

**A Study on the Determinants of Organization
Citizenship Behaviour towards Environment and Its
Role on Corporate Greening**

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IN

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BY

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Date

Place: Hyderabad

DECLARATION

I hereby declare that the research embodied in the present thesis entitled, “A Study On The Determinants Of Organization Citizenship Behaviour Towards Environment And Its Impact On Corporate Environmental Performance” has been carried out by me and is an original research work under the supervision of Prof. P. Jyothi, School of Management Studies, University of Hyderabad in partial fulfilment of the requirement for the award of the degree of Doctor of Philosophy in Management.

I declare to the best of my knowledge that this thesis or a part thereof has not been earlier submitted for the award of degree at any another University or Institute

Signature of the candidate



School of Management Studies

Date

Place: Hyderabad

CERTIFICATION

This is to certify that the research work embodied in the present thesis entitled as “A Study on the Determinants of Organization Citizenship Behaviour towards Environment and its role on Corporate Greening” has been carried out by M. Chithra (12MBPH02) under my supervision, for the full period prescribed under Ph. D. ordinances of the University of Hyderabad.

Dean

Supervisor

School of Management Studies

(Prof. P. Jyothi)

DEDICATION

Dedicated to my beloved father **Thiru. K.Manickam**,
who had been my greatest inspiration.

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CHAPTERIZATION OF THESIS

This study on “Determinants of Organization Citizenship Behaviour towards Environment and its Role on Corporate Greening” is presented as 6 chapters and they are as follows:

Chapter 1-Introduction: This chapter includes the background of the study and overview of the major components of the study namely, Green Human Resource Management, Organization citizenship behaviour towards environment, Environment Management practices and the possible determinants.

Chapter 2- Evolution of the concept: This chapter includes the evolution of sustainability, globally as well as in India. It also includes the description of the theories which deal with pro-environment behaviour and sustainability.

Chapter 3-Review of Literature: This Chapter includes a thorough review of prior research works, books, publications etc., pertaining to the major components of the study.

Chapter 4- Research Methodology: This chapter includes, the objectives, hypotheses, research design, sources of data, questionnaire construction, pilot study analysis and research gap.

Chapter 5 Analysis and Discussion: This chapter includes, frequency distribution of the sample, demographic analysis, determinants based analysis of both Employees’ as well as Managers’ responses.

Chapter-6 Findings and Suggestions: This chapter includes Findings, Suggestion, Limitations, scope for future research and conclusion.

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CHAPTER 1

INTRODUCTION

“Whatever we take from the earth , may that have quick growth again.

O Purifier, may we not injure thy vitals, or thy heart”- a Vedic Hymn.

In the current uncertain economic times, where many businesses are aiming for survival, smart businesses are exploring opportunities to sustain and grow in a green way. The commonly held belief is to invest in greener technologies, meet the compliance requirements to get the license to operate. However, things have changed in the recent past in a fast manner, which is unprecedented. Rapid globalization with the rise of nations like China and India, as economic powerhouses has brought to the forefront, aspirations of billions of people to live a comfortable life with all modern amenities. These aspirations have put tremendous pressure on natural resources, and the pressure is expected to intensify further. The growing consensus on impacts of global warming, calls for more concrete actions from government, businesses and civil society to mitigate the climate change risks. KPMG (2013) in its recent global publication ‘Expected the unexpected’ has identified the mega-forces, which would shape future business priorities, highlighting the need for environmental conscious way to do business.

Smart businesses have not only identified the associated risks, but also spotted the opportunity to satisfy aspirations of individuals indulged in green innovation. ‘Greening’ help businesses to explore new product/services proposition, gain social license to operate, reduce costs, build brand value and contribute to lesser environmental degradation. Today, green way of business is poised to be the next business differentiator akin to quality revolution in the eighties and nineties and IT revolution in the first decade of this century.

Across sectors, companies have begun to realize the business case for greening. Extractive industries are under constant pressure from various stake-holders to demonstrate green mining practices, with focus on minimizing the pollution and wastes. Cement companies are reducing their energy requirement, by co-processing high calorific wastes from other industries. Auto sector is forced to improve the fuel efficiency of vehicles through market and regulatory forces, and thereby reduce emission of global warming gases. Realty sector is realizing the benefits of ‘green buildings’ which, not only, optimize the construction cost but also provide customers with savings on their utility bills. Electronic companies are promoting

take-buy schemes of old products to retrieve and reuse useful components. Companies are leveraging technology to better manage their energy needs and reduce travel by using video/audio conferencing facilities. Better environmental practices instil greater confidence in the investor community and companies can gain access to capital funds, which only invest in responsible organisations. Green practices are highlighted in dialogue and communication with regulatory agencies to gain license to operate. Environmental initiatives are also finding their way in the marketing strategy of companies to project the brand as a responsible one, with care for environment and society. Being a responsible organization also helps in retaining talent, who would want to associate themselves with companies having high ethical and environmental standards.

However, there are considerable number of challenges in changing the business into 'green' way. Supply chains are critical to almost all sectors, with supply chains contributing to as high as 70 -80 per cent of the value creation process. More and more companies today, have complex supply chains, with many of them originating from unorganized and small scale sectors. Reputed companies are realizing the benefits of greening their operations, but seldom do companies assess and act on the supply chain risks. Investment decisions in green technologies are still made with traditional return-on-investment considerations without evaluating the intangible benefits over the life cycle of the technology. Few companies have identified green aspects as part of their enterprise risk management framework to integrate those at strategic level. Water is soon becoming a key business risk, with many parts in India listed as having scarcity of water, still water management in industries is not a high priority operational issue. The regulators have enacted laws to prevent environmental pollution by business activities, but the rigour in enforcing the law, is missing with many pollution control boards facing the challenges of resource constraints.

Greening of businesses can enhance the brand value of organizations while enabling those to derive cost benefits. It provides companies with an opportunity to innovate for the future with clean and green products and services. Companies who evaluate the environmental risks and opportunities in their entire value creation process will stand to gain from a clear business differentiator- the 'green' way of doing business. The 'green' way of doing business will set the progressive and innovative companies, apart from the rest, in meeting the growth imperatives of tomorrow.

1.1 BACKGROUND OF THE STUDY:

Globalisation continues to unleash amazing changes that we have ever dreamt of. The best part of globalization is the steep rise of companies leading to development in economy, which in turn leads to creation of more and more jobs. The dark side of such globalisation is the environmental deterioration. The unprecedented change in the climatic conditions and the steep rise in energy prices have made the corporations worldwide, to include or alter business strategies so as to cope up with immediate necessity of becoming a pro-environmental organization. It becomes the responsibility of the organizations to address the environmental issues and minimise the environmental impact of its business activities. To persuade and satisfy consumers and investors, and to be in compliance with the regulations by the government, organizations have started to push the green issues to the board room agenda. The corporate world is a new economy, the 'green economy'. In this economy the stake holder pressure and end consumers expectations will require business to address "green" issues as we re-enter into a period of growth. Green HR is not only about reducing the carbon footprint of employees, it also deals with the preservation of knowledge capital.

Green factors have entered everywhere in corporations, in selecting vendors and clients, in purchase, production, marketing and human resources departments. The present setting of organizational working and its impact on the environment has carry-forwarded the concept of 'Go-Green' from individual to Corporates. As per the World Economic forum, environmental sustainability and go green initiatives are the pressing issues, among corporate leaders. Organizations are striving their best to position themselves as one among the green companies.

Organization are focussing on the triple bottom line, which constitutes people, profit and planet. They have understood, that profit making alone, will not provide a sustainable growth to the organization, rather the organization should focus on environmental issues, considering the human resource component and move towards profit making. Organizational leaders and policy makers have understood the importance of being environment-friendly. And these leaders very well know, that becoming an environment friendly company, largely depend on the employees' behaviour towards environmental issues (Dyllicks & Hockerts, 2002).

Human resources can have a significant impact on the broader green agenda. Green initiatives that are employee focussed, are extremely effective, for service industry in particular, as the workforce is directly involved in environmental issues like, waste and pollution. Though the operations department is in charge of green initiatives, in companies, HRs' contribution comes in, by reviewing how the business works and identifying how people can act differently so as to optimise the usage of energy and materials.

We are tangled with several environmental glitches, which pose a severe threat, for mankind in the near future. Human behaviour is attributed to as the main reason, for this problem and, and it becomes critical and significant to bring in some modifications in Human behaviour. It becomes important to slightly alter or entirely change human behaviours in order so as to bring down or completely get rid of their impact on environmental degradation (DuNann Winter & Koger, 2004)

Unfortunately, there are only handful of studies on behaviours that lead to or detract from environment sustainability, and they too deal with behaviour in personal life rather than in work life. Their focus is narrowed down to personal behaviour which might vary from their behaviour in occupational settings. Environment psychologists, for more than a half a century have studied the individual behaviours like Littering, recycling, petitioning the government for environmental causes, polluting, use of public transportation, conserving etc., but very little effort is directed towards studying the individual behaviour in an organization setting.

Studies have also been carried out on environment sustainability for an organization as a whole, leaving out a vital component that employees of the organization would differ in their behavior towards environment. Why and how do employees differ in their behaviour towards environmental sustainability is the question of our concern.

1.2. CORPORATE GREENING-INDIAN SCENARIO:

Though, 'Greening' has become the mantra of the corporate India, so as to become a sustainable one, conservationists still argue that corporate greening is just a marketing 'green-wash'. The private sector is directly related to activities like, harvest of wild species, exploitation of natural resources, generation of waste material and conversion of natural areas, as the very nature of their business, requires it. If such sectors, come forward to bring down the negative environmental impacts of their business activities, it would bring in major change in energy conservation. Multinational corporations have extensive supply chains, which reaches to all parts of the world. If organizations incorporate the ideas of long term sustainability and bring down the global footprint, then biodiversity losses could be reduced.

