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Green employee behaviour, Institutional Pressure and Environmental Performance: A Moderation Analysis

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Abstract

The study developed a conceptual framework which relates green employee behaviour to environmental performance by examining the effects of green employee support and green induced job stress on environmental performance with moderating influence of institutional pressures. Focusing on transport and logistics-related firms from both manufacturing and service sectors, the study conducted a survey which collected data from 227 firms using questionnaires as the research instrument. The informants for the firms were top level managers including CEOs, directors, operational managers, transport managers among others. The findings obtained using 2SLS estimator revealed that green support and environmental performance are positively related. It was also found that the green induced job stress negatively influences environmental performance. Finally, the effect of green employee support on environmental performance is conditioned by high levels of institutional pressure but the moderating effect of institutional pressures on the relationship between green induced job stress and environmental performance was not statistically significant. The study provided theoretical and managerial contributions and suggested areas for future research.

Keywords: *Green Employee Behaviour, Green Employee Support, Green Induced Job Stress, Institutional Pressure, Environmental Performance, Transport and Logistics Firms*

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1.0 INTRODUCTION

The increasing concerns about environmental degradation, environmental issues and green employee behaviour have been attracting constant attention and pressure from business sectors (Abdullah *et al.*, 2016). Gradually, companies are going beyond seeing environmental sustainability as an exercise in enforcement and cost reduction (Roscoe and Cousins, 2016). Instead, they are recognizing that competitive performance depends upon the health of the world and community (Bhupendra and Sangle, 2015; Luzzini *et al.* 2015; Wang *et al.* 2015). Organizations will interpret community investment as an investment in potential economies if

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they view sustainability as creating "shared value" (Porter and Kramer, 2011). Companies must analyze the major drivers and antecedents in their businesses to facilitate the adoption of green employee behaviour (Routroy, 2009). Customers' concerns (Zhou *et al.,* 2021), business owners' preferences (Huang *et al.*, 2009), suppliers' capabilities (Chiou *et al.*, 2009), government regulations (Qi *et al.*, 2010; Kammerer, 2009), and the technological, organizational, and environmental determinants of green practices are all examples (Lin and Ho, 2011). Although previous studies have provided some evidence of the influence of various factors on green practices, to date, few systematic and complete analyses of the antecedents and drivers of green strategy have been performed.

Environmental management issues have become an important consideration for firms due to growing public concerns and governmental pressures on environmental protection (Zhu *et al.*, 2017; Lee and Klassen, 2016; Brammer *et al.*, 2012). Firms are expected to adopt and implement environmental management practices to alleviate the negative influence of their activities on the natural environment (Yu *et al.*, 2017; Mårtensson and Westerberg, 2016; Hofer *et al.*, 2012).Erkut and Kaya (2017) indicated that innovativeness of corporate social responsibility activities for spreading awareness depends on the establishment of a firm and the type of corporate culture and character it implements. Such innovativeness requires knowledge on current and potential employees to create and maintain a competitive advantage. Therefore, companies must integrate the corporate and employees to use innovative knowledge for gaining competitive advantage. Based on the aforementioned observation, this study explored the green employee support (GES) and green induced job stress as competing intermediaries to determine how green employee behaviour influence environmental performance.

Voluntary actions by the staff members of the company to improve the green management–related measures are essential, which is termed green support (Paillé *et al.*, 2013; Daily *et al.*, 2012; Boiral, 2009). Therefore, green support is an approach through which a company achieves environmental management or plans. Contrary to this, previous empirical investigations on green employee behaviour have focused mainly on its effects on environmental performance, rarely considering other effects on employees' job stress (Ren *et al.*, 2018). Accounting for the notable exception of Wagner (2011), there is little empirical evidence about the effects of 'green' training on job satisfaction e i.e., the degree to which an individual enjoys her job (Lu *et al.*, 2007) and of the individual-level mechanisms through which these effects can materialise.Recently, scholars have increasingly touted institutional theory as an important research perspective for studies on firms' environmental protection behaviour (Buysse and Verbeke, 2003; Berrone *et al.*, 2013; Colwell and Joshi, 2013; Moon *et al.*, 2014; Albertini, 2017).

They think that institutional pressures can strongly affect firms' predispositions toward environmental protection issues. However, the findings of previous studies on how institutional factors affect firms' environmental performance are mixed. For example, some studies find that institutional pressures have significant and positive effects on firms' intention to take measures to protect the environment (e.g., Roxas and Coetzer, 2012; Colwell and Joshi, 2013), while others reveal that they are insignificant (e.g., Nygaard and Biong, 2010). That is to say, firms will respond heterogeneously when they are subjected to a homogeneous level of institutional pressures (Berrone *et al.*, 2013; Colwell and Joshi, 2013). Thus, it is necessary to investigate the moderating effects of institutional pressures on the relationship between employee green support and green induced job stress on environmental performance.

Green strategies have become an effective tool for companies to improve market share and long-term survival. A good invention improves a company's market position, draws potential customers, and gives them a competitive advantage (Lin *et al.*, 2013). As a result, the current research takes a green approach to radical innovation. Product and process technologies that can be applied to green strategy can be found in the Schumpeterian typology (Hellström, 2007). Although green strategy in the manufacturing industry can be divided into product and process innovation (Chiou *et al.*, 2011; Dangelico & Pujari, 2010), it is nearly impossible to do so in the transportation and hospitality industry due to the close connection between production and consumption (Orfila-Sintes, Crespí-Cladera, & Martínez-Ros, 2005). Therefore, from a holistic perspective, the present study defines green employee behaviour as initiatives in the product and the production processes in order to achieve the environmental objectives and decrease the ecological footprint throughout the life cycle of the product (Lin *et al.*, 2014). This study employs institutional theory to investigate the moderating position of institutional pressure. According to

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some scholars, organizational green strategy entails the introduction of a number of management practices aimed at reducing environmental effects (Triguero *et al.*, 2013). As changes in the environment reflect the changes in competition, consumer needs and other stakeholder demands, so understanding the influence of marketing capability is crucial.

Extant studies used institutional theory to explore the role of environmental pressures on firm performance often overlook the potential role of organisational capabilities such as marketing (Mariadoss *et al.*, 2011; Weerawardena, 2003). Therefore, understanding the role of green employee support and green job-induced stress and the moderating role of institutional pressures is now imperative. The study's moderation framework seeks to understand how the impact of institutional pressures on environmental performance is largely determined by the firm's willingness to respond based on their green employee support or reducing green induced job stress.

Institutional pressures on environmental performance have been studied, as well as how managers in similar fields have shaped their management practices to respond to institutional pressures and enhance environmental performance (Guerci *et al.*, 2016). But the extent to which institutional pressures moderate the effects of green employee support and green job-induced stress on environmental performance has limited studies.Measuring environmental performance has been a key problem for many researchers as there seems to be no single approach but mostly skewed towards the use of parametric approach or non-parametric approach. In the face of sustainability which has gained much attention in recent times, this study seeks to ascertain the extent to which green employee behaviour impacts of environmental performance.

2.0 MATERIALS AND METHODS

2.1 Green Employee Behaviour

Starik & Marcus (2000) found that in 21st century for the survival of the organizations an important factor is environmental sustainability, and the factors that contribute towards employees' green behaviour is the specific workplace pro-environmental behaviour. An important factor that contributes towards environmental sustainability is RGS (Ones and Dilchert, 2012). Traditionally only economic thinking was considered the main factor for such environmental changes but Barnett (2001) and Bonan (2008) work shift the focus to by including behavioural changes along with technological and scientific thinking for shift this paradigm for more sustainable environments.

Organizations are in the position to make necessary changes which can environment significantly and they are under the pressure of norms, regulatory bodies and social pressure (Scott, 1995) and organization are also responsible to pay attention to the needs of their stakeholder and society is one of the important and main stakeholders of all organization as they get their profit the society (Fairfield, Harmon, & Behson, 2011). Organizations are found somehow involved in technological interventions which are also positive but it can't ensure sustainable environmental outcomes (Gouldson & Sullivan, 2007).

Russel and McIntosh (2011) propose that instead installing technology employees of the organization should be trained and motivate to behave in environment friendly manners which are a more prominent approach for sustainable and healthy environment. Human resource of organization is main factor in deciding the success and failure of environmental management system (Zibarras & Coan, 2015). Davis, Leach, and Clegg, (2011) found that technology is contributing to environmental performance but it relies on the human resource of the organizations. So, the success of such environment friendly system is dependent on employees' behaviours.

2.1.1 Green Behaviour of Employees at the Workplace

Green behaviour of employees at the workplace conceptualized it as voluntary behaviour (see Paillé & Boiral, 2013; Ramus & Steger, 2000). This model includes both required and proactive behaviour, but it is not possible for the employees to show both type of behaviour in the workplace, therefore while belonging to different groups they behave differently. Task related behaviours plays an important role in achieving companies core values (Borman & Motowidlo, 1997; Organ, 1997; Rotundo & Sackett, 2002), and voluntary behaviour contributes towards social and psychological environment that indirectly support task behaviours it involves employee's personal initiatives towards environment that are more than organizational

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expectations. Bissing-Olson, Iyer, Fielding and Zacher (2013), found that task related RGS is extra role behaviour performed within the context of assigned work task, including employee's consumption behaviour of water, energy and other organizational resources.

2.1.2 Green Employee Support

Academic researchers define employee support as converting employee potential into employee performance and business accomplishments (Shaw, 2005). Moreover, in engagement, people employ and express themselves physically, cognitively, and emotionally during performing the job (Kahn, 1990). Employee support differs from other constructions, such as employment, commitment to the organization, and intrinsic motivation (Lawler and Hall, 1970). Employees can be given a chance by the management to take part in the management of the environment, which make them work in favour of stopping pollution and find opportunities for the environment. In order to enhance the performance regarding systems of environmental management, the support of employee in such activities is very important.

The systems of environment green systems include making full utilization of available resources, minimizing pollution and waste at the workplace (Tseng, Tan, & Siriban-Manalang, 2013). Green support encouragement includes providing opportunities to employees to be engaged in activities by which environmental problems can be solved, and quality of life can be improved (Saeed *et al.*, 2019). In order to implement any kind of shared vision within the organization, employees are the most important stakeholders (Felin, Foss, & Ployhart, 2015). Research has considered the support of employees to solve the issues regarding the environment to be very important. Researchers have pointed out that the success of green strategies within the organization is dependent upon employees taking actions automatically regarding environmental issues.

Directions regarding collective strategies are provided by green strategies which can impact the actions of the employees and turn them in the right direction. In the same context, green shared vision is defined as a common and clear direction in order to achieve collective organizational goals and objectives which are communicated by the organization internally (Chang, 2020). Researchers pointed out that employees who are involved in issues related to the environment have more knowledge regarding environmental issues. Moreover, they have more capability to solve the problems related to the environment, which lead to improved environmental performance (Rothenberg, 2003). The five aspects were identified by Tang, Chen, Jiang, Paille, and Jia (2018), which plays an important role to encourage employees to be engaged in green activities. The first point is to have a very clear green vision. The second point is learning regarding green climate, whereas third include climate channels. Due to these two points, employees got concerned regarding environmental problems. Green culture can be created within a firm through informal and formal communication.

2.1.3 Green Induced Job Stress

Several studies concluded have shown that job stress negatively affect employee performance considering the various factors involved and especially employee job satisfaction. This has been confirmed by recent studies (Ahmed & Ramzan, 2013) shows that, there exist a negative correlation between job stress and employee performance. A study similar to this was conducted which reveals that factors such as workload, role conflict and inadequate monetary reward are prime source of stress that decreases employee performance. Furthermore, Jeyaraj (2013) investigated the impact of occupational stress among teachers and found out that, stress causes teachers to absent, increase tendency to quit and less likely to pursue teaching career, hence negatively correlated. The awareness of environmental issues is rising among employees, customers, investors, and businesses (Tahir *et al.*, 2020).

Organizations are seeking ways to address rising environmental consciousness and awareness among stakeholders by making employee behaviours environmentally friendly (Cherian & Jacob, 2012; Yuriev *et al.*, 2020). The effect of green induced job stress (the misleading information by organizations to portray an environmentally responsible image to the public with false claims) (Francis *et al.*, 2007) on green employee behaviour has unclear findings in the literature (Wright & Nyberg, 2017) and the factors affecting their relationship indirectly (Deshwal, 2015).

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Literature is reviewed and despite a limited number of empirical studies on the relationship of green induced job stress with green employee behaviour, the available empirical evidence shows green induced job stress (Walker & Wan, 2012) has a negative impact on employees being a stakeholder (Vos et al., 2009), green trust (Chang & Chen, 2012), and employee engagement (Pontefract, 2016), etc. The evolution of green thinking has a difficult-to-trace history as it has roots in ancient history, literature, and religious practices (Saha & Darnton, 2005). However, the popular and modern environmental movement started in the mid-to-late 1960s by rousing public awareness of high-profile environment-related events (e.g., Rachel Carson's book "Silent Spring").

Greening is a process of becoming environmentally friendly by reducing pollution, improving the efficiency of non-renewable and renewable resources, and conducting activities in environmentally sustainable manner (Gupta, 1995). Green induced job stress, in contrast, is misleading information by organizations to portray an environmentally responsible image to the public with false claims (Francis *et al.*, 2007). On a strategical level, greening estimates the environmental footprint and its comparison to benchmark, life cycle evaluation considering environmental declarations of products, and financial assessment. On the implementation stage, greening refers to low cost or no cost projects (including environmental costs), data-centre reengineering, green IT, and renewable energy onsite. On the operational level, greening refers to employee engagement programs, environment-friendly procurement services and strategic pro-environmental communication modes. Companies that take the first step towards environmental friendliness through differentiation increase their market share (Ramus & Montiel, 2005).

2.2 Environmental performance

The terms "environmental performance" and "environmental management systems" are often used interchangeably. Environmental management refers to a company's efforts to reduce its negative impact on the environment. "Environmental performance assesses a company's achievement in reducing and decreasing its environmental impact, usually in comparison to an industry average or peer group" (Klassen and McLaughlin, 1996). This section demonstrates that environmental management is a significant determinant, or component, of overall environmental performance (Klassen and McLaughlin, 1996). Environmental performance is a complex and multidimensional issue, and determining changes in performance (improvement) is difficult as a result. This is particularly true because different organisations have differing operations and regulatory environments, and each has inherent measures and values of performance (Bellesi *et al.*, 2005; Hertin *et al.*, 2008).

Environmental performance may also be difficult to understand and determine if is interpreted differently by organisations. Results of studies, such as Hamschmidt (2000), indicate that organisations' interpretation of environmental performance is influenced by their original motivations for adopting pro-environmental behaviour. Environmental performance may therefore only be completely defined in the light of individual organisations' motivations, be they purely 'environmental' or not. Continued investigation of causality between drivers, outcomes and environmental performance is necessary. Interpretation of results based on the investigation of causal relationships should be undertaken taking individual organisational views on environmental performance into consideration.

Environmental performance can be defined based on three categories. The first category comprises environmental impacts on emissions and the usage of energy. Achievement of regulatory compliance is included as a second category; activities include installing a treatment and/or recycling plant The third category, environmental performance, can be seen from the perspective of organisational processes and capital expenditures (Delmas & Blass, 2010). Some stakeholders use a mixture of three categories to define environmental performance (Muhammad *et al.*, 2015). In this current study, environmental performance has been defined as an improvement in environmental compliance, reduced solid/liquid wastes and greenhouse gas emissions, and improvement in recycling activities.

More precisely, environmental performance in this current study refers to the organisational processes to achieve a firm's goals for environmental improvement and gas emissions reduction.Green employee behaviour can be used as a platform to improve firm environmental performance. The outcomes of the green employee behaviour will result in reduced solid/liquid wastes and greenhouse gas emissions that companies produce. To enhance

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environmental performance, companies must be aware of the importance of their role in sustainability. A company will survive in the green industry if that company successfully implements an eco-innovation strategy in its operations. In other words, a company will reap financial returns when it achieves lower production costs while preserving the environment.

