

## **The Relationships among Environmental Training, Environmental Attitude of Employee, Environmental Behavior of Employee and Environmental Orientation of Organization: A Review of Literature**

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### **Abstract**

This paper reviews the relationships among environmental training, environmental attitude of employee, environmental behavior of employee and environmental orientation of organization. In order to achieve the review objectives, a systematic review of literature was conducted by using an archival method. This review process has used more than 70 research papers which are relevant to reviewed concepts. Findings of the review suggest that there are positive relationships among the reviewed concepts. Further, the relationship between environmental training (independent variable-IV) and environmental orientation of organization (dependent variable-DV) is mediated by environmental attitude of employee (mediating variable-M1). Similarly, environmental behavior of employee (mediating variable-M2) mediates the relationship between environmental training and environmental orientation of organization. Moreover, the environmental attitude of employee (M1) and environmental behavior of employee (M2) sequentially mediate the relationship between the environmental training and environmental orientation of organization ( $IV \rightarrow M1 \rightarrow M2 \rightarrow DV$ ). Finally, this review proposes a three path mediation model which is useful to test and understand the relationships among the reviewed concepts empirically in the future.

**Keywords:** Environmental Attitude of Employee, Environmental Behavior of Employee, Environmental Orientation of Organization, Environmental Training,

## INTRODUCTION

Sustainability becomes about achieving win-win actions which are both good for environment and the business organizations (Harris and Tregidga, 2012). Fundamentally, sustainability deals with three types of performance dimensions such as economic (financial), social and environmental performance which are necessary for environment as well as organizations (Elkington, 1997). Thus, every organization has to report and show its social and environmental performance, in addition to economic or financial performance. In sustainability context, organizational performance includes economic (financial), social and environmental performance nowadays. Due to that, organizations turn their focus and attentions in the direction of social and environmental initiatives to ensure organizational sustainability. On the other hand, environmental issues (e.g. climate change, pollution and energy crisis etc.) create challenges as well as opportunities for business organizations. Hence, organizations have to pay a great attention on environmental protection and management (Renwick et al., 2013) nowadays than before. Most organizations are engaged in reducing their environmental footprints in order to reduce their negative environmental impacts of business activities (Sharma and Sharma, 2011). Aragon-Correa (1998) stated that entrepreneurs redesign business models to minimize the firm's ecological footprint along with the entire organization's life cycle and value chain. Organizations implement several green practices such as green human resource management (GHRM) practices (Ahmad, 2015), green marketing (Peattie, 1992), green accounting (Owen, 1992) and green management (McDonagh and Prothero, 1997) to reduce the ecological footprint.

The natural environment is significant to economy and organizations because of its great value, organizations have always been interested in environmental protection and management (Zoogah, 2011). Bad weather, rising global temperature, melting ice, accumulating greenhouse gases, encroaching seas, inundated coastal lines and many more are caused by the poor environmental management (Ahmad et al., 2009). Therefore, organizations improve their general orientation towards protecting the environment and reduce the environmental impact of an organization in order to satisfy the stakeholders of an organization and to be an ethical and green organization. Organizations are focus on environmental orientation in order to satisfy the stakeholders of an organization such as regulators, organizational members, community members and media (Banerjee et al., 2003). In this context, several authors have studied the relationship between human resource management and environmental performance of the organization (Jabbour and Santos, 2008;

Ji et al., 2012; Renwick et al., 2013; Opatha and Arulrajah, 2014). Human resource management (HRM) plays a central role in creating organizational environmental performance by supporting to environmental management system, organizational change management programs and in aligning functional dimensions of HRM with organizational environmental initiatives (Jabbour and Santos, 2008).

People factor plays an energetic role in creating and sustaining environmental orientation of organizations. Shaping and reshaping behaviors of employees, environmental management related knowledge, skills and attitude development, creating environment-friendly innovative behaviors and knowledge based eco-innovations are possible through people and HRM. Hence, many researchers argued that environmental training to the employees improves the firm's environmental performance (Renwick et al., 2013; Opatha and Arulrajah, 2014; Ahmad, 2015). Miles and Covin (2000) stated that environmental performance of an organization improves its reputation and goodwill. Some authors have argued that employee environmental attitude and behavior are important factors to improve the environmental performance of an organization (Schultz et al., 2004; Opatha and Arulrajah, 2014; Ones and Dilchert, 2012; Kim et al., 2016). Moreover, some studies have suggested that positive environmental attitude of employee has positive effect on the environmental behavior of employee (Kaiser et al., 1999; Singh and Gupta, 2013).

In this context, there is a need to explore the relationships among environmental training, environmental attitude of employee, environmental behavior of employee and environmental orientation of organization theoretically and empirically. Environmental training, environmental attitude of employee, environmental behavior of employee and environmental orientation of organization are considered as the essential elements for organizations which are seeking to mitigate their negative environmental impacts. The existing literature mainly deals with environmental training on environmental management system implementation in the organization rather than its relationship with environmental attitude of employee, environmental behavior of employee and environmental orientation of organization. So, there is a significant theoretical gap exists regarding the relationships among the study concepts. Thus, this review focuses on relationships among environmental training, environmental attitude of employee, environmental behavior of employee and environmental orientation of organization. In the existing literature, these relationships are not clearly explored and remained unclear. Therefore, this review fills these relationship gaps in the existing literature.

Especially, this study should make a direct contribution to the literature on HRM, GHRM, environmental management, environmental attitude and environmental behavior.

Hence, the objective of this review is to explore the relationships among environmental training, environmental attitude of employee, environmental behavior of employee and environmental orientation of organization by reviewing the past literature. The findings of this review may be useful in testing these relationships empirically in this field and pave the way for the future researchers to further explore these relationships.

This article is structured as follows. Next section provides method of review, third section presents the review of the relevant literature about environmental training, environmental attitude of employee, environmental behavior of employee and environmental orientation of organization and propose the hypotheses. Next, based on the literature review and discussion, this paper proposes a three path mediation model and finally, it ends up with conclusion.