A joint International Union of Conservation for Nature(IUCN)–Shell study (Bishop et al., 2008) promoted the potential of corporations to transform the conservation endeavour, and the Economics of Eco-system and Biodiversity (TEEB) report strongly recommended, making 'biodiversity conservation a viable business proposition'. Turning the power of the private

sector so that it results in better biodiversity outcomes is a seductive proposition. Over the last 20 years conservation organizations have taken on that challenge.

Globally, in 1990s' Environmental Defence Fund and McDonald's Hamburgers laid their focus on environmental impact. 'Fauna & Flora International' pioneered in extending efforts to bring down environmental impacts, especially with extractive industries. More recently the emphasis has been on promoting conservation as a business opportunity. And corporate India, has started realising the importance of mitigating environmental impacts and necessity of energy conservation. Having realised that corporate India, can provide efficient, effective solutions to the problem of climate change.

In 2001, Conservation International created the Center for Environmental Leadership in Business to encourage companies to address environmental issues. The objective of the centre was to bring together business entities, so as to join hands in bringing down the negative impacts of the businesses they are doing. Realistically however, what can corporations do to mitigate the impact of their business operations? How much can they positively contribute to the conservation of biodiversity and the maintenance of ecosystem services? If corporations ultimately have to be responsive to their shareholders' requirements for profitability can they also respond to conservation needs?

Enthusiasts from both the corporate and conservation sectors has a positive response for these questions. Profitability need not be incompatible with contributing to social and environmental good. The best way to address these issues is to stick to a triple bottom line of financial, social and environmental objectives, and believe in win-win-win situations. The companies can mitigate their environmental impact by reducing waste and inefficiencies, which would improve the financial bottom line and also reduce the losses to the biodiversity ledger. The process and the ability of companies to bring down the environmental impact, might vary according to the sector which they belong. Those businesses that depend on renewable natural resources like wildlife trade, hunting, forestry and fishing can be comparatively more sustainable in their operations, than those who rely on conversion of natural habitat like palm and soya oil production or that of extractive industries like mining and hydrocarbons.

Businesses can bring down the environmental impacts by investing in activities that prevent greater biodiversity losses. For example, in order to bring down conversion of natural areas for other uses, business that deals with retailing natural products, ecotourism or harvesting and retailing natural products could provide financial incentives, so as to discourage

such conversion. Still for most of the companies, though environmental cost of operations may be improved, triple bottom line remains more of an aspiration than a reality.

Private firms are doing their best in carbon trading, which in turn would reduce deforestation and mitigate climate change. Companies are investing more in wildlife-friendly markets, focussing on green products, trying to harness the purchasing power of the consumer. Retailing to green consumers, who are ready to pay a premium price for green products, would enable the businesses to invest in conservation.

Till a decade ago, corporate involvement in such markets has been limited, due to the reluctance of the companies as there was no appropriate policy. But the scenario has changed now. As it is mandated by the environmental regulations, companies are responding and striving hard to do their part, in order to mitigate environmental impacts. There is a UN-sponsored corporate forum, the Global Compact, which has got 3,600 companies as members, including about one-fifth of the Global Fortune 500 companies. These companies reach out to each other in energy conservation and mitigating environmental impacts.

Early indications are that the companies will not have a starring role but could play a supporting role if environment of policies, government regulations and societal expectations enable them to align business interests with conservation outcomes. Ensuring that appropriate enabling “environment, and in general delivering conservation outcomes, will probably remain inevitably in the traditional domain of government and civil society.

Eco-centric theory argued that corporations should not limit their objectives to maximize areas such profits, revenues, or competitiveness, instead they should extend their goals to include addressing their activities’ impacts on the environment (Shrivastava, 1995). Such thought reflects measuring the outputs of environmental management activities, which can be indicated by corporate environmental performance. In consistent with the definition by Lankoski (2000), when defined corporate environmental performance as “the level of harmful environmental impact caused by a firm so that the smaller the harmful environmental impact the better the environmental performance and vice versa”. Furthermore, Wagner (2003) defined corporate environmental performance as “the results of an organization’ management on its environmental aspects”.

Corporate environmental performance has been measured by the results of different activities. For instance, pollution prevention activities have been seen as indicators of corporate environmental performance (Cohen, Fenn, Naimon, & Service, 1995; Hart & Ahuja, 1996;

Konar & Cohen, 2001; López-Gamero, et al., 2009; Ngwakwe, 2009; Stanwick & Stanwick, 1998; Wagner, 2007), energy and water usage (Wagner, 2005). The legal aspects such as the number of penalties (Cohen, et al., 1995; Ngwakwe, 2009) and the number of environmental lawsuits (Konar & Cohen, 2001) have been considered as indicators of corporate environmental performance.

Additionally, it has been argued that the eco- efficiency concept also can represent the outputs of corporate environmental activities (DeSimone & Popoff, 2000; Journeault, 2010; Wagner, 2003). The eco- efficiency concept emphasizes that corporations can achieve the efficiency in both economic and ecologic aspects in the same time. This can be achieved by the following principles (DeSimone & Popoff, 2000; Wagner, 2005); reduction of the material intensity of goods and services, reduction of the energy intensity of goods and services, elimination of toxic dispersion, enhancing materials recyclability, maximizing sustainable use of renewable sources, extension of product durability, and an increase of the service intensity of goods and service. Therefore, corporate environmental performance in this study means the results of corporation's environmental activities on the environment, which represented by the environmental scores of eco- efficiency.

1.2.1. The “Go-Green” Trend:

A survey of Stanford MBAs found that 97 percent of them were willing to forgo 14 percent of their expected income to work for an organization with better reputation for corporate social responsibility (Ambec & Lanoie, 2008). Candidates themselves are looking for companies with green image, as their potential employers. They are willing to compromise on their compensation, if the company has a green image. It is high time that employers realise that a company's degree of “greenness”, is more important in roping in potential hires. Once such potential hires are recruited, the rest of environmental initiatives can be left to them, as they are already inclined towards environmental issues. Hence it is now becoming important for organizations to be identified as good environmental citizens and many research works substantiate it.

Research conducted by the Kenexa Research Institute (KRI) in thirteen countries, on employees satisfaction with organization's green efforts revealed that more than half (54%) of workers state their favourability with their organization's participation in “green” initiatives. 63% of employees in India stated that their organization's environmental efforts are satisfactory, while workers in Japan (40%) and Russia (42%) are the least favourable.

Multinational companies like Patagonia, Honda, S.C. Johnson, Starbucks, Timberland, Goldman Sachs, and General Electric have strategically maximised their profits through their environment friendly policies, which in turn earned them media attention also.

Google's has been contributing to various environment sustainability issues, incidentally its former VP, Al Gore, has produced the controversial documentary on global warming called "An Inconvenient Truth". He has been advisor to the company for many years, and his focus was mainly on environmental issues.

Unlike many companies, where greening starts from the grass root level, General Electric started off with a top down approach, where the environmental efforts wherein their environmental efforts were driven by their chief executive officer, Jeff Immelt. We might recall seeing one of hundreds of ecomagination advertisements GE has spent millions on in recent years to "greenwash" their image. GE came out with one of the boldest and smartest approaches to capture intangible value by touting environmental efforts, through its ecoimagination campaign.

Day in and day out, organizations are capturing that value by selling more product to end users who are pro-environmental in nature, and gaining the support of the consumers, so as to have a sustainable performance in the business environment. Organizations are adopting various methods to become green and few of them are listed below.

- Subsidies for employees buying hybrid cars.
- Company dining facilities that serve organic sustainable foods
- Charitable contributions to organizations that fight global warming
- On-site farmers markets
- On-site composting of food waste
- Use of green fuels and solar power
- Fully subsidized commuting for employees

Companies have understood that the best way to start building their green image is to focus on 'green recruiting'. That is, hiring employees, who are pro-environmental and are inclined towards environmental issues in the organization. Firm's environmental stance is

projected as a critical element, to attract potential applicants and candidates. The time to implement what people call a “green recruiting” strategy is now!

1.2.2. Investing in Green Practices:

The concept of the ‘Green Economy’ has emerged as a potential remedial measure in an era marked by the severe challenges of climate, challenge, energy and food security, compounded by economic uncertainty. A number of recent trends show that with increasing consumer awareness, the demand for green products is on the rise. The success of ‘Green Economy’ depends on developing a number of green initiatives, green policies and programmers by different economic institutions including corporate.

For large multinationals, greening of business represents creation of new market opportunities thereby driving up revenues, reducing internal costs through internal-facing improvements (resources optimization) and improving a company’s reputation. In this way, corporate leaders seek to secure a unique competitive advantage in the global market.

Investors are increasingly demanding the disclosure of information on companies ‘environmental and social policies, practices and performance to support their financial investment and lending decision making including company valuations. This is in recognition of the relationship between environmental, social and financial performance.

Since a company’s financial reports do not currently sufficiently account for the full range of risks and opportunities and performance of a company, there is call for companies to produce ‘integrated report’. This is a report that displays an organizations stewardship not only of financial capital, but also of other “capitals” (manufactured, human, intellectual, nature and social), their inter dependence and how they contribute to the company’s success.

International Federation of Accountants (IFAC) the global Reporting Initiative (GRI), and The Prince’s Accounting for Sustainability Project have collaborated to promote integrated reporting. In turn they have established the International Integrated Reporting Council (IIRC) to oversee the development of global integrated reporting standards and guidelines which is slated to get rolled out globally around 2015.