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Environmental performance may therefore only be completely defined in the light of individual organisations' motivations, be they purely 'environmental' or not. Continued investigation of causality between drivers, outcomes and environmental performance is necessary. Interpretation of results based on the investigation of causal relationships should be undertaken taking individual organisational views on environmental performance into consideration. Moreover, related studies have been typically focused on or carried out in organisations based in developed or emerging economies, restricting the widespread relevance of findings (Hertin *et al.*, 2008).

2.3 Institutional Pressures

According to DiMaggio and Powell (1983), institutional pressures originate from the institutional environment and could affect firms' managerial decisions and practices. Additionally, Scott (2005) divides institutional pressures into regulatory, normative and mimetic pressures. These pressures mainly arise from firms' stakeholders, such as governments, non-governmental organizations, suppliers and customers (Oliver, 1997). Regulatory pressures are the pressures that originate from political influence exerted by the powerful stakeholders (e.g., governments) on which the focal firm depends. These powerful stakeholders provide explicit guidance to firms through rules, rewards and even sanctions (DiMaggio and Powell, 1983). Empirical evidence indicates that regulatory pressures could be the result of a government mandate (Bruton *et al.*, 2010). Normative pressures are the pressures that stem from collective expectations, values and standards within particular organizational context (DiMaggio and Powell, 1983). There is empirical evidence that normative pressures originate from nongovernmental organizations, customers and suppliers in the supply chain (Liu *et al.*, 2010). Mimetic pressures mainly arise from imitating other organizations' successful actions and practices to minimize cognitive uncertainty (DiMaggio and Powell, 1983).

Although institutional pressures include three kinds of pressure, Scott (2005) indicates that regulatory and normative pressures deserve special attention. Meanwhile, Berrone *et al.* (2013) note that these three pressures are at work simultaneously, but their role and relevance is context specific. In the context of environmental management, most of the research considers that regulatory and normative pressures are crucial for firms (Kassinis and Vafeas, 2006; Brammer *et al.*, 2012; Colwell and Joshi, 2013). In addition, the environmental management initiatives are just beginning in most firms in China and the benefits obtained from implementing environmental management practices are unclear and long term. In this situation, most firms tend to hold a wait and see attitude and are unwilling to follow and imitate their partners or competitors to implement environmental management practices. The effect of mimetic pressures is limited and can be omitted. Hence, in this research, it is reasonable to merely explore the moderating role of institutional pressures in affecting firms to implement environmental performance.

2.4 Conceptual Model and Hypotheses Development

Having looked at the various theories underpinning this study, this section presents the procedures for the development of the conceptual model that seek to relate green employee behaviour to green performance. The conceptual model also seeks to establish the influencing roles of firm green employee support as well as green job-induced stress and socio-cultural orientation of these managers play in the relationship between the green employee behaviour

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and environmental performance of transport and logistics-related in Ghana. The conceptual model of this study is presented in Figure 1.

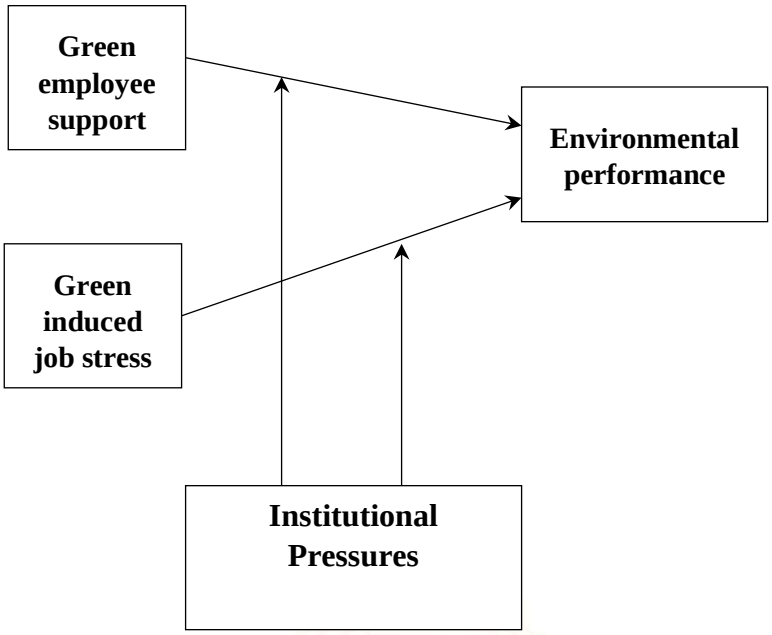

Figure 1 Conceptual Model of the study

2.4.1 Green Employee Support and Environmental Performance

Employees are likely to play a significant role in the implementation of positive environmental policies, which can help a company's environmental performance (Darnall *et al.*, 2010). Furthermore, workers with environmental responsibilities also provide knowledge and suggestions that can assist businesses in addressing environmental management issues and innovating (Ramus, 2001). Green employee support refers to the extent to green practices adopted by firms provide opportunities for employee development and involvement in decision-making (Liu *et al.*, 2020). Employees have previously been related to both the advancement of environmental policies (e.g., Florida, 1996; Darnall *et al.*, 2008a; Kitazawa and Sarkis, 2000; Zutshi and Sohal, 2004) and environmental performance (e.g., Florida, 1996; Darnall *et al.*, 2008a; Kitazawa and Sarkis, 2000; Zutshi and Sohal, 2004). (e.g., Hanna *et al.*, 2000).

This Job-Demand Resource model (JDRM) states that work demands and resources have an effect on one another, as shown by their definitions: Resources are aspects of a job that are a) functional in achieving work goals, b) reduce job demands at their costs, or c) stimulate personal growth or development. In alternate way, green employee behaviour also qualifies as a resource factor, which can motivate organizations to provide the necessary support for employee while pursuing novel green practices. In the context of environmental studies, researchers have placed a high value on employee environmental behaviour and the determinants that influence it (Bamberg & Möser, 2007).

The subject of pro-environmental initiatives is a pressing one, and there are still few empirical studies on the activities associated with pollution control, green technologies, environmental performance, and effective environmental management systems (Ramus & Killmer, 2007; Junior *et al.*, 2020; Gil-Leon, 2020; Hernandez & Prieto, 2020; Maziriri, Mapuranga, Maramura, & Nzewi, 2019; Fatoki, 2019; Mazzoni, 2020). Employees may be given the opportunity to participate in environmental management by their bosses, motivating them to strive to reduce emissions and find opportunities for the environment. Employee participation in environmental management programs is critical in order to improve environmental performance. Green systems for the environment include maximizing the use of available resources and reducing emissions and waste at work (Tseng, Tan, & Siriban-Manalang, 2013).

Employees are the most critical players in implementing some sort of common vision within the company (Felin, Foss, & Ployhart, 2015). Employee interest in resolving environmental problems has been found to be very significant in research. According to researchers, the

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effectiveness of green policies within a company is contingent on workers automatically acting on environmental concerns (Felin, Foss, & Ployhart, 2015; Tseng *et al.*, 2013). Directions regarding collective strategies are provided by green strategies which can im-pact the actions of the employees and turn them in the right direction. In the same context, green shared vision is defined as a common and clear direction in order to achieve collective organizational goals and objectives which are communicated by the organization internally (Chang, 2020).

Environmental performance represents the end result, demonstrating how committed companies are to environmental protection. There are a variety of metrics that can be used to assess an organization's environmental performance. These metrics include recycling, waste minimization, emissions prevention, and the release of hazardous environmental material. The introduction of an environmental management system will improve performance in terms of the climate. In terms of environmental efficiency, organizations that adopted environmental-related policies at each stage of their HRM were competitive (Paillé, Chen, Boiral, & Jin, 2014). Employees interested in environmental problems have a greater understanding of environmental issues. Furthermore, they have greater capacity to address environmental issues, resulting in better environmental efficiency (Rothenberg, 2003). Based on the above analysis, this study proposes the following hypothesis:

H1a: Green employee support positively and significantly relates with environment performance.

2.4.2 Green Job-Induced Stress and Environmental Performance

The theoretical basis for explaining the link between green employee behaviour and green job-induced stress is drawn from Demerouti and Bakker's (2011) job-demand resource model with insights from Hart's (1995) natural resource-based view (NRBV) theory. Demands are aspects of a job that involve sustained physical or mental effort and are associated with some physiological and psychological costs, while resources are aspects of a job that are a) functional in achieving work goals, b) reduce job demands at their costs, or c) stimulate personal growth or development (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). From the afore discussions, it can be explained that green employee behaviour could be thought of as job related "demand" that could result in job-induced stress.

New technology that opens new markets, according to Garcia and Calatone (2002), are examples of green employee behaviour. They go on to say that green employee behaviour can occur at both the macro and micro levels, but that green employee behaviour at the macro level automatically affect green employee behaviour at the micro level. On a macro level, disruptive innovation has a significant impact on consumers and producers because the latest value proposition disrupts consumer behaviour and newly developed markets influence existing firms' competencies. Nonetheless, green employee behaviour may occur in a variety of ways that are radically different from one another.

A radical new business concept, technology, product, service, process, or management strategy may be at the root of the disruption. The study suggest that green employee behaviour may first result in internal organizational disruptions, producing job-related stress. Employees should use their job tools to achieve their work-related goals every working day (Clegg & Spencer, 2007; Daniels, 2006; Totterdell, Wood, & Wall, 2006). Job demands are described as aspects of the job that can cause strain if the employee's adaptive capacity is exceeded (Rothmann *et al.*, 2006). Physical, social, and organizational aspects of a job that involve continued physical and/or psychological effort on the part of the employee are referred to as job demands. As a result, it is correlated with a psychological and/or physical expense (Schaufeli & Bakker, 2004). Based on the above analysis, this study proposes the following hypothesis:

H1b: Green induced job stress negatively but significantly relates with environment performance.

2.4.3 Moderating Role of Institutional Pressures

Politicians, regulators, customers, competitors, and local communities, they say, are the most likely to have a direct effect on facility environmental practices. Clarksson (1995) distinguished between primary and secondary stakeholders, defining primary stakeholders as those who affect and are affected by an organization but are not involved in its transactions (e.g., customers, suppliers), and secondary stakeholders as those who affect and are affected by an organization (e.g., employees) (e.g., media, NGOs) but are not involved in its transactions (e.g.,

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employees). The former is more important to a company's existence and therefore have more control than the latter, which are less closely related to the company's activities or goals.

Buysse and Verbeke (2003) distinguished internal primary stakeholders (employees, shareholders, and financial institutions) from external primary stakeholders (customers and suppliers), concluding that only the former group is driven to take environmental action. Stakeholders are the driving forces behind environmental management, as described by Freeman (1994) as "any group or individual who may influence or is influenced by the achievement of the organization's objectives".

As a consequence, stakeholders are the primary drivers of environmental performance. The most important stakeholders are consumers, government officials, the media, businesses, and environmental organizations (Rivera, 2004). Government and business organizations, in particular, have been found to play an important role in promoting voluntary environmental initiatives (King and Lenox, 2000; Delmas, 2002; Rivera, 2004). Cespedes-Lorente *et al.* (2003) described three main reasons why firms engage in environmental protection practices from the standpoint of stakeholders, namely to gain reputation, respond to institutional pressure, and respond to the various strategies used by stakeholders to influence firms' environmental protection activities, in a review of the literature.

According to Alvarez Gil*et al.* (2001), environmental practices are typically adopted in response to increased institutional pressure. Various stakeholders have varying impacts on organizations' environmental protection practices, according to reports (Clarksson,1995; Buysse and Verbeke, 2003; Delmas and Toffel, 2004). Delmas and Toffel listed institutional, government, consumer and competitive, community and environmental interest groups, and industry stakeholders (2003). It is argued that institutional pressure would moderate the relationships green employee support (or green induced job stress) and environmental performance, such that the relationships would be more positive and stronger at increasing levels of institutional pressure.

The literature provides support for the link between employee support and environment performance and addressing the needs of multiple stakeholders such as employees (Pava and Krausz 1996, Margolis and Walsh 2003, Kotler and Lee 2004). Employee support has a positive effect on product quality (Ahire and O'Shaughnessy 1998), which in turn improves environment performance. Employee support could be viewed by stakeholders (e.g., organizational structure, regulatory bodies, employees) as a safeguard and an insurance protection mechanism in order to protect shareholders' investment and wealth. As such, higher levels of institutional pressure would lead to positive consequences on employees, which would eventually lead to increased environmental performance.

This suffices for the next hypothesis as follows; *H2a: Institutional pressures moderates positively and significantly the relationship between green employee support and environmental performance.*

On the other hand, job-induced stress would lower environmental performance is that, other things being equal, job stress adversely affects physical and psychological health of employees, which could result in job dissatisfaction, and lower employee motivation, all of which could undermine employee productivity. Therefore, a greater level of job-induced stress resulting from increases in green employee behaviour, could undermine employees' capacity to help implement green strategies that achieve environmental performance objectives. Meanwhile, institutional literature suggests that the firms are likely to face negative consequences, even on employees, when they fail to address the interest of stakeholders. Given this, resentful employees could be a bit more considerate in demonstrating behaviours and attitudes the reduce the capacity of the firm to meet environment performance targets.

This leads to the following hypotheses; *H2b: Institutional pressures moderates positively and significantly the relationship between green induced job stress and environmental performance.*

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3.0 METHODOLOGY

3.1 Description of Study Area

The research model is estimated using data from firms in a major Sub-Saharan African economy – Ghana. Ghana's business environment remains the most attractive setting for doing business in West Africa (African Development Bank Group, 2018; World Bank, 2017). Notwithstanding, numerous factors challenge the sustainability Ghana's growth prospects and the competitiveness of firms. Moreover, experts continue to question the sustainability of Ghana's recent policies and programmes and its growth base (e.g., natural resources). In fact, overdependence on government and its institutions to boost the competitiveness of firms appears problematic, as they have been unable to sustain reforms and policies over the years (World Bank, 2017).

3.2 Design, Sample Size and Sampling Technique

Stratified sampling was used in selecting the various firms for the study. This sampling technique was used to capture the different types of firms namely: small, medium, and large firms. The second stage of the sampling was the use of purposive sampling technique in each of the organizations to administer questionnaires to managers. Newman (2005), suggests that purposive sampling allows researchers to use their flexibility in membership selection, which eventually helps them to address and achieve their study questions and goals. The implementation of purposive sampling is justifiable, as respondents used for the research were the primary informants who could provide the details required for the analysis to be performed. Wolf et al. (2013) defined sample size criteria ranging from 30 (Simple CFA with four indicators and loads about. 80) to 450 cases (models of mediation). The sample size used for this study was 550, far exceeding the minimum acceptable level for modelling structural equations.

3.3 Data Analysis

The research followed an explanatory deductive method, focused on quantitative evidence. The data were analyzed using SPSS 25 version and Lisrel 8.5 version. The statistical analysis used for the study was descriptive and multivariate analysis using the SEM. After the data was obtained, due to the sensitivity of SEM to the distributional characteristics of the data, it was appropriate to screen the data and perform some preliminary tests to check for data normality.

4.0 RESULTS AND DISCUSSIONS

Within-scale-item and between-scale-item correlations are evaluated in this section. The validation of both reflective and formative measures requires this stage. Unlike formative measures, substantial correlations between any pair of items within any scale are expected (Diamantopoulos *et al.*, 2008). The usage of exploratory factor analysis and confirmatory factor analysis in the case of reflective measurement evaluation all presume that there are significant correlations (at least.30) between pairs of items within each scale (Hair *et al.*, 2014; Tabachnick and Fidell, 2013).

There are two key findings worth addressing here. To begin with, the data demonstrate strong correlations between each pair of items within each reflective scale; practically all of them are above.50. This indicates that the scales were factorable and that they are likely to have high internal consistency (Tabachnick and Fidell, 2013). Second, the between-scale-item correlations are weaker than the within-scale-item correlations, implying that each scale (especially the reflective ones) appears to capture a distinct notion (Hair *et al.*, 2014). Following these findings, the ensuring sections concentrated on conducting necessary tests to validate the study's scales. The bivariate relationships between all observed multi-scale variables in the study are shown in Table

4.1 Scale reliability Assessment: Cronbach's alpha test

As discussed earlier, two types of tests were conducted to assess the reliability of scales which include the Cronbach's alpha test and the composite reliability test. This section captures the results of the Cronbach's alpha while the result of the composite reliability test is presented as part of the CFA. From Table 3, the Cronbach's alpha values obtained for this study are all

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above the minimum threshold of 0.7. Specifically, all the values obtained ranged from 0.846 to 0.961 indicating a high level of internal consistency.