## **METHOD**

In order to achieve the review objectives, a systematic review of literature was conducted by using the archival method as recommended by Tranfield and others (2003). This review process includes classifying the literature from the sources such as journal articles, edited works, and other research papers relating to the review topic, analyzing, and reporting the findings of the review. This review considers the research works on ‘environmental training’, ‘environmental attitude of employee’, ‘environmental behavior of employee’ and ‘environmental orientation of organization’ appeared in the literature. This review has used the archival method for data collection, because it enabled the researchers to structure research and builds a reliable knowledge base on existing literatures on the environmental training, environmental attitude of employee, environmental behaviour of employee and environmental orientation of organization.

## **REVIEW OF LITERATURE**

### **Environmental Training and Environmental Orientation of Organization**

Several researchers have suggested that training can improve the organization’s performance (Arthur, 1994; Pfeffer, 1998; Birdi et al., 2008). The reason is training will improve knowledge, skills and attitude of employees and can increase their motivation and commitment to perform their tasks (Jackson and Schuler, 1995; Birdi et al., 2008).

Environmental training defined as the systematic process to improve the environmental knowledge, skills and attitudes of employees in order to achieve the environmental goals of the organization. And environmental orientation of organization defined as the organization's general orientation towards protecting the environment and reducing the negative environmental impact of an organization in order to satisfy the stakeholders of an organization and being an ethical and green organization.

Jabbour and Santos (2008) stated that superior environmental performance requires the HRM practices that support the whole implementation and maintenance of environmental management systems of organization. Environmental training seems to be an important role of HRM and plays a crucial role in environmental management of organization (Wehrmeyer, 1996). Because, environmental training develops the environmental knowledge, skills and awareness of the employees. Research also indicated that environmental training is an important aspect to create environmental concerned employees (Arulrajah et al., 2015). Due to that, organizations are investing huge amount of capital on environmental training.

Environmental training is considered as the essential tool to determine the environmental performance of the organization (Aragon-Correa, 1998). Moreover, ISO 14000 environmental management standards also mandated the environmental training to the employees. In addition, Cook and Seith (1992) argued that environmental training to employees leads to compliance with regulatory requirements, increase the employees' responsibility and liability, to create positive public image, encourage employees to become stewards of the environment and motivate the employee to participate in the proactive environmental management.

Environmental training plays a major role in encouraging employees' skills to work in an innovative environment that will positively influence the environmental performance of organization (Cole et al., 2008). Without proper environmental training, it is impossible for an organization to achieve its environmental goals (Arulrajah et al., 2015). According to Zoogah (2011) environmental training educates employees about the environmental management, train them on conservation of energy, reduce waste, and recycle within organization and provide opportunity to engage employees in environmental performance. In addition, Ahmad (2015) suggested that environmental training makes the employees aware of different aspects and value of environmental management. Researchers have stated that environmental training

and education improve the employee abilities to give high contribution to environmental management activities (Ramus, 2002; Renwick et al., 2008). Brio et al. (2007) argued that progress in environmental management is considered as an employee oriented activity and environmental training contributes to improve the employee's skills toward environmental management of organization. Research has suggested that environmental training improve the employee's motivation towards eco initiatives and environmental performance of organization (Jabbar and Abid, 2014). In addition, environmental training helps to reduce waste, use the resources properly, conserve energy and reduce the causes of environmental degradation which in turn leads to environmental orientation of organization. Therefore, number of organizations providing the environmental training to their employees in order to improve the environmental orientation of organization. According to the above literature, this review establishes that environmental training has a positive relationship with environmental orientation of organization as the first hypothesis of this review:

*Hypothesis 1: There is a positive relationship between environmental training and environmental orientation of organization.*

### **Environmental Training and Environmental Attitude of Employee**

Several authors have argued that environmental related training to the employees improves their individual environmental performance (Jabbour and Santos, 2008; Renwick et al., 2008; Renwick et al., 2013; Ahmad, 2015). This has to happen through positive attitude changes among the employees towards environmental protection and management related aspects.

In this context, environmental attitude of employee defined as the employee's feeling, beliefs and intension of employee to participate in the environmental initiatives of the organization in order to achieve the environmental goals of the organization.

Environmental training is an important aspect in the implementation process of environmental management system within the organization (Delmas and Pekovic, 2013). Accordingly, environmental training concerns systematic process that gives employees the knowledge, attitudes, and skills to meet the environmental management goals set by senior management (Daily et al., 2012).

Renwick et al. (2013) have indicated that environmental training provides environmental knowledge and attitudes of employees which improve the environmental performance of the employee. Environmental training and education create a culture in the organization which

employees feel them accountable for environmental outcomes and impacts (Ramus, 2002). Training improves the employee's awareness of the organization's environmental goals (Jackson et al., 2011). Aragon-Correa (1998) has argued that environmental training is associated with the environmental position of particular organization. Accordingly, environmental training improves employee attitudes positively towards organization's environmental management initiatives such as prevention of pollution and waste management and many more (Florida, 1996; Hart and Ahuja, 1996). Environmental training can be considered as an indicator to measure the firm's environmental performance (Aragon-Correa, 1998). Fernandez et al. (2003) have stated that environmental training is important to increase employees' awareness and emotional attachment to achieve the environmental objectives of the organization.

However, few studies have considered the relationship between environmental training and environmental attitude of employees in the past. There has been research evidence that environmental training increases employees' abilities to adapt to change and develop proactive attitudes toward environmental issues (Carter and Dresner, 2001). Sarkis et al. (2010) suggested that environmental training is relevant to adapt environmental practices in the organization. In other words, environmental training improves the employees' positive attitude towards environmental initiatives of the organizations such as recycling, reducing green gas emissions, reuse, reducing energy usage and reducing paper usage and many more. Employees need positive environmental attitudes and competencies which are important to improve the employee environmental performance (Opatha and Arulrajah, 2014). Zoogah (2011) stated that environmental training improve the environmental knowledge, skills, and attitude of employees. Environmental attitude stated as mindset of employees towards environmental issues (Heberlein, 1981; Kaiser et al., 1999). In addition, Opatha and Arulrajah (2014) suggested that three aspects of environmental attitude of employee such as cognitive aspect (believe in environmental protection), affective aspect (positively feeling about the environmental protection) and behavioral aspect (intention to be a serious contributor to environmental protection). Thus, organizations are providing environmental training to improve the cognitive, affective and behavioral aspect of environmental attitude to the employees.

