

The Mediating Role of Proactive Environmental Behavior between Environmental Knowledge and Green Discipline Management

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Environmental knowledge, its principles and evolving attitudes towards green discipline management have been used to build on the theory of reasoned action (TRA). The goal of this comprehensive analysis was to explore the direct effect of environmental knowledge on green discipline management and the indirect impact of proactive environmental behaviour between environmental knowledge and green discipline management. The study is quantitative, the adopted philosophy is positivism, and the approach is deductive while a cross-sectional time horizon was employed. Four established hypotheses were tested which are based on the theory of reasoned action (TRA). The adapted questionnaire was circulated among the faculty and administrative staff of one university located in the district of Nowshera KP, Pakistan. The total number of faculty and administration staff was 215. Therefore, the university's whole community was selected as a representative for the analysis. In relation to this, the SMART PLS was used to analyze the data. Due to the pandemic and lockdown situation in the education sector of Pakistan, the study focused on and was limited to one University located in district Nowshera. The results of the present study will provide a useful contribution to theory and also for academia, policymakers, students and society. This research may offer motivation for further researchers in this field. The proposed framework will provide new insights into how proactive environmental behavior plays a mediating role between knowledge

behavior and green discipline management. The novelty of this study shows how the use of proactive environmental behavior strengthens the relationship between environmental knowledge and green discipline management. This approach is infrequently undertaken. There is a need to study environmental knowledge and green discipline management in different organizational contexts, including the education sector as it is directly linked to society especially in a cross-cultural framework. The study is relatively new as most of the people are unaware of environmental knowledge, proactive environmental behavior and green discipline management which are being used as variables of the study. However, it is important to mention that proactive environmental behavior is indeed an important concept which contributes to the modification of theory of TRA. Concerning the methodological contribution, a quantitative, explanatory, and cross-sectional study is being used. The findings of this study reveal that environmental knowledge has a significant impact on green discipline management which is in line with prior studies. Regarding the mediating role of proactive environmental behavior, this was also found to be significant and has a partial mediating role between environmental knowledge and green discipline management. Finally, more work is recommended in the field of green discipline management particularly with rules and regulations which need attention and documentation to properly implement the guideline and policy of green discipline management in organizations. The results help to advise the top management of the university and the faculty to organize seminars and workshops to increase understanding of green discipline management and environmental literacy.

Key words: *TRA, environmental knowledge, proactive environmental behavior, green discipline management.*

Introduction

Environmental knowledge is how much information people have about environmental problems and their ability to consider and assess their effect on culture and environment.

A person's understanding and capacity to learn and maintain environmental facts, concepts and ideas with rapid economic growth in recent years, is becoming richer and living standards are being raised. However, successive forms of emissions are created. Environmental issues have intensified in recent years.

Knowledge of environmental problems is considered a precondition for positive proactive environmental behaviour and its dissemination is considered a critical module and standard for the effective adoption of environmental education initiatives (UNESCO, 2005; Kaiser et al., 2008; Heimlich and Ardoin., 2008). In early experiments on proactive environmental behaviour (Hines et al., 1987), a modest, positive effect of domain-specific environmental

information has been repeated in numerous studies since (Kaiser, 2002; Frick et al., 2004; Meinhold and Malkus, 2005; Geiger et al., 2018). Other research found very minimal cross-sectional associations (Roczen et al., 2013; Braun and Dierkes, 2017; Otto and Pansini, 2017) and the restricted use of knowledge strategies on behavioral modification was debated after Kollmuss and Agyeman's seminal paper (2002). Kaiser and Fuhrer (2003) argue that environmental information is consistently underrated as a distal indicator of environmental behaviour and thus not as prominently researched in environmental behaviour studies as normative or attitudinal features.

Accordingly, a green management approach is viewed as a modern management technique aimed at creating a truly sustainable enterprise, with outcomes evident in the industrial, social and environmental fields. This principle plays an important role in creating more sustainable business forms, thereby reducing their detrimental effects on the environment during operations. It would appear that green management is nothing new but an additional idea of sustainable growth, which is also based on three pillars: climate, culture and economy. However, the sustainable growth principle is often called a triple bottom line.