Table 3 Scale reliability test (Cronbach's alpha)

Variables	Number of Items	Cronbach's alpha
1. Green employee support	4	.887
2. Green-induced job stress	3	.909
3. Institutional Pressures	4	.896
4. Environmental Performance	4	.914

4.2 Scale Validity Assessment: Confirmatory Factor Analysis

Confirmatory factor analysis (CFA) is the primary statistical approach utilized in this study to validate the scales. CFA was applied on all goods from the EFA. The identical two-stage procedure that was employed in the EFA is used here. The statistical software package used to conduct the analyses is LISREL 8.50. The input and estimation methods are respectively the covariance matrix and maximum likelihood (Diamantopoulos and Siguaw, 2000; Hair et al., 2014). To assess how well each scale performs (in terms of reliability, unidimensionality, convergent validity, and discriminant validity), the retained items in Section 5.4.3.2 were subjected to further CFA (Boso et al., 2013a). As shown in Table 5.8, the five- factor CFA model provided a good fit to data: x2 = 189.10, df = 94, normed x2 = 2.012, RMSEA = .067, NNFI = .963, CFI = .971, SRMR = .055.

All items from the CFAs subset were kept. Each item has a high (i.e., greater than.60) positive load on its theoretical construct. Furthermore, at 1%, the t-values associated with the item loadings are statistically significant. Each scale's average variance extracted (AVE) values are higher than the minimal threshold of.50 (Hair et al., 2014), showing that each scale's unique variance is more than 50%. (See Table 5.13). These findings suggest that each of the study's reflecting scales is unidimensional and has strong convergence validity (Hair et al., 2014; O'Leary-Kelly and Vokurka, 1998). Each scale's composite reliability and Cronbach's alpha scores are above the minimum thresholds of.60 and.70, respectively, suggesting that the scales have strong internal consistency, as shown in Table 5.24. (Hair et al., 2014; Bagozzi and Yi, 2012). According to Hair et al. (2014), a more rigorous test of discriminant validity is to compare each scale's AVE values to the shared variances (or squared correlations) between any two scales.

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Table 4 Confirmatory Factor Analysis Results

Constructs, Measures (Composite reliability, average variance extracted, Cronbach's alpha)	Loading (t-value)
Green employee support (CR = .890, AVE = .729, CA = .867). *Regarding the environmental preservation initiatives launched by your company in the previous 3 years, it can be said that…*	
they offered our employees lots of training opportunities	.810(Fixed)
they offered employees more autonomy regarding how they perform their tasks	.860(14.62)
they boosted employee participation in major decision-making processes	.890(15.13)
Green-induced job stress (CR = .926, AVE = .807, CA = .909). *Regarding the environmental preservation initiatives launched by your company in the previous 3 years, it can be said that…*	
our employees struggled to understand such initiatives	.875(Fixed)
they led to several changes in job responsibilities	.876(18.20)
they significantly interrupted how our employees used to perform their tasks	.943(20.36)
Institutional pressure (CR = .877, AVE = .705, CA = .856).	
We feel much pressure from local/national environmental protection laws and regulatory institutions to be environmentally-friendly	.739(Fixed)
Environmental protection activists are particular about environmental issues in our industry	.855(12.66)
The media constantly reports environmental issues in our industry	.915(13.01)
Environmental performance (CR = .907, AVE = .709, CA = .888). *Today, several stakeholders expect organizations to be sustainable in the area of environmental performance. Based on this expectation, indicate the extent to which your organization has achieved each of the following environmental performance objectives over the past 3 years?*	
Lower fuel/energy consumption	.770(Fixed)
Reduction in air pollution	.917(14.90)
Reduced environmental accidents (e.g., spillage of toxic substances)	.855(13.81)
Decreased consumption of toxic materials	.819(13.12)

Model fit indices: x^2 = 189.10, df = 94, normed x^2 = 2.012, RMSEA = .067, NNFI = .963, CFI = .971, SRMR = .055

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4.3 Structural Model Analysis and Hypothesis Testing

The study's proposed model was calculated using the structural equation modelling (SEM) method in LISREL (version 8.5), as described in Diamantopoulos and Siguaw (2000); having resolved the issues related to assumptions and test power and achieved adequate convergent and discriminant validity. In this study, the research model and evaluates the hypotheses. The model is analysed using two-stage least squares (2SLS) estimator. The hypothesised paths (i.e., directional hypotheses) and the non-hypothesised paths are evaluated at t-value ≥ 1.645 (5% significance level, 1- tailed) and at t-value ≥ 1.96 (5% significance level, 2-tailed) respectively (Kothari, 2004).

4.4 Variables in the Structural Model Analysis

Table 5 presents the variables involved in the structural model analysis. In relation to H1, the dependent variable was environmental performance while the predictor variable was green employee behaviour. The link from green employee behaviour to environmental performance is mediated by green employee support and green-induced job stress (H2 and H3 respectively). Finally, the links from green employee support and green-induced job stress to environmental performance are moderated by institutional pressures (H4a and H4b).

In testing these hypotheses, the study controlled for the potential effects of firm age, firm size and firm industry (service =1, manufacturing = 0). In stage 1 of 2SLS estimator, the study regressed the control variables on environmental performance, green employee behaviour on environmental performance, green employee behaviour on green employee support and green-induced job stress, and green employee support and green-induced job stress moderated by institutional pressures on environmental performance to achieve the objective of the study.

Table 5 Descriptive Statistics and Correlations

Variables	**1**	**2**	**3**	**4**	**5**	**6**	**7**
1. Environmental performance	1						
2. Green induced job stress	-.007	1					
3. Green employee support	.587**	.161*	1				
4. Institutional pressure	.262**	.270**	.349**	1			
5. Manufacturing firms	.207**	.016	-.018	.099	1		
6. Firm size log	.068	-.283**	-.115	-.119	.449**	1	
7. Firm age log	-.148*	-.312**	-.064	-.170*	.090	.412**	1
Minimum	1.714	1.000	1.667	1.000	.000	1.609	.693
Maximum	6.429	7.000	7.000	6.667	1.000	5.030	4.174
Mean	4.575	3.734	4.204	4.034	.225	2.368	2.102
Standard deviation	1.124	1.245	1.189	1.238	.418	.613	.609
Skewness	-.069	.025	.055	-.073	1.328	1.367	-.019
Kurtosis	-.737	-.574	-.786	-.517	-.238	2.410	.058

Note: *p < .05; **p < .01.

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Table 6 Main results: Direct and Indirect effects.

Direct effects:	***Unstandardized coefficients (t-values)***		
Variables:	**Green employee support**	**Green induced job stress**	**Environmental performance**
Green employee support (GES)			.578(10.718) ***
Green induced job stress (GIJS)			-.122(-2.201) *
Institutional pressure	.234(3.725) ***	.066(1.078)	.057(1.109)
Firm size	.048(.323)	-.216(-1.481)	.160(1.331)
Firm age	.033(.255)	-.420(-3.298) ***	-.374(-3.505) ***
Industry (manufacturing = 1)	-.182(-.928)	.188(.985)	.524(3.338) ***
R^2	.204	.310	.443
F	11.268***	19.758***	24.800***

Note:
1. *p < .05, **p < .01, ***p < .001.
2. †5000 bootstrap samples.
3. [1]covariates in models of outcome and mediators are institutional pressure, firm size, firm age, industry.

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Table 7 Main results: Conditional and Indirect Conditional Effects

	Unstandardized coefficients (t-values)		
Variables:	Environmental performance		
Green employee support (GES)	.565(10.539) ***		
Green induced job stress (GIJS)	-.064(-1.131)		
Institutional pressure (IP)	.052(.994)		
Firm size	.184(1.565)		
Firm age	-.311(-2.936) **		
Industry (manufacturing = 1)	.552(3.574) ***		
Conditional effects:			
GES × IP	.112(3.045) **		
GIJS × IP	.025(.586)		
R^2	.470		
F	24.389***		
Conditional indirect effects:	*Conditions of IP*	*B*	*95% bootstrap confidence interval*
GES → Environmental performance[1]	2.333	.147	.070 to .238
	3.000	.176	.104 to .261
	4.000	.219	.143 to .302
	5.000	.263	.173 to .357
	5.667	.292	.189 to .397
Index of moderated mediation		.044	.015 to .076
GIJS → Environmental performance[1]	2.333	-.047	-.125 to .023
	3.000	-.040	-.101 to .014
	4.000	-.029	-.080 to .019
	5.000	-.018	-.091 to .047
	5.667	-.010	-.103 to .074
Index of moderated mediation		.011	-.027 to .050

Note:
1. [1]Covariates in models of outcome and mediators are firm size, firm age, industry.
2. [†]5000 bootstrap samples.
3. *p < .05, **p < .01, ***p < .001.

Ordinary least squares regression (OLS) analysis was used to examine the direct effects of green employee behaviour (Marshall *et al.*, 2015) and green employee support (Chen *et al.*, 2015) and green induced job stress (Yi *et al.*, 2010), and moderating effect of institutional pressures (Dubey *et al.*, 2015). In line with H1a-b, results indicate that green employee behaviour is positively associated with green employee support (β = .309; t = 4.654) and green induced job stress (β = .419; t = 6.462), and that green employee support (β = .578; t = 10.718) is positively and significantly related to environmental performance but induced job stress (β = -.122(-2.201) in turn is negatively but significantly related to environmental performance.

Table 7 further shows that the interaction-term for green employee support and institutional pressure (i.e., GES × IP) is positively associated with environmental performance (β = .112; t = 3.045). This suggests that the indirect positive association between green employee behaviour and environmental performance, through green employee support, is strengthened when IP is high, providing support for H3a. However, results show that the interaction green induced job stress and IP interaction term (i.e., GIJS × IP) is not significantly related to environmental performance (β = .025'; t= .586); hence H3b is not supported at the mean levels of IP.

To aid interpretation of, and provide additional insights on, the moderating effect results, the researcher used Johnson-Neyman (J-N) and percental techniques in Hayes Macro PROCESS

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to explore the slope of the process/green induced job stress-environmental performance relationships at varying levels of IP (Hayes, 2018).

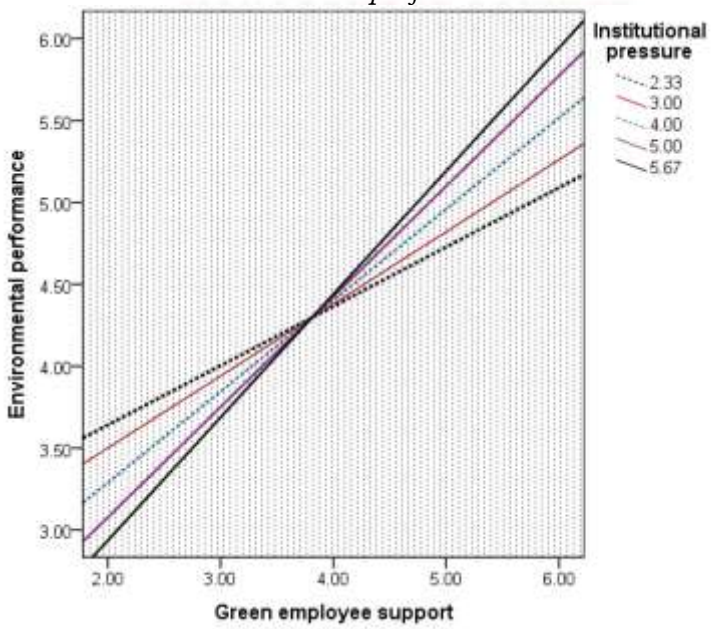
The J-N analysis reveals that the relationship between green employee support and environmental performance is positive and significant only for high values of IP (i.e., 5.00 and above). Similarly, the relationship between green induced job stress and environmental performance is positive and significant only for high values of IP (i.e., 4.00 and above). Again, for the respective ranges of values of IP, we find that the slopes of the relationship between process/product and environmental performance are stronger. The perceptible analysis reveals similar results (see Figure 3 and Figure 4 for details). Overall, these results lend credence to the study's argument in H3a and H3b that high levels of IP amplify the relationship between green employee support and green induced job stress capabilities and environmental performance.

The researcher further utilized the PROCESS technique to analyze the indirect and conditional indirect effects components of the conceptual model as it enables us to directly test the statistical significance of such effects using bootstrapping procedures (Hayes, 2018). Table 8 presents the analytical procedures used and results obtained. It was found that green employee behaviour has significant positive indirect association with environmental performance through green employee support (indirect effect = 0.178; 95% bootstrap confidence interval: 096 to .267) but green induced job stress has significant negative indirect association with environmental performance through green employee support (indirect effect = -0.051; 95% bootstrap confidence interval: -.104 to -.009), in support of H1a and H1b respectively.

The results further reveal that IP positively moderates the indirect relationship between green employee behaviour and environmental performance via green employee support given moderated mediation index of 0.044 with 95% bootstrap confidence interval of 0.015 to 0.076. Specifically, the indirect relationship is positive, stronger and significant under high values of IP (i.e., at 1 standard deviation above the mean of IP: β = 0.263, 95% bootstrap confidence interval of .173 to .357) but weaker and insignificant under low values of IP (i.e., at 1 standard deviation below the mean of IP: β = 0.176, 95% bootstrap confidence interval of 0.104 to 0.261), which provides evidence in support of H2a.

However, results further show that the negative indirect relationship between green employee behaviour and environmental performance via green induced job stress is invariant across high and low values of IP.

Figure 3 Graph of the moderating effect of Institutional pressure on the green employee support-environmental performance link.



Note:

1. Values for institutional pressure are 10th, 25th, 50th, 75th, and 90th percentiles.

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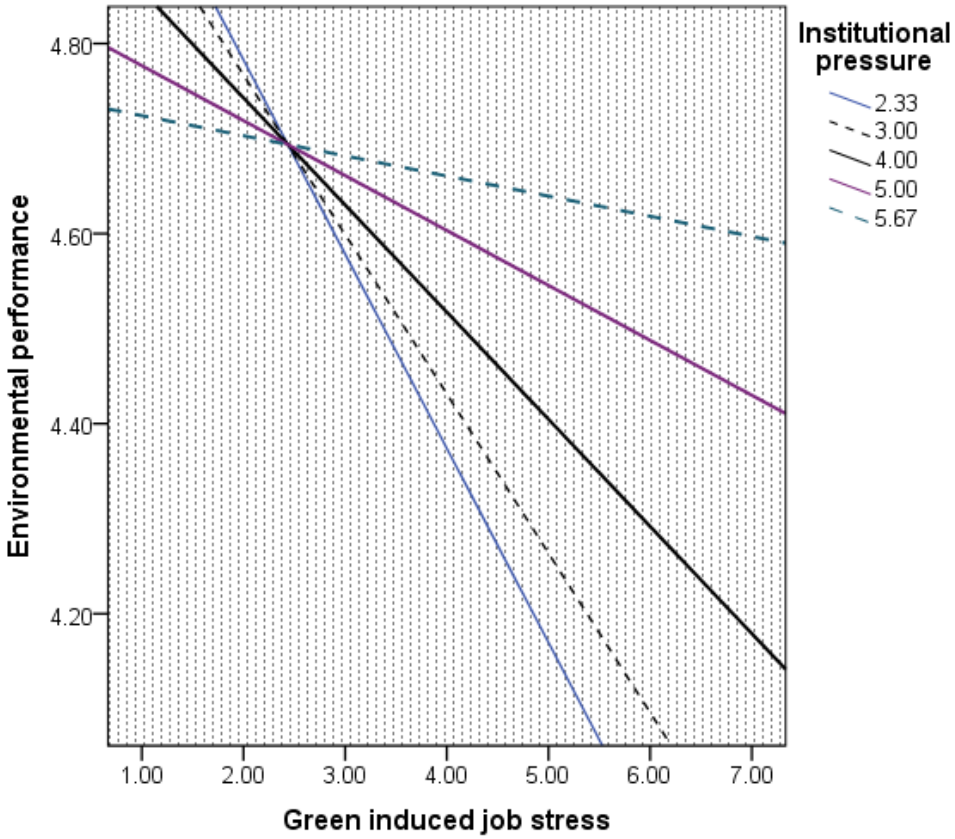
2. Each slope is statistically significant at 1%.

