plays a vital role in achieving organisational goals by making an environment that ought to alter employees' mindsets, enthusiasm, motivation, and performance (Norton, Parker, Zacher & Ashkansay, 2015). Research suggests that understanding may be developed about specific ethical approaches of leadership to weigh up and initiate reform efforts, especially in developing countries like Pakistan (Saleem et al., 2020).

The rise and fall of the nation in this world depend upon the leadership. If the leadership honest, sincere, active and practical, the country will make progress by leaps and bounds (Lemoine, Hartnell, & Leroy, 2019). It sees how the changes will happen. It gives clear manifestation to the nation. Rulers, politicians, poet, teachers, doctors, engineers, lawyers and company executives are our leaders and reflect the leadership qualities (Harris 2004). Some empirical studies confirm the influence of ethical approaches to leadership increase the level of employee commitment in Pakistan. Review of literature suggests that contextual understanding plays a significant role to be useful in a leadership situation (Dimmock & Walker, 2004). The very far-reaching consequences of ethical approaches of leadership on employee organisational commitment. The study found that if leaders motivate employees, invest in training to enhance skills and capabilities, invest in education, consider their personal as well as professional goals and finally empowered employees, it will increase the level of employee commitment with the organisation (Bushra, Ahmad & Naveed, 2011; Yusuf, 2009). Existing literature emphasis that employee green behaviour plays a crucial role in inspiring the environment and substantial outcomes for not only organisations but as well as employees and leaders. It helps the organisations to attain their strategic goals and increase their performance along with the job satisfaction of leaders and employees.

The present research aims to fill the gap that how ethical leadership motivates the employee to practice green behaviour which ultimately leads to organisational sustainability. This research is examining the fact that ethical behaviour of the leader encourages the employee to behave eco-friendly and influence the thoughts, values, beliefs and moral actions of the employees (Amrutha & Geetha, 2020; Saleem et al., 2020; Yong, Yusliza, Ramayah, Chiappetta Jabbour, Sehnem, & Mani, 2020).

A vast focal shift has swept the field of leadership research in the twenty-first century. Scholars had previously argued that leadership should not be concerned with issues of ethics and morality (e.g. England & Lee, 1974; Rost, 1993; Thompson, 1956), the moral nature of leaders now seen by many as not only necessary for the good of society but also essential for the sustainable environment (Gulati, Nohria, & Wohlgezogen, 2010; Padilla, Hogan, & Kaiser, 2007). Leadership effects in every field of life. It sees how changes will happen. It gives clear manifestation to the nation. Rulers, politicians, poet, teachers, doctors, engineers, lawyers and company executives are our leaders and reflect leadership qualities; the concept that leaders have impacted on the climate and motivation of their subordinates prevalent in business literature (Barker, 2001).

The Pakistani research on leadership and sustainability is significant to identify leadership development as well to develop its effect on the employee's green behaviour and environmental sustainability in the Pakistani business environment. This research aimed to study leadership development value and benefits on the business sector in particular employee performance in Pakistan after keeping in view the importance of leadership development and its acknowledgement and benefits drawn in all parts of the world (Naseer, Raja, Syed, Donia, & Darr, 2016).

This study aims to examine the relationship between ethical leadership and sustainability. It also investigates the indirect effect of employee green behaviour between the relationship of ethical leader and sustainability along with the moderating role of employee Machiavellianism. The leaders should take the initiative regarding the followership toward long term organisational sustainability as we investigate this theme and gap: first analysing leadership character and employee green behaviour towards the sustainability of the organisation.

Because there is a vast shift in the field of leadership and the 21st century, the concept is changed in-lieu with a leadership style that leadership should not be concerned with the issues of ethics and morality. The moral nature of leaders is now seen by many as not only necessary for the good of society but also essential for sustainability goals (Hersted, 2019). Our study is trying to fill the gap in Pakistani context that when leaders behave ethically, they influence followers to change their behaviour and practice green performance at the workplace. Previous literature (Dahling, Whitaker, & Levy, 2009; Tang & Chen, 2008; Tang & Liu, 2012; Zagenczyk et al., 2013) claimed that employees who are high in Machiavellianism encourage counterproductive behaviour that may lead to unsustainability. The present study is one of its kind to study the moderating effect of Machiavellianism between green behaviour and sustainability.

Theoretical Underpinning

The theory adopted in this study is the social learning theory (SLT) by Bandura (1977). SLT proposed that ethical leadership significantly influence green employee behaviour. According to this theory, individuals learn different ways by observing others. This theory draw conclusion on the moral forms of leadership engenders positive relationships that develop followers' positive affect and cognitions, resulting in followers engaging in positive behaviours that generate positive outcomes. The body of evidence establishing this phenomenon indicates that continuing to retreat this ground would do little to enhance our understanding of how moral leadership works (Van Knippenberg & Van Kleef, 2016).

For instance, ethical leaders are motivators for employees, and they can influence their thoughts, beliefs, attitudes and values. Besides, they can change the perception of the employees regarding organisational rules and regulations, policies and practices and corporate sustainability. When an organisation encourages the employee to practice green behaviour, they happily engage in practising eco-friendly environment. This ethical awareness leads them to behave vivaciously, and it can strengthen their relationship with the ethical leader as the awareness to exercise green behaviour is due to the impact of their leader. In particular, the present study contributes to the literature that ethical leadership drives green employee behaviour which ultimately leads to organisational sustainability.