Thus, this review considers it as a gap in the literature and wants to establish a positive relationship between environmental training and environmental attitude of employee. Based

on the above cited literature evidences, it can be possible to establish a positive relationship between environmental training and environmental attitude of employee. According to the above literature, this review establishes that environmental training has a positive relationship with environmental attitude of employee as the second hypothesis of this review:

*Hypothesis 2: There is a positive relationship between environmental training and environmental attitude of employee.*

### **Environmental Attitude of Employee and Environmental Orientation of Organization**

Researchers have studied the relationship between environmental attitude of employee and environmental orientation of organization (Ramus, 2002; Jabbour and Santos, 2008; Renwick et al., 2013; Young et al., 2015). Nowadays, organizations are paying great attention on environmental related corporate social responsibility activities (CSR). CSR is defined as balanced integration between social and environmental considerations into business decisions and operations. Employees are the key stakeholders in CSR activities of the organizations. Strandberg (2009) argues that without employee participation, CSR becomes public relations (PR) activities. Accordingly, environmental attitude of employee leads to enhance environmental orientation of the organization and ultimately it leads to improve organization's superior environmental performance.

Several researchers have argued that employee's positive attitudes toward environmental protection and their participation in environmental management activities of the organization lead to superior environmental performance (Ramus, 2002; Strandberg, 2009; Florida, 1996). Personal values of employees impact on their attitude towards economic, social and environmental aspects of sustainable development (Cirnu and Kuralt, 2013). Harries and Tredigda (2012) have argued that employee positive attitudinal and behavioral changes towards environmental protection lead to improve environmental orientation and performance of the organizations.

An organization can be considered as collection of people. They have to work as a team to achieve their common goals and purposes. Nowadays, in facing environmental challenges and in transforming environmental issues and challenges as opportunities, employees' positive attitudes towards environment are of paramount importance. Hence, more positive attitudes of employees towards environmental initiatives and programs improve environmental orientations of organizations. In other words, environmental orientation of an

organization can be represented by its employees' environmental attitudes in general. By positively shaping employees' attitudes towards environmental protection and management through HRM, an organization can improve its environmental orientation and ultimately, it leads to organization's environmental performance.

Positive environmental attitudes of employees (including management) in an organization will lead to establish and implement several corporate environmental policies (e.g. environmental purchasing policy, fossil fuel use reduction policy, toxic chemical use reduction policy, and etc.) in that particular organization, such organizations' managers and supervisors behaviors may also support employees' eco initiatives (e.g. innovation, encouraging new ideas experimentation and learning, competence building, supportive of training and education activities and many more), and ultimately these trends may improve environmental orientation and the performance of the organizations (Ramus, 2002).

Environmentally proactive workforce or employees of the organizations are interested in implementing environmental protection related initiatives and volunteer activities. Finally, these trends may be reflected in their organizations' operations, processes, products and service performance.

Environmental issues demand the organizations to improve the product and process related improvements to protect and sustain the environment. Product related development includes practices such as packaging and eco labeling and process related development includes practices such as recycling waste and redesigning the products (Gilley et al., 2000). Environmental attitudes of employees are the base for these initiatives and activities of the organizations and definitely these trends improve the environmental orientations of the organizations. Therefore, this review proposes the third hypothesis:

*Hypothesis 3: There is a positive relationship between environmental attitude of employee and environmental orientation of organization.*

### **Environmental Training and Environmental Behavior of Employee**

Employees are treated as major stakeholders in an organization (Lawler et al., 1996) likewise employees are the ultimate stakeholders in environmental orientation of organization. Organizations require the behavior change of employees to the environmental orientation of the organization (Kim et al., 2016). When managers determine that a change in the organization is necessary, training activities are often among the first area for human

resource management involvement (Jackson et al., 2011). In addition, Opatha (2009) explained that training is a formal process of changing employee behavior and motivation in the way that will enhance employee job performance and then organizational overall performance.

Environmental behavior of employee defined as the actual behavior of employee towards environmental initiatives of the organization to reduce the negative impact on environment or improve the positive environmental impact.

Graves et al. (2013) stated that the employee motivation is a key factor to promote the environmental behavior of employee. Organizations provide the environmental training in order to motivate the employees in proactive environmental management of the organization. In this context, Perron et al. (2006) have stated that environmental training is a key aspect or necessary condition for the environmental management effort which contributes to improve the employees' environmental behavior and responsible actions. Environmental training is providing opportunities to everybody to be trained on environmental management aspects (Opatha, 2013). Further, environmental training aims to assess the environmental issues, develop practical solutions to problems and promote environmentally responsible behaviors within the organization (Mangas et al., 1997; Pooley and O'Connor, 2000).