Figure 4 Graph of the moderating effect of institutional pressure on the green induced job stress-environmental performance link



Note:

1. Values for institutional pressure are 10th, 25th, 50th, 75th, and 90th percentiles.
2. Slopes at 10th, 25th, and 50th percentiles of institutional pressure are statistically significant at 5%.

4.5 Discussions

The study sought to delve on the links from green employee support and green job-induced stress on employee performance as well as the moderating role of institutional pressure cannot be overemphasised. The study focused on finding out if the research model fits within the contexts of transport and logistics related firms to measure the variables of the study and tested the relationships among them in a mediation-moderation analysis. The results obtained were largely consistent with H1 (a, b) and H2a except H2b.

The second explored the direct, indirect, and the conditional indirect paths from green employee behaviour to environmental performance. Thus, the results show that green employee support positively and significantly relate to environmental performance. Again, the results show that green induced job stress negative but significantly relates to environmental performance. Fourth, it was found that institutional pressures significantly strengthen the positive effect of green employee support on environmental performance but it reduces the negative effect of job stress on environmental performance.

As previously said, environmental protection has become a major study topic (Banerjee *et al.* 2003). Integrating the core elements with the NRBV as well as the job demand resource model, institutional theory and developing a comprehensive model, the study focused on contributing to literature of environmental sustainability as well as that of environmental protection. Below, the researcher provide a detailed discussion of the theoretical contributions and implications of the findings.

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Most of the extant research adopts a single-level approach to study environmental management in organizations, at either organizational level or individual level (Sharma *et al.*, 2007; Boiral, 2009). However, the multiple levels of human activities relevant to the dynamics of environmental protection require that more emphasis be placed on multilevel research (Rousseau, 1985). In this study, the researcher proposed a cross-level model highlighting the importance of business strategy and linking multilevel variables and firms environmental performance. This multilevel approach helps better explore the complex interactions among variables at various organizational levels. The results from testing this model empirically make important contributions to the literature of environmental sustainability.

In addition, this study also contributes to the literature of sustainability by proposing and testing a conceptual model that explains how green employee behaviour influences environmental performance. Given certain external conditions, especially customers' environmental demands and competitors' organisational green initiatives, a firm with strong green employee behaviour should generate superior performance with its emphasis on the integration of organizational efforts to deliver superior environmental performance. Moreover, institutional pressure is a very important moderator of the relationships. Also, the study further investigated the extent to which green employee behaviour led to green induced job stress. Specifically, when firms consistently implement green employee behaviour, there may be instances where there would employee support and other instances where it would lead to employee job stress.

Consequently, given the attention on environmental issues, the extent to which employees support or reject firms' green strategies may affect how they achieve environmental performance. Indeed, among the relationships tested in the current study, the researcher has stressed the important effect of a specific moderating variable—the firm's institutional pressures. The relationship between green employee behaviour through either green employee support or green induced job stress to achieve environmental performance is contingent upon the effect of this moderator. In other words, a significant and positive relationship between green employee behaviour and environmental performance through either green employee support or green induced job is likely to be observed where there is a high level of institutional pressures.

Moreover, the study further differentiates itself from previous studies by explaining the role of green employee behaviour in achieving environmental performance. Specifically, the study assesses the roles of green induced job stress and green employee support in the green employee behaviour-environmental performance linkage.

Finally, the study contributes to the environmental literature by demonstrating the importance of green induced job stress and green employee support in explaining environmental performance. Past environmental researchers (e.g., Chan 2010; Menguc *et al.* 2010; Shrivastava 1995b) have called for more empirical studies into environment-related sustainability issues. The current study responds to this call by theoretically and empirically verifying the roles of green induced job stress and green employee support in enhancing firms' environmental performance.

5.0 CONCLUSIONS

First of all, although the value green employee behaviour as a strategic resource has been widely emphasized, managers should understand that green employee behaviour per se may not directly influence environmental performance. Specifically, firms' management should understand the important effect of green employee support and institutional pressures. Only with this understanding can management ensure that green employee behaviour could positively and significantly relate to environmental performance. In other words, only with this understanding can green employee behaviour mediate the relationship between organisational green initiatives and environmental performance.

A sustainability-oriented firm should thus first instigate institutional pressures, which, in turn, can help develop and implement effective green employee behaviour and create unique competitive advantages (such as green employee support). All these are important for achieving superior environmental performance. In other words, firm managers need to recognize that green employee behaviour alone may not be a unique strategic resource for achieving environmental performance; its successful implementation requires complementary resources, such as institutional pressures. A high level of institutional pressures helps build a collective sensitivity to environment-related issues among organizational members, which enables the formulation of

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a combination of organisational green initiatives resources and strategic actions. In other words, only when top management presents a high level of institutional pressures can the members of an organization unite together to support green employee behaviour and achieve good environmental performance. With their interactive effect, the green employee support and institutional pressures function together as a unique strategic firm resource.

Finally, managers should understand that the environmental outcome of green employee behaviour depend on employee support or participation in environmental efforts. Because green employee behaviour the participation of organizational members at different levels, managers should coordinate and communicate with all members to stimulate motivation to engage in environmental activities. Specifically, managers can have employees participate in decision-making on the issues of environmental protection and corporate social responsibility (CSR). They can also work with employees to establish targets or objectives for protecting the environment at different levels of their firms. Finally, managers can set up an incentive system to encourage the participation or support of their employees.

For example, for those employees who can suggest or recommend good ideas or approaches to protect the environment, managers can give the employees intrinsic rewards (e.g., praises at meetings or internal publications) and/or extrinsic rewards (e.g., financial bonuses). According to research, all these can help improve employees' participation and supports, which in turn can lead to increased green induced job stress and enhanced environmental performance. There are inevitably limitations in the study. First, the data sources were focused on transport and logistics-related firms in Ghana from both manufacturing and service sectors of the economy.

Although the role of business processes is more salient in manufacturing firms, the function of green employee behaviour on environmental performance in other industry types, such as the services industry, was neglected in this study, which may potentially cause problems related to generalizability. In other words, the business environments in transport and logistics industry can be different from those in other industries: the demands or requirements in the different industries and the way in which they affect the environment can also be different. Therefore, in future studies, it would be interesting to collect data from industries such as maritime, beverage.

Second, the respondents were top managers of transport and logistics firms in Ghana, mainly in Accra and Kumasi, and the external validity of the research findings therefore remains to be tested. Moreover, the environmental-friendly behaviour of firms from different sub-industries within the other industries might differ in important ways (Banerjee *et al.*, 2003). On the other hand, although the sample of the current research comes from transport and logistics firms in Ghana, it is believed that the theoretical model is still applicable to firms in other parts of the world. The main reason is that there is no significant difference in the variables tested in this study between the Ghanaian firms and those in other parts of the world. Moreover, if green employee behaviour can have a positive relationship with firms' environmental performance in other emerging economies in sub-Saharan Africa, the same relationship should be found in developed economies where customers should have greater demands for environmental protection.

Future research could extend this study by collecting empirical data from other countries for validation and comparison.

REFERENCES

Abdullah, M., Zailani, S., Iranmanesh, M., & Jayaraman, K. (2016). Barriers to green innovation initiatives among manufacturers: the Malaysian case. *Review of Managerial Science*, *10*(4), 683-709.

Abraham, S. (2012). Job satisfaction as an antecedent to employee engagement. *Journal of Management*, *8*(2).

Accenture (2013). Integrated Business Services – Taking Procurement Shared Services to New Heights of High Performance. Available online: https://www.accenture.com/lv-en/~/media/Accenture/Conversion-Assets/DotCom/Documents/Global/PDF/Strategy_2/Accenture-IBS-Procurement-Shared-Services.pdf

Acquaah, M. (2007). Managerial social capital, strategic orientation, and organizational performance in an emerging economy. *Strategic Management Journal*, 28(12),

IJMS 2025, Volume 5, Issue 1, Page 01-37
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ISSN: 2676-2749
Journal Impact Factor (JIF): 7.807

1235–1255.

Acquaah, M., Amoako-Gyampah, K., and Jayaram, J. (2011). Resilience in family and nonfamily firms: An examination of the relationships between manufacturing strategy, competitive strategy and firm performance. *International Journal of Production Research*, 49(18), 5527–5544.

Ofori, I., Bluwey, E., Ackah, D., (2024), "Total Quality Management Practices, Organisational Culture and Firm Performance; Service or Product Innovation", African Journal of Procurement, Logistics & Supply Chain Management Society 2024, 7(9): pp.165-205. DOI: https://dx.doi.org/10.4314/ajplscm.v7i9.5

Ackah, D., (2014). "The Impact of Motivation on Employee Performance in the Manufacturing Industry", Global Journal of Management Studies and Researches (GJMSR), Volume 1, Number 5, pp. 291- 310, 2014,

Ofori, I., Ackah, D., (2024), "The Role Organizational Culture as a Moderating Factor in the Relationship Between E-Procurement Adoption, Procurement", African Journal of Procurement, Logistics & Supply Chain Management Society 2024, 7(9): pp.01-32. DOI: https://dx.doi.org/10.4314/ajplscm.v7i9.1

Attafuah, E. D. & Ackah, D., (2022) "The Impact of Financial Engineering on Building Project Finance Among Commercial Banks in Ghana" Finance & Management Engineering Journal of Africa, Volume 4, Issue 10, pp. 01-44

Ackah, D., Dadzie. B., E., Yornu, K. I., (2025), "The Role of Corporate Governance in Strengthening Competitive Advantage through Strategic Project Procurement", Dama Academic Scholarly & Scientific Research Society 2025, 10(01): pp.58-81, DOI: https://dx.doi.org/10.4314/dasjr.v10i1.3

Ackah, D., Ofori., I., (2025), "The Influence of Green Logistics and Food Distribution Strategy on Post-Harvest Loss Reduction", African Journal of Procurement, Logistics & Supply Chain Management Society 2025, 7(9): pp.01-17, DOI: https://dx.doi.org/10.4314/ajplscm.v8i1.1

Ackah, D., Addo, K. S., K., Yornu, K. I., (2025), "Analysing the Connection Between Motivation, Compensation, and Employee Job Satisfaction", Dama Academic Scholarly & Scientific Research Society 2025, 10(01): pp.01-31, DOI: https://dx.doi.org/10.4314/dasjr.v10i1.1

Ackah, D., Addo, K. S., K., Yornu, K. I., (2025), "Analyzing the Impact of Green Procurement on Inexpensive Advantage and Business Performance", Dama Academic Scholarly & Scientific Research Society 2025, 10(01): pp.32-57, DOI: https://dx.doi.org/10.4314/dasjr.v10i1.2

Ackah, D., Ofori, I., Amponsah., R., (2025), "Resource Capabilities as a Moderator: Impact of Procurement Practices on Project Performance and Competitive Advantage", Project Management Scientific Journal, 2024, 8(9): pp.158-188. DOI: https://dx.doi.org/10.4314/pmsj.v8i1.6

Ackah, D., (2020). "The Impact of the World COVID-19 Pandemic on Project Financing" Project Management Scientific Journal, Volume 4, Issue 4, pp.01-13

Ofori., I., Ackah., D., Owusu-Asantewaah., P., (2025), "Supply Chain Collaboration, Organizational Resources and Firms' Performance", African Journal of Procurement, Logistics & Supply Chain Management Society 2025, 8(01): pp.41-58, DOI: https://dx.doi.org/10.4314/ajplscm.v8i1.3

Ackah, D., & Boadu, O. K. (2025). Entrepreneurship as a Catalyst for Innovation and Economic Growth in Ghana", Dama Academic Scholarly & Scientific Research Society 2024, 10(04): pp.28 - 47, DOI: https://dx.doi.org/10.4314/dasjr.v10i4.2

IJMS 2025, Volume 5, Issue 1, Page 01-37

ISSN: 2676-2749
Journal Impact Factor (JIF): 7.807

Mensah-Amewuda., B., Mensah., O., Agyemang., I., Ackah., D., (2025), "Disposal of Unused Medicines in a Rural Ghanaian Household and its Effect on the Environment", Dama Academic Scholarly & Scientific Research Society 2024, 10(02): pp.40-51, DOI: https://dx.doi.org/10.4314/dasjr.v10i2.5

Attafuah, E. D. & Ackah, D., (2020) "The repercussions facing the Ghana Stock Exchange (GSE)" Finance & Management Engineering Journal of Africa, Volume 2, Issue 11, pp.11-14

Ackah, D., Addo, K. S., K., Yornu, K. I., (2024), "Effect of Green Procurement Practices on Financial Performance", African Journal of Procurement, Logistics & Supply Chain Management, 2024, 7(8): pp.13-40. DOI: https://dx.doi.org/10.4314/ajplscm.v7i8.2

Owusu K., Issah Ofori., I., Ackah., D., (2025), "Behavioral Competencies, Supply Chain Resilience and Firm Performance: The Moderating Effect of Internal Integration", African Journal of Procurement, Logistics & Supply Chain Management Society 2025, 8(01): pp.18-40, DOI: https://dx.doi.org/10.4314/ajplscm.v8i1.2

Ackah, D., Agboyi, M., R., & Adu-Gyamfi, L., (2014). "Competitive tendering, an effective tool in ensuring value for money in the public sector," Global Journal of Management Studies and Researches (GJMSR), Volume1, Number 4, pp. 108 – 185

Ackah, D., Dadzie, B., E., (2025), "The Influence of Procurement Practices on Project Outcomes and Competitive Edge", Dama Academic Scholarly & Scientific Research Society 2024, 10(01): pp.82-111, DOI: https://dx.doi.org/10.4314/dasjr.v10i1.4

Ackah, D., Kondegri-Pangka, M., & Agboyi, A., R., (2015). "The Role and Impact of Rural Banking on SME's (Small Medium Enterprise)", Global Journal of Management Studies and Researches (GJMSR), Volume 1, Number 5, pp. 311 – 323

Ackah, D., Amponsah, R., (2024), "Evaluating the Project Management Maturity in the Construction Industry of Developing Countries, Ghana in Perspective", Project Management Scientific Journal, 2024, 7(9): pp.01-15. DOI: https://dx.doi.org/10.4314/pmsj.v7i9.1

Ackah, D., Adu-Gyamfi, L., & Agboyi, M., R., (2015). "The Impact of Trade Liberalisation on Import Composition," Global Journal of Management Studies and Researches (GJMSR), Volume 1, Number 5, pp. 273 – 290

Ackah, D., Addo, K. S., K., Yornu, K. I., (2024), "Enforcing Ethical Codes of Conduct in Procurement and Its Impact on Public Procurement Performance in Ghana", African Journal of Procurement, Logistics & Supply Chain Management 2024, 7(8): pp.72-92. DOI: https://dx.doi.org/10.4314/ajplscm.v7i8.5

Acquah, P., Ofori, I., & Ackah, D., (2022) "Analyzing Stakeholder Challenges in Public Sector Project Implementation" Project Management Scientific Journal, Volume 6, Issue 1, pp. 01-15

Ackah, D., Addo, K. S., K., Yornu, K. I., (2024), "Information Sharing's Impact on Supply Chain Management, Logistics, and Organizational Performance", Project Management Scientific Journal, 2024, 7(9): pp.16-33. DOI: https://dx.doi.org/10.4314/pmsj.v7i9.2

Ackah, D., Addo, K. S., K., Yornu, K. I., (2024), "Senior Management's Influence on Supplier Selection and Procurement Performance", African Journal of Procurement, Logistics & Supply Chain Management, 2024, 7(8): pp. 93-113. DOI: https://dx.doi.org/10.4314/ajplscm.v7i8.6

IJMS 2025, Volume 5, Issue 1, Page 01-37
Open Access Articles Distributed in terms of the
Creative Commons Attribution License [CC BY 4.0]

ISSN: 2676-2749
Journal Impact Factor (JIF): 7.807

Ofori, I., & Ackah, D., (2021) "The Influence of Green Logistics and Food Distribution Strategy on Post-Harvest Loss Reduction" African Journal of Procurement, Logistics & Supply Chain Management, Volume 4, Issue 12, pp.33-48

Ofori, I., Ackah, D., Dadzie. B., E., (2024), "Digitalization and Operational Performance of the Audit Service of Ghana", Project Management Scientific Journal, 2024, 7(9): pp.93-116. DOI: https://dx.doi.org/10.4314/pmsj.v7i9.6

Ackah, D., Agboyi, M., R., & Adu-Gyamfi, L., (2014). "An Investigation of Yam Ingestion Customs in Ghanaian Urban Communities," International Journal of Sciences: Basic and Applied Research (IJSBAR), Volume 17, Number 2, pp. 374 – 411

Ackah, D., Dadzie. B., E., Yornu, K. I., (2024), "The Influence of Corporate Governance on Strategic Procurement and Competitive Advantage", African Journal of Procurement, Logistics & Supply Chain Management, 2024, 7(8): pp.13-40. DOI: https://dx.doi.org/10.4314/ajplscm.v7i8.7

Ackah, D., Ofori, I., Dadzie. B., E., (2025), "Examining the Role of Technological Innovation, and the Impact of Green Procurement on Competitive Advantage and Company Performance", Project Management Scientific Journal, 2024, 8(9): pp.107-134. DOI: https://dx.doi.org/10.4314/pmsj.v8i1.4

Adjasi, C., Harvey, S. K., and Agyapong, D. (2008). Effect of exchange rate volatility on the Ghana Stock Exchange. *African Journal of Accounting, Economics, Finance and Banking Research*, 3(3), 28–47.