Green discipline management is a term used in many organizations, primarily relating to environmental issues. It is about developing the correct policy climate that can improve the standard of concern for the environment or minimize the harmful environmental effect of organizations by using suitable technologies. This is also called "Eco," which will support the organization and its recipients or consumers. In companies, a term of corporate social responsibility is frequently encountered alongside green management: social and environmental matters in their business applies and voluntary engagement with their stakeholders is necessary.

This study's motivation is to consider environmental knowledge, environmental values, proactive environmental action and its effect on green discipline management.

This study's first aim is to assess the effect of environmental knowledge and green discipline management. Another aim is to illuminate the mediating impact of proactive environmental action between environmental knowledge and green discipline management.

Literature Review and hypothesis development

1. Environmental knowledge:

Environmental knowledge incorporates a person's understanding of the environment and related issues (Chan et al., 2000). Individuals with such environmental knowledge are optimistic about environmental actions and are highly willing to take action. Flamm et al., (2009) observed that households with higher environmental literacy prefer to buy energy-efficient vehicles. Some researchers have shown that environmental familiarity influences the

attitudes of consumers towards green products (Mostafa & Shades, 2009). Latif et al. found that environmental knowledge influences residents' attitudes towards purchasing with green product behaviour, which in turn influences the ability of residents to buy green products (Sang, 2015). The following theories are summarized:

Environmental knowledge can be characterized as a person ability to recognize many environmental-related symbols, principles and behaviour patterns (Laroche et al., 2001).

Environmental knowledge refers to an individual's understanding of environmental impacts and artifacts (Lee, 2012) and its attention is very broad. Davison et al. (2014) divided environmental education into 13 groups, including environmental policy, environmental management, environmental concerns, geo-ecology, economics, social and cultural climate, adaptation and evolution, natural capital, history, governance, families, people, and mindset. Any applicable information was included in the environmental knowledge scope. Kim et al. (2014) suggested eleven key ideas on educational resources for environmental education, including basic principles, air quality, noise effluence, urban issues, natural balance, woodland and timber protection, human resource management, soil conservation, the wise use of minerals, hydraulic resource conservation and biodiversity conservation. Araghi et al. (2014) indicated that environmental knowledge is an interdisciplinary topic, a form of knowledge originating from anthropology, social science, and ecology. It was also linked to morals, including value, and authority obligation. His coverage standard was very extensive and without climate, the simple needs of people could not be maintained. Therefore, any knowledge related to life and the environment may be considered environmental knowledge (Mantzicopoulos and Patrick, 2011).

Saripah et al (2013), said the city managers and government should prioritise environmental education programs directed at both the public and schools. They further proposed that environmental knowledge should be incorporated in the school syllabus as early as pre-school, while city managers should coordinate annual municipal anti-littering drives. This will raise understanding and inculcate environmental values among people. When residents get the sustainable principles inculcated in them, they're expected to be environmentally proactive. This thesis explores the relationship between environmental knowledge and environmental knowledge with green discipline management and the faculty's and administration's proactive environmental behavior as the mediator.

Van Birgelen et al. (2011) suggested that there was a major association between a schoolchild's ocean environmental knowledge and attitude. Lu and Shon (2012) experimented with high school students who took 10 working days of environmental science instruction and observed that the students had a developed degree of environmental knowledge and were more hopeful and hopeful towards the environment. Other scholars' research (Lee, 2012) has revealed that after a student undertook an environmental training course for four to eight weeks, there was a strong association between environmental knowledge and environmental values. Instructional

movement helps improve environmental knowledge and outlook. Van Birgelen's et al. (2011) study originate a significant positive association between environmental knowledge of a high school teacher and environmental knowledge. For the connotation between perception and affective domain, Kim et al. (2014) indicated that environmental understanding of a primary school teacher was favorably associated with the awareness of environmental anxieties in Taiwan, environmental consciousness, intergalactic conviction, and social values. Araghi et al. (2014) nominated students from a public professional training institution as the study goals and found a strong association between a student's environmental knowledge and their environmental values. Kollmuss and Agyeman (2002) & Kaiser and Fuhrer (2003) argue that environmental knowledge is consistently underrated as a distal indicator of environmental behavior, and thus not as prominently studied as normative or attitudinal factors of environmental behavior studies. When researching environmental information, it is mostly confined to subjective capability self-report tests (e.g., Duerden and Witt, 2010; Milfont, 2012) or paired with subjective environmental assessments as supposed problem understanding (Bamberg and Moser, 2007).