Literature Review and Hypotheses Development

Dessler (1994) states that the administrative management of human assets to oversee their execution by making them work voluntarily. The leader could be individual who able to impact the behaviour of others. Liu and fellow researcher (2019) characterise leader as a person who acts in the gather of familiar interface, purposes, and objectives. Dessler (1994) has another way of portraying leadership. He says leadership method of impacting others to realise particular goals in particular circumstances.

Definition of leadership presented in this ponder too implies that supervisor features a sense of heading and viability of his endeavour to impact on unique situational variables (Brown et al., 2005). Leadership, therefore, can influence others to meet characterised objectives, goals.

Ethical Leadership

An ethical leader acts both as 'moral person,' maintaining equality and integrity in relationships with subordinates, and as 'moral manager,' demonstrating and reinforcing desired and normatively appropriate behaviours (Brown et al., 2005; Trevino, Hartman, & Brown, 2000). Based on the conceptual foundations, the framers of ethical leadership posited that ethical leaders are credible role models who emulate desired moral attitudes and behaviours for subordinates and provide rewards for ethical conduct and consequences for "those who don't follow the standards" (Brown et al., 2005). They combine general, a consistent moral character with a focus on organisational, cultural norms, standards, and rule compliance. These conceptual emphases appear in the uni-dimensional measure of ethical leadership, representing both the moral person and manager (Tervino & Brown, 2004). Ethical leadership, for instance, share a focus on moral consistency, although the nature of this consistency varies in a way that mirrors each concept's conceptual emphases. For ethical leadership, this dimension refers to the congruence between the leader's actions and the norms they enforce to their followers. That is, ethical leaders hold themselves to the same high ethical standards that they expect of others, showing consistency and modelling appropriate behaviours. This shared focus on moral consistency suggests that behavioural integrity (Simons, 2002), the alignment between words and actions, famous for both ethical and transformational leaders.

Ethical leadership consists of the leaders that practice ethical behaviour at the workplace. Ethical awareness of the leaders influences the employees at the workplace to behave constructively and help them to understand the legal and illegal decisions at the workplace (Kuntz et al., 2013; Payne, Corey, & Fok, 2016). Leaders who demonstrate virtuous and moral leadership behaviours may affect the ethical environment of the organisation (Amisano, 2017). Ethical leadership has an impact on employee green behaviour and influence employees with their ideal and perfect characteristics.

Ethical leaders influence employee work-related behaviours, organisational commitment, employee well-being, outcomes and job satisfaction (Usman et al., 2018, Khan, Ali, Usman, Saleem, & Jianguo; 2019). Ethical leader fairly treats employees, responsible towards customers, subordinates as well as towards organisational goals. The Pakistani research on leadership is essential to identify leadership development as well to develop its effect on the employee's green behaviour and environmental sustainability in the Pakistani business environment (Khan et al., 2019).

A moral leader is an ethical manager whose responsibilities are not only related to individual level but for all employees of the organisation. These motivated managers use their personalities as a charm to encourage employees. Ethical leader pays attention to organisational sustainability, green behaviour and social responsibility (Norton, Parker, Zacher & Ashkansay, 2015). When employees feel that ethical leaders care for them, pays attention to sustainable development and empower them than they behave positively and ethically. In comparison with other leadership styles, ethical leadership acts more responsible, green and sustainable implementer, which encourages the employees to behave green at the workplace (Amrutha & Geetha, 2020).

H1: Ethical leadership has positive association with employee green behaviour.

Sustainability

Labuschagne, Brent, and Van Erck (2005) define sustainability as accomplishing different strategies and experiences in the organisation that linked with the need of the organisation and its investors, customers and participants in order to protect, sustain and enhance natural as well as human resources that are essential for future perspective.

Organisations castigated for irresponsible behaviour such as pollution, unfair behaviour with employees and selling unsafe products to consumers (Murphy & Schlegelmilch, 2013). Organisational sustainability is one of the essential outcomes of ethical leadership (Amisano, 2017; Eisenbeiss, 2012). Brown et al. (2005) argued that leaders determine the success factor based on its means not only on outcomes. Ethical leaders have tendencies to inspire people in many ways like justice, integrity and sustainability.

Ethical leadership can influence decisions in an organisation, and the overall ethical environment affects decision making in an organisation (Amisano, 2017). Concerning the link between ethical leadership and sustainability, some factors, i.e., condition, awareness, stability, collectivity, and creativity, also considered necessary (Tideman, Arts, & Zandee, 2013).

Organisations want to sustain themselves due to profitability, enhanced performance, and different financial benefits. The financial position of any organisation depends upon the ethical decision-making process with the presence of influential ethical leaders. Sustainability has a link with ethical leadership, organisation culture and practices at the workplace. So to achieve sustainability, the noble leader plays a vital role in making an ethical decision (Amisano, 2017). Accomplishing environmental sustainability for an organisation as well as its employees is tough to achieve. Due to the complex adaptive system, it is difficult for leaders to cope with change. The informative and ethical role of the leader in the complex adaptive system is very crucial, and they are the one who can make or break the organisation. To remain sustain, organisations require a system that handles error learning problems and the capacity to learn (Metcalf & Benn, 2012; Metcalf, & Benn, 2013).

H2: Employee green behaviour has a positive association with sustainability.

Employee Green behaviours as Mediator

Employees' engagement in green behaviours is the employees' actions to perform work in an environmentally friendly way (Junsheng, Masud, Akhtar, & Rana, 2020). Employee green behaviour is the behaviour of employees involves scalable activities that are associated with the environmental sustainability of the organisation.