Adomako, S., Danso, A., and Damoah, J. O. (2016). The moderating influence of financial literacy on the relationship between access to finance and firm growth in Ghana. *Venture Capital,* 18(1), 43–61.

Adomako, S., Danso, A., Boso, N., and Narteh, B. (2018b). Entrepreneurial alertness and new venture performance: Facilitating roles of networking capability. *International Small Business Journal*, 36(5), 453-472.

Adomako, S., Opoku, R. A., and Frimpong, K. (2018a). Entrepreneurs' improvisational behaviour and new venture performance: Firm-level and institutional contingencies. *Journal of Business Research*, 83, 10–18.

African Development Bank Group (2015). African economic outlook 2015: Development regional inclusion and spatial. Available: www.un.org/en/africa/osaa/pdf/pubs/2015afrecooutlook-afdb.pdf [accessed 2/11/2018].

African Development Bank Group. (2018). 2018 African economic outlook: Ghana. Available: https://www.afdb.org/fileadmin/uploads/afdb/.../Generic.../Ghana_country_note.pdf [accessed 2/11/2018].

Africawatch (2014). *Transporting Ghana into the Future*. Africawatch Special Report, October Edition.

Agyekum-Mensah, G, Knight, A. and Coffey, C. (2012). 4Es and 4 Poles model of sustainability: Redefining sustainability in the built environment. *Structural Survey*, 30(5), 426-442.

Ahmed, A., & Ramzan, M. (2013). Effects of job stress on employees job performance a study on banking sector of Pakistan. *IOSR Journal of Business and Management*, *11*(6), 61-68.

Ahmed, M. D., & Sundaram, D. (2012). Sustainability modelling and reporting: From roadmap to implementation. *Decision Support Systems*, *53*(3), 611-624.

Ajzen, I. (2011). The theory of planned behaviour: Reactions and reflections.

Akgün, A. E., and Keskin, H. (2014). Organisational resilience capacity and firm product innovativeness and performance. *International Journal of Production Research*, 52(23), 6918–6937.

Alagidede, P., Baah-Boateng, W., and Nketiah-Amponsah, E. (2013). The Ghanaian economy: An overview. *Ghanaian Journal of Economics*, 1, 4–34.

Albertini, E. (2017). What we know about environmental policy: An inductive typology of the research. *Business Strategy and the Environment*, *26*(3), 277-287.

IJMS 2025, Volume 5, Issue 1, Page 01-37

ISSN: 2676-2749
Journal Impact Factor (JIF): 7.807

Alt, E., & Spitzeck, H. (2016). Improving Environmental Performance Through Unit-Level Organizational Citizenship Behaviors for The Environment: A Capability Perspective. *Journal Of Environmental Management*, 182, 48-58

Ambos, T. C., and Birkinshaw, J. (2010). Headquarters' attention and its effect on subsidiary performance. *Management International Review*, 50, 449–469.

Ambulkar, S., Blackhurst, J., and Grawe, S. (2015). Firm's resilience to supply chain disruptions: Scale development and empirical examination. *Journal of Operations Management*, 33/34, 111–122.

Amit, R., and Schoemaker, P. J. H. (1993). Strategic assets and organizational rent. *Strategic Management Journal*, 14, 33–46.

Anitha, J. (2014). Determinants of employee engagement and their impact on employee performance. *International journal of productivity and performance management*.

Antonakis, J., Bendahan, S., Jacquart, P., and Lalive, R. (2010). On making causal claims: A review and recommendations. *The Leadership Quarterly*, 21(6), 1086–1120.

Armstrong, J. S., and Overton, T. S. (1977). Estimating nonresponse bias in mail surveys. *Journal of Marketing Research*, 14(3), 396–402.

Arvis et al. (2016). *Connecting to Compete 2016: Trade Logistics in the Global Economy – The Logistics Performance Index and its Indicators*. The World Bank.

Awaysheh, A., & Klassen, R. D. (2010). The impact of supply chain structure on the use of supplier socially responsible practices. *International Journal of Operations & Production Management*.

Bagozzi, R. P., and Yi, Y. (2012). Specification, evaluation, and interpretation of structural equation models. *Journal of the Academy of Marketing Science*, 40, 8–34.

Banin, Y. A., Boso, N., Hultman, M., Souchon, A. L., Hughes, P., and Nemkova, E. (2016). Salesperson improvisation: Antecedents, performance outcomes, and boundary conditions. *Industrial Marketing Management*, 59, 120–130.

Bansal, P., & Bogner, W. C. (2002). Deciding on ISO 14001: economics, institutions, and context. *Long Range Planning*, *35*(3), 269-290.

Barnett, R. C., & Hyde, J. S. (2001). Women, Men, Work, and Family. An Expansionist Theory. *American Psychologist*, 56(10), 781-796.

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120.

Barney, J., Wright, M., and Ketchen Jr, D. J. (2001). The resource-based view of the firm: Ten years after 1991. *Journal of Management*, 27(6), 625-641.

Bask, A., & Kuula, M. (2011). Measuring supply chain level environmental sustainability-Case Nokia. *International Journal of Business Insights & Transformation*, *3*.

Bell, J. (2010). *Doing your research project: A guide for first-time researchers in education, Health and Social Science* 5edn. Maidenhead: Open University Press.

Berrone, P., Fosfuri, A., Gelabert, L., & Gomez-Mejia, L. R. (2013). Necessity as the mother of 'green' inventions: Institutional pressures and environmental innovations. *Strategic Management Journal*, *34*(8), 891-909.

Berrone, P., Fosfuri, A., Gelabert, L., & Gomez-Mejia, L. R. (2013). Necessity as the mother of 'green' inventions: Institutional pressures and environmental innovations. *Strategic Management Journal*, *34*(8), 891-909.

Bhupendra, K. V., & Sangle, S. (2015). What drives successful implementation of pollution prevention and cleaner technology strategy? The role of innovative capability. *Journal of environmental management*, *155*, 184-192.

Bissing-Olson, M. J., Iyer, A., Fielding, K. S., & Zacher, H. (2013). Relationships between daily affect and pro-environmental behavior at work: The moderating role of pro-environmental attitude. *Journal of Organizational Behavior*, *34*(2), 156-175

Boiral, O., Cayer, M., & Baron, C. M. (2009). The action logics of environmental leadership: A developmental perspective. *Journal of business ethics*, *85*(4), 479-499

Bonan, G. B. (2008). Forests and climate change: forcings, feedbacks, and the climate benefits of forests. *science*, *320*(5882), 1444-1449.

Borman, W. C., & Motowidlo, S. J. (1997). Task performance and contextual performance: The meaning for personnel selection research. *Human performance*, *10*(2), 99-109.

IJMS 2025, Volume 5, Issue 1, Page 01-37

ISSN: 2676-2749
Journal Impact Factor (JIF): 7.807

Boso, N., Story, V. M., and Cadogan, J. W. (2013a). Entrepreneurial orientation, market orientation, network ties, and performance: Study of entrepreneurial firms in a developing economy. *Journal of Business Venturing*, 28, 708–727.

Boso, N., Story, V. M., Cadogan, J. W., Micevski, M., and Kadic-Maglajlic, S. (2013b). Firm innovativeness and export performance: Environmental, networking, and structural contingencies. *Journal of International Marketing*, 21(4), 62–87.

Bradley, S. W., Aldrich, H., Shepherd, D. A., & Wiklund, J. (2011). Resources, environmental change, and survival: Asymmetric paths of young independent and subsidiary organizations. *Strategic Management Journal*, *32*(5), 486-509.

Brammer, S., Hoejmose, S., & Marchant, K. (2012). Environmental management in SME s in the UK: Practices, pressures and perceived benefits. *Business Strategy and the Environment*, *21*(7), 423-434.

Brandon-Jones, E., Squire, B., Autry, C. W., and Petersen, K. J. (2014). A contingent resource-based perspective of supply chain resilience and robustness. *Journal of Supply Chain Management*, 50(3), 55–73.

Brusset, X., and Teller, C. (2017). Supply chain capabilities, risks, and resilience. *International Journal of Production Economics*, 184, 59–68.

Bryman, A. (2012). *Social research methods* (4th Ed.). New York: Oxford University Press.

Burnes, B. S. (2003). Antibiotic resistance analysis of fecal coliforms to determine fecal pollution sources in a mixed-use watershed. *Environmental monitoring and assessment*, *85*(1), 87-98.

Burrell, G., & Morgan, G. (1979). *Sociological Paradigms and Organizational Analysis: Elements of the Sociology of Corporate Life*. London: Heinemann.

Buysse, K., & Verbeke, A. (2003). Proactive environmental strategies: A stakeholder management perspective. *Strategic management journal*, *24*(5), 453-470.

Cantor, D. E., Morrow, P. C., & Montabon, F. (2012). Engagement in environmental behaviors among supply chain management employees: An organizational support theoretical perspective. *Journal of Supply Chain Management*, *48*(3), 33-51.

Carter, C. R., & Rogers, D. S. (2008). A framework of sustainable supply chain management: moving toward new theory. *International journal of physical distribution & logistics management*.

Carvalho, A.P.D. and Barbieri, J.C. (2012). Innovation and Sustainability in the Supply Chain of a Cosmetics Company: A Case Study. *Journal of Technology Management & Innovation*, Vol. 7 No.2, pp.144-155

Chan, E. S., Hon, A. H., Chan, W., & Okumus, F. (2014). What drives employees' intentions to implement green practices in hotels? The role of knowledge, awareness, concern and ecological behaviour. *International Journal of Hospitality Management*, *40*, 20-28.

Chang, T. W. (2020). Corporate sustainable development strategy: effect of green shared vision on organization members' behavior. *International journal of environmental research and public health*, *17*(7), 2446.

Chen, Y. S. (2008). The driver of green innovation and green image–green core competence. *Journal of business ethics*, *81*(3), 531-543

Chen, Y. S., & Chang, C. H. (2012). Enhance green purchase intentions: The roles of green perceived value, green perceived risk, and green trust. *Management Decision*.

Chen, Y., Tang, G., Jin, J., Li, J., & Paillé, P. (2015). Linking market orientation and environmental performance: The influence of environmental strategy, employee's environmental involvement, and environmental product quality. *Journal of Business Ethics*, *127*(2), 479-500.

Cherian, J., & Jacob, J. (2013). Impact of self-efficacy on motivation and performance of employees. *International journal of business and management*, *8*(14), 80.

Chiou, J. S., Wu, L. Y., & Sung, Y. P. (2009). Buyer satisfaction and loyalty intention in online auctions: Online auction web site versus online auction seller. *Journal of Service Management*.

Chiou, T. Y., Chan, H. K., Lettice, F., & Chung, S. H. (2011). The influence of greening the suppliers and green innovation on environmental performance and competitive advantage in Taiwan. *Transportation Research Part E: Logistics and Transportation Review*, *47*(6), 822-836.

IJMS 2025, Volume 5, Issue 1, Page 01-37

ISSN: 2676-2749
Journal Impact Factor (JIF): 7.807

Chiou, T.-Y., Chan, H.K., Lettice, F. and Chung, S.H. (2011). The influence of greening the suppliers and green innovation on environmental performance and competitive advantage in Taiwan. *Transportation Research, Part E*, 47, 822–836.

Chowdhury, M. H., and Quaddus, M. (2017). Supply chain resilience: Conceptualization and scale development using dynamic capability theory. *International Journal of Production Economics*, 188, 185-204.

Chowdhury, M. M. H., and Quaddus, M. (2016). Supply chain readiness, response and recovery for resilience. *Supply Chain Management: An International Journal*, 21(6), 709–731.

Chu, S. H., Yang, H., Lee, M. and Park, S. (2017). The impact of institutional pressures on green supply chain management and firm performance: Top management roles and social capital. *Sustainability*, 9, 764

Clark, L. A., and Watson, D. (1995). Constructing validity: Basic issues in objective scale development. *Psychological Assessment*, 7(3), 309–319.

Clercq, D. De, and Zhou, L. (2014). Entrepreneurial strategic posture and performance in foreign markets: the critical role of international learning effort. *Journal of International Marketing*, 22(2), 47–67.

Closs, D. J., Speier, C., & Meacham, N. (2011). Sustainability to support end-to-end value chains: the role of supply chain management. *Journal of the Academy of Marketing Science*, *39*(1), 101-116.

Cohen, L., Manion, L., and Morrison K. (2007). *Research methods in education* (6th Ed.). New York: Routledge.

Colicchia, C., Melacini, M. and Perotti, S. (2011). Benchmarking supply Chain Sustainability: Insights from a field study. *Benchmarking: An international Journal*, 18(5), 705-732

Colwell, S. R., & Joshi, A. W. (2013). Corporate ecological responsiveness: Antecedent effects of institutional pressure and top management commitment and their impact on organizational performance. *Business Strategy and the Environment*, *22*(2), 73-91.

Cordano, M., & Frieze, I. H. (2000). Pollution reduction preferences of US environmental managers: Applying Ajzen's theory of planned behavior. *Academy of Management journal*, *43*(4), 627-641

Crawford, E. R., LePine, J. A., & Rich, B. L. (2010). Linking job demands and resources to employee engagement and burnout: a theoretical extension and meta-analytic test. *Journal of applied psychology*, *95*(5), 834.

Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of management*, *31*(6), 874-900.

Daily, B. F., Bishop, J. W., & Govindarajulu, N. (2009). A Conceptual Model for Organizational Citizenship Behavior Directed Toward the Environment. *Business & Society,* 48(2), 243-256.

Daily, B. F., Bishop, J. W., & 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.*

Dangelico, R. M., & Pujari, D. (2010). Mainstreaming green product innovation: Why and how companies integrate environmental sustainability. *Journal of business ethics*, *95*(3), 471-486.

Dangelico, R. M., & Pujari, D. (2010). Mainstreaming green product innovation: Why and how companies integrate environmental sustainability. *Journal of business ethics*, *95*(3), 471-486.

Darnall, N., Jolley, G. J., & Handfield, R. (2008). Environmental management systems and green supply chain management: complements for sustainability? *Business strategy and the environment*, *17*(1), 30-45.

Davis, C. H. (1995). The earth summit and the promotion of environmentally sound industrial innovation in developing countries. *Knowledge and Policy*, *8*(2), 26-52.

Davis, C. H. (1995). The earth summit and the promotion of environmentally sound industrial innovation in developing countries. *Knowledge Policy*, 8, 26–52.

Davis, M. C., Leach, D. J., & Clegg, C. W. (2011). The physical environment of the office: Contemporary and emerging issues.

IJMS 2025, Volume 5, Issue 1, Page 01-37

ISSN: 2676-2749
Journal Impact Factor (JIF): 7.807

De Grosbois, D. (2016). Corporate social responsibility reporting in the cruise tourism industry: A performance evaluation using a new institutional theory-based model. *Journal of Sustainable Tourism*, 24, 245–269

De Oliveira, O. J., Serra, J. R., & Salgado, M. H. (2010). Does ISO 14001 work in Brazil? *Journal of Cleaner Production*, *18*(18), 1797-1806.