This research suggests the first assumption as follows.

Hypothesis 1: Environmental knowledge affects green discipline management positively and significantly.

2. Environmental Proactive behavior

Salovaara & Oulasvirta (2004) claimed that the purpose of a person to cause change is a proactive behavior rather than just responding and predicting change. Proactive people are those who are looking at a proper vision and probable events in advance, planning actions, and trying to produce possible and positive results (Parker, 2010). A proactive behavior, according to Frese et al., 1996, consists of five fundamentals that reflect the organisation's general priorities, centered on potential goals, optimistic long-term goals, strong-minded when overcoming challenges, developing individual self-starting skills.

Similarly, Grant and Ashford, 2008, suggested that proactive behavior is an effort to influence themselves and their world through human experience.

In this connection, Kollumuss & Agyeman (2002) defined proactive environmental behavior as a conduct that intentionally pursues to reduce the negative effect of one's activities on the normal and constructed environment (for example, minimizing the use of resources and energy, utilizing non-toxic substances, reducing waste generation, reducing the miss use of water resources, maximizing people's planting habits and especially in students, and the promotion of slogans for clean and green cities and villages).



Researchers have tried to describe and designate what they mean by environmental behaviour: ecologically focused behaviour, ecologically essential behaviour, ecologically aware behaviour, pro-environmental behaviour, ecologically sound behavior, and ecologically caring behavior have all been used to refer to the same term. Stern (2000) describes the same term. Similarly, proactive environmental behavior often entails steps taken to minimise environmental effects. It is an estimate of the land area needed to encourage a certain resource and waste lifestyle (Flint, 2001, Akpan et al, 2003).

Environmentally responsible conduct and sustainable conduct are other words contained in the literature that are used under the rubric of proactive environmental conduct.

Kollmuss and Agyeman (2002) suggested that it is such complex pro-environmental behaviour. Variables such as demographics, external influences (e.g. institutional, fiscal, social and cultural) and internal factors (e.g. motivation, pro-environmental information, understanding, beliefs, perceptions and feelings, place of power, roles and priorities) are assumed to have some influence on proactive behavior toward the environment. Therefore, according to Kollmuss and Agyeman, both environmental knowledge and environmental values are internal influences. Furthermore, they added that while various theoretical mechanisms have been established to understand the difference between environmental knowledge ownership and environmental values and proactive environmental activity, no conclusive solution has yet been found.

This research aims to understand environmental knowledge, green discipline management, and proactive environmental behavior of the environment. Consequently, in this review, two more assumptions are suggested as follows.

Hypothesis 2: Environment knowledge has a profound effect on proactive environmental behavior.

Hypothesis 3: Proactive environmental behavior has a significant effect on green discipline management.

3. Green Discipline Management:

Green discipline Management of employees: Wehrmeyer (1996) claims that management of green discipline is a necessity in corporate environmental management. Organizations can require green discipline management practices to meet the organization's environmental management priorities and policies in order to guarantee green employee behaviour in the workplace. In this sense, several organizations have accepted "discipline control" as an instrument for self-regulating workers in the organizations environmental protection activities. These businesses have created a consistent set of rules and regulations that require/regulate workers following the organizations' environmental policies to be concerned with environmental conservation. In such firms, administrative actions (warning, fining,

termination, etc.) are taken against the employee if an employee breaks environmental laws and regulations. Renwick et al., (2008) suggest that setting sanctions for non-compliance with environmental management goals, punishment and/or firing for environmental management abuses, and creating negative environmental management reinforcements (criticism, reminders, lapse suspensions) are all worthwhile activities within the position of green discipline management for workers. Financial rewards such as increasing salaries, providing cash benefits and non-financial incentives such as offering prizes, honoring top management and offering holidays have a huge effect on employee engagement for green implementation in case of rule breaches that are not significant (Shaban, 2019) and may help to build optimistic attitudes about greening. One of the fields under green protection and health management (Ditz et al. 1995) is maintaining a green environment for everyone and it takes further account of cultivating healthy attitudes among workers about green activities within the organization. Accordingly, Wehrmeyer, 1996; Renwick et al., (2008 and 2013) noted that, in order to protect the environment, some businesses have integrated environmental and social roles, obligations and responsibilities as far as possible into each job. Each job description in some organizations includes at least one environmental protection obligation and also explicitly covers environmental obligations whenever and wherever appropriate.