Companies around the world are making environmental stewardship a top priority and using it to transform every aspect of their businesses. The shift from the green being “just a fad” to a strong business case starts when companies look beyond the low hanging fruits to integrate the green initiative as part of their strategy for green growth. Governments are also

working to facilitate the transformation to a more sustainable planet by providing incentives to adopt green practices and technology, and legislating new policies that enterprises must follow. Trends are now firmly in place, with drivers of those trends strongly aligned so that long-term prominence of the green movement can continue until environmental stewardship is a natural part of everyday business activity.

1.2.3. Green Practices- Implementation:

In a developing and populous country like India, Going green is easier said than done. It's a tremendous task, accommodating 1.3 billion people in a comparatively small area and providing them with healthy life conditions.

Yet, paradoxically, healthy life and economic growth are not sustainable without a good living and working condition. If the environment is degraded, the question of health and productivity comes in. India has been experiencing an alarming increase in deforestation, floods, droughts, pollution and soil erosion, which is a major threat to the sustainability of India's economic growth.

In an attempt to ensure natural health of our country, government of India's launched 'Green India Mission' which is one among the many missions of the National Action Plan on Climate Change. The mission has laudable targets and impressive funding. If the mission can meet its target of expanding India's forest coverage from 23 percent to 33 percent and restoration of land during this decade, it would make a huge difference to the quality of life and sustainability of economic growth. But it is going to a huge challenge too.

The planned investment of \$10.3 billion in achieving these targets would be hard to organize without private citizens' participation. That would require the programme to be built around viable projects. We can't expect bureaucracy alone to deliver the desired results.

India has too many young people who need a relentless expansion of economic activity to have jobs and live well. Putting areas out of bounds in the name of greening the country would be impractical. The entrepreneurial and the desperate people of the country must be given a stake in its natural health. Merely projecting forests as country's carbon sinks is too esoteric an idea and too elitist a demand for public sacrifices.

The greening strategy needs to be built around public awareness of the big picture of the environment, viability of horticulture and forestry, and the introduction of green technologies. It is important that people appreciate the effects of their actions as producers and

consumers beyond their immediate neighbourhood. People of our country need to be educated in seeing the cumulative consequences of their little self-interests. Continuous study of the correlation between greenness and quality of life –health, productivity, comforts – is a must; and sustained communication of the findings is important to sensitize people to the significance of environment quality.

Viability of horticulture and forestry is also vital to get people to invest in trees, plants and linked water bodies. Today, forest and farm lands are getting diverted to mining, industry and housing uses because of greater wealth and job generation potential of the latter.

Unfortunately, in India, the farmers and the forest people have been encouraged to stay primitive. They are discouraged from partnering those with commercial knowhow to convert their land and trees into significantly productive assets. Often policy decisions are skewed towards preservation and against renewal. Life cannot be picked. It can only progress. India needs to encourage technologies that sustain the renewable sources such as trees and water.

Forestry and horticulture need injection of large investments in technology to compete for land and water. Farmers and tribes need to collaborate with enterprises with appropriate technologies to mine, manufacture and trade. Regulation has to ensure that such partnerships use the natural resources in a sustainable manner and do not destroy the green cover.

The juggernaut of urbanization is also threatening to overrun the green cover India. The rapid rate of land consumption and pollution of soil, air and water by urbanization are serious issues. India's planners and citizens need to be innovative in the way new cities are built and the way the old ones are adjusted for green development and clean living.

Aggregated living and work spaces –apartment blocks and business parks-allow efficient use of land, reduction of transportation, use of green buildings and creation of green covers and corridors. Implementing Green India Will be tough. It requires popular support and some sacrifices too. But it is not an option anymore .Green India is a destiny Indians must achieve.

1.2.4. The “Green” Hiring Drive:

As per the human resources consultants, in India, there is an increase of 40% in demand for environmental professionals, in 2013, compared to the previous year. Sunil Goel, Global Hunt, (2013) states that “The impact on the environment is more tangible and immediate now. Many organizations have seen their businesses being shut down due to protests from locals,

owing to environmental concern. So, companies want to have effective green policies in place”.

The role of an environmental professional is assessing and measuring the direct and indirect environmental impacts of the product or the service and developing strategies on what can be done to minimise the impact. Essar Group’s business process outsourcing firm, Aegis has a separate sustainability team called ‘Happy World’, of whose job is to look into the green issues of the organization, minimising the impact and maximising energy conservation.

Coca Cola India, have been hiring green professionals since long time. They have an environment team which takes care of the environmental issues and they even have a position called ‘hydro geologist’.

It’s not only the corporate biggies who are hiring. The trend is being seen across the industry. A quick check of Green Economy India, a portal dedicated to green jobs and education, shows job posting from at least eight-ten mid to small sized companies for environmental professionals.

According to Vinay Grover (2013), director and founder, Symbiosis Management Consultants, although the power and oil and gas sectors have historically been recruiters of environmental professionals, other sectors are catching up fast. “Companies want to market themselves as environment-friendly and want to earn a good name among consumers”, he said.

In the recent past, the demand for such professionals has been felt across sectors such as banking, telecom, pharma, food and beverages, fast – moving consumer goods (FMCG), information technology (hardware), automobile, construction and manufacturing. Companies are increasingly hiring environmental professionals, since they realize the tangible commercial benefits of going green. The focus on green and sustainable development is also because of the increased emphasis on such issues across the world.

According to a recent Gartner (2012) study, “while awareness about green IT and sustainability issues are very low in Indian organizations, the increasing global focus on energy efficiency, energy security, green IT and sustainability issues are now making the executive leadership in the technology sector track, report and manage sustainable and resource-efficient business practices.”

Globally, a boom in demand for green professionals is being seen. According to European Union Environment Commissioner, Janez Potocnik (2012), even when the economy

was not faring well, the demand for green jobs in the region was rising. An environmental law imposed by the government could be among the reasons why companies are focused on green issues.

The job of a sustainability officer is rewarding. Rajesh Kumar, chief executive, My Hiring Club.com (2014) said over the last four years, Salaries for such profiles had risen. According to Goel, while a person with experience of two years can draw a salary of \$ 5-7 lakh per year, the compensation package of a chief sustainable officer can go up to \$ 40-50 lakh a year.

1.3. GREEN HUMAN RESOURCE MANAGEMENT(GHRM):

Despite its importance to the people in the organization, very few research works have considered the importance of human resource management systems in corporate greening. It is implicit that environment management should be integrated with human resource management. Green HRM practices would incorporate the idea of 'green' in all the HRM functions and thus promote environmental sustainability.

In today's scenario the term 'Green HRM' has become a buzz word in organizations and its importance is increasing. Green HRM not only involves environmental awareness, but also deals with social and economic well-being of individual as well as organization on a broader perspective.

Marhatta & Adhikari, (2013) defines "Green HRM is the use of HRM policies to promote the sustainable use of resources within organizations and, more generally promotes the causes of environment sustainability"

GHRM encompasses a green workforce which understands, appreciates, and practice green initiative, and also maintains its green objectives all throughout the HRM process of recruiting, hiring, training, compensating, developing, and advancing the firms human capital (Mathapati, 2013,). "It refers to the policies, practices, and systems that make employees of the organization green for the benefit of the individual, society, natural environment, and the business" (Opatha & Arulrajah, 2014).

Green human resources Management is all about using the employees as an interface, to promote environmental efforts, so as to increase their environmental awareness and their contribution towards sustainability issues. It encompasses green initiatives like, increasing the engagement level of employees, retaining them and lowering the costs involved, by including

activities like reducing, reusing, recycling, electronic filing, carpooling, teleconferencing and conserving energy.

Formerly, the success of a company, as viewed by shareholders, is its sound economic performance, and that no more remains valid. Economic and financial outcomes accompanied with the minimisation of ecological footprints is seen as the success of the organization. Companies like ITC, Wipro, ONGC, Tata, BP and Microsoft have been contributing towards corporate social responsibility (CSR) activities, even before environmental laws and regulations.

Such companies consider that they are accountable to give back something substantial to environment in which, they operate. We should accept the fact that business owners are few, but the society in which we survive, is the owner of the nature. Stakeholder's theory originates in this premises, which speaks about the organizational management and business ethics that addresses morals and values in managing an organization.

Therefore corporates have now understood that there has to be a Sustainable growth of business (es), which should take into account the Non accountable/Intangible Costs, incurred by environmental degradation. Though it is difficult to estimate such costs, they are quite substantial.

HR professionals have indicated that their organization's top priority was to encourage employees on their environmental efforts. Activities like double-sided printing, powering down computers when they are inactive, energy efficient lights, conserve energy, donating unused and unwanted supplies to the needy are in the hands of employees and they should be encouraged by the organization to do so.

1.3.1. Significance of GHRM:

Human resources department of an organization is said to play a major role in sustainability issues, because beyond upgrading the technical knowledge of the organization, they also tend to create new values among employees. This would help them to cope up with changes in the social and environmental fronts. Thus sharing of knowledge would enhance understanding and bring in willingness to share the resources, equally.

The emphasis on employees' participation in the environmental work can be traced back to 1980s. It was, then organizations realised that they have to look into organizational changes, rather than the technological developments, to succeed in their environmental efforts. Initially environmental efforts in organizations were brought in due to public concern and regulation. The idea of employees' participation in the environmental efforts of organizations did not evolve here. Finally in the 90s, when European authorities identified the potential of employee participation in environmental efforts, they prompted the companies to involve employees as a vital component of environmental efforts, for consistent growth in that area.

Green HRM functions does not stop with achieving a green tag, it encompasses very interesting end results for all the stag holders of the organization. By being a socially responsible organization and by adopting green HRM practices, organizations are able to attract and retain employees who fit in the organization, in a better way-Many green companies these days boast about low employee turnover rates compared to their non-sustainable counterparts.

Green HRM policies enhance sustainability in the organization to promote the cause of environmentalism and in the process, create improved employee morale and satisfaction. The topic of green HRM is gaining increased attention among management scholars and entrepreneurs especially related to service sector to use as a tool for their competitive advantage.