Deshwal, P. (2015). Green HRM: An organizational strategy of greening people. *International Journal of applied research*, *1*(13), 176-181.

Devellis, R. F. (2003). *Scale development: Theory and applications* (2nd Ed.). California: Sage Publications, Inc.

Dewar, R. D., & Dutton, J. E. (1986). The adoption of radical and incremental innovations: An empirical analysis. *Management science*, *32*(11), 1422-1433.

Diamantopoulos, A., and Siguaw, J. A. (2000). In*troducing LISREL: A guide for the uninitiated*. London: Sage.

Diamantopoulos, A., Riefler, P., and Roth, K. P. (2008). Advancing formative measurement models. *Journal of Business Research*, 61, 1203–1218.

Dieste, M., Panizzolo, R., Garza-Reyes, J. A., & Anosike, A. (2019). The relationship between lean and environmental performance: Practices and measures. *Journal of Cleaner Production*, *224*, 120-131.

Dimaggio, P. and Powell, W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *Am. Sociol. Rev.*, 48, 147–160.

Easterby-Smith, M., Thorpe, R, Jackson, P., and Lowe, A. (2008*). Management research* (3rd Ed). London: Sage.

Ellen MacArthur Foundation (2015). *Towards a circular economy: Business rationale for an accelerated transition.* Available from www.ellenmacarthurfoundation.org.

Epstein, M. J. and Buhovac, A. R. (2010). Solving the sustainability implementation challenge. *Organisational Dynamics*, Vol 39, 306-315

Erkut, B., & Kaya, T. (2017). Knowledge generation for regional competitive advantage. In *18th European Conference on Knowledge Management (ECKM 2017). Academic Conferences and publishing limited.*

Erlandsson, J., & Tillman, A. M. (2009). Analysing influencing factors of corporate environmental information collection, management and communication. *Journal of Cleaner Production*, *17*(9), 800-810.

Fairfield, K. D., Harmon, J., & Behson, S. J. (2011). Influences on the organizational implementation of sustainability: an integrative model. *Organization Management Journal*, *8*(1), 4-20

Famiyeh, S., Adaku, E., Amoako-Gyampah, K., Asante-Darko, D., & Amoatey, C. T. (2018). Environmental management practices, operational competitiveness and environmental performance: Empirical evidence from a developing country. *Journal of Manufacturing Technology Management.*

Feinstein, N. (2013). Learning from past mistakes: future regulation to prevent greenwashing. *BC Envtl. Aff. L. Rev.*, *40*, 229.

Felin, T., Foss, N. J., & Ployhart, R. E. (2015). The micro-foundations movement in strategy and organization theory. *Academy of Management Annals*, *9*(1), 575-632.

Fernández, J. I. P., Cala, A. S., & Domecq, C. F. (2011). Critical external factors behind hotels' investments in innovation and technology in emerging urban destinations. *Tourism Economics*, *17*(2), 339-357.

Field, A. (2009). *Discovering statistics using SPSS* (3rd Ed.). California: Sage.

Flannery, B. L., & May, D. R. (2000). Environmental ethical decision making in the US metal-finishing industry. *Academy of management Journal*, *43*(4), 642-662

Flint, D. J., & Golicic, S. L. (2009). Searching for competitive advantage through sustainability: A qualitative study in the New Zealand wine industry. *International Journal of Physical Distribution & Logistics Management.*

Foster, T. (2013). Predictors of sustainability for community-managed handpumps in sub-Saharan Africa: evidence from Liberia, Sierra Leone, and Uganda. *Environmental science & technology*, *47*(21), 12037-12046.

IJMS 2025, Volume 5, Issue 1, Page 01-37

ISSN: 2676-2749
Journal Impact Factor (JIF): 7.807

Franchetti, M. (2011). ISO 14001 and solid waste generation rates in US manufacturing organizations: an analysis of relationship. *Journal of Cleaner Production*, *19*(9-10), 1104-1109.

Francis, J. A., Bhadeshia, H. K. D. H., & Withers, P. J. (2007). Welding residual stresses in ferritic power plant steels. *Materials Science and technology*, *23*(9), 1009-1020.

Frandsen, F., & Johansen, W. (2013). Public relations and the new institutionalism: In search of a theoretical framework. *Public Relations Inquiry*, *2*(2), 205-221.

Gallotta, B., Garza-Reyes, J. A., Anosike, A., Lim, M. K., & Roberts, I. (2016). A conceptual framework for the implementation of sustainability business processes.

Geissdoerfer, M., Morioka, S. N., de Carvalho, M. M., & Evans, S. (2018). Business models and supply chains for the circular economy. *Journal of cleaner production*, *190*, 712-721.

Gerbing, D. W., and Anderson, J. C. (1988). An updated paradigm for scale development incorporating unidimensionality and its assessment. *Journal of Marketing Research*, 25(2), 186–192.

Ghana Statistical Service (2016). *Integrated business establishment survey: Regional spatial business report*. Available: http://www.statsghana.gov.gh/gssmain/fileUpload/pressrelease/REGIONAL%20SPATIAL%20BUSINESS%20REPORT.pdf [accessed 15/11/2018].

Ghana Statistical Service (GSS) (2019). *Rebased 2013-2018 Annual Gross Domestic Product*. April 2019 Edition

Ghana Statistical Service. (2017). *Integrated business establishment survey II: Summary report*. Available: www.statsghana.gov.gh/docfiles/…/IBES/…/IBES%20II%20Summary%20%20Report.pdf. [accessed 12/11/2018].

Ghana Statistical Service. (2018). *Provisional 2017 annual gross domestic product*. Available: http://www2.statsghana.gov.gh/docfiles/GDP/GDP2018/2017 Quarter 4 and annual 2017 GDP publications/Annual_2017_GDP_April 2018 Edition.pdf. [accessed 15/11/2018].

Ghisellini, P., Cialani, C., & Ulgiati, S. (2016). A review on circular economy: the expected transition to a balanced interplay of environmental and economic systems. *Journal of Cleaner production*, *114*, 11-32.

Giunipero, L. C., Hooker, R. E., & Denslow, D. (2012). Purchasing and supply management sustainability: Drivers and barriers. *Journal of Purchasing and Supply Management*, *18*(4), 258-269.

GNA (2017). *Private sector to play critical role in industrial revolution* – Kyerematen. Available at https://www.ghanabusinessnews.com/2017/01/25/private-sector-to-play-critical-role-in-industrial-revolution-kyerematen/ [Accessed, 9th August, 2021]

Gnoni, M.G., de Felice, F.F. and Petrillo, A.A. (2011). A Multi-Criteria Approach for Strategic Evaluation of Environmental Sustainability in a Supply Chain. *International Journal of Business Insights and Transformation, 3(3),* 54-61

Golicic S.L., Davis D.F., McCarthy T.M. (2005). *A Balanced Approach to Research in Supply Chain Management*. In: Kotzab H., Seuring S., Müller M., Reiner G. (eds) Research Methodologies in Supply Chain Management. Physica-Verlag HD

Golini, R., Gualandris, J. and Kalchschmidt, M. (2012), *Sustainable Supply Chain Management: The Role of Supply Chain Management Investments and of Global Sourcing.* IPSERA proceedings ISBN 978-88-495-2346-1, April 2012. Naples (I)

González, M., & León, C. J. (2001). The adoption of environmental innovations in the hotel industry of Gran Canaria. *Tourism economics*, *7*(2), 177-190.

González, P., Sarkis, J., & Adenso-Díaz, B. (2008). Environmental management system certification and its influence on corporate practices: Evidence from the automotive industry. *International Journal of Operations & Production Management*.

Gonzalez-Benito, J. (2008). The effect of manufacturing pro-activity on environmental management: an exploratory analysis. *International Journal of Production Research*, *46*(24), 7017-7038.

Gouldson, A., & Sullivan, R. (2007). Corporate environmentalism: tracing the links between policies and performance using corporate reports and public registers. *Business Strategy and the Environment*, *16*(1), 1-11.

IJMS 2025, Volume 5, Issue 1, Page 01-37

ISSN: 2676-2749
Journal Impact Factor (JIF): 7.807

Grant, R. (2001). Liberalization policies and foreign companies in Accra, Ghana. *Environment and Planning*, 33, 997–1014.

Grant, R. M. (1996). Toward a knowledge-based theory of the firm. *Strategic Management Journal*, 17, 109–122.

Graves, L. M., Sarkis, J., & Zhu, Q. (2013). How transformational leadership and employee motivation combine to predict employee pro-environmental behaviors in China. *Journal of Environmental Psychology*, *35*, 81-91.

Gray, D. E. (2004). *Doing research in the real world*. New Delhi: Sage.

Greaves, M., Zibarras, L. D., & Stride, C. (2013). Using the theory of planned behavior to explore environmental behavioral intentions in the workplace. *Journal of Environmental Psychology*, *34*, 109-120.

Gualandris, J. and Kalchschmidt, M. (2014). Customer pressure and innovativeness: Their role in sustainable supply chain management. *Journal of Purchasing and Supply Management,* 20, 92–103

Guerci, M., Longoni, A., & Luzzini, D. (2016). Translating stakeholder pressures into environmental performance–the mediating role of green HRM practices. *The International Journal of Human Resource Management*, *27*(2), 262-289.

Gupta, M. C. (1995). Environmental management and its impact on the operations function. *International Journal of Operations & Production Management*.

Gürlek, M., Düzgün, E., & Uygur, S. M. (2017). How does corporate social responsibility create customer loyalty? The role of corporate image. *Social Responsibility Journal*

Hair, J. F. J., Black, C. W., Babin, J. B., and Anderson, E. R. (2014). *Multivariate data analysis*. (7th Ed.). Edinburgh Gata, Harlow: Pearson Education Ltd.

Hall, A. D., and Fagen, R. E. (1956). The definition of system. *General Systems*, 1(1), 18–28.

Hamprecht, J., Daniel, C., Manfred, N., and Meier, E. (2005). Controlling the Sustainability of Food Supply Chains. *Supply Chain Management: An International Journal*, 10(1): 7- 10

Hart, S. L. (1995). A natural resource-based view of the firm. *Acad. Manag. Rev*. 37, 986 –1014

Hart, S. L., & Dowell, G. (2011). Invited editorial: A natural-resource-based view of the firm: Fifteen years after. *Journal of management*, *37*(5), 1464-1479

Heinkel, R., Kraus, A., & Zechner, J. (2001). The effect of green investment on corporate behavior. *Journal of financial and quantitative analysis*, *36*(4), 431-449.

Hellström, T. (2007). Dimensions of environmentally sustainable innovation: the structure of eco-innovation concepts. *Sustainable development*, *15*(3), 148-159.

Henri, J. F., & Journeault, M. (2008). Environmental performance indicators: An empirical study of Canadian manufacturing firms. *Journal of environmental management*, *87*(1), 165-176.

Ho, T. H. (2014). Social purpose corporations: The next targets for greenwashing practices and crowdfunding scams. *Seattle J. Soc. Just.*, *13*, 935.

Hofer, C., Cantor, D. E., & Dai, J. (2012). The competitive determinants of a firm's environmental management activities: Evidence from US manufacturing industries. *Journal of Operations Management*, *30*(1-2), 69-84

Horiuchi, T., Masuda, R., Murakami, H., Yamamoto, S., & Minamoto, T. (2019). Biomass-dependent emission of environmental DNA in jack mackerel Trachurus japonicus juveniles. *Journal of fish biology*, *95*(3), 979-981.

Houy, C., Reiter, M., Fettke, P., Loos, P., Hoesch-Klohe, K., & Ghose, A. (2012). Advancing business process technology for humanity: Opportunities and challenges of green BPM for sustainable business activities. *Green Business Process Management*, 75-92.

Houy, C., Reiter, M., Fettke, P., Loos, P., Hoesch-Klohe, K., & Ghose, A. (2012). Advancing business process technology for humanity: Opportunities and challenges of green BPM for sustainable business activities. *Green Business Process Management*, 75-92.

Hox, J. J. & Bechger, T.M. (1999). An Introduction to Structural Equation Modeling. *Family Science Review*. 11.

Hsieh, Y. C. J. (2012). Hotel companies' environmental policies and practices: a content analysis of their web pages. *International journal of contemporary hospitality management*.

Huang, Y. C., Ding, H. B., & Kao, M. R. (2009). Salient stakeholder voices: Family business and green innovation adoption. *Journal of Management & Organization*, *15*(3), 309-326.

Huang, Y.-C., Ding, H.-B. and Kao, M.-R. (2009). Salient stakeholder voices: Family business and green innovation adoption. *Journal of Management Organisation*, 15, 309–326.

IJMS 2025, Volume 5, Issue 1, Page 01-37

ISSN: 2676-2749
Journal Impact Factor (JIF): 7.807

Hunt, S. D. (1997). Resource-advantage theory: An evolutionary theory of competitive advantage? *Journal of Economic Issues*, 31(1), 59–77.

Hussain, H.I., Haseeb, M., Kot, S., and Jermsittiparsert, K. (2020) The Non-linear Impact of Textile and Clothing Manufacturing on Economic Growth: The Case of Top-Asian Economies. *Fibres and Textiles in Eastern Europe*, 28 (5), 27 – 36.

Institute of Economic Affairs (IEA). (2006). *Determinants of economic growth in Ghana.* Available: https://www.africaportal.org/documents/16111/monograph-14.pdf [accessed 10/4/2021]

International Monetary Fund (2018). *Sub-Saharan Africa: Domestic Revenue Mobilization and Private Investment.* Available: https://www.imf.org/en/Publications/REO/SSA/Issues/2018/04/30/sreo0518 [accessed 10/4/2021].

Jacob, M., Florido, C., & Aguiló, E. (2010). Research note: Environmental innovation as a competitiveness factor in the Balearic Islands. *Tourism Economics*, *16*(3), 755-764.

Jeyaraj, S. S. (2013). Occupational stress among the teachers of the higher secondary schools in Madurai District, Tamil Nadu. *IOSR Journal of Business and Management*, *7*(5), 63-79.

Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, *33*(4), 692-724.

Kammerer, D. (2009). The effects of customer benefit and regulation on environmental product innovation.: Empirical evidence from appliance manufacturers in Germany. *Ecological Economics*, *68*(8-9), 2285-2295.

Kammerer, D. (2009). The effects of customer benefit and regulation on environmental product innovation: Empirical evidence from appliance manufacturers in Germany. *Ecological Economics*, 68, 2285–2295.

Kaufman, L. and Carter, C. (2010). Sustainable Management in Emerging Economy Contexts. Available at: http://www.sustainablesupplychian.com/documents/sustainabilityBookUSA.pdf

Keller, S. B., Savitskie, K, Stank, T. P., Lynch, D. F., Ellinger, A. E. (2002). A Summary and Analysis of Multi-Item Scales Used in Logistics Research. *Journal of Business Logistics*, Vol. 23(2), 83-270.

Khalifa, M. and Davison, M. (2006). SME adoption of it: The case of electronic trading systems. *IEEE Trans. Eng. Management*, 53, 275–284.

Khodakarami, N., & Dirani, K. (2020). Drivers of employee engagement: Differences by work area and gender. *Industrial and Commercial Training*.

Khodakarami, N., Dirani, K., & Rezaei, F. (2018). Employee engagement: finding a generally accepted measurement scale. *Industrial and Commercial Training*

Kirchherr, J., Reike, D., & Hekkert, M. (2017). Conceptualizing the circular economy: An analysis of 114 definitions. *Resources, conservation and recycling*, *127*, 221-232.

Kolk, A., and Rivera-santos, M. (2016). The state of research on Africa in business and management: Insights from a systematic review of key international journals. *Business & Society*, 57(3), 415–436.

Korhonen, J., Honkasalo, A., & Seppälä, J. (2018). Circular economy: the concept and its limitations. *Ecological economics*, *143*, 37-46.

Kothari, C. R. (2004). *Research Methodology: Methods and Techniques* (2nd Ed.). New Delhi: New Age International Ltd.

Kraaijenbrink, J., Spender, J. C., and Groen, A. J. (2010). The resource-based view: A review and assessment of its critiques. *Journal of Management*, 36(1), 349-372.