Two key areas of green workplace relations are opportunities to engage and participate in green recommendation schemes and to consider the labor union as a key stakeholder in environmental management (Renwick et al., 2008; Renwick et al., 2013) and it is a strong opportunity to build proactive green attitudes among workers. Renwick et al., (2013) concluded that setting environmental green discipline management success goals for managers would upturn employee values relevant to environmental performance. Green compensation and benefits are an effective mechanism for promoting conservation activities to accomplish environmental targets (Milliman & Clair, 1996). Renwick et al., (2008) propose multiple practices for green incentive administration. They are green pay / reward program, customize packages to reward the learning of green skills, use of monetary-related environmental management incentives (bonuses, cash, premiums), use of non-monetary environmental management rewards (sabbaticals, leave, gifts), use of environmental management rewards based on appreciation (awards, meals, ads, external roles, regular praise), positive rewards in the community. Below is a list of practices suggested by Renwick et al., (2008) as emerging organisational practices under the organizational of green discipline management.

1. Setting sanctions for non-compliance with environmental protection goals (Renwick et al., 2008).
2. Setting fines or expulsion for violations of environmental management (Opatha, 2013).
3. Formulating and publishing greening codes of behaviour (Opatha, 2013).



4. Developing a proactive system of discipline to prosecute workers who break the laws of green behavior.
5. Implementing 'discipline regulation' as an instrument for self-regulating workers in the organization's environmental conservation activities.
6. Establishing a specific collection of laws and regulations that require/regulate environmental safety issues for workers.
7. If an employee breaches environmental laws and rules, take punitive steps against him/her (warning, discipline, dismissal, etc.).

According to Kollumuss & Agyeman (2002), proactive environmental behavior seeks to reduce the negative effect of individual's activities on the natural resources and to take constructive actions in order to meet the environmental discipline management priorities and policies that guarantee green employee behavior in the workplace.

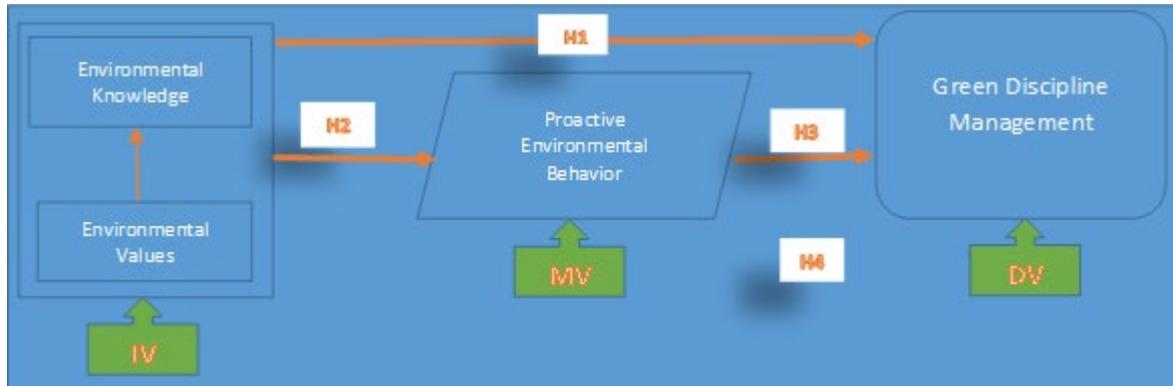
Having the above discussion, this research proposes another hypothesis:

H4: Proactive Environmental Behavior has a significant mediating effect on the effect between Environmental Knowledge and Green Discipline Management

Theory support:

The **theory of reasoned action (ToRA or TRA)** aims to explain the relationship between attitudes and behaviour within human action. It is mainly used to predict how individuals will behave based on their pre-existing behavioral intentions. An individual's decision to engage in a particular behaviour is based on the outcomes the individual expects will come as a result of performing the behavior. The theory was developed by Martin Fishbein and [Icek Ajzen](#) in 1967. The present study is based on theory of reasoned action (TRA) where environmental values and environmental knowledge is based on pre-existing behavioral intention while green discipline management is the outcome that individuals expect will come as a result of performing proactive environmental behavior. In relationship to the above theory support, environmental values and environmental knowledge is considered as an individual variable, proactive environmental behavior is performing the role of mediating variable and green discipline management is primary interest of the study which performs the role of a dependent variable.