Employees of an organizations play a significant role in executing and operationalizing the green policies, so as to create a green corporate culture. To 'go green' successfully, the organizations need to equip employees with skills to implement sustainable strategies. A survey on students and job aspirants, undertaken on green employment found out that 92percent of respondents preferred to work for a sustainable company and 80 percent of them were interested in job profiles, which would bring in a positive influence on the environment.

Employees turn out to be the supporters of their company's sustainability efforts when they feel that their company is doing great in environmental issues. Companies have started indulging employees on sustainability issues and wide range of tools are being used so as to achieve their sustainability objectives. Such practices, enable employees to bring out their own sustainability plans, to work as a team on sustainability, to reduce waste and to use energy optimally.

In the current scenario, 'Going green' is a 'function' which is regarded as the incorporation of best environmental practices that go hand in hand with all work activities.

Green teams in organizations consisted of employees who had an inclination towards environmental issues and were environmentally driven both in their workplace as well as in their home. It becomes the role of the chief sustainability officer, to culminate the interest of these employees and align their efforts with that corporate goals.

Anne Herman,(2012) research consultant, Kenexa Research Institute puts it as, “Worldwide, more and more organizations are ‘going green’ and are integrating this dedication into their strategic corporate initiatives”.

Employee engagement on environmental issues has transformed into a broader perspective, in which all the employees are included, thanks to the effort of the green teams in the organizations. Currently the organizations are following the green Hr practices planned by their green teams, and this varies from organization to organization.

The main objective being success, it is believed that engaging employees on environment sustainability becomes a feel good thing for an employee as well as a customer, which will largely help in the profit maximization of a company. Do the employees really feel engaged in sustainability measures taken by the company? Do the sustainability measures really help the companies to retain the knowledge base?

These question leads to many other questions, which opens up a wide area for research. Very few researches were carried out so far in employee engagement on sustainability, despite its importance to the employers, employees and customers of the company.

Thanks to the serious efforts taken by lawmakers of the various countries, Organizations are trying all possible ways and doing everything they can, to be called as a green company. The pro-environmental attitude of the employees has become a priority as the organizations are trying their level best to be listed under green companies.

It is evident that organizations which are committed to environmental issues, have a competitive edge among others, as they involve themselves in activities like conserving and recycling, thereby creating a positive employee brand. If organizations tend to look out for the Greener side of the business, it establishes an emotional bond between the employee and organization.

A better understanding of what constitutes environmentally friendly behaviours is essential at all stages of human resource management. In order to manage organizational workforces, we need to know the nature of behaviours that lead to or detract from

environmental sustainability. The present study is aimed at examining, if the employees exhibit a positive green behaviour.

1.3.2. HR – Going Green:

As organizations are more into embracing sustainability policies and standards, it becomes imperative for the HR department of any organisation to imbibe 'green' into the process and policies, as it is the 'seismic centre' from where the change travels. There begins the emergence of 'Green HR'. Green HR is all about aligning green strategies in recruiting, training, performance appraisals, compensation etc., so as to bring down the negative impact on environmental issues and contributing more to environmental sustainability.

Recruiting candidates with green bend of mind enables firms to induct professionals who are aware of the sustainability issues is the first step in executing green HR strategies. Grolleau et al. (2012) in their study on "impact of environmental standards of a company on recruitment of an employee found that environmental commitment of the company adds to profile of a company. In their primary survey, they found that professionals were more concerned with respect to the environmental strategy of a company".

Green recruiting is a system where environment is considered to be important and making it a major element within the organization. Complementing this, the recruits are also enthusiastic, and to some extent, passionate about working for an environment friendly "green" company.

Ashok Ramachandran, director-HR, Vodafone Essar Ltd., states that "Green human resources could very well imply using every employee touch point/interface to promote sustainable practices and increase employee awareness. It reflects the way an organisation chooses to drive and increase employee commitments and awareness on the issues of sustainability."

Kamal Meattle (2013), CEO, Paharpur Business Centre and Software Technology Incubator Park states that, "When a company decides to integrate sustainability with its business strategy, holistically, HR should stand up as the key participant in ensuring that employees become a part of this restructuring. And this can only be possible when HR ascertains that all employees are aware of how their roles contribute to the sustainability agenda," He further adds that "HR can help the organisation to stay sustainable, primarily through initiatives like building awareness among employees and extensive trainings. It's

important to involve employees in organisational policy revamps such as integrating sustainability with the company's processes as they, really, are the change agents and bring about the desired transition". At Paharpur Business Centre (PBC), "the HR team has an 'environmental responsibility' policy. The policy plays a significant role in inducing staff to adopt green measures, thus inculcating long-term values of saving energy and resources of the corporate for the humanity's benefit in whole," he shares.

Anjana Nath (2013), regional head - HR, Fortis Healthcare Ltd, expresses, "Green HR can be defined as environmental friendly HR initiatives resulting in greater efficiencies, lower costs and better employee engagement. HR plays a key role as HR creates awareness amongst employees and builds engagement, which in turn, helps organisation to operate in an environmentally-sustainable fashion." Nath further shares, "HR can build cross-functional teams to come up with new innovative environmental-friendly implementable ideas. For example, we have our patient welfare team who ensures that all paediatric girl patients are gifted with a green sapling. This comes under our initiative of protecting girl child as well as preserving nature called 'Nanhi Chaaon'." Nath further comments, "HR brings in a major impact when it partners with business strategists and initiates innovative and productive green ideas and solutions. Also, HR is instrumental in educating and making employees aware of the same. Successful implementation is only possible if employees buy-in to the whole concept."

Misra. T (2013), founding member and managing director, Spearhead Inter Search points out, "Eco-consciousness or the colour 'green' is rapidly emerging in every dimension of our lives and workplaces are increasingly displaying an organised response to this challenge by bringing in 'professional consciousness' at an institutional level as well as individual employee level. Green HR is one which involves two essential elements: environmentally-friendly HR practices and the preservation of knowledge capital. The HR of the organisation plays a major role in making environmental responsibility a part of an organisation's mission statement." So, what difference can HR bring to an organisation's sustainability policies? "Prospects of reducing costs could eventually lead more businesses to adopt 'greener' ways of working. The benefits of going green, apart from contributing towards genuine environment health, also carries direct advantages in impacting the brand and bottom-line of an organisation," explains Misra.

The various initiatives through which HR can help an organisation in preserving its environmental sustainability are as follows; Reducing carbon footprint(reduce printing), substituting actions which involve more emissions(carpooling), adopting technologies so as to

conserve energy(video- conferencing) are few initiatives which HR can indulge while planning their actions.

Organisations can have green initiatives, which allows employees to contribute towards environmental causes of their choice. ‘Reducing’, ‘recycling’ and ‘reusing’, can be encouraged among employees through programmes like best out of waste, greening the premises, recycling programme, carpooling, work-from-home etc., These are few successful strategies by which organization can show their commitment towards environmental sustainability and further encourage their employees to do so. This certainly adds yet another feather on HR's cap, as it takes on newer roles and in the process of environmental sustainability, proves how beneficial it can be to organizational growth.

Businesses across globe, are shifting from an industry based financial system to a talent based economy. As we enter into green economy, the environmental change will demand businesses to address green issues, so as to meet the consumer as well as the employee expectations. It is evident that we enter into a period of growth, wherein organizations that are environmentally conscious are becoming prominent.

Though carbon-di-oxide level seemed to have stabilized during the recession, it is expected to increase again as businesses resume production and business activities. Furthermore, during the recession, the organizations mainly focus on optimising resources and reducing waste. Such growth provides businesses with ample opportunities to become green, by implementing environmental initiatives.

The term ‘green HR’ is most often used to refer to the contribution of people management policies and practices towards the broader corporate environmental agenda. Typical green activities include video recruiting, or the use of online and video conferencing, to bring down travel requirements. The main task of HR is to engage employees in the green agenda, at the same time, recognising the environmental contribution of the employees, through green rewards. Though many employees never intend to be pro-environmental, especially in work settings, the millennials are expecting their employers to be environmental conscious. As more and more people seek satisfaction and self-actualization in their jobs, there is more opportunity to engage them in environmental issues.

1.3.3. The “Green” job:

There is a colourful distinction in the different kind of jobs that exist in the market. White and blue collar jobs have become a past. Of late, there has emerged another category

referred to as green/low carbon. The phrase 'green/low carbon' has become one of the most used phrases in the lexicon of politicians and corporates. For some it is emergence of new employment opportunities in a limited job market and a route out of poverty for the marginal people, while for others, particularly for the environmentalists, green/low carbon jobs are crucial for combating climate change.

With the attention that these jobs have garnered with respect to climate change action, it does not come as a surprise that what perhaps began as rhetoric to counter climate negativity is now developing into an area with extraordinary promises. But not everybody is equally excited by this new category. Some argue that these terms are just trendy phrases that have gained popularity and have ambiguous meanings and connotations with little agreement on what constitutes a green/low carbon job. As terms like low carbon jobs, green jobs, clean energy jobs etc., are often used interchangeably and they often convey a blurred meaning leading to concerns with regard to the parameters that define each of them.

Due to the related discrepancies, green jobs are often regarded as something related to renewable energy and energy efficiency. The International Labour Organization (ILO) refers to low carbon employment as "economically viable employment which reduces environmental impacts to sustainable levels".

Green jobs are sometimes referred to as employment in sectors, which include energy efficiency, renewables, alternative transport and fuels, their main objective being 'make up the clean energy economy'. The United Nations Environment Programme (UNEP) recognises these jobs as either those that conserve energy or help realise alternative sources of energy and thereby accelerate the transition of global economies to low carbon pathways. However, there is also a broader interpretation of the concept, which is looking beyond energy and linking low carbon issues, to environmental activities. Such activities include conservation and rehabilitation to preserve bio diversity, restore degraded land, combat erosion, remove invasive aliens etc.