Kramer, M. R., & Porter, M. (2011). *Creating shared value* (Vol. 17). FSG.

Kravchenko, M., McAloone, T. C., & Pigosso, D. C. (2019). Implications of developing a tool for sustainability screening of circular economy initiatives. *Procedia Cirp*, *80*, 625-630.

Küçükoğlu, M. T., & Pınar, R. İ. (2015). Positive influences of green innovation on company performance. *Procedia-Social and Behavioral Sciences*, *195*, 1232-1237.

Kuhn, T. J (1996). *The Structure of Scientific Revolutions*, 3ed, University of Chicago Press, Chicago

Kusi-Sarpong, S., Sarkis, J., & Wang, X. (2016). Assessing green supply chain practices in the Ghanaian mining industry: A framework and evaluation. *International Journal of Production Economics*, *181*, 325-341.

IJMS 2025, Volume 5, Issue 1, Page 01-37

ISSN: 2676-2749
Journal Impact Factor (JIF): 7.807

Kwak, D.-W., Seo, Y.-J., and Mason, R. (2018). Investigating the relationship between supply chain innovation, risk management capabilities and competitive advantage in global supply chains. *International Journal of Operations & Production Management*, 38(1), 2–21.

La Londe, B.J. and Cooper, M.C. (1988). Partnerships in Providing Customer Service: A Third-Party Perspective. *Council of Logistics Management,* Oak Brook, IL.

Lai, Y., Saridakis, G., Blackburn, R., and Johnstone, S. (2016). Are the HR responses of small firms different from large firms in times of recession? *Journal of Business Venturing*, 31(1), 113–131.

Lam, J. S. L., and Bai, X. (2016). A quality function deployment approach to improve maritime supply chain resilience. *Transportation Research Part E: Logistics and Transportation Review*, 92, 16–27.

Lamm, E., Tosti-Kharas, J., & Williams, E. G. (2013). Read this article, but don't print it: Organizational citizenship behavior toward the environment. *Group & Organization Management*, *38*(2), 163-197.

Laufer, W. S. (2003). Social accountability and corporate greenwashing. *Journal of business ethics*, *43*(3), 253-261.

Lawler, E. E., & Hall, D. T. (1970). Relationship of job characteristics to job involvement, satisfaction, and intrinsic motivation. *Journal of Applied Psychology*, *54*(4), 305.

Lee, M. D. P., & Lounsbury, M. (2011). Domesticating radical rant and rage: An exploration of the consequences of environmental shareholder resolutions on corporate environmental performance. *Business & Society*, *50*(1), 155-188.

Lee, S. Y., & Klassen, R. D. (2016). Firms' response to climate change: The interplay of business uncertainty and organizational capabilities. *Business Strategy and the Environment*, *25*(8), 577-592.

Li, P., Menon, M., & Liu, Z. (2019). Green innovation under uncertainty-a dynamic perspective. *International Journal of Services, Economics and Management*, *10*(1), 68-88.

Li, Y., Dai, J., & Cui, L. (2020). The impact of digital technologies on economic and environmental performance in the context of industry 4.0: A moderated mediation model. *International Journal of Production Economics*, *229*, 107777

Lin, C. Y., & Ho, Y. H. (2011). Determinants of green practice adoption for logistics companies in China. *Journal of business ethics*, *98*(1), 67-83.

Lin, C.-Y. and Ho, Y.-H. (2011). Determinants of green practice adoption for logistics companies in China. *Journal of Business Ethics*, 98, 67–83.

Lin, H., Zeng, S. X., Ma, H. Y., Qi, G. Y., & Tam, V. W. (2014). Can political capital drive corporate green innovation? Lessons from China. *Journal of cleaner production*, *64*, 63-72

Lin, R.J., Tan, K.H. and Yong, G. (2013). Market demand, green product innovation, and firm performance: evidence from Vietnam motorcycle industry. *Journal of Cleaner Production*, Vol. 40, pp. 101-107

Lindell, M. K., and Whitney, D. J. (2001). Accounting for common method variance in cross-sectional research designs. *Journal of Applied Psychology*, 86(1), 114–121.

Linnenluecke, M. K., Stathakis, A., & Griffiths, A. (2011). Firm relocation as adaptive response to climate change and weather extremes. *Global Environmental Change*, *21*(1), 123-133.

Linton, J. D., Klassen, R., & Jayaraman, V. (2007). Sustainable supply chains: An introduction. *Journal of operations management*, *25*(6), 1075-1082.

Liu, C.-L., Shang, K., Lirn, T.-C., Lai, K.-H., and Lun, Y. H. V. H. V. (2017). Supply chain resilience, firm performance, and management policies in the liner shipping industry. *Transportation Research Part A,* 1–18.

Lopez, R. (1997). Environmental externalities in traditional agriculture and the impact of trade liberalization: The case of Ghana. *Journal of Development Economics*, 53, 17–39.

Lu, L. Y., Wu, C. H., & Kuo, T. C. (2007). Environmental principles applicable to green supplier evaluation by using multi-objective decision analysis. *International journal of production research*, *45*(18-19), 4317-4331.

Luzzini, D., Brandon-Jones, E., Brandon-Jones, A., Spina, G. (2015). From sustainability commitment to performance: The role of intra-and inter-firm collaborative capabilities in the upstream supply chain. *International Journal of Production Economics*, 165, 51-63

Lyon, T. P., & Maxwell, J. W. (2011). Greenwash: Corporate environmental disclosure under threat of audit. *Journal of Economics & Management Strategy*, *20*(1), 3-41.

IJMS 2025, Volume 5, Issue 1, Page 01-37

ISSN: 2676-2749
Journal Impact Factor (JIF): 7.807

Malhotra, M. K., and Grover, V. (1998). An assessment of survey research in POM: from constructs to theory. *Journal of Operations Management*, 16, 407–425.

Mann, A., & Harter, J. (2016). The worldwide employee engagement crisis. *Gallup Business Journal*, *7*, 1-5.

Marans, R. W., & Lee, Y. J. (1993). Linking recycling behavior to waste management planning: A case study of office workers in Taiwan. *Landscape and Urban Planning*, *26*(1-4), 203-214

Mariadoss, B. J., Tansuhaj, P. S., & Mouri, N. (2011). Marketing capabilities and innovation-based strategies for environmental sustainability: An exploratory investigation of B2B firms. *Industrial Marketing Management*, *40*(8), 1305-1318.

Markley, M. J., & Davis, L. (2007). Exploring future competitive advantage through sustainable supply chains. *International Journal of Physical Distribution & Logistics Management*.

Marshall, D., McCarthy, L., Heavey, C., & McGrath, P. (2015). Environmental and social supply chain management sustainability practices: construct development and measurement. *Production Planning & Control*, *26*(8), 673-690.

Marshall, R., Arts, J., & Morrison-Saunders, A. (2005). International principles for best practice EIA follow-up. *Impact assessment and project appraisal*, *23*(3), 175-181.

Mårtensson, K., & Westerberg, K. (2016). Corporate environmental strategies towards sustainable development. *Business Strategy and the Environment*, *25*(1), 1-9.

Masurel, E. (2007). Why SMEs invest in environmental measures: sustainability evidence from small and medium-sized printing firms. *Business Strategy and the Environment*, *16*(3), 190-201.

Mauno, S., Kinnunen, U. and Ruokolainen, M. (2007), Job Demands and Resources as Antecedents of Work Engagement: A Longitudinal Study, Journal of Vocational Behavior, 70: 149–171

Meerow, S., and Newell, J. P. (2015). Resilience and complexity: A bibliometric review and prospects for industrial ecology. *Journal of Industrial Ecology*, 19(2), 236–251.

Mefford, R. N. (2011). The economic value of a sustainable supply chain. *Business and Society Review*, *116*(1), 109-143.

Melander, L., & Pazirandeh, A. (2019). Collaboration beyond the supply network for green innovation: insight from 11 cases. *Supply Chain Management: An International Journal*.

Mirvis, P., & Manga, J. (2010). Integrating corporate citizenship: leading from the middle. *Global Challenges in Responsible Business, Cambridge University Press, Cambridge*, 78-106.

Mokhtar, M., Sahat, S., Hamid, B., Kaamin, M., Kesot, M. J., Wen, L. C., ... & Lei, V. S. J. (2016). Application of plastic bottle as a wall structure for green house. *ARPN J. Eng. Appl. Sci*, *11*(12), 7617-7621.

Moon, S. G., Bae, S., & Jeong, M. G. (2014). Corporate sustainability and economic performance: An empirical analysis of a voluntary environmental program in the USA. *Business Strategy and the Environment*, *23*(8), 534-546.

Morali and Searcy, C. (2010), A Review of Canadian Corporate Sustainable Development Reports. *Journal of Global Responsibility*, 1(2), 316-29

Morgan, N. A., Kaleka, A., and Katsikeas, C. S. (2004). Performance: A theoretical model antecedents of export venture and empirical assessment. *Journal of Marketing,* 68(1), 90–108.

Nicolau, J. L., & Santa-María, M. J. (2013). The effect of innovation on hotel market value. *International Journal of Hospitality Management*, *32*, 71-79.

Nishitani, G., Nagai, S., Baba, K., Kiyokawa, S., Kosaka, Y., Miyamura, K., ... & Kamiyama, T. (2010). High-level congruence of Myrionecta rubra prey and Dinophysis species plastid identities as revealed by genetic analyses of isolates from Japanese coastal waters. *Applied and environmental microbiology*, *76*(9), 2791-2798.

Nkomo, S. M. (2017). Time to Look in the mirror: Producing management theory and Knowledge for Africa. *Africa Journal of Management*, 3(1), 7–16.

Norton, T. A., Parker, S. L., Zacher, H., & Ashkanasy, N. M. (2015). Employee green behavior: A theoretical framework, multilevel review, and future research agenda. *Organization & Environment*, *28*(1), 103-125.

Norton, T. A., Zacher, H., & Ashkanasy, N. M. (2014). Organisational sustainability policies and employee green behaviour: The mediating role of work climate perceptions. *Journal of Environmental Psychology*, *38*, 49-54.

IJMS 2025, Volume 5, Issue 1, Page 01-37

ISSN: 2676-2749
Journal Impact Factor (JIF): 7.807

Norton, T. A., Zacher, H., & Ashkanasy, N. M. (2014). Organisational sustainability policies and employee green behaviour: The mediating role of work climate perceptions. *Journal of Environmental Psychology*, *38*, 49-54.

Nygaard, A., & Biong, H. (2010). The influence of retail management's use of social power on corporate ethical values, employee commitment, and performance. *Journal of Business Ethics*, 97(1), 87–108

Ones, D. S., & Dilchert, S. (2012). Employee Green Behaviors. *Managing Human Resources for Environmental Sustainability*, *32*, 85-116.

Onkila, T. (2015). Pride or embarrassment? Employees' emotions and corporate social responsibility. *Corporate Social Responsibility and Environmental Management*, *22*(4), 222-236.

Opatha, H. H. P., & Arulrajah, A. A. (2014). Green human resource management: Simplified general reflections. *International Business Research*, *7*(8), 101.

Orfila-Sintes, F., Crespi-Cladera, R., & Martínez-Ros, E. (2005). Innovation activity in the hotel industry: Evidence from Balearic Islands. *Tourism Management*, *26*(6), 851-865

Organ, D. W. (1997). Organizational citizenship behavior: It's construct clean-up time. *Human performance*, *10*(2), 85-97.

Osbaldiston, R., & Sheldon, K. M. (2003). Promoting internalized motivation for environmentally responsible behavior: A prospective study of environmental goals. *Journal of environmental psychology*, *23*(4), 349-357.

Paillé, P., & Boiral, O. (2013). Pro-environmental behavior at work: Construct validity and determinants. *Journal of Environmental Psychology*, *36*, 118-128.

Paillé, P., Boiral, O., & Chen, Y. (2013). Linking environmental management practices and organizational citizenship behaviour for the environment: a social exchange perspective. *The International Journal of Human Resource Management*, *24*(18), 3552-3575.

Pallant, J. (2007). *SPSS survival manual: A step by step guide to data analysis using SPSS for Windows* (3rd Ed.). Berkshire: McGraw-Hill Education.

Parguel, B., Benoît-Moreau, F., & Larceneux, F. (2011). How sustainability ratings might deter 'greenwashing': A closer look at ethical corporate communication. *Journal of business ethics*, *102*(1), 15-28.

Peprah, J. A., Brako, S., & Akosah, N. B. (2018). The awareness level of green procurement at the District Assemblies in Western Region in Ghana. *J. Mgmt. & Sustainability*, *8*, 46.

Peprah, J. A., Opoku-Fofie, I., & Nduro, K. (2016). Factors influencing green supply chain in the mining sector in Ghana. *European Journal of Logistics, Purchasing and Supply Chain Management*, *4*(1), 32-50.

Ployhart, R. E., and Vandenberg, R. J. (2010). Longitudinal research: The theory, design, and analysis of change. *Journal of Management*, 36(1), 94–120.

Podsakoff, P. M., Mackenzie, S. B., and Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual Review of Psychology*, 63, 539–569.

Podsakoff, P. M., Mackenzie, S. B., Lee, J., and Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903.

Pomering, A., & Johnson, L. W. (2009). Constructing a corporate social responsibility reputation using corporate image advertising. *Australasian Marketing Journal*, *17*(2), 106-114

Pontefract, D. (2016). *Flat army: Creating a connected and engaged organization*. Elevate Publishing.

Poveda, C. A., & Lipsett, M. G. (2014). An integrated approach for sustainability assessment: the Wa-Pa-Su project sustainability rating system. *International Journal of Sustainable Development & World Ecology*, *21*(1), 85-98.

Qi, G. Y., Shen, L. Y., Zeng, S. X. and Jorge, O. J. (2010). The drivers for contractors' green innovation: An industry perspective. *Journal of Clean Production*, 18, 1358–1365.

Qi, G. Y., Shen, L. Y., Zeng, S. X., & Jorge, O. J. (2010). The drivers for contractors' green innovation: an industry perspective. *Journal of cleaner production*, *18*(14), 1358-1365.

Ramus, C. A., & Killmer, A. B. (2007). Corporate greening through prosocial extrarole behaviours–a conceptual framework for employee motivation. *Business strategy and the Environment*, *16*(8), 554-570.

IJMS 2025, Volume 5, Issue 1, Page 01-37

ISSN: 2676-2749
Journal Impact Factor (JIF): 7.807

Ramus, C. A., & Montiel, I. (2005). When are corporate environmental policies a form of greenwashing? *Business & Society*, *44*(4), 377-414

Ramus, C. A., & Steger, U. (2000). The roles of supervisory support behaviors and environmental policy in employee "Ecoinitiatives" at leading-edge European companies. *Academy of Management journal*, *43*(4), 605-626.

Ren, S., Li, X., Yuan, B., Li, D., & Chen, X. (2018). The effects of three types of environmental regulation on eco-efficiency: A cross-region analysis in China. *Journal of cleaner production*, *173*, 245-255.

Renwick, D. W., Redman, T., & Maguire, S. (2013). Green human resource management: A review and research agenda. *International journal of management reviews*, *15*(1), 1-14.

Renwick, D. W., Redman, T., & Maguire, S. (2013). Green Human Resource Management: A Review and Research Agenda. *International Journal of Management Reviews*, 15(1), 1-14.

Rindfleisch, A., Malter, A. J., Ganesan, S., and Moorman, C. (2008). Cross-Sectional versus longitudinal survey research: Concepts, findings, and guidelines. *Journal of Marketing Research*, 45(3), 261–279.

Robinson D., Perryman S., and Hayday S. (2004). *The Drivers of Employee Engagement Report 408*. Institute for Employment Studies, UK

Robinson, B. H. (2009). E-waste: an assessment of global production and environmental impacts. *Science of the total environment*, *408*(2), 183-191

Robinson, W. I., William, I., & Robinson, W. I. (2004). *A theory of global capitalism: Production, class, and state in a transnational world*. JHU Press.

Roscoe, S., Cousins, P. D., & Lamming, R. C. (2016). Developing eco-innovations: A three-stage typology of supply networks. *Journal of Cleaner Production*, *112*, 1948-1959.