Figure 1. Research model based on Theory of Reasoned Action (TRA).

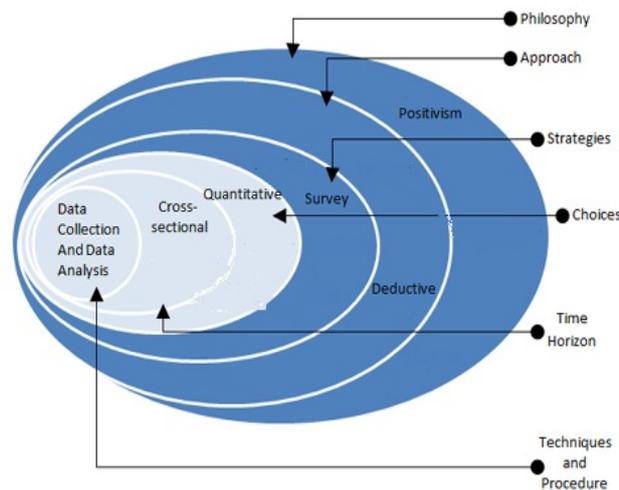


Change behavior to behaviour in Figure 1

Methodology:

According to the model of Saunders et al., (2008), the present study is empirical and explanatory. The study choice is quantitative as numeric data was collected from the respondents; a positivism philosophy approach was employed as the study is based on assumptions, while the study approach was taken as deductive. In a deductive approach, the present study is based on theory of reasoned action (TRA). Finally, a cross sectional time horizon is employed to collect data from the respondents.

Figure 2



Primary data was collected from all of the faculty and administration staff of the Northern University Nowshera KP, Pakistan. The population of this study was limited to only one university located at Nowshera as that university has recently started a campaign for a clean and green university and society. This slogan has attracted and motivated not only the faculty and staff of the university but also the students as well. An adopted questionnaire was distributed among the faculty and administration staff of the university. The total number of

faculty and administration staff was 215. The ratio of return of the filled questionnaire was 100%.

Data Analysis

For the statistical analysis, the Partial Least Squares (PLS), an approximation of the variance-based structural equation modeling (SEM) was used. This technique is selected due to the properties of the constructs that are part of the research model (Ali et al., 2018).

According to (Hair et al., 2012) the advantages of PLS-SEM are (i) the absence of reduced sample size; (ii) normal distribution of data was not required as it is a nonparametric; (iii) no issues of missing values et al; (iv) and the amount of unexplained variance is compact; (v) the validity and reliability of the measurement models are measured by using different criterion.

Concerning the reflective measurement model evaluation, internal consistency is measured by using Cronbach alpha, rho_A and the composite reliability. Similarly, the convergent validity is also measured by using AVE. HTMT and the Fornell and Larcker criteria is used to measure discriminant validity.

The structural model considered path coefficient, R^2 , f^2 (effect size), Q^2 (predictive-performance). According to (Streukens and Leroi-Werelds, 2016) the nonparametric bootstrapping technique is used with 10,000 bootstrap samples.

MEASUREMENT-MODEL

In measurement model assessment, four measurement test results are required, and these tests are internal consistency, indicator reliability / factor loadings, convergent validity and discriminant validity. The first criterion is to check internal consistency reliability. This specifies the degree of constancy among indicators to evaluate the constructs. In this connection the alpha coefficient, rho-A and Composite Reliability CR were inspected and found above the threshold of 0.700 (Hair et al., 2013).

Table 1 reports composite reliability CR of all the latent variables exceeds the required range of 0.7 that hold the divergent validity (Hair, Black, Anderson, 1998). The value of AVE was found as satisfactory as all of the values exceed the threshold of 0.5.