The rise of renewable energy investments, has led to two types of employment opportunities, i.e. direct and indirect. Direct employment includes jobs created in design, installation, manufacturing, construction, operation and maintenance of the different components of the technology. Indirect jobs refer to jobs that are created in the supply chain or jobs that are created through 'multiplier effect'. Certain jobs which need special mention, is that of consultants, who play a vital role in the growth of renewable energy technologies and

enhance the penetration of these technologies. Likewise, professionals like energy auditors, who has a check on the energy usage of the organization and energy managers, who are responsible for energy conservation, play an important role in promoting energy efficient technologies, though they cannot be termed as low carbon jobs. Moreover it is important to consider that services provided by these indirect jobs are often a pre-requisite for deployment of low carbon technologies.

Renewables sector contribute significant number of green jobs out of all the sectors that can offer low carbon employment. Green jobs are likely to grow, as all businesses, economies and industries are shifting to renewable energy. Interestingly, these numbers are expected to increase in the next few decades as it is mandated by the state and central governments to increase the share of renewables in the energy mix.

It is difficult to make out the number of green jobs that exist nationwide. At times it becomes tough to delineate jobs as green jobs. For example, in a wind turbine factory, if the job of a welder is considered as a green job, what about the factory's accountant? First is direct job while latter is an indirect job.

India is emerging as one of the destinations for green jobs, with a huge employment potential. According to The Energy and Research Institute (TERI) study, which analysed the employment potential for direct green jobs in India, with respect to solar and wind energy sectors, revealed that if government could achieve targets as scheduled, nearly 243,225 green jobs could be created in the wind sector by 2020. In the solar energy sector, nearly 234,350 green jobs could be created. In the bio-fuels sector, nearly 10 million green jobs could be created. Although these numbers are indicative in nature, they provide us with a clear picture of the low carbon employment potential that exists in India.

The green jobs require a pro-environmental skill set, both at technical and administrative level. Similarly, respective pro-environmental skill set is required for professionals in R&D, planning, execution, operation and maintenance of technology. The first step to enhance the skill set is to identify the gaps that exist in the present skill sets of the employees with that of the required skill set. Policies and procedures that facilitate skill development and capacity building, could be incorporated in the existing policies, so that employees with required skills are readily available for different stages of the technology.

Also a parallel process could be initiated to identify appropriate national and state level authorities that can provide such training and build capacity to address the gaps that exists. An

integrated approach is thus required that considers the associated co-benefits while formulating policies and program for these sectors.

Environmental sustainability and the “Go Green” Initiatives has become the first and foremost issue among organizational leaders across the world as per the World Economic Forum. But still as a general population we do not know how to inculcate environment friendly behaviours, especially in occupational settings. Name any developed, developing or newly launched organizations, the policy makers are primarily aimed at defining and understanding environmental sustainability.

1.4.IMPORTANCE OF PRO-ENVIRONMENTAL BEHAVIOUR:

Employees may engage in voluntary pro-environmental behavior in various ways. For example, they may develop, suggest and share innovative ideas or practices and perform discrete actions in the workplace that contribute towards improving environmental performance of the organization. Most environmental programs generally assume some kind of voluntary employee involvement. For example, Initiatives such as reducing, recycling and reusing becomes meaningless without employees’ active participation, as they are the ones who are in direct contact with the materials used in the process.

A number of studies have shown that this type of prevention initiative, generally improves both competitiveness and environmental performance. (Ambec and Lanoie, 2008; Porter and van der Linde, 1995; Boiral, 2005; Christmann, 2000). Go green Initiatives within the work premises cannot be just reduced to repetitive behaviors. Employees play a major role in in developing strategies towards environmental sustainability, in their work environment. (Hart, 1995; Fernández et al., 2003; Daily et al., Branzei et al., 2004; 2009; Walley and Stubbs, 2000). Due to their closeness to production processes, employees can understand and share critical information about the emission of toxic substances or materials. They can also offer practical solutions that are often less expensive than the implementation of end-of-pipe technologies (Boiral, 2002; Hart, 1995). Such initiatives within the workplace often has an impact that addresses all environmental issues, and goes even beyond that.

Generally, employees are the key players, in planning and development of green practices that enables the organization to improve both production operations and environmental performance (Roy et al., 2001; Florida, 1996; Rothenberg and Maxwell, 2001). Environmental actions such as waste reduction are largely dependent on initiatives taken by the employees, which in turn are closely related to lean production and quality management.(

King and Lenox, 2001; Kitazawa and Sarkis, 2000). The different forms of pro-environmental behaviour exhibited by employees may be based on OCBE. However, it is yet to be explored the fact, whether the pro-environmental initiatives of the employees, are voluntary or mandatory.

As noted by Daily et al. (2009), very few studies have observed voluntary environmental initiatives at an individual level. In the literature, the concept of employee involvement is mostly embedded in formal structures and practices at an organizational level, such as the implementation of environmental management systems and the promotion of green initiatives. Bottom-up employee-driven environmental initiatives, to a large extent, appear to be subordinate to formal structures, policies and reward systems rather than being undertaken on a voluntary and discretionary basis.

The development of environmental management systems such as ISO 14001 has clearly contributed to promoting intra-role behaviors related to environmental concerns. The principle of “we say what we do, we do what we say” at the heart of the ISO certification process is assumed to reinforce environmental procedures and to turn voluntary green initiatives into more prescribed and less discretionary behavior.

An increasing number of organizations have begun to implement environmental policies, objectives and programs (Jiang and Bansal, 2003; Kitazawa and Sarkis, 2000; Christmann and Taylor, 2006; Boiral, 2007). As a result, eco-initiatives often appear to be an integral part of the most widely studied environmental programs and management systems (Yin and Schmeidler, 2009). However, organizational statements on environmental issues are not necessarily in line with workplace practices. For example, the ISO 14001 environmental management standard is not necessarily well integrated in organizations and employees are only able to pay lip-service to this environmental management system (Christmann and Taylor, 2006; Boiral, 2007). Conversely, a range of employee environmental initiatives may be taken without the implementation of formal programs, policies or statements in this area.

Innovative and spontaneous behaviors beyond the requirements of the job were identified by Katz (1964) as one of three essential types of behavior for a functioning organization (the two others being the willingness to enter and remain in a given organization and enjoyment of the job). Employees can engage in voluntary pro-environmental behaviors in different ways. For example, they may develop, suggest and share innovative ideas or practices

or engage in spontaneous discrete behavior that contributes to improving environmental performance.

Discrete, innovative and spontaneous actions are linked to different frameworks, such as prosocial organizational behavior (POB) and OCB (Organ et al., 2006). Both POB and OCB have been used in the field of environmental management to analyze employee extra-role behavior aimed at promoting corporate greening (Boiral, 2009; Boiral and Paillé, 2012; Daily et al., 2009; Ramus, 2002; Ramus and Killmer, 2007; Ramus and Steger, 2000). OCBs are often a form of POB (Turnipseed and Bacon, 2009). Therefore, the POB framework is more encompassing than the OCB framework for describing extra efforts in the area of corporate greening. Before briefly presenting the concepts of POB and OCB, one final point needs to be made. Ramus (Ramus, 2002; Ramus 2001; Ramus and Steger, 2000) used the work of Amabile et al. (1996) to describe eco-innovative behavior as creative ideas. Based on Moon, Van Dyne and Wrobel (2005), innovative suggestions refer to quality and novelty, while OCB refers to frequency actions.

As such, innovation and citizenship are distinct but related behaviors. By applying the suggestions made by Moon et al. (2005) to the environmental domain, it seems reasonable to posit the same distinction between eco-innovative behaviors and OCBs.

Prosocial organizational behavior (POB) refers to “positive social acts carried out to produce and maintain the well-being and integrity of others” (Brief and Motowidlo, 1986). Both POB and OCB have been used in the field of environmental management research to analyze extra-role behavior in the field of corporate greening (Boiral, 2009; Boiral and Paillé, 2012; Daily et al., 2009; Ramus, 2002; Ramus and Killmer, 2007; Ramus and Steger, 2000). The POB framework was mainly used by Ramus and Killmer (2007) to analyze employee willingness to engage in eco-innovative behavior. The POB framework reflects the broad range of actions taken by an employee to go beyond the job requirements (Brief and Motowidlo, 1986).

Brief and Motowidlo (1986) identified 13 types of prosocial behavior. These behaviors are related to specific foci. While some are located within the workplace, such as colleagues, the job or the organization, others are located outside the workplace, such as customers. Prosocial behaviors can be directed toward different foci to prevent or resolve a given concern. Ramus and Killmer (2007) suggested “that corporate greening behaviours are best conceived of as a special type of prosocial organizational behaviour”.

According to Ramus and Killmer, corporate greening can be seen as a form of prosocial behavior since it contributes to improving the welfare of individuals and organizations. Like other forms of prosocial behavior, corporate greening initiatives also tend to create value by reducing pollution costs, reducing resource consumption, improving corporate image, etc. Corporate greening also extends beyond organizational boundaries and the roles prescribed or rewarded within the organization. From this perspective, prosocial behavior toward the environment can be seen as value-creating extra roles that should be encouraged by organizations. These kinds of extra efforts are sometimes labelled eco-initiatives (Ramus and Steger, 2000; Ramus and Killmer, 2007; Boiral, 2009).

In an early paper, Ramus and Steger (2000,) suggested defining eco-initiatives as a proxy for eco-innovation, where eco-initiatives are defined as “any action taken by an employee that she or he thought would improve the environmental performance of the company”. Ramus and Steger provided a number of examples to illustrate this definition, such as recycling, pollution prevention, reducing the need for hazardous waste disposal, improving ecological efficiency, etc.