However, few studies have considered the relationship between environmental training and environmental behavior of employee. In this study, researchers fill this gap by reviewing the existing literature. There are research evidences showed that provision of environmental training for the employees help to change the positive environmental behavior of employees (North, 1997; Sammalisto and Brorson, 2008). Moreover, Paille and Boiral (2013) have stated that the environmental training should also have a positive impact on environmental behavior of employee by promoting the values and knowledge necessary to promote appropriate environmental initiatives in the organization. In addition, Renwick et al. (2013) have stated that environmental training and education help to improve the environmental actions and behaviors at work place. Further, environmental transformational leaders have also engaged in coaching and mentoring to develop employees' capacity to address environmental issues, thereby increasing employees' feelings of competence, and, ultimately enhancing their level of motivation to engage in environmental behaviors (Graves et al., 2013). Based on the above cited literature evidences, it can be possible to establish a positive

relationship between environmental training and environmental behavior of employee. According to the above literature, this review establishes that environmental training has a positive relationship with environmental behavior of employee as the fourth hypothesis of this review:

*Hypothesis 4: There is a positive relationship between environmental training and environmental behavior of employee.*

### **Environmental Behavior of Employee and Environmental Orientation of Organization**

Environmentally proactive firms are interested to take environmental actions that will improve the environmental performance of the organization's operations, products and services (Ramus, 2002). The employees are the ultimate actors in the environmental initiatives of the organization because they implement the changes in behaviors and routines which are required to achieve the environmental goals of the organization (Perron et al., 2006). Therefore, environmental behavior of employee considered as the important aspect to improve the environmental orientation of the organization.

Several authors have argued that environmental behavior of employee leads to improve the environmental orientation of organization (Unsworth et al., 2013; Young et al., 2015, Kim et al., 2016). Environmental behavior of employee includes broad set of eco-friendly activities in the workplace such as learning and thinking about the environment, developing and applying ideas to reduce the organization's negative effects on physical environment, developing green products and process and recycling as well as reusing (Graves et al., 2013) are contributed to environmental orientation of the organization (Kim et al., 2016).

Encouraging environmental behavior of employee is an important aspect to implement successful environmental programs in the workplace (Young et al., 2015). Moreover, Daily et al. (2009) have indicated that successful environmental programmes of the organization often depend on the environmental behavior of employee. Therefore, organizations provide incentives and rewards to the employees in order to encourage the environmental friendly activities and environmental behavior (Berry and Rondinelli, 1998; Jackson et al., 2011).

Environmental behavior of employee associated with the pollution prevention, internalization of environmental management practices, eco innovation and knowledge management within the organization (Boiral et al., 2015).

In this context, Ones and Dilchert (2012) have identified five categories of environmental behavior of employee such as (1) conserving category (includes behaviors that focus on waste reduction and conserving of natural resources), (2) working sustainability (related to changing work products and process in order to minimize environmental impact), (3) avoiding harm (avoidance of negative environmental behaviors at work, like pollution), (4) Influencing others (educating and encouraging other employees to minimize impact and take initiative on environmental behaviors), and (5) take initiative (willingness to take risks for the benefit of the environment) which are directly contributes to improve the environmental orientation of organization. In addition, research has identified three dimensions of environmental behavior of employee such as eco helping, eco civic engagement, eco initiatives (Paille and Boiral, 2013). Accordingly, eco helping refers to voluntary willingness of employees to promote environmental concerns in the workplace, eco civic engagement relates to voluntary participation in the environmental programmes and activities of the organization and eco initiatives are the form of discretionary behaviors and improving suggestions for improving environmental practices and performance which contribute to improve the environmental orientation of organization.

Davis and Challenger (2013) suggested that organizations should provide the opportunities to the employees to engage in the environmental sustainability behavior to improve the environmental orientation of the employees. In other words, actual environmental behavior of employee such as printing double-sided, turn off electric appliances, using substitute for polythene, reducing water waste and reducing the paper usage, using public transport and many more help to reduce negative environmental impact of organization to improve the environmental orientation of organization. Therefore, this review proposes the fifth hypothesis:

*Hypothesis 5: There is a positive relationship between environmental behavior of employee and environmental orientation of organization.*

### **Environmental Attitude of Employee and Environmental Behavior of Employee**

Researchers argued that employee participation is an important aspect of superior environmental performance of the organization (Bunge et al., 1996; Florida, 1996; Rothenberg, 2003). Also researchers have indicated that environmental attitude and behavior of employee lead to promote environmental innovations and environmental outcomes within the organization (Opatha and Arulrajah, 2014). In this context, several researchers studied the

relationship between environmental attitude and environmental behavior of employee for many years (Ajzen, 1991; Kraus, 1995; Wright and Klyn, 1998; Kaiser et al., 1999; Singh and Gupta, 2013). According to the theory of planned behavior, environmental behavior of employee is predicted by environmental attitude of employee (Ajzen, 1991).

According to Tudor et al. (2008), environmental attitude of employee is a strong predictor for behavior and underlying beliefs shaped an employee's environmental attitude. Accordingly, behavior intentions of employees turn into actual environmental behavior (Park et al., 2012). Singh and Gupta (2013) stated that behavior is the result of attitude that can in different forms as people willingness and intended actions that shape it. In addition, Bissing-Olson et al. (2013) also stated that environmental attitude of employee plays a major role in determining environmental behavior of employee at work. Halpenny (2005) suggested that intention to perform the behavior caused by the employee's attitude toward performing the behavior and employee's subjective norms of the behavior. Bamberg and Moster (2007) conducted a meta-analysis on the psychological constructs that related to environmental behavior. In this analysis environmental attitude is identified as the one of the psychological constructs that supports environmental behavior.

As noted above, environmental attitude of employee play a vital role in determine the environmental behavior of employee at work. According to Opatha and Arulrajah (2014), cognitive, affective and behavioral aspect of environmental attitude of employee contributes to decide the actual environmental behavior of employee at work place. For instance, employees have strong feeling towards conserving energy are more likely to fostering the environmental behaviors such as switch off lights and fan when they are not in use, use public transport, reduce paper usage, printed double-sided and many more. In line with the conclusions reached by all these authors, this review establishes that environmental attitude of employee has a positive relationship with environmental behavior of employee as the sixth hypothesis of this review:

*Hypothesis 6: There is a positive relationship between environmental attitude of employee and environmental behavior of employee.*

### **Environmental Attitude of Employee Mediates the Relationship between Environmental Training and Environmental Orientation of Organization**