Table 1. Construct Validity and Reliability

Variables	Cronbach's		Composite	
	Alpha	rho_A	Reliability	Average Variance Extracted (AVE)
EK	0.830	0.841	0.873	0.534
GDM	0.894	0.902	0.918	0.652
PEB	0.888	0.890	0.915	0.641

Figure 3

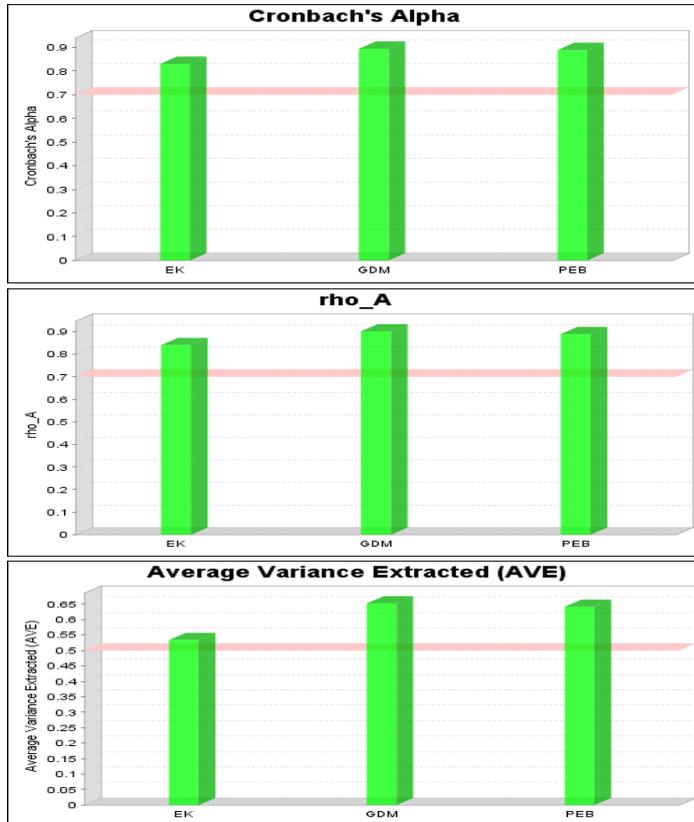
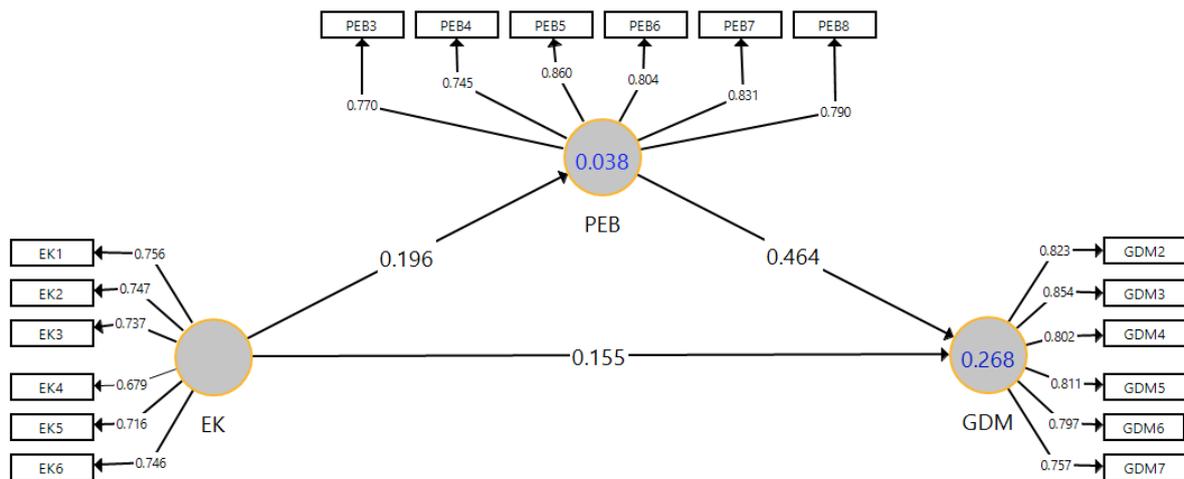


Table 2. CROSS LOADING

	EK	GDM	PEB
EK1	0.756		
EK2	0.747		
EK3	0.737		
EK4	0.679		
EK5	0.716		
EK6	0.746		
GDM2			
GDM3		0.854	
GDM4		0.802	
GDM5		0.811	
GDM6		0.797	
GDM7		0.757	
PEB3			0.770
PEB4			0.745
PEB5			0.860
PEB6			0.804
PEB7			0.831
PEB8			0.790

The result of table 2 shows the items and its loading. The social science acceptance range is above .4 while the present study items loading are .7 and above which is highly recommended by (Hair et al., 2016). The only one item EK4 loading is 0.679 which is below the threshold of 0.708; the rest are above 0.708.