According to Ramus (2002), eco-innovation can improve the environmental performance of the organization in three different ways: by decreasing its environmental impact, by solving environmental problems and by developing a more eco-efficient product or service. Ramus and her colleagues (Ramus and Killmer, 2007; Ramus and Steger, 2000; Ramus, 2002; Ramus 2001) identified a set of variables that encourage employees to engage in eco-innovative behavior. The role of the supervisor was highlighted as an important factor for encouraging employees to be eco-innovative. More recently, by adding social norm, personal predisposition, and self-efficacy alongside the recognized role of the supervisor, Ramus and Killmer (2007) described eco-initiatives as a function of the complex combination of these variables.

Although analysing eco-initiatives as a form of POB has helped to shed light on the voluntary and social dimensions of corporate greening, the POB conceptual framework is still relatively vague. First, the concept of POB remains relatively elastic and general. OCBs are often defined as one form of POB among others (Turnipseed and Bacon, 2002).

A better understanding of what constitutes environmentally friendly behaviors is essential at all stages of human resource management. In order to train workers for environmentally responsible performance, we need to first examine what such performance

entails. In order to select new employees who will display environmentally sustainable behaviors, we need to know which individual characteristics relate to such behaviors. In order to manage organizational workforces, we need to know the nature of behaviors that lead to or detract from environmental sustainability.

Organizations are increasingly involved in environmental sustainability issues as part of their organizational strategy, perceived organizational responsibility, or both. Most research on this subject has addressed environmental performance on the aggregate, organizational level (Bansal & Gao, 2006; Etzion, 2007). Concrete, individual *behaviors* that contribute to environmental performance are often not researched, and generally there is an emphasis on the (top) management. However, an understanding at the behavioural level of analysis, may be essential to a better understanding of the precise mechanisms that underlie aggregate environmental performance.

Generally speaking, a distinctive feature of proenvironmental behaviors is that they are probably best viewed as motivated by a combination of self interest and concern for others and the environment. This is reflected in research efforts to integrate self-interest and moral concern in theoretical models of proenvironmental behavior (e.g., Bamberg, Hunecke, & Blobaum, 2007; Kaiser, 2006). To be more specific, concepts related to moral concern, such as personal norm from the norm-activation model (NAM) of prosocial behavior, were incorporated into a theory of planned behavior (TPB) framework (TPB: Ajzen, 1991; NAM: Schwartz, 1977).

In contrast to organizational proenvironmental behavior, environmental behavior in individual and household contexts has been more systematically researched and synthesized (Abrahamse, Steg, Vlek, & Rothengatter, 2005; Bamberg & Moser, 2007; Uitdenbogerd, Egmond, Jonkers, & Kok, 2007).

As argued similarly by Siero, Boon, Kok, and Siero (1989), at least two considerations need to be taken into account. First, costs arising out of consumption are usually borne more directly by household members than users in organizations. This may imply different motivations to consume or conserve resources within the two contexts. Second, an organization's size, structure, goals, culture, market positioning, and other organization-specific influences might form additional obstacles to or opportunities for behavioural modifications.

Having said that, the research on households can provide insights into relevant individual determinants, which may be reinforced or attenuated in the organizational context.

These individual determinants either originate from the environmental psychology literature or share similarities with broader social psychological concepts. In order to enable comparison of proenvironmental behavior across different contexts and with other organizational behaviors, general social psychological concepts used in the household and individual contexts (i.e., intentions, attitudes, beliefs, personal norms, social norms, self-efficacy, past behavior, habit) will be used as a framework to organize the findings on individual-level determinants. For organizational-level determinants, a distinction between general and environment-specific determinants will be made.

1.5. ORGANIZATION CITIZENSHIP BEHAVIOUR (OCB):

Organization Citizenship Behaviour (OCB) refers to “anything that employees choose to do, spontaneously and of their own accord, which often lies outside their specified contractual obligations”. In other words, it is ‘discretionary’.

Organization Citizenship Behaviour is generally defined as “individual behaviour that is discretionary, not directly or explicitly recognized by the formal reward system, and in the aggregate promotes the efficient and effective functioning of the organization.”(Organ, Podsakoff and MacKenzie 2006) .

Organisational citizenship behaviour (OCB) has undergone subtle definitional revisions since the term was coined in the late 1980s, but the construct remains the same at its core. OCB may not always be directly and formally recognised or rewarded by the company, through salary increments or promotions for example, though of course OCB may be reflected in favourable supervisor and co-worker ratings, or better performance appraisals. In this way it can facilitate future reward gain indirectly. Finally, and critically, OCB must ‘promote the effective functioning of the organisation’ (Organ, 1988).

Currently, OCB is conceptualised as synonymous with the concept of contextual performance, defined as ‘performance that supports the social and psychological environment in which task performance takes place’ (Organ, 1997). While this reflects the flexible nature of workers’ roles in the modern workplace, and acknowledges the fact that employees do get recognised and rewarded for engaging in OCB (Van Scotter, Motowidlo & Cross, 2000; Werner, 1994), the colloquial understanding of OCB as going ‘the extra mile’ or ‘above and beyond’ to help others at work is an idea that many are familiar with, and these ideas continue to be a popular way of conceptualising OCB. Typical examples of OCB include offering to help a newcomer become familiar with his/her role and the office, a colleague who may be struggling

with deadlines, or volunteering to change shifts. Importantly, OCB also encompasses organisational-related acts such as working overtime without (expectation of) remuneration, or volunteering to organise office-wide functions.

1.5.1. Characteristics of OCB:

The following are the characteristics of OCB as put forth by Podsakoff et al. (2000)

1. Brings an increase in co-worker or managerial productivity.
2. Release resources so that they can be used for more productive purposes.
3. Coordinate activities within and across work groups.
4. Reduce the need to devote scarce resources to purely maintenance functions.
5. Strengthen the organizations' ability to attract and retain the best employees.
6. Increase the stability of the organizational performance.
7. Enable the organization to adapt more effectively to environmental changes.

1.5.2. Categories of Organizational Citizenship Behaviour:

To describe the individual variability in the green behavior of employees, in an organizational setting, it is needed to study the broad category of behaviours, which leads us into the area of organizational citizenship behaviour. It also leads to the linking of employee green behaviours to the five factors of Organization Citizenship Behaviour (OCB) namely, Altruism, Courtesy, Civic Virtue, Conscientiousness and Sportsmanship (Organ, 1988) out of which the first two factors are individual related behaviour and last three factors are organizational related behaviour. Based on the taxonomy of Organ, Williams and Anderson (1991), divided organizational citizenship behaviour (OCB) into two broad categories as organizational citizenship behaviour organizational (OCB-O) and organizational citizenship behaviour-individual (OCB-I).

Based on Ozturk (2010), OCB-I is defined as “a set of behaviours that directly benefit individuals but indirectly and ultimately benefit the organization”. The following are the two antecedents explained under this category:

Altruism: It is defined as “the desire to help or otherwise assist another individual, while not expecting any reward as compensation for that assistance”. It is also known as Pro-Social Factor.

Courtesy: It is explained as “a behaviour which is polite and considerate to people”.

Based on Ozturk (2010), OCB-O is defined as the “behaviours that directly benefit the well-functioning of the organization as a whole”. The following are the three antecedents under this category:

Sportsmanship: It is defined as “exhibiting no negative behaviour when something does not go as planned or when something is being perceived as annoying, otherwise negative”.

Conscientiousness: It is defined as “behaviour that suggests a reasonable level of self-control and discipline, which extends beyond the minimum requirements expected in that situation.”

Civic Virtue: it is defined as the “behaviour which exhibits how well a person represents an organization with which they are associated, and how well that person supports the organization, outside of an official capacity”.

Organization Citizenship Behaviour (OCB) has become the buzz word in Organization Behaviour since its conception in 1988. It is perceived to be something intangible; Organization Citizenship Behaviour (OCB) is not always formally recognised or rewarded, and concepts like ‘helpfulness’ or ‘friendliness’ are also difficult to quantify. Yet Organization Citizenship Behaviour (OCB) has been shown to have a considerable positive impact at the organisational level, enhancing organisational effectiveness from 18 to 38% across different dimensions of measurement (Podsakoff, MacKenzie, Paine & Bachrach, 2000; Ehrhart, 2004).

1.5.3. The Benefits of OCB:

OCB has always shown to have a positive impact on employee well-being and organizational performance. This in turn has led to noticeable flow, on the effects on the organisation.

A strong correlation (0.4) exists between OCB and job satisfaction (Organ, 1988). It is empirically proved that there exists a strong correlation between job satisfaction and performance of the employees, though not causal. Performance that are related to citizenship behaviour are affected by job satisfaction. Behaviours like, employees willing to make

compromises, who easily team up with superiors and colleagues, who help out others with the extra little things, though not asked for, all such behaviours are encompassed in OCB.

Employee performance is considerably effected by OCB and they are as follows: Firstly, managers readily give better performance ratings for employees who engage in OCB(Podsakoff et al., 2009). Employees who engage in OCB, are liked more by the superiors and colleagues, and perceived more favourable, as they willingly exhibit extra role behaviour. Managers perceive OCB as an employee commitment as it is voluntary in nature and they strongly believe that OCB has a significant role in the organizational performance (Organ et al., 2006). Secondly, better performance of the employees is linked to rewards and recognition, like bonuses, promotions, pay increments or pay related benefits (Podsakoff et al., 2009). Thirdly, because these employees have better performance ratings and receive greater rewards, when the company is downsizing e.g. during an economic recession, these employees will have a lower chance of being made redundant (Organ et al, 2006).