It includes counterproductive work behaviour, performance and job satisfaction. Employees perspective on green values and practices help the organisation to sustain itself. When employees want to adopt green behaviour at the workplace, it will motivate them and affect their performance (Yong et al., 2020). The ethical standards articulate by ethical leaders at the workplace inspired the followers to abide by those set of rules and that standards encourage the employees to improve their behaviours just as their leaders.

The latter serves as a role model for them (Norton, Parker, Zacher & Ashkansay, 2015). Existing literature on employee green behaviour enhance environmental sustainability. Employees engage in green behaviour not only improve their performance but also plays a vital role in establishing organisation behaviour.

Ethical leadership serve as a role model for the employees to practice green behaviour at the workplace. The employee green behaviour has a positive and significant effect on organisational sustainability (Liu & Zhao, 2019; Norton et al., 2015; Saleem et al., 2020). Studies revealed that employee green behaviour positively contributes to sustainability. Ethical learning and performance found to be significant predictors for the achievement of sustainability (Liu & Zhao, 2019). When employees develop a sense of green behaviour, it will influence the effect on their personality and behaviour. Green learning plays an essential part in contributing to organisational sustainability. Employee green behaviour at the workplace significantly and positively contributes to environmental sustainability and the overall performance of the employees (Amrutha & Geetha, 2020; Yong et al., 2020).

H3: Employee green behaviour positively mediates the association between ethical leadership and sustainability.

Employee Machiavellianism as Moderator

The literature describes employee Machiavellians as master manipulators who are willing to use all possible means to achieve their ends (El Baroudi, Fleisher, Khapova, Jansen, & Richardson, 2017). Machiavellianism is a social strategy that entails controlling and manipulating others for personal advantage (Ruiz-Palomino, & Banon-Gomis, 2017).

Machiavellians considered as cheaters, conspirators, plotter, and schemers who always try to reduce the capital and always prefer themselves (Paulhus & Williams, 2002; Ruiz-Palomino, & Banon-Gomis, 2017). For instance, Machiavellianism positively relates to one self-interest to lie and cheat (Ross & Robertson, 2000). In contrast, cheating and lying to others is always considered wrong and unethical for the one who practices ethical and moral behaviour at the workplace.

In comparison with employee green behaviour at the workplace, employee machiavellian manipulated others to achieve their goals. Machiavellianism referred to as a characteristic like a conspirator, schemer, plotter, self-interest, and manipulator (Zagenczyk, Cruz, Woodard, Walker, Few, Kiazad, & Raja, 2013). The employee with these negative attributes may ignore the importance of the environment and prefer their benefits. Employees high in Machiavellianism always try to manipulate the situation because they have the strong desire of wealth and treasure, that is why they ignore moral and ethical values (Myung & Yun, 2017; Wu, Wang, Lee, Lin, & Guo, 2019). Individuals with Machiavellianism want to maximise profitability at any cost despite considering the difference between ethical and unethical situations. They usually engage in anti-production work, and their focus is on achieving their own goals without giving any importance to the protection of the environment. They never practice ethical and green behaviour in the workplace. Instead, they are low in emotions and follow their own goals (Wu et al., 2019). Employees with high Machiavellianism may involve in unethical behaviour and prefer their values in comparison with organisational sustainability without any shame or hesitation. They did not pay attention to moral and ethical values, and usually, they are selfish (Gürlek, 2020). Previous literature (Dahling, Whitaker, & Levy, 2009; Tang & Chen, 2008; Tang & Liu, 2012; Zagenczyk et al., 2013) claimed that employees who are high in Machiavellianism encourage counterproductive behaviour that may lead to unsustainability. Machiavellianism has a positive impact on unethical behaviour and negative impact on ethical behaviour. They never care for the environment and eco-friendly practices. Their only goal is to achieve maximum profit at any cost without any guilt or regret (Gürlek, 2020). Machiavellianism is based on self-centeredness, distrust, manipulation and dishonesty.

Although the negative characteristics of the Machiavellianism may lead the employee to ignore the importance of green behaviour, on the other hand, they prefer capital and status. Individuals high in Machiavellianism have a desire to control others and maintain their position. They have excellent skills to pursue their job and grab opportunities to maximize profitability. People with high Machiavellianism have fewer emotions and achieve their goals by controlling others (Wu et al., 2019). It would be interesting to study that individuals who have high Machiavellianism and awareness of green behaviour may lead to sustainability or unsustainability of the organization.

H4: Employee Machiavellianism negatively influences the association between employee green behaviour and sustainability.

Significance of the Study

The importance of this research study will be its potential to extend, contribute to the existing knowledge of the leader's ability to make sound decisions in an ethical environment. This study may be relevant to business leaders because there a wide range of essential perspectives on having moral leadership approaches in the business workplace. Results of this study may contribute to positive social change through the relationship between leadership, decision making, and ethical behaviour (Litchka, 2019). Besides this study will help the leaders to understand how employee Machiavellianism can lead towards unsustainability and how effectively they can control their behaviour through the practices of green behaviour at the workplace.

Objectives of the Study

1. To understand and analyse the role of ethical leadership and sustainability
2. To understand and analyse the mediating effect of employee green behaviour in the relationship between ethical leadership and sustainability
3. To understand and analyse the interactive effect of employee Machiavellianism behaviour in the relation of employee green behaviour and sustainability.

Hypotheses

H1: Ethical leadership has positive association with employee green behaviour.

H2: Employee green behaviour has a positive association with sustainability.

H3: Employee green behaviour positively mediates the

association between ethical leadership and sustainability.

H4: Employee Machiavellianism negatively influences the association between employee green behaviour and sustainability.