Based on the above cited literature evidences, it can be possible to establish a positive direct relationship between environmental training and environmental orientation of employee. In this context, Opatha and Arulrajah (2014) have stated that environmental attitude of employee plays a significant role in determining the environmental orientation of organization. Environmental attitude of employee considered as the employee's general concerns about the natural environment (Kaiser et al., 1999). Environmental attitude of employee has a positive effect on environmental management programmes of the organization, which in turn leads to improve the environmental orientation of organization (Park et al., 2012). In addition, researchers argued that environmental training to the employee positively shapes the environmental attitude of employee towards environmental management activities of the organizations (Zoogah, 2011; Ahmad, 2015). Hence, most of the organizations seriously consider providing environmental training in order to improve the environmental attitude of employee to achieve the environmental goals of the organizations. According to the above literature, this review establishes that environmental attitude of employee mediates the relationship between environmental training and environmental orientation of organization as the seventh hypothesis of this review:

*Hypothesis 7: Environmental attitude of employee mediates the relationship between environmental training and environmental orientation of organization.*

### **Environmental Behavior of Employee Mediates the Relationship between Environmental Training and Environmental Orientation of Organization**

According to Russell and Griffiths (2008), environmental behavior of employee stated as any action taken by employees that would improve the environmental orientation of the organization. In other words, environmental behaviors of employee such as reducing paper usage, reducing water usage, recycling waste energy conservation and many more contributes to improve the environmental orientation of organization. In this context, North (1997) stated that providing the environmental training that will result in a change in the environmental behavior among the employees. In addition, providing training to encourage recycling and waste management and reducing long distance business travel (Jackson et al., 2011) are very useful to reduce the negative environmental impacts of the organizations. Environmental behavior of employee contributes to the greening of the organization (Robertson and Barling, 2013). Therefore, changing the environmental behavior of employee through the

environmental training has significant role in determining the environmental orientation of organization. Hence, researchers conclude that environmental behavior of employee mediates the relationship between environmental training and environmental orientation of organization. Therefore, this review proposes the eighth hypothesis:

*Hypothesis 8: Environmental behavior of employee mediates the relationship between environmental training and environmental orientation of organization.*

### **Environmental Attitude of Employee and Environmental Behavior of Employee Sequentially Mediate the Relationship between Environmental Training and Environmental Orientation of Organization**

Environmental training plays a key role in improving the environmental orientation of organization (Obabid and Alias, 2015). According to Opatha and Arulrajah (2014) organizations can improve their environmental orientation by improving the environmental attitude and behavior of employee. Zoogah (2011) stated that provision of environmental training prevents the decline of employee's environmental attitude. In this context, Ajzen (1991) stated that environmental attitude of employee is the powerful predictor of environmental behavior of employee. Also it is necessary for organization to promote and ultimately change the environmental behaviors of employee to achieve the environmental orientation of organization. As described above, environmental attitude and behavior of employee sequentially mediate the relationship between environmental training and environmental orientation of organization. Therefore, this review proposes the ninth hypothesis:

*Hypothesis 9: Environmental attitude of employee and environmental behavior of employee sequentially mediate the relationship between environmental training and environmental orientation of organization.*

## **DISCUSSION**

Basically, this review deals with four main concepts. They are environmental training, environmental attitude of employee, environmental behavior of employee and environmental orientation of organization. Based on the existing literature, this review establishes the associations among these concepts and proposes nine hypotheses. The findings of the review suggest that there are positive relationships between the environmental training and environmental orientation of organization, environmental training and environmental attitude of employee, environmental attitude of employee and environmental orientation of

organization, environmental training and environmental behavior of employee, environmental behavior of employee and environmental orientation of organization, and environmental attitude and environmental behavior of employee.

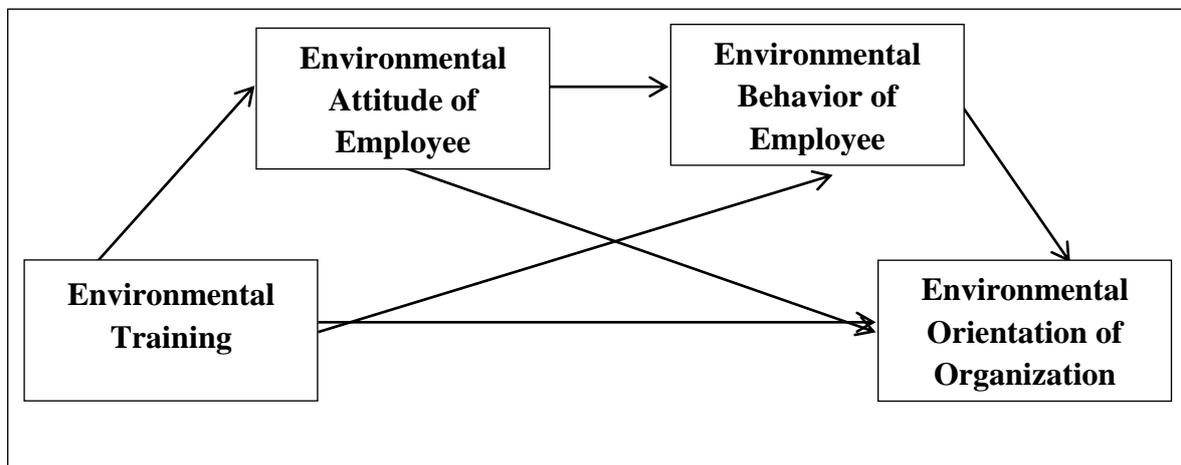
The objective of environmental training is to shape the environmental attitudes of employees and develop their knowledge, skills and abilities which are needed to protect the environment in an organizational context. The positive environmental attitude development of employees in the organizations ultimately reflects in various initiatives and activities of the organizations in protecting and managing the natural environment or in reducing the negative environmental impacts of the organizations. Overall, this trend improves the environmental orientation of the organization. Thus, this review can establish that environmental attitude of employee mediates the relationship between environmental training and environmental orientation of organization. Therefore, it is possible to establish the simple mediation model which shows the relationships among environmental training, environmental attitude of employee and environmental orientation of organization ( $IV \rightarrow M_1 \rightarrow DV$ ).