Figure 4.



The second phase of measurement model evaluation was done by conducting confirmatory factor analysis (CFA). In this regard, items only above 0.708 were retained while items below the recommended range were removed with loadings less than 0.7 except EK4.

The third phase of measurement model evaluation is convergent validity. In this connection, table 1 average variance extracted (AVE) of all the latent variable were also found greater than 0.5 shows explained variance is above than the unexplained variance, hence convergent validity for this study is also established.

In the fourth phase of measurement model evaluation, discriminant validity was investigated through Heter-Trait Mono-Trait (HTMT) ratio. According to Henseler, Ringle & Sarstedt (2015), the recommended rang of HTMT is < 0.9 . Table 3 reports the values of PEB and GDM are below than 0.9 ratios. According to the threshold of < 0.9 representing that correlation of indicators of all latent variables are less than the correlations of indicators within the same variable, hence discriminant validity get established.

Table 3. DISCRIMINANT VALIDITY

HTMT			
	EK	GDM	PEB
EK			
GDM	0.270		
PEB	0.215	0.534	

FORNER LARCKER

Table 4

	EK	GDM	PEB
EK	0.731		
GDM	0.246	0.808	
PEB	0.196	0.494	0.801

Table 4 reports accordingly; the result of discriminant validity was also investigated through another test of Fornell & Larcker's Fornell Larcker's satisfactory levels of latent variables.

Structural Model

In structure modeling, the researcher is more interested in examining the overall fit of the estimated model i.e. the path coefficient estimates, the effect size (f^2), and R^2 the coefficient of determination. Table 4 reports the stages to follow in estimating the structural model.

Path coefficient

In structural modeling, a path coefficient estimate is measured as it is statistically important changed from zero (0) at 5% significance level when the p value is less than 0.05.

Table 5 represents the results of the path coefficient as overall positive and significant association between Environmental Knowledge (EK) and Green Discipline Management (GDM). The results of path analysis expose that EK and Proactive Environmental Behavior (PEB) ($\beta = 0.196$, $p < 0.004$) and has a strong and significant impact. Similarly, EK and GDM ($\beta = 0.155$, $p < 0.0025$) also has a strong and significant impact. Accordingly the result of path analysis PEB and GDM ($\beta = 0.464$, $p < 0.0000$) has a robust impact. The t-statistics of all the hypotheses are found significant as above 1.96. Hence the H2 and H3 are accepted.

Table 5. Path Coefficient

Direct, indirect, total effect

	Original Sample (O)	Sample Mean (M)	Standard-Deviation (STDEV)	T-Statistics (O/STDEV)	P Values
EK -> GDM	0.155	0.163	0.069	2.241	0.025
EK -> PEB	0.196	0.213	0.068	2.874	0.004
PEB -> GDM	0.464	0.467	0.068	6.856	0.000

Table 6, 7 & 8 shows the results of mediating analysis. Previous studies have suggested that proactive environmental behavior is about continues effort in between exogenous and endogenous variables. However, fewer studies have been done in the use of proactive environmental behavior in the area of EK and GDM. Present results expose that proactive environmental behavior complimentarily mediates the relationship between EK and GDM. In relation to the above, H4 is supported which says that “*Proactive Environmental Behavior has a significant mediating effect on the effect between Environmental Knowledge and Green Discipline Management*”.

Table 6 shows the total indirect effects EK and GDM as the ($\beta = 0.091$, $p < 0.016$) show significant, hence hypothesis H1 is accepted. Accordingly table 7 which is about the specific indirect effects of proactive environmental behavior between EK and GDM reveals ($\beta = 0.091$, $p < 0.016$) reveals highly significant mediating role of PEB. Hence hypothesis H4 is accepted. Table 8 is about total direct effects of EK with PEB, EK with GDM and PEB with GDM depicts positive and significant statistical results as all p-values are less than 0.05.