1.6.LINKING ORGANIZATION CITIZENSHIP BEHAVIOUR TO CORPORATE GREENING:

Since the earliest study by Organ and his colleagues, the definition of OCB has been further refined and developed. More recently, while some authors have continued to use the original forms of OCB (Cohen, 2006; Schappe, 1998), research based on Organ's model generally examines citizenship behavior in the workplace based on three specific behaviors: helping others, sportsmanship and civic virtue. Employees may demonstrate their willingness to cooperate in the workplace by making extra efforts toward the organization in the form of civic virtue and sportsmanship, and toward its members in the form of helping.

According to Organ (1990), extra efforts are vital for organizations. Because OCBs "lubricate the social machinery of the organization" (Smith, Organ and Near, 1983) and foster the "social and psychological context that supports task performance" (Organ, 1997), these behaviors enhance performance by "reducing friction, and/or increasing efficiency" (Podsakoff and MacKenzie, 1997).

OCBs contribute in promoting good working conditions and quality relationships among employees, peers and supervisor, within the workplace. Podsakoff and MacKenzie (1997) provided many examples to illustrate how these forms of OCB contribute to enhancing organisational effectiveness. Following Podsakoff and MacKenzie, other researches also proved that while helping others enhances effectiveness by promoting best practices, civic

virtue contributes to ensuring effectiveness by attracting the best employees, and finally sportsmanship promotes effectiveness by fostering a sense of loyalty.

The antecedents of OCB (Altruism, civic virtue and sportsmanship) contribute to promoting organizational effectiveness in different ways. As these extra efforts enhance organizational performance even if are not rewarded by the employer, a great deal of effort has been made to understand why employees are willing to go the 'extra mile'. In their literature review, Lavelle, Rupp and Brockner, (2007) reported that organizational justice (i.e. distributive, interactional and procedural justice), organizational support and trust, identification and commitment reflect drivers of OCB for each level of analysis (i.e. organization, supervisor and peers). Surprisingly, although the mainstream literature has explored various types of extra efforts and their application in various areas, environmental issues have only recently been considered as an application of OCBs.

1.7.LINKING ORGANIZATION CITIZENSHIP BEHAVIOUR TO EMPLOYEE GREEN BEHAVIOUR

Employee green behaviors are defined as “scalable actions and behaviors that employees engage in that are linked with and contribute to or detract from environmental sustainability.” (Deniz, Ones and Stephan Dilchert). There are four features of this definition that should be highlighted.

First, the focus is on *employees*. The enactors of green behaviors are employees and not organizations. Certainly, there is value in describing and modelling *organizational* variability in terms of environmental sustainability performance. However, our definition is directed at specifying a Behavioral domain where there is *individual* variability. Members of the same organization display differences in their environmentally relevant behaviors. Organizational initiatives and actions stem from employees. Organizational leaders institute organizational policies. Organizational initiatives, including environmental initiatives, originate from employees and decision-makers. All organizational actions with an impact on environmental sustainability can be traced to organizational members. It is not the organization that acts or behaves, but rather it is employees who do.

Second, the definition of employee green behaviors presented here focuses on what employees actually *do* in connection with their activities at work. By focusing on actions and behaviors, the definition excludes outcomes and consequences that are not under the control of the employee. Environmental consequences of behaviors can be influenced to a great degree

by the actions and behaviors of other employees and actions of a variety of groups (such as teams or departments), as well as external stakeholders (such as communities or governments), among others. Any definition of employee green behaviors should only include behaviors and outcomes under individuals' control, that is, employees' green behaviors should reflect their own behavior.

Third, the definition specifies *scalable* actions and behaviors. That is, behaviors should be *measurable* in terms of their contribution to the goal of environmental sustainability. Different employees contribute at different levels to environmental sustainability goals. Employee green behaviors are synonymous with employee green performance and thus require an evaluative statement about the proficiency of each employee in relation to environmental sustainability. How much does a given employee contribute to environmental sustainability goals? This is a legitimate question that can be answered by assessing employee behaviors.

Fourth, the definition explicitly recognizes that not all behaviors that impact the environment are beneficial. Employee behaviors can also cause environmental harm, which reflects the well-recognized "dark side" of the construct. Both *beneficial* and *harmful behaviors* are included in the construct defined here.

Employees can engage in behaviors that help the environment (for example, invent and use eco-friendly products, conserve energy) or they can refrain from engaging in such environmentally friendly acts. They can also actively perform actions that harm the environment (pollute, destroy ecosystems). By including both beneficial and harmful behaviors, the employee green behaviors spectrum encompasses: (1) engaging in helpful behaviors versus refraining from them, as well as (2) engaging in harmful behaviors versus refraining from them. This is a distinction that recognizes that both behaviors that need to be proactively pursued and inhibited contribute to environmental sustainability.

Two features of the definition are notable by their absence:

First, the definition does not specify whether the behaviors included are job or role behaviors (Ilgen & Hollenbeck, 1991). Employee green behaviors can be undertaken as part of tasks that employees perform as part of their organizationally sanctioned roles. Employee green behaviors can also be undertaken outside of formal duties and responsibilities, but in work settings nonetheless. The absence of the job/role distinction means that employee green behaviors are not limited to green jobs (Milano, 2009). Clearly, employee green behaviors are not limited only to green industries either.

Second, organizational goals are not an explicit feature of the definition. For organizations to be viable in the long term, environmental sustainability must necessarily be included as one of their goals. This is not only a value-driven, but also a logic-driven argument: If humanity does not survive in the face of resource shortages like, clean water and food supplies (U.N. Department of Economic and Social Affairs, 2004) and environmental calamities such as climate change and destruction of ecosystems, no organization will remain. Logically then, attaining the triple bottom line (economic, social, and environmental performance) should be among the goals of all business organizations. It is exceedingly clear that focusing only on economic performance can detract from environmental performance and therefore, the long-term sustainability of organizations. Thus, when employees behave in ways that contribute to environmental sustainability, they directly or indirectly contribute to the organization's triple bottom line and hence to organizational sustainability.

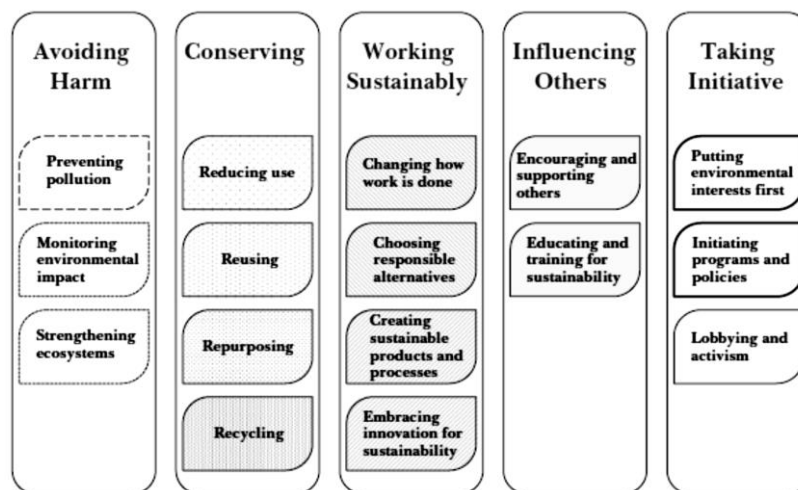
The factor highlighted here is the employee's green behaviour and not the organization's. Of course the organizational members are to be credited for all organizational actions that leads to environmental sustainability, but it is not the organization that behaves, rather employees.

The point to be noted here is, even though the employees belong to the same organization, their behaviour towards environment is not same and varies as per the individual. Despite a single organizational policy, members of the same organization display differences in their environmentally relevant behaviors. Now what leads to this difference in their behaviour? What factor in Organization Citizenship Behaviour (OCB) initiates or detracts the employee green behaviour?

1.7.1. Indicators of Employee Green Behaviour

The indicators of employee green behaviours has been identified from Taxonomy of Employee Green behaviours (Ones, Dilchert, Hill, Wiernik, Klein, & D'Mello, 2011). In the taxonomy, broader categories are successively organized further into substantively more homogeneous clusters, creating a multi-tiered, hierarchical model.

1.1 Figure showing the indicators of Employee green Behaviour



Source: *The Green Five Taxonomy of EGBs. Adapted from Ones and Dilchert (2012).*

In an attempt to identify and fit in the indicators of employee green behaviour, with the antecedents of Organization Citizenship Behaviour(OCB), activities like encouraging and supporting others, educating and training for sustainability can be related to altruism and courtesy of employees, which means being helpful to others, being polite and preventing conflicts.

Activities of employees like putting environmental interests first, initiating programs and policies, lobbying and activism shall be linked to the predictor of Organization Citizenship Behaviour(OCB)factor, namely‘conscientiousness’ which means doing more than just the minimum, attention to detail (prevent/ minimise error)

Activities like Preventing pollution, monitoring environmental impact, strengthening ecosystems, reducing use, reusing, repurposing, recycling eco systems shall be linked to the antecedent Organization Citizenship Behaviour(OCB) called ‘Civic virtue’ which emphasises on showing interest and involvement (e.g. keeping up to date) with the organisation and defend organisational policies and practices

Activities like changing how work is done, creating sustainable products and processes, choosing responsible alternatives, embracing innovation and sustainability shall be linked to Organization Citizenship Behaviour(OCB) namely‘sportsmanship’ which means tolerating less-than-ideal conditions, accepting of changes and performing requests, without complaints.

A detailed analysis on the link existing between these factors would provide us with vital information on which factor of Organization Citizenship Behaviour (OCB) contributes to pro-environmental behaviour of the employees and lack of which factor in an employee leads to less than expected pro-environmental behaviour.

This would give us a clear understanding to build environmentally conscious as well as sustainable organizations. It becomes essential for organizations to identify the green behaviours and inculcate them in the employees, so as to enhance pro-environment behaviour among employees. For ecological sustainability to be brought in organizations we need to identify the employee behaviours that are need to be changed, and change them, so that they go hand in hand with environment sustainability measures taken by the organization.