Based on the above literature, this review can also establish the simple mediation model which explains the relationships among environmental training, environmental behavior of employee and environmental orientation of organization. The environmental behavior of employee includes a broad range of actions such as reduce water and paper wastage, recycling and reuse materials, energy conservation and many more. Providing the environmental training contributes to the improvement of those environmental behaviors of employee, which in turn leads to improve the environmental orientation of organization. Hence, environmental behavior of employee plays a mediator role in the relationship between environmental training and environmental orientation of organization ( $IV \rightarrow M_2 \rightarrow DV$ ).

Furthermore, this review proposes a sequential mediation model based on the relationships among environmental training, environmental attitude of employee, environmental behavior of employee and environmental orientation of organization. Environmental attitude of employee and environmental behavior of employee may sequentially mediate the relationship between environmental training and environmental orientation of organization. Environmental training contributes to improve the environmental attitude of employee to actively perform the environmental behavior within the organization, which in turn positively

and significantly effects the environmental orientation of organization. Thus, environmental attitude of employee and environmental behavior of employee sequentially mediate the relationship between environmental training and environmental orientation of organization ( $IV \rightarrow M_1 \rightarrow M_2 \rightarrow DV$ ).

Based on the existing literature, this review establishes the two simple mediation models and a sequential mediation model to show the relationships among the variables. By connecting these models, it can be possible to establish a three-path mediation model to show the relationships among environmental training, environmental attitude of employee, environmental behavior of employee and environmental orientation of organization (see Figure 1).



## CONCLUSION

This review establishes the relationships among environmental training, environmental attitude of employee, environmental behavior of employee and environmental orientation of organization. Based on this review, we can conclude that the relationship between environmental training and environmental orientation of organization is mediated by environmental attitude of employee. Similarly, environmental behavior of employee also mediates the relationship between environmental training and environmental orientation of organization. Furthermore, environmental attitude of employee and environmental behavior of employee sequentially mediate the relationship between environmental training and environmental orientation of organization. Finally, this review has proposed a three path mediation model which is useful to test proposed relationships in this review empirically in the future.

**REFERENCES**

- Ahmad, S. (2015), "Green Human Resource Management: Policies and practices", *Cogent Business & Management*, Vol. 2, No.1, pp. 1-15.
- Ahmad, S., Saha, P., Abbasi, A. and Khan, M. (2009), "Environmental Management Systems and Sustainability: Integrating Sustainability in Environmental Management Systems", pp. 13-90
- Aragón-Correa, J.A. (1998), "Strategic proactivity and firm approach to the natural environment", *Academy of management Journal*, Vol. 41, No. 5, pp. 556-567.
- Araujo, F.F. (2014), "Do i look good in green?: A conceptual framework integrating employee green behavior, impression management, and social norms", *Amazon, organizations and sustainability*, Vol. 6, No. 2, pp. 7-23.
- Arthur, J.B. (1994), "Effects of human resource systems on manufacturing performance and turnover", *Academy of Management journal*, Vol. 37, No. 3, pp. 670-687.
- Arulrajah, A.A., Opatha, H.H.D.N.P. and Nawaratne, N.N.J. (2015) "Green Human Resource Management Practices: A Review", *Sri Lankan Journal of Human Resource Management*, Vol. 5, No.1, pp. 1-16.
- Ajzen, I. (1991), "The theory of planned behavior", *Organizational Behaviour and Human Decision Processes*, Vol. 50, No. 2, pp. 179-211.
- Bamberg, S. and Möser, G. (2007), Twenty years after Hines, Hungerford, and Tomera: "A new meta-analysis of psycho-social determinants of pro-environmental behavior", *Journal of environmental psychology*, Vol. 27, No. 1, pp. 14-25.
- Banerjee, S.B., Iyer, E.S. and Kashyap, R.K. (2003), "Corporate environmentalism: Antecedents and influence of industry type", *Journal of Marketing*, Vol. 67, No. 2, pp.106-122.
- Berry, M.A. and Rondinelli, D.A. (1998), " Proactive corporate environmental management: A new industrial revolution", *The Academy of Management Executive*, Vol. 12, No. 2, pp. 38-50.
- Birdi, K., Clegg, C., Patterson, M., Robinson, A., Stride, C.B., Wall, T.D. and Wood, S.J.(2008), "The impact of human resource and operational management practices on company productivity: A longitudinal study", *Personnel Psychology*, Vol. 61, No. 3, pp. 467-501.
- Bissing-Olson, M.J., Iyer, A., Fielding, K.S. and Zacher, H. (2013), "Relationships between daily affect and pro-environmental behavior at work: The moderating role of pro-environmental attitude", *Journal of Organizational Behavior*, Vol. 34, No.2, pp.156-175.
- Boiral, O., Paille, P. and Raineri, N. (2015), "The nature of employees' pro-environmental behaviors". *The psychology of green organizations*, Presses universitaires d'Oxford : Oxford 2015, pp. 12-32.
- Brío, J.Á., Fernandez, E. and Junquera, B.(2007), "Management and employee involvement in achieving an environmental action-based competitive advantage: an empirical study", *The International Journal of Human Resource Management*, Vol. 18, No. 4, pp. 491-522.
- Bunge, J., Cohen-Rosenthal, E. and Ruiz-Quintanilla, A. (1996), "Employee participation in pollution reduction: Preliminary analysis of the Toxics Release Inventory", *Journal of Cleaner Production*, Vol. 4, No.1, pp. 9-16.