Method Instruments

Ethical leadership measured with a ten-item scale adopted by Brown et al. (2005). Respondents asked to respond on a 5-point Likert-scale. Items measuring ethical leadership include "my supervisor listens to what employees have to say," "My supervisor sets an example of how to do things the right way in terms of ethics," and so on. Cronbach alpha value of ethical leadership is 0.82. Green Behavior is measured with six items, taken from (Bissing-Olson, Zacher, Fielding, & Iyer, 2012). Respondents asked to respond on a 5-point Likert scale. Items include to measure Green behaviour are "I adequately complete assigned duties in environmentally friendly ways," "I take a chance to get actively involved in environmental protection at work," and so on. Cronbach alpha value of Green behaviour is 0.86. To measure Machiavellianism, eight items taken from Christie, and Geis, (1970). Respondents asked to respond on a 5-point Likert scale. Items measuring Machiavellianism consist of "I have used deceit or lied to get my way," "I tend to exploit others towards my own end," and so on. Cronbach alpha value of Machiavellianism is 0.86. To measure Sustainability, Five items adopted by Harmon, Fairfield, and Wirtenberg, (2009). Respondents asked to respond on a 5-point Likert scale. Sustainability items include "Is your organisation/company involved in improving the community/world in the non-business environment?" and so on. Cronbach alpha value of sustainability is 0.90. We controlled variables age, gender and education in the present study. The Cronbach alpha value higher than 0.70 indicates the internal consistency of the items. Cronbach alpha value of present study constructs is between the ranges of 0.82 to 0.90, which reflected that all the constructs had internal consistency in them.

Sampling and Data Collection

Population for the present study is the Telecommunication Industry of Pakistan. The simple random sampling technique used to collect data through self-administered questionnaires. Data collected from the employees of Pakistan Telecommunication Company (PTCL). PTCL is the national telecommunication company in Pakistan which consists of more than 16000 employees.

The reasons behind to select telecommunication sector are because these sectors are classified with organisational culture, extortion, and inferiorly managed human resource discipline. Besides, a large portion of Pakistan intellectual talent is working in the telecommunication sector, and this sample helps the researcher to understand the ethical leader and employee green behaviour along with the sustainability.

The sample size determined by Krejcie and Morgan (1970) sampling table. Our population is more than 16000; hence data were collected from at least 375 respondents.

Data collected from individual employees of managerial level. We distributed 640 questionnaires. The questionnaire returned were 404. Only 390 questionnaires were considered useable for future data analysis. The response rate of this study is 61.2%.

Among the respondents, 70% were male, and 30% were female. Also, 40% of respondents are within the age range of 31 to 35 years. 20% of the respondents belong to the age group of 26-30 years, and 18.5% were 41 years or above. Table 1 shows the sample characteristics of the study.

Table 1
Sample Characteristics (N=390)

Variable	Items	f	%
Gender	Male	273	70%
	Female	117	30%
Age	21 -25 years	39	10%
	26 -30 years	78	20%
	31 -35 years	156	40%
	36 -40 years	45	11.5%
	41years and above	72	18.5%
Education	Bachelors	102	26.1%
	Masters	268	68.8%
	Others	20	5.1%
Experience	Less than 1 year	20	5.2%
	1-2 years	90	23.1%
	3-4 years	80	20.5%
	5 years and above	110	28%
	Total	90	23.2%

Data Analysis

The analysis of this study is conducted by using SPSS version 21 for initial findings and PLS-SEM version 3.2 for hypotheses testing.

First, we examine the data and treated missing values, normality and multicollinearity of the data before testing our hypothetical model on PLS-SEM. We examined the multicollinearity of our study constructs through VIF. According to Hair et al. (2017), VIF values of less than 10 indicates no multicollinearity. Our study variables VIF values range between 1.53 to 2.03; hence there is no multicollinearity. PLS-SEM analysed the data in two phases, first measurement model and second structural model. In the assessment of the measurement model, we analysed the reliability and validity of this study.

First, we examined the internal consistency of our study constructs, which evaluates the result based on compatibility between the measures. The examination conducted with the help of examining individual item loadings, composite reliability (CR), average variance extracted (AVE), and discriminant validity of the study variables (Hair, 2017).

Factor loadings of study variables presented in table 2. These loadings indicate that all factors highly loaded as all values are between the range of 0.70 to 0.90. The composite reliability is between 0.86 to 0.92. Hence, all variables are adequately measuring composite reliability. Average variance extracted (AVE) threshold should be equal to or greater than 0.5. Our study constructs AVE values are above 0.50.

Table 2
Item Loadings, Reliability and Convergent Validity (N=390)

Variable		Items	Loadings	CR	AVE
EL	Uni -Dimensional	EL1	.84	.86	.52
		EL2	.90		
		EL3	.83		
		EL4	.81		
		EL5	.75		
		EL6	.70		
		EL7	.87		
		EL8	.81		
		EL9	.82		
		EL10	.83		
GB	Uni -Dimensional	GB1	.86	.90	.59
		GB 2	.83		
		GB 3	.72		
		GB 4	.77		
		GB 5	.70		
		GB 6	.76		
SUS	Uni -Dimensional	SUS1	.88	.89	.72
		SUS2	.86		
		SUS3	.83		
		SUS4	.84		
		SUS5	.82		
MAV	Uni -Dimensional	MAV1	.81	.92	.51
		MAV2	.80		
		MAV3	.79		
		MAV4	.75		
		MAV5	.78		
		MAV6	.83		
		MAV7	.84		
		MAV8	.80		

Note: EL= Ethical leadership, GB= Green Behaviour, SUS= Sustainability, MAV= Machiavellianism, CR= Composite reliability, AVE= Average variance extracted.