Table 6. Total Indirect Effect

	Original Sample (O) Beta	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
EK -> GDM	0.091	0.1	0.038	2.424	0.016
EK -> PEB					
PEB -> GDM					

	Original Sample (O)	Sample Mean (M)	Standard-Deviation (STDEV)	T-Statistics (O/STDEV)	P Values
EK -> GDM	0.155	0.163	0.069	2.241	0.025
EK -> PEB	0.196	0.213	0.068	2.874	0.004
PEB -> GDM	0.464	0.467	0.068	6.856	0.000

Table 7. Specific Indirect Effect

	Original (O)	Sample Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
EK -> PEB -> GDM	0.091	0.1	0.038	2.424	0.016

Table 8. Total Effect

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
EK -> GDM	0.246	0.264	0.063	3.586	0.000
EK -> PEB	0.196	0.213	0.071	2.874	0.004
PEB -> GDM	0.464	0.467	0.062	6.856	0.000

Table 8 is about total direct effects of EK with PEB, EK with GDM and PEB with GDM depicts positive and significant statistical results as all p-values are less than 0.05.

The overall results of the present study depicts that the role of proactive environmental behavior cannot be ignored as this mediating variable convinced the faculty and administration staff to adopt EK and Green Discipline Management positively. Hence, it can be concluded that proactive environmental behavior played an important role in developing proactive behavior instead of reactive behavior in order to gain environmental knowledge and adopt the discipline of green management. Based on the above analysis, the researcher can say that all the hypotheses are accepted significantly.

Table 9. Structural Model Evaluation

Hypotheses	Relationship	T Statistics (O/STDEV)	P Values	f2	R2	Q2
H1	EK -> GDM	3.5860	0.000	0.032	0.268	0.164
H2	EK -> PEB	2.874	0.004	0.040	0.038	0.019
H3	PEB -> GDM	6.856	0.000	0.283		
H4	EK -> PEB -> GDM	2.424	0.016			

Table 9 is about the evaluation of structural model, it shows that all four hypotheses of the study are supported as t-statistics, and p-values are in the range of acceptance. R square of EK with GDM shows 26%, while R square of EK and PEB is found 3.8%.

F square is about the effect sizes, Cohen (1988) assessment was performed with values of H1 was $f^2 = 0.032$ represent small effect size, for H2 was $f^2 = 0.040$ represent small effect size, and for H3 was $f^2 = 0.283$ represent large effect size.

Finally, the Q2 predict indicator was examined to assess the predictive performance of the structural model. Q2 predict values were interpreted with Hair et al. (2019a) rule of thumb and values of 0.01, 0.25, and 0.50, respectively, show small, medium and high-relevance situations of a model. Nexus to above, it was found that H1 showed medium while H2 showed low relevance of model.

Conclusion

The aim of this study was to examine the mediating role of proactive environmental behavior between environmental knowledge and green discipline management. For this cause, the impact of environmental knowledge and green discipline management has been examined. In this case, exploratory factor analysis was conducted to ensure the validity of the measurement instrument and confirmatory factor analysis was conducted to validate the dimensions. A structural equation modeling was then used to test the hypothesis. Results reveal that environmental knowledge has a direct effect on green discipline management. Moreover, environmental knowledge also has a direct effect on proactive environmental behavior and has a direct and indirect impact on green discipline management. Thus, proactive environmental behavior has a partial mediating influence in between the impact of environmental knowledge on green discipline management. The present research further supports the literature in parallel to the findings of previous literature such as Taylor (1996), Laroche et al., (2001), Wang Ying (2010) and Bekar et al., (2006), Paul et al., (2016).

Findings

The results of the study show that green discipline management is a modern phenomenon that needs greater knowledge to impose proper laws and regulations to ensure peoples healthy and disciplined lives for themselves and future generations. After a review of existing studies, it was found that the situation-related impact of independent variables on the mediating variable is weak; it is advised that new scholars should be aware of their plan to accept new information such as environmental knowledge and green discipline management. This thesis contributes to the literature and directs potential scholars, as the mediating role of environmental proactive behavior between environmental knowledge and green discipline management is not adequately studied in Pakistani literature.

Future indications

In order to explore green discipline management, with the mediating role of proactivity, future studies can include environmental awareness and environmental sensitivity.

Finally, the use of selection tools is highly recommended: in order to be mindful of the younger generation, people need to begin enriching their environmental awareness and management of green disciplines; it is proposed that seminars and workshops be conducted at school, college and university level. In addition, a strong source of knowledge is research articles, the internet, newspapers, magazine media, and posters.



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