- Carter, C.R. and Dresner, M. (2001), "Purchasing role in environmental management: cross-functional development of grounded theory", *Journal of Supply Chain Management*, Vol. 37, No. 2, pp.12-27.
- Cirnu, C.E. and Kuralt, B. (2013), "The impact of employees' personal values on their attitudes toward sustainable development: Cases of Slovenia and Romania", *Management-Journal of Contemporary Management Issues*, Vol.18, No. 2, pp.1-20.
- Cook, J. and Seith, B.J. (1992), "Designing an effective environmental training program", *Journal of Environmental Regulation*, Vol. 2, No.1, pp. 53-62.
- Cole, M.A., Elliott, R.J. and Strobl, E.(2008), "The environmental performance of firms: The role of foreign ownership, training, and experience", *Ecological Economics*, Vol. 65, No. 3, pp. 538-546.
- Daily, B.F., Bishop, J.W. and Govindarajulu, N. (2009), "A conceptual model for organizational citizenship behavior directed toward the environment", *Business & Society*, Vol. 48, No. 2, pp. 243-256.
- Davis, M.C. and Challenger, R. (2013), "Environmentally sustainable work behavior", *Wiley Encyclopedia of Management*, Vol. 3, No.1, pp. 1-10.
- Daily, B.F., Bishop, J.W. and Massoud, J.A.(2012), "The role of training and empowerment in environmental performance: A study of the Mexican maquiladora industry", *International Journal of Operations & Production Management*, Vol. 32, No. 5, pp. 631-647.
- Delmas, M.A. and Pekovic, S. (2013), "Environmental standards and labor productivity: Understanding the mechanisms that sustain sustainability", *Journal of Organizational Behavior*, Vol. 34, No. 2, pp. 230-252.
- Elkington, J.(1997), "*Cannibals with forks. The triple bottom line of 21<sup>st</sup> century business*", Oxford: capstone.
- Fernandez, E., Junquera, B. and Ordiz, M. (2003), "Organizational culture and human resources in the environmental issue: a review of the literature", *International Journal of Human Resource Management*, Vol.14, No. 4, pp. 634-656.
- Florida, R. (1996), "Lean and green: the move to environmentally conscious manufacturing", *California management review*, Vol. 39, No.1, pp. 80-105.
- Gilley, K.M., Worrell, D.L., Davidson, W.N. and El-Jelly, A. (2000), "Corporate environmental initiatives and anticipated firm performance: The differential effects of process-driven versus product-driven greening initiatives", *Journal of management*, Vol. 26, No. 6, pp.1199-1216.
- Graves, L.M., Sarkis, J. and Zhu, Q.(2013), "How transformational leadership and employee motivation combine to predict employee pro-environmental behaviors in China", *Journal of Environmental Psychology*, Vol. 35, pp.81-91.
- Harris, C. and Tregidga, H. (2012), "HR managers and environmental sustainability: strategic leaders or passive observers?", *The International Journal of Human Resource Management*, Vol. 23, No. 2, pp.236-254.
- Hart, S.L. and Ahuja, G. (1996), "Does it pay to be green? An empirical examination of the relationship between emission reduction and firm performance", *Business strategy and the Environment*, Vol. 5, No. 1, pp. 30-37.

- Halpenny, E. (2005), "Pro-environment intentions: examining the affect of place attachment, environmental attitudes, place satisfaction and attitudes toward pro-environmental behavior", *In papers presented at the eleventh Canadian congress on leisure research*.
- Heberlein, T.A. (1981), "Environmental attitudes". Vol. 2, No. 81, pp. 240-70.
- Jackson, S.E., Renwick, D.W., Jabbour, C.J. and Muller-Camen, M.(2011), "State-of-the-art and future directions for green human resource management: Introduction to the special issue", *German Journal of Human Resource Management*, Vol. 25, No. 2, pp. 99-116.
- Jabbar, M.H. and Abid, M. (2014). "GHRM: Motivating Employees towards Organizational Environmental Performance", *MAGNT Research Report*, Vol. 2, No. 4, pp. 267-278.
- Jackson, S.E. and Schuler, R.S. (1995), "Understanding human resource management in the context of organizations and their environments", *Human Resource Management: Critical Perspectives on Business and Management*, Vol. 2, pp. 45-74.
- Jabbour, C.J.C. and Santos, F.C.A. (2008), "The central role of human resource management in the search for sustainable organizations", *The International Journal of Human Resource Management*, Vol. 19, No. 12, pp. 2133-2154.
- Ji, L., Huang, J., Liu, Z., Zhu, H. and Cai, Z. (2012), "The effects of employee training on the relationship between environmental attitude and firms' performance in sustainable development", *The International Journal of Human Resource Management*, Vol. 23, No. 14, pp. 2995-3008.
- Kaiser, F.G., Wolfing, S. and Fuhrer, U. (1999), 'Environmental attitude and ecological behavior", *Journal of environmental psychology*, Vol. 19, pp. 1-19.
- Kim, S.H., Kim, M., Han, H.S. and Holland, S. (2016), "The determinants of hospitality employees' pro-environmental behaviors: The moderating role of generational differences", *International Journal of Hospitality Management*, Vol. 52, pp.56-67.
- Kraus, S.J. (1995), "Attitudes and the prediction of behavior: A meta-analysis of the empirical literature", *Personality and social psychology bulletin*, Vol. 21, No. 1, pp.58-75.
- Lawler, E.E., Mohrman, S.A., Ledford, G.E. and Lake, D.G. (1996), "Creating high performance organizations", *Human Resource Management-New York*, Vol. 35, No. 2, pp.251-254.
- Mangas, V.J., Martinez, P. and Pedauye, R. (1997), "Analysis of environmental concepts and attitudes among biology degree students", *The Journal of Environmental Education*, Vol. 29, No. 1, pp.28-33.
- McDonagh, P. and Prothero, A. (1997), "*Green management: A Reader*", London, UK: Dryden press.
- Miles, M.P. and Covin, J.G. (2000), "Environmental marketing: A source of reputational, competitive, and financial advantage", *Journal of business ethics*, Vol. 23, No. 3, pp.299-311.
- North, K. (1997), *Environmental Business Management – An Introduction*, 2<sup>nd</sup> ed, International Labour Office: Geneva.