We measured the discriminant validity of our model with the Fornell and Larcker criteria (1981). The bold values in table 3 indicate significant discriminant validity of our study variables. The values present in diagonals represent the discriminant validity of study constructs, and high value horizontally and vertically shows that the current study constructs are not highly correlated.

Table 3
Discriminant Validity

Variables	EL	GB	MAV	SUS
EL	0.721			
GB	0.487	0.768		
MAV	0.146	0.272	0.714	
SUS	0.436	0.484	0.187	.850

Note: EL= Ethical leadership, GB= Green Behaviour, SUS= Sustainability, MAV= Machiavellianism

The second phase, the structural model assessment used to examine the direct and indirect relationship between the study variables. In this assessment, we examined path coefficients, coefficient of determination (R^2), and the effect size (F^2).

The study results in table 4 revealed that there exists a positive and significant relationship between ethical leadership and employee green behaviour ($\beta= 0.49, t=12.38, P<0.001$). Hence, H1 is supported. Also, there is a positive and significant relationship between employee green behaviour and sustainability ($\beta= 0.47, t=10.35, P<0.001$); hence H2 is supported. Besides, there exist positive and significant indirect effect of employee green behaviour between the relationship of ethical leadership and sustainability ($\beta= 0.23, t=6.96, P<0.001$). Hence, H3 is supported. Figure 2 shows all the direct and indirect relationships of study variables. The R^2 value for dependent variable green behaviour is 0.23 and for sustainability is 0.24, respectively.

Table 4
Direct and Indirect Effects

Paths	β	S.E	t	p	Decision	F^2	Effect	R^2
EL → GB	.49***	.039	12.38	.000	Supported	.310	Large	0.23
GB → SUS	.47***	.045	10.35	.000	Supported	.266	Large	0.24
EL → GB → SUS	.23***	.033	6.96	.000	Supported			

Note: * $p<.05$; ** $p<.01$; *** $p<.001$ (significance levels). EL= Ethical leadership, GB= Green Behaviour, SUS= Sustainability.

To examine the interaction effect of proposed constructs, we run a separate model in PLS-SEM. The result obtained from bootstrapping described in table 5 indicates that the interaction effect of Machiavellianism and Green Behaviour on Sustainability is negatively significant ($\beta= -.28, t=5.75, P<0.001$). Therefore, we can say that H4 is supported. Figure 3 shows the interaction effect of Machiavellianism and green behaviour on sustainability.

Table 5
Interaction Effects

	Dependent Variable		
	Sustainability		
	B	t value	P-value
Independent Variable: Green Behaviour	.40***	8.56	0.000
Moderator: Machiavellianism	-.10*	2.43	0.015
<i>Interaction</i>			
Green behaviour x Machiavellianism	-.28***	5.75	0.000

Note: * $p<.05$; ** $p<.01$; *** $p<.001$ (significance levels).

Graph 1 indicates that interacting effect of employee green behaviour and Machiavellianism negatively moderates the relationship on sustainability. Hence, when the impact of Machiavellianism increases, it will negatively enhance the relationship between employee behaviour and sustainability. The higher level of Machiavellianism reduces sustainability.