Ross, R.B., Pandey, V. and Ross, K.L. (2012). *Sustainability and Firm Strategy in U.S. Agri-Food Companies: An Overview of Current Approaches,* Working Paper, Department of Agricultural, Food, and Resource Economics, Michigan State University

Rothbard, N. P. (2001). Enriching or depleting? The dynamics of engagement in work and family roles. *Administrative science quarterly*, *46*(4), 655-684.

Rothenberg, S. (2003). Knowledge Content and Worker Participation in Environmental Management at Nummi. *Journal Of Management Studies*, 40(7), 1783-1802

Rotundo, M., & Sackett, P. R. (2002). The relative importance of task, citizenship, and counterproductive performance to global ratings of job performance: A policy-capturing approach. *Journal of applied psychology*, *87*(1), 66.

Routroy, S. (2009). Antecedents and drivers for green supply chain management implementation in manufacturing environment. *ICFAI Journal Supply Chain Management*, 6, 20–35.

Routroy, S. (2009). Evaluation of supply chain strategies: a case study. *International Journal of Business Performance and Supply Chain Modelling*, *1*(4), 290-306

Roxas, B., & Coetzer, A. (2012). Institutional environment, managerial attitudes and environmental sustainability orientation of small firms. *Journal of Business Ethics*, *111*(4), 461-476.

Ruck, K., Welch, M., & Menara, B. (2017). Employee voice: an antecedent to organisational engagement? *Public Relations Review*, *43*(5), 904-914.

Russell, S. V., & McIntosh, M. (2011). Changing organizational culture for sustainability. *The handbook of organizational culture and climate*, 393-411.

Saeed, B. B., Afsar, B., Hafeez, S., Khan, I., Tahir, M., & Afridi, M. A. (2019). Promoting employee's proenvironmental behavior through green human resource management practices. *Corporate Social Responsibility and Environmental Management*, *26*(2), 424-438

Saha, M., & Darnton, G. (2005). Green companies or green con-panies: Are companies really green, or are they pretending to be? *Business and society Review*, *110*(2), 117-157.

Saks, A. M. (2006). Antecedents and consequences of employee engagement. *Journal of managerial psychology*.

Salanova, M., & Schaufeli, W. B. (2008). A cross-national study of work engagement as a mediator between job resources and proactive behaviour. *The International Journal of Human Resource Management*, *19*(1), 116-131.

Sammon, D. and Hanley, P. (2007) Communication Methods, Information Sharing, Supplier development and performance. *Supply Chain Management: An International Journal of Operations,* Vol. 12(4).

IJMS 2025, Volume 5, Issue 1, Page 01-37

ISSN: 2676-2749
Journal Impact Factor (JIF): 7.807

Sanchez, M. A. (2014). Integrating sustainability issues into project management. *Journal of Cleaner Production,* Vol. 30, 1-12

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*, 28, 163–176

Saunders, M., Lewis, P., & Thornhill, A. (2016). *Research Methods for Business Students.* 6th Edition, Edinburgh Gate: Pearson Education Limited.

Saunders, M., Lewis, P., and Thornhill, A. (2016). *Research Methods for Business Students* (6th Ed.). Edinburgh Gate: Pearson Education Ltd.

Sauvé, S., Bernard, S., & Sloan, P. (2016). Environmental sciences, sustainable development and circular economy: Alternative concepts for trans-disciplinary research. *Environmental Development*, *17*, 48-56.

Scandura, T. A., and Williams, E. A. (2000). Research methodology in management: Current practices, trends, and implications for future. *The Academy of Management Journal*, 43(6), 1248–1264.

Scherbaum, C. A., Popovich, P. M., & Finlinson, S. (2008). Exploring individual-level factors related to employee energy-conservation behaviors at work 1. *Journal of Applied Social Psychology*, *38*(3), 818-835.

Schiederig, T., Tietze, F. and Herstatt, C. (2012). Green innovation in technology and innovation management—An exploratory literature review. *R&D Management*, 42, 180–192.

Schiederig, T., Tietze, F., & Herstatt, C. (2012). Green innovation in technology and innovation management–an exploratory literature review. *R&d Management*, *42*(2), 180-192.

Schneider, L., Maher, W., Green, A., & Vogt, R. C. (2013). Mercury contamination in reptiles: an emerging problem with consequences for wild life and human health. *Mercury: Sources, Applications and Health Impacts. Nova Science Publishers, Inc., Hauppauge, New York, USA*, 173-232.

Scotland, J. (2012). Exploring the philosophical underpinnings of research: Relating ontology and epistemology to the methodology and methods of the scientific, interpretive, and critical research paradigms. *English Language Teaching*, 5(9), 9–16.

Scott, W. R. (1995). *Institutions and organizations* (Vol. 2). Thousand Oaks, CA: Sage.

Scott, W.R. (1987). The adolescence of institutional theory. *Adm. Science Quarterly*, 32, 493–511

Seidel, S., Recker, J., vom Brocke, J., (2012). *Green Business Process Management: Towards the Sustainable Enterprise*. Heidelberg, Germany – Springer

Shaw, I. (2005). Practitioner research: Evidence or critique? *British Journal of Social Work*, *35*(8), 1231-1248.

Shuck, B., & Wollard, K. (2010). Employee engagement and HRD: A seminal review of the foundations. *Human resource development review*, *9*(1), 89-110.

Siero, S., Boon, M., Kok, G., & Siero, F. (1989). Modification of driving behavior in a large transport organization: A field experiment. *Journal of Applied Psychology*, *74*(3), 417.

Silvius, A. J., & Nedeski, S. (2011). Sustainability in IS projects: A case study. *Communications of the IIMA*, *11*(4), 1.

Silvius, A., Schipper, R. and Nedeski, S. (2012). *Sustainability in Project Management: Reality Bites*. In: 26th World Congress of the International Project Management Association (IPMA), 1053-1061

Starik, M., & Marcus, A. A. (2000). Introduction to the special research forum on the management of organizations in the natural environment: A field emerging from multiple paths, with many challenges ahead. *Academy of Management Journal*, *43*(4), 539-547

Statista (2020). *Ghana: Inflation rate from 1984 to 2024*. A Web Report. Available at:https://www.statista.com/statistics/447576/inflation-rate-in-ghana/ [Accessed, 9th April, 2021]

Statista (2020). *Ghana: Share of economic sectors in the gross domestic product (GDP) from 2008 to 2018*. A Web Report. Available at: https://www.statista.com/statistics/447524/share-of-economic-sectors-in-the-gdp-in-ghana/; [Accessed, April 24, 2021]

Stewart, R., Bey, N., & Boks, C. (2016). Exploration of the barriers to implementing different types of sustainability approaches. *Procedia Cirp*, *48*, 22-27.

Stoughton, A. M., & Ludema, J. (2012). The driving forces of sustainability. *Journal of Organizational Change Management*.

IJMS 2025, Volume 5, Issue 1, Page 01-37

ISSN: 2676-2749
Journal Impact Factor (JIF): 7.807

Tabachnick, B. G., and Fidell, L. S. (2013). *Using multivariate statistics*. New Jersey: Pearson Education Ltd.

Taherdoost, H. (2017). Determining sample size; How to calculate survey sample size. *International Journal of Economics and Management Systems*, 2, 237-239.

Tahir, I. S. A., Elbashier, E. M. E., Ibrahim, M. A. S., Saad, A. S. I., & Abdalla, O. S. (2020). Genetic gain in wheat grain yield and nitrogen use efficiency at different nitrogen levels in an irrigated hot environment. *International Journal of Agronomy*, *2020*.

Tan, K., Daud Ahmed, M. and Sundaram, D. (2008). *Sustainable Warehouse Management Modelling. 21st Annual Conference of the National Advisory Committee on Computing Qualifications (NACCQ 2008)*, Auckland, New Zealand. Samuel Mann and Mike Lopez (Eds). Pp. 109-115

Tan, M., & Pedretti, E. (2010). Negotiating the complexities of environmental education: A study of Ontario teachers. *Canadian Journal of Science, Mathematics and Technology Education*, *10*(1), 61-78

Tang, G., Chen, Y., Jiang, Y., Paille, P., & Jia, J. (2018). Green Human Resource Management Practices: Scale Development and Validity. *Asia Pacific Journal of Human Resources*, 56(1), 31-55

Tencati, A., Russo, A., & Quaglia, V. (2010). Sustainability along the global supply chain: the case of Vietnam. *Social Responsibility Journal*.

Thies, H, Dada, A, and Stanoevska-Slabeva, K. (2012). *The Potential of a Network Centric Solution for Sustainability in Business Processes*. In: vom Brocke, J., et al. (Eds.), Green Business Process Management. Springer-Verlag, Berlin, Heidelberg, Germany, 15-30

Thøgersen, J. and Zhou, Y. (2012). Chinese consumers' adoption of a 'green' innovation—The case of organic food. *Journal Marketing Management*, 28, 313–333.

Triguero, A., Moreno-Mondéjar, L., & Davia, M. A. (2013). Drivers of different types of eco-innovation in European SMEs. *Ecological economics*, *92*, 25-33.

Tseng, M. L., Tan, R. R., & Siriban-Manalang, A. B. (2013). Sustainable consumption and production for Asia: sustainability through green design and practice. *Journal of Cleaner Production*, *40*, 1-5.

Uddin, M. and Rahman, A. (2012). Energy efficiency and low carbon enabler green IT framework for data centres considering green metrics. *Renewable and Sustainable Energy Reviews*, 16(6), 4078-4094.

Van de Ven, A. H., Ganco, M., and Hinings, C. R. (BOB). (2013). Returning to the frontier of contingency theory of organizational and institutional designs. *The Academy of Management Annals*, 7(1), 393–440.

Vasileiou, K. and Morris, J. (2006). Sustainability of the Supply Chain for Fresh Potatoes in Britain. *Supply Chain Management: An International Journal*, 11(4), 317-327

Vos, W. L., Koenderink, A. F., & Nikolaev, I. S. (2009). Orientation-dependent spontaneous emission rates of a two-level quantum emitter in any nanophotonic environment. *Physical Review A*, *80*(5), 053802.

Wagner, M. (2011). Environmental management activities and sustainable HRM in German manufacturing firms–incidence, determinants, and outcomes. *German Journal of Human Resource Management*, *25*(2), 157-177.

Walker, H., Di Sisto, L. and McBain, D. (2008). Drivers and barriers to environmental supply chain management practices: Lessons from the public and private sectors. *Journal of Purchasing Supply Management*, 14, 69–85.

Walker, K., & Wan, F. (2012). The harm of symbolic actions and green-washing: Corporate actions and communications on environmental performance and their financial implications. *Journal of business ethics*, *109*(2), 227-242.

Wang, B., & Wang, H. (2017). IPA1: A new "green revolution" gene? *Molecular Plant*, *10*(6), 779-781.

Wang, S., Li, J., & Zhao, D. (2017). Institutional Pressures and Environmental Management Practices: The Moderating Effects of Environmental Commitment and Resource Availability. *Business Strategy and the Environment, 27(1), 52–69.*

Wang, X., Cui, H., Shi, J., Zhao, X., Zhao, Y., & Wei, Z. (2015). Relationship between bacterial diversity and environmental parameters during composting of different raw materials. *Bioresource technology*, *198*, 395-402.

IJMS 2025, Volume 5, Issue 1, Page 01-37

ISSN: 2676-2749
Journal Impact Factor (JIF): 7.807

Wang, Y. S., Li, H. T., Li, C. R., & Zhang, D. Z. (2016). Factors affecting hotels' adoption of mobile reservation systems: A technology-organization-environment framework. *Tourism Management*, *53*, 163-172.

Weerawardena, J. (2003). The role of marketing capability in innovation-based competitive strategy. *Journal of Strategic Marketing*, 11(1), 15–35.

Weng, H. H. R., Chen, J. S., & Chen, P. C. (2015). Effects of green innovation on environmental and corporate performance: A stakeholder perspective. *Sustainability*, *7*(5), 4997-5026.

Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5(2), 171–180.

Wijethilake, C., & Lama, T. (2019). Sustainability core values and sustainability risk management: Moderating effects of top management commitment and stakeholder pressure. *Business Strategy and the Environment*, *28*(1), 143-154.

Williams, Z., Lueg, J.E., Taylor, R.D. and Cook, R.L. (2009). Why all the changes? An institutional theory approach to exploring the drivers of supply chain security (SCS). International *Journal of Physical Distribution and Logistics Management*, 39, 595–618.

Wollard, K. K., & Shuck, B. (2011). Antecedents to employee engagement: A structured review of the literature. *Advances in developing human resources*, *13*(4), 429-446.

Wollard, K. K., & Shuck, B. (2011). Antecedents to employee engagement: A structured review of the literature. *Advances in developing human resources*, *13*(4), 429-446

Wong, S. K. S. (2013). Environmental requirements, knowledge sharing and green innovation: Empirical evidence from the electronics industry in China. *Business Strategy and the Environment*, *22*(5), 321-338.

World Bank (2017). *Shifting Ghana's competitiveness into a higher gear: Ghana economic update*. Available: https://openknowledge.worldbank.org/handle/10986/27520 [accessed 12/01/2021].

World Bank Group (2018). *3rd Ghana economic update: Agriculture as an engine of growth and jobs creation*. Available: https://www.worldbank.org/en/country/ghana/publication/ghana-economic-update-agriculture-ghana-s-engine-of-growth-for-jobs-creation. [accessed 12/01/2021].

Wright, C., & Nyberg, D. (2017). An inconvenient truth: How organizations translate climate change into business as usual. *Academy of management journal*, *60*(5), 1633-1661.

Yousefi, N., Lu, X., Elimelech, M., & Tufenkji, N. (2019). Environmental performance of graphene-based 3D macrostructures. *Nature nanotechnology*, *14*(2), 107-119.

Yu, W., Ramanathan, R., & Nath, P. (2017). Environmental pressures and performance: An analysis of the roles of environmental innovation strategy and marketing capability. *Technological Forecasting and Social Change*, *117*, 160-169

Yuriev, A., Dahmen, M., Paillé, P., Boiral, O., & Guillaumie, L. (2020). Pro-environmental behaviors through the lens of the theory of planned behavior: A scoping review. *Resources, Conservation and Recycling*, *155*, 104660.

Zahra, S. A., Sapienza, H. J., and Davidsson, P. (2008). Entrepreneurship and dynamic capabilities: a review, model and research agenda. *Journal of Management Studies*, 43, 4–43.

Zailani, S., Iranmanesh, M., Nikbin, D., & Jumadi, H. B. (2014). Determinants and environmental outcome of green technology innovation adoption in the transportation industry in Malaysia. *Asian Journal of technology innovation*, *22*(2), 286-301.

Zheng, W., Yang, B., and Mclean, G. N. (2010). Linking organizational culture, structure, strategy, and organizational effectiveness: Mediating role of knowledge management. *Journal of Business Research,* 63(7), 763–771.

Zhou, K. Z., Yim, C. K., & Tse, D. K. (2005). The effects of strategic orientations on technology- and market-based breakthrough innovations. *Journal of marketing*, *69*(2), 42-60.

Zhou, Z., Zheng, F., Lin, J., & Zhou, N. (2021). The interplay among green brand knowledge, expected eudaimonic well-being and environmental consciousness on green brand purchase intention. *Corporate Social Responsibility and Environmental Management*, *28*(2), 630-639.

Zhu, Q., Feng, Y., & Choi, S. B. (2017). The role of customer relational governance in environmental and economic performance improvement through green supply chain management. *Journal of Cleaner Production*, *155*, 46-53.

IJMS 2025, Volume 5, Issue 1, Page 01-37

ISSN: 2676-2749
Journal Impact Factor (JIF): 7.807

Zibarras, L. D., & Coan, P. (2015). HRM practices used to promote pro-environmental behavior: a UK survey. *The International Journal of Human Resource Management*, *26*(16), 2121-2142.

Zoogah, D. B., Peng, M. W., and Woldu, H. (2015). Institutions, resources, and organizational effectiveness in Africa. *The Academy of Management Perspectives*, 29(1), 7–31.

Zorpas, A. (2010). Environmental management systems as sustainable tools in the way of life for the SMEs and VSMEs. *Bioresource technology*, *101*(6), 1544-1557.