- Obaid, T.F. and Alias, R.B. (2015), “The impact of green recruitment, green training and green learning on the firm performance: conceptual paper”, *International Journal of Applied Research*, Vol. 1, No. 12, pp. 951-953.
- Ones, D.S. and Dilchert, S. (2012), “Environmental sustainability at work: A call to action”, *Industrial and Organizational Psychology*, Vol. 5, No. 4, pp. 444-466.
- Owen, D.(1992), “*Green reporting: accountancy and the challenge of the nineties*”, London, UK: Chapman & Hall.
- Opatha, H.H.D.N.P. (2013),“*Green Human Resource Management: A Simplified Introduction*”, HR Dialogue, Department of HRM, Faculty of Management Studies and Commerce, University of Sri Jayewardenepura, pp.22-41.
- Opatha, H.H.D.N.P. (2009), “Human Resource Management. Author Publication”, Colombo: Sri Lanka.
- Opatha, H.H.D.N.P. and Arulrajah, A.A. (2014),“Green human resource management: simplified general reflections”, *International Business Research*, Vol. 7, No.8, pp.101-112.
- Paille, P. and Boiral, O. (2013), “Pro-environmental behavior at work: construct validity and determinants”, *Journal of Environmental Psychology*, Vol. 36, pp.118-128.
- Park, J., Kim, H.J. and McCleary, K.W.(2012), “The impact of top management's environmental attitudes on hotel companies' environmental management”, *Journal of Hospitality & Tourism Research*, Vol.38, No.1, pp. 95-115.
- Peattie, K, (1992), “*Green Marketing*”, London, UK: Pitman.
- Perron, G.M., Cote, R.P. and Duffy, J.F. (2006), “Improving environmental awareness training in business”, *Journal of Cleaner Production*, Vol.14, No.6, pp.551-562.
- Pfeffer, J. (1998), “Seven practices of successful organizations”, *California management review*, Vol. 40, No. 2, pp.96-124.
- Pooley, J.A. and O'Connor, M. (2000), “Environmental education and attitudes emotions and beliefs are what is needed”, *Environment and behavior*, Vol. 32, No. 5, pp.711-723.
- Robertson, J.L. and Barling, J. (2013), “Greening organizations through leaders' influence on employees' pro-environmental behaviors”, *Journal of Organizational Behavior*, Vol. 34, No. 2, pp.176-194.
- Ramus, C.A. (2002),“Encouraging innovative environmental actions: what companies and managers must do”, *Journal of world business*, Vol. 37, No. 2, pp.151-164.
- Renwick, D., Redman, T. and Maguire, S. (2008),“Green HRM: A review, process model, and research agenda”, *University of Sheffield Management School*, pp. 1-46.
- Renwick, D.W., Redman, T. and Maguire, S. (2013), “Green human resource management: A review and research agenda”, *International Journal of Management Reviews*, Vol. 15, No. 1, pp.1-14.
- Rothenberg, S. (2003), “Knowledge content and worker participation in environmental management at NUMMI”, *Journal of Management Studies*, Vol. 40, No. 7, pp.1783-1802.

- Russell, S. and Griffiths, A. (2008), "The role of emotions in driving workplace pro-environmental behaviors", *Emotions, Ethics and Decision-Making*, Vol. 4, pp.83-107.
- Schultz, P. W., Shriver, C., Tabanico, J. J., and Khazian, A. M. (2004), "Implicit connections with nature", *Journal of Environmental Psychology*, Vol. 24, No.1, pp. 31-42.
- Sammalisto, K. and Brorson, T. (2008), "Training and communication in the implementation of environmental management systems (ISO 14001): a case study at the University of Gävle, Sweden", *Journal of Cleaner Production*, Vol. 16, No. 3, pp.299-309.
- Sarkis, J., Gonzalez-Torre, P. and Adenso-Diaz, B. (2010), "Stakeholder pressure and the adoption of environmental practices: The mediating effect of training", *Journal of Operations Management*, Vol. 28, No. 2, pp.163-176.
- Singh, N. and Gupta, K. (2013), "Environmental attitude and ecological behaviour of Indian consumers", *Social Responsibility Journal*, Vol. 9, No. 1, pp.4-18.
- Sharma, P. and Sharma, S. (2011), "Drivers of proactive environmental strategy in family firms", Vol. 21, No. 2, pp.309-334.
- Strandberg, C. (2009), "The role of human resource management in corporate social responsibility issue brief and roadmap", pp. 1-26
- Tranfield, D., Denyer, D. and Smart, P. (2003), "Towards a methodology for developing evidence-informed management knowledge by means of systematic review", *British Journal of Management*, Vol. 14, No. 3, pp.207-222.
- Tudor, T.L., Barr, S.W. and Gilg, A.W. (2008), "A novel conceptual framework for examining environmental behavior in large organizations a case study of the cornwall national health service (NHS) in the United Kingdom", *Environment and Behavior*, Vol. 40, No. 3, pp.426-450.
- Unsworth, K.L., Dmitrieva, A. and Adriasola, E.(2013), "Changing behaviour: Increasing the effectiveness of workplace interventions in creating pro-environmental behaviour change", *Journal of Organizational Behavior*, Vol. 34, No. 2, pp.211-229.
- Wehrmeyer, W. (1996), "Greening people: human resource and environmental management", New York: Greenleaf.
- Wright, M. and Klÿn, B. (1998), "Environmental attitude-behaviour correlations in 21 countries", *Journal of Empirical Generalizations in Marketing Science*, Vol. 3, pp. 42-60
- Young, W., Davis, M., McNeill, I.M., Malhotra, B., Russell, S., Unsworth, K. and Clegg, C.W. (2015), "Changing behaviour: successful environmental programmes in the workplace", *Business Strategy and the Environment*, Vol. 24, No. 8, pp.689-703.
- Zoogah, D.B. (2011), "The dynamics of Green HRM behaviors: A cognitive social information processing approach", *German Journal of Human Resource Management*, Vol. 25, No. 2, pp. 117-139.