Figure Legends

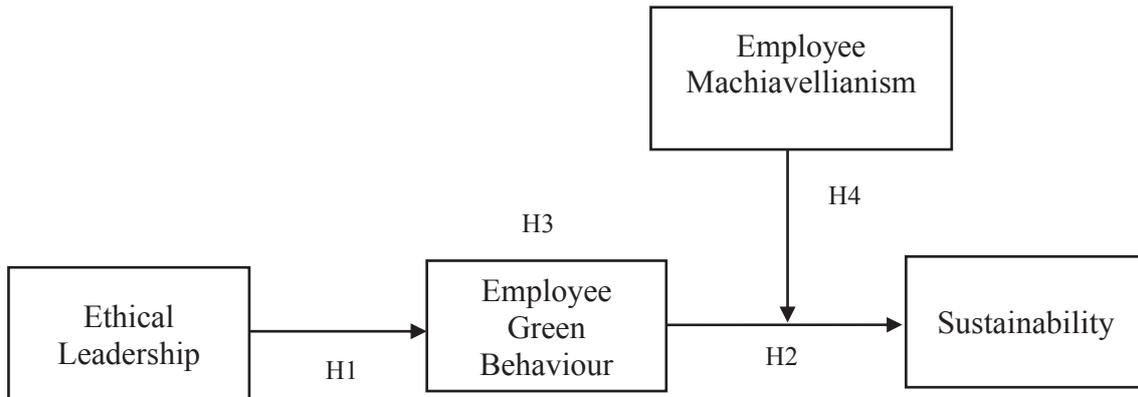


Figure 1: Theoretical framework

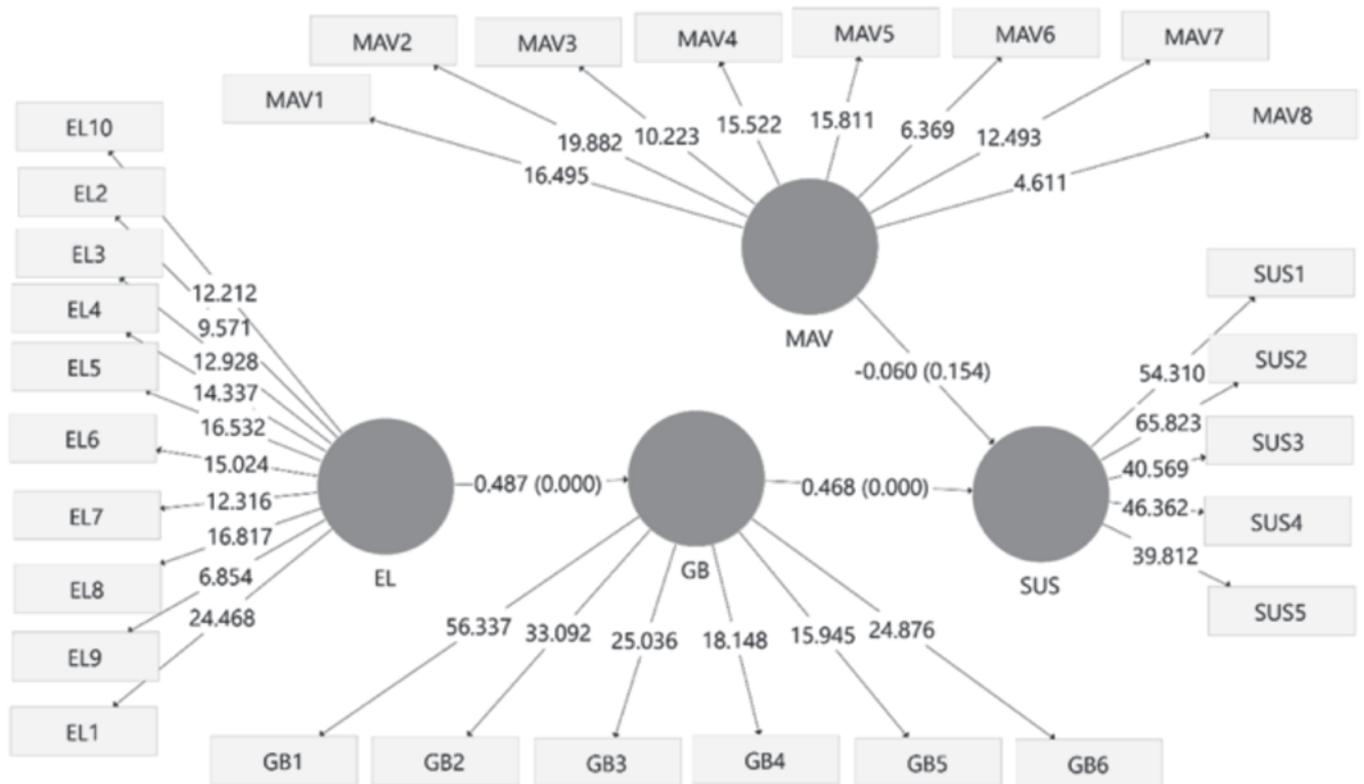


Figure 2: Structural Model

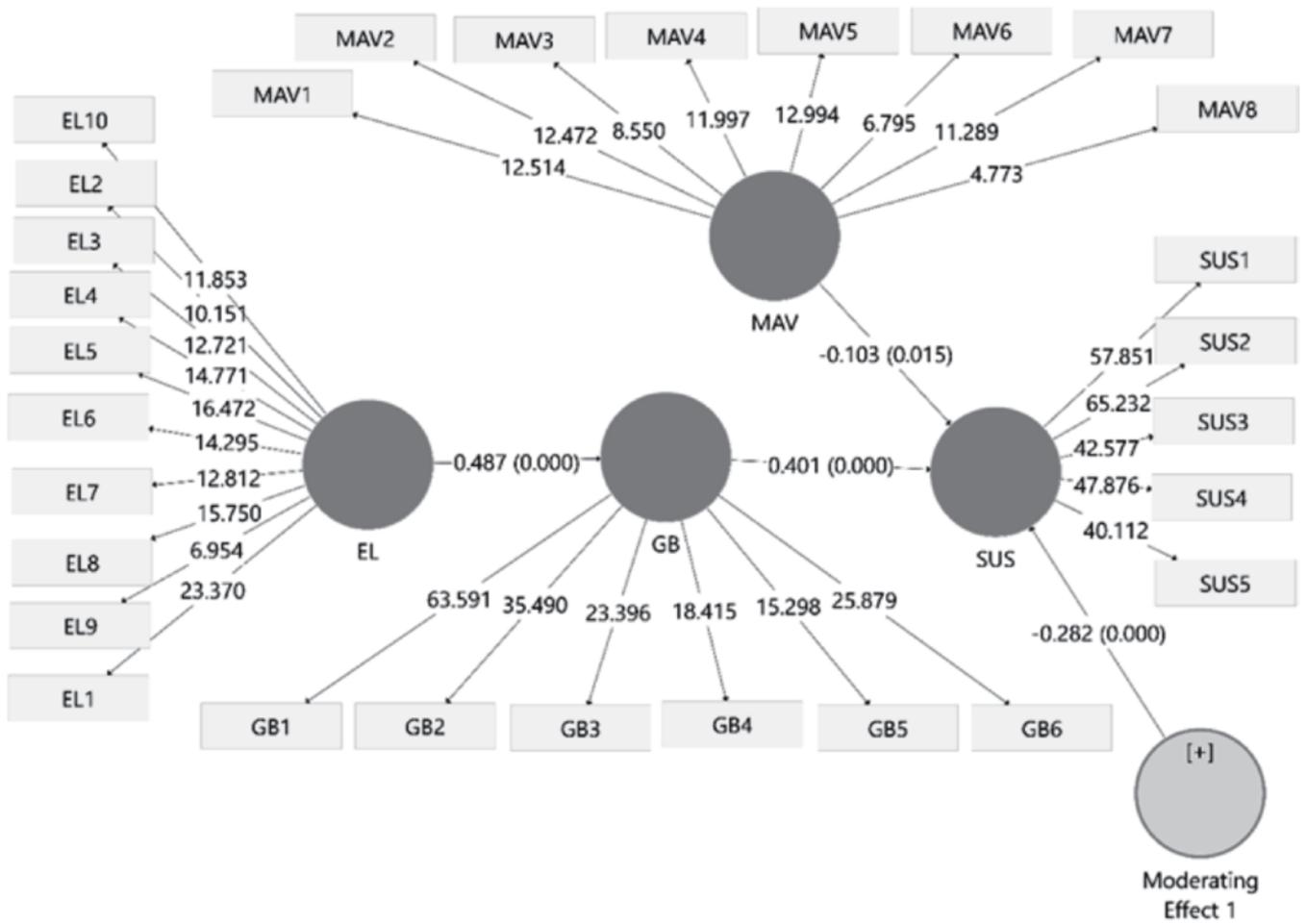
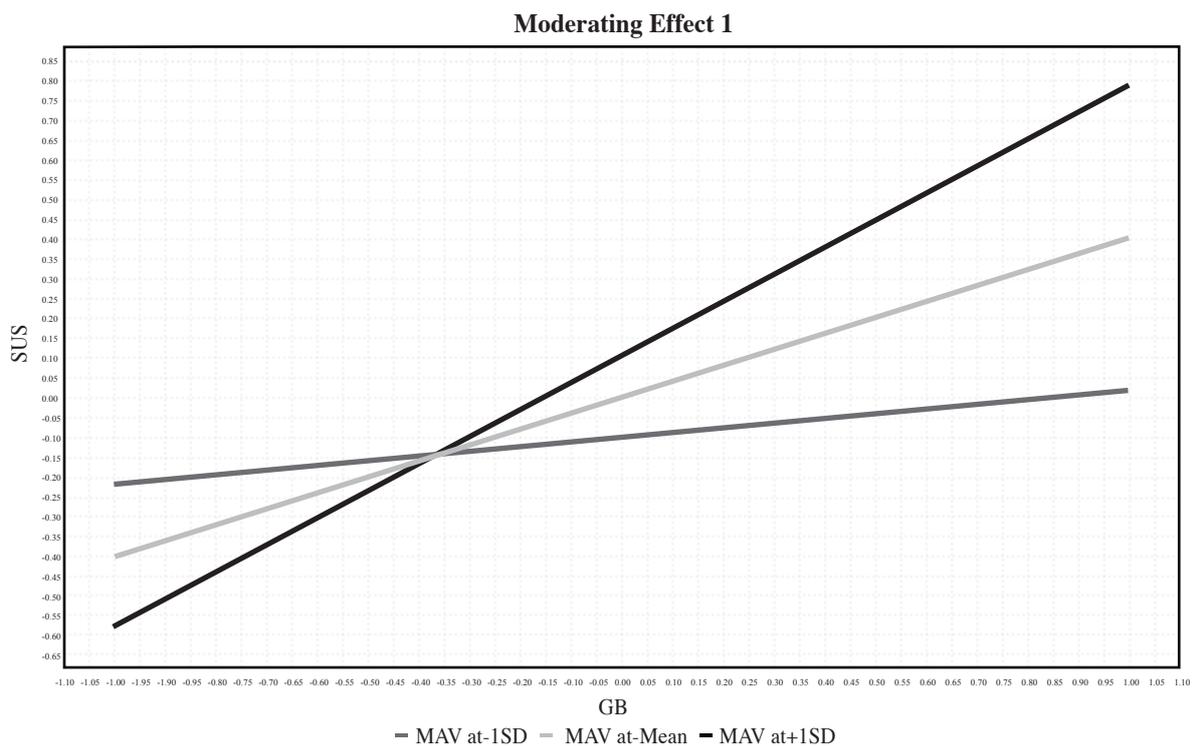


Figure 3: Interaction Effect



Graph 1: interaction effect of Machiavellianism and Green Behaviour on Sustainability

Discussion

This research aims to investigate the impact of ethical leadership on employee green behaviour and how this green behaviour influences sustainability of the organisation. Ethical leadership involves ethical practices in the workplace. Our study is helping to identify the impact of employee green behaviour and how it can affect the sustainability of the organisation. Our findings reveal that ethical leadership has a significant positive effect on employee green behaviour (H1). These findings are parallel with the results of previous studies (Liu et al., 2019; Saleem et al., 2020; Yong et al., 2020). Ethical awareness of the leaders motivates the employees to behave productively and help them to understand the legal and prohibited decisions at the workplace (Kuntz et al., 2013). Ethical leadership acts more responsible, green and sustainable implementer, which encourages the employees to behave green at the workplace (Amrutha & Geetha, 2020). In local context, numerous authors also supported the positive relationship between ethical leadership and employee green behaviour. For example, Usman and other (2018) argue that Ethical leaders influence employee work-related behaviours, organisational commitment, employee well-being, outcomes and job satisfaction. Similarly, Khan and his colleague (2019) also supported the direct relationship between ethical leadership and employee green behaviour. They argue that ethical leader has effective moral ground to encourage the employee green behaviour than an unethical leader. Similarly, pakistani research on leadership is essential to identify leadership development as well to develop its effect on the employee's green behaviour and environmental sustainability in the Pakistani business environment (Khan et al., 2019).

For instance, Leaders who demonstrate moral and ethical leadership behaviours may affect the ethical environment of the organisation and encourages the employees to practice green behaviour at the workplace.

Similarly, our study findings indicate that employee green behaviour at the workplace positively and significantly influences sustainability in the organisation (H2). These results are consistent with the past findings (Amrutha et al., 2020; De Roeck, & Farooq 2018; Liu, & Zhao, 2019). Employee green behaviour at the workplace significantly and positively contributes to environmental sustainability and the overall performance of the employees (Amrutha & Geetha, 2020; Yong et al., 2020).

Concerning the link between ethical leadership and sustainability, some factors, i.e., condition, awareness, stability, collectivity, and creativity, also considered essential. The ethical standards convey by ethical leaders at the workplace inspired the followers to accept norms and that particular norms encourage the employees to enhance their behaviours same as leaders who serve as a role model. Employees engage in green behaviour not only improve their performance but also plays a vital role in establishing organisation behaviour. Ethical leadership serve as a role model for the employees to practice green behaviour at the workplace (Saleem et al., 2020).

Besides our study analysis results shows that employee green behaviour positively mediates the relationship between ethical leadership and sustainability (H3). Our study results are parallel with the findings of previous literature which claim that when green behaviour is the practice by the employees, it will ultimately lead the organisation to sustain itself in terms of profitability as well as environmental stability (Amisano, 2017; Liu et al., 2019; Norton et al., 2015). Ethical learning and performance found to be significant predictors for the achievement of sustainability (Liu & Zhao, 2019). For instance, When employees feel that ethical leaders care for them, pays attention to sustainable development and empower them than they behave green, positively and ethically. Our results second the findings that sustainability has a link with ethical leadership, organisation culture and green practices at the workplace. Hence to accomplish sustainability, the moral leader plays crucial responsibility in achieving ethical decisions at the workplace (Amisano, 2017).

Finally, the present study results disclose that employee Machiavellianism negatively and significantly moderates the relationship between employee green behaviour and sustainability. Hence, our hypothesis H4 is supported and parallel with the previous literature findings that employees high in Machiavellianism always try to manipulate the situation because they have the strong desire of wealth and treasure, that is why they ignore moral and ethical values (Myung et al., 2017; Wu et al., 2019). Previous literature (Dahling et al., 2009; Tang & Chen, 2008; Tang & Liu, 2012; Zagenczyk et al., 2013) suggested that individuals who have high-level of Machiavellianism foster counterproductive actions that may lead to unsustainability.

Machiavellianism has a positive impact on unethical behaviour and negative impact on ethical behaviour. Employees with low-level Machiavellianism care for the environment and eco-friendly practices (Gürlek, 2020).

Conclusion and Research Implications

The current study based on social learning theory discusses the impact of ethical leadership on employee green behaviour and how effectively this green behaviour mediates the relationship between ethical leadership and sustainability. This paper argues that ethical leadership has a positive impact on employee green behaviour. This green practices of employee mediate the relationship positively and strongly between the link of ethical leadership and sustainability. The findings revealed that Machiavellianism negatively moderates the relationship between employee green behaviour and sustainability. Ethical leadership and employee green behaviour can make an excellent combination to help employees to understand the importance of green practices and how these practices help the employees to make their organisation sustain and balanced.

The present study is one of its kind to expand the scope of employee Machiavellianism by revealing that Machiavellianism negatively moderates the relationship of employee green behaviour and sustainability. The current study showed that how unethical behaviour of employee reduces the green practices of the employees at the workplace, which ultimately lead to an unsustainable environment. Liu and fellow researchers (2019) suggested future research due to the lack of empirical findings. Hence, our study is one to its kind to determine the relationship of ethical leadership, green behaviour, Machiavellianism and sustainability with Smart PLS-SEM version 3.2.

Hence, present study helps the literature to find the support that employee green behaviour act as an intermediary between the relationship of ethical leadership and sustainability. Secondly, this study will help the organizations to understand the phenomenon to engage employees in green behaviour and make organization more sustainable. Organization should focus on the leadership styles that are being deployed in the organization, because leadership style can make a drastic change in employee behaviour which will decide the future of the organization.

Limitation and Future Research

The present study has several limitations. Firstly, it is a cross-sectional study as data collected at a single point of time. Future researches may use longitudinal data to conduct the study. Secondly, we have collected data from Pakistan Telecommunication Company. At the same time, future researchers may conduct this study in other industries like manufacturing and textile of Pakistan or different sectors of different countries. Thirdly, researchers chose ethical leadership style to determine employee green behaviour and sustainability. In future, it would better if researchers may examine this model with more than one leadership style, e.g., servant leadership, autocratic leadership or adverse leadership. In future researchers may also observe the impact of employee Machiavellianism as a mediator between the relationship of ethical leadership and sustainability. Furthermore, future studies may include corporate social responsibility (CSR) as a dependent variable. Future researchers may check the impact of ethical leadership and employee green behaviour on CSR.

Ethical approval and consent to participant. Ethical approval is not applicable for this study, and the present study authors obtained the written informed consent form the participants of the survey while collecting data.

Consent for publication. Consent approved by authors.

Author's contribution. A.S. conceptualised the idea, contributed to study design, completed the entire article, including introduction, literature review, statistical analysis, discussion, conclusion, limitations, and future research. A.S. edited the original manuscript before submission. M.B. conceptualised the idea, contributed to study design, completed the entire article, including literature review, statistical analysis, discussion, limitations, and future research. M.B. edited the original manuscript before submission. F.M. contributed to study design, completed the article, including literature review, discussion, limitations, and future research. F.M. supported in literature investigation. S.M. contributed to study design, data collection procedures, and discussion. S.M. support in the data analysis procedure.

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