In order to thrive in a future green economy, industrial and organizational psychologists should understand the construct of employee green behaviours as they promote environmentally conscious and ecologically sustainable organizations.

The Green Five taxonomy (Ones, Dilchert, Hill, Wiernik, Klein, & D'Mello, 2011) which is based on empirical data that arose from work analytic approaches deeply rooted in industrial and organizational psychology (critical incidents methodology).

It is not merely a theoretical model, but an empirically established taxonomy. At the same time, it is not based on a theoretical empiricism—psychological and functional considerations were incorporated in defining and refining the behavioural clusters. Each behavioural meta-category has a specific psychological core and serves a different function.

Within the taxonomy, broader categories are successively organized further into substantively more homogeneous clusters, creating a multi-tiered, hierarchical model.

1.7.1.1. Working Sustainably:

The functional core of this meta-category involves adapting work products and processes so as to minimize their negative impact on the environment, and its psychological core is adaptability.

1.7.1.2. Conserving:

The functional core of this meta-category is avoiding wastefulness and thus preserving resources. This includes preservation of a wide spectrum of resources: water, energy, gas, and other natural resources, among others. This meta-category relates to the behaviours employees engage in to enhance the environmental sustainability of work processes and products.

1.7.1.3. Avoiding Harm:

Avoiding harm can perhaps be best understood when we consider that most economic activities have an impact on the natural environment. Ideally, such impact is small or naturally reverses over time (for example, cutting a single tree to produce a product made from wood).

1.7.1.4. Influencing others:

This category which is more environmentally friendly and responsible requires both Educating and Training for Sustainability and Encouraging and Supporting environmentally sustainable behaviours.

1.7.1.5. Taking Initiative:

The last meta-category, Taking Initiative, is a proactive, entrepreneurial domain that involves a certain level of personal risk or sacrifice. It includes behaviours that break the mould and go against societal expectations. Willingness to forego certain benefits or suffer potential negative consequences is inherent in these behaviours.

1.8. ORGANIZATION CITIZENSHIP BEHAVIOUR TOWARDS ENVIRONMENT (OCBE):

Organizational Citizenship Behaviour towards Environment (OCBE) a new concept that emerged recently encompasses all the components of Employee green Behaviour, which is the focus area of the present study. OCBE has emerged from Organization Citizenship Behaviour with respect to environmental literature, and it seems to be a promising approach in capturing employees' pro-environmental behaviors in the workplace. Boiral & Paille (2009), Daily, Bishop, and Govindarajulu (2009) have rooted OCBE in the organizational citizenship behavior framework built over the years by Organ and his colleagues (Organ, 1988, 1990; Organ, Podsakoff, & MacKenzie, 2006; Smith, Organ, & Near, 1983). Given that OCBEs derive from organizational citizenship behaviors (OCBs), Daily et al. (2009) called for further research to investigate whether the two constructs overlap or are independent. Unfortunately, Daily et al. (2009) provided no clear guidance about how to do so. More recently, Boiral and Paillé (2012) have encouraged future research to examine the determinants of OCBE.

Hence to study the effectiveness of the Green practices of any corporation, it becomes a pre-requisite to study the Pro-Environmental Behaviour of the employees. As suggested by number of authors (Boiral 2009; Daily et al. 2009), the pro-environmental behaviour of the employees can be viewed as a form of organizational citizenship behaviour (OCB) applied to environmental issues (OCBE). Examining and determining the factors that contribute to the Organizational citizenship behaviour towards environment, and its influence on Corporate Greening, would provide us with a new insight into Employee Green Behaviour.

OCBEs can therefore be defined as “individual discretionary behaviours that supplements the Environmental Management Practices (EMP) and contribute to the efficiency of environmental measures.”

Recent studies have used the OCB framework to explain employee willingness to engage in discretionary pro-environmental behaviors toward the environment (Daily et al., 2009; Boiral, 2009). Daily et al. (2009) developed a conceptual model to identify the determinants that enhance environmental performance through OCBE. Based on the definition of OCB provided by Organ and his colleagues (Organ, 1988) OCBE is defined as “discretionary acts by employees within the organization not rewarded or required that are directed toward environmental improvement” (Daily et al., 2009,). Interestingly, the authors suggested linking OCBE with various plausible determinants and effects.

Using the social exchange framework, the authors developed a theoretical model in which a specific set of determinants like supervisor support, environmental concern, perceived corporate social performance, and organizational commitment were considered to study if they enhance environmental performance through OCBE. However, in the conceptual work of Daily et al. (2009), deals with the specific ways in which OCBE improve environmental performance and the reasons why these behaviors should be encouraged by managers remain unclear. OCBE is a generic concept that operates at various levels: making constructive suggestions, job commitment, civic virtue, etc. Given the diversity of environmental initiatives (Ramus, 2001; Anderson and Bateman, 2000; Boiral, 2009) and the eclectic nature of OCBs (Organ et al., 2006), it seems inaccurate to view OCBE as a monolithic concept.

Boiral (2009) provided a conceptual bridge between OCB and corporate greening by describing the main dimensions of OCB and their possible environmental application. OCBE may be based on helping, sportsmanship, individual initiative organizational loyalty, and self-development. Such potential applications of OCBE can be illustrated by examples showing the diversity of voluntary pro-environmental behavior and how people can contribute to corporate greening at their own level. Based on Boiral (2009), we may assume that OCBE is necessary for promoting the implementation of formal management systems (e.g. ISO 14000), for facilitating employee willingness to share tacit knowledge, and for fostering support in the search for innovative actions or solutions related to ecological or environmental issues in the workplace.

However, as OCBE is derived from OCBs, additional data are needed to determine whether these constructs overlap or are independent. Daily et al. (2009) called for future research to investigate how OCB and OCBE are related. Although OCB and OCBE relate to different topics, both forms of behavior are grounded in the same framework. First, we predict that helping, civic virtue, and sportsmanship and second that eco-helping, eco-civic engagement, and eco-initiatives will emerge as the main factors of OCB and OCBE, respectively. We also predict that the six components will be distinguishable across foci and that these components will not overlap.

Despite the efforts to describe and define OCBE, little attention has been given to develop a measurement scale for OCBE. Measures of OCBE were recently developed based on factor analysis and confirmatory factor analysis by Boiral and Paillé (2012). Two independent studies were conducted. Since the measurements of OCBE are relatively new tools, it is important to confirm the psychometric properties identified by Boiral and Paillé (2012). Study 1 was designed to replicate the confirmatory factor analysis performed by Boiral and Paillé (2012), while the purpose of study 2 was to assess the distinctiveness of OCB and OCBE. Three easily interpretable dimensions of OCBE were explored and validated. They are eco-helping, eco-civic engagement, and eco-initiatives.

Eco-helping reflects a voluntary willingness to help colleagues better integrate environmental concerns in the workplace. Eco-civic engagement relates to voluntary participation in the environmental programs and activities of the organization. Finally, eco-initiatives are a form of discretionary behavior and involve suggestions for improving environmental practices and performance. The results showed that actions reflecting eco-initiative can take different forms directed toward colleagues, the organization and the job. These measurements can be used to collect data to investigate how OCBE is related to the plausible antecedents and outcomes discussed by Daily and her colleagues. In addition, as hypothesized by Boiral (2009), it is now clear that OCBE can take a variety of forms.

Although OCBE is discretionary, EMP can send a positive signal in favour of employee environmental initiatives. “OCBE is defined as a voluntary behavior not specified in official job descriptions that, through the combined efforts of individual employees” helps to make the organization and/or society more sustainable. Several elements of this definition warrant particular attention.

First,OCBE contribute to sustainability, primarily through reducing personal and organizational resource consumption. OCBE differ from sustainability behaviors that individuals perform in general in their daily lives. People who engage in sustainability behaviors perform tasks such as taking action against urban sprawl that threatens a local watershed (Story & Forsyth, 2008), recycling household waste (Tonglet, Phillips, & Read, 2004), or demonstrating a willingness to accept climate change strategies (Nilsson, von Borgstede, & Biel, 2004). These examples paint a generalized picture of behaviors that are largely not required for the daily function of any particular individual but constitute a proactive set of practices that allow society to mitigate human-induced environmental problems in the long run. Similarly, OCBE involve voluntary, proactive environmental behaviors individuals perform, but within the context of their organization. These behaviors “may include such tasks as recycling papers or cans, using proper electronic waste disposal techniques, and energy conservation” (Davis, O’Callaghan, & Knox, 2008). However, unlike efforts taken to promote sustainability in general, OCBE are performed at work.

Second, these tasks are not required by employers or specified in an employee’s job description and are, therefore, “by definition extra-role behaviors” (Ramus & Montiel, 2005). It should be noted that some organizations may have formal policies and procedures mandating sustainable action on the part of employees. Consistent with the definition, these behaviors would not fall under the category of OCBE because they are not discretionary. However, the company’s normative culture matters, too. In the event that an organization has formal rules in support of sustainability that all employees ignore, an individual employee’s sustainability behavior might be considered discretionary and fall under the category of OCBE.

Third, the primary purpose of OCBE is to help the environment. Helping the organization may be an additional, incidental benefit. Although sustainability behaviors are generally accepted as predominantly positive for organizations, they are difficult to implement due to the lack of extrinsic rewards for these behaviors. Performing sustainability-oriented actions may be more time consuming and more expensive than not engaging in these behaviors. Therefore, performing OCBE may actually make completion of job tasks more difficult, whereas the actions remain un-associated with any direct rewards stemming from a performance evaluation. For example, locating the proper receptacles to recycle paper, plastic, and electronic waste takes time and energy. This is a generally shared theme within the OCB literature; employees may perceive demonstration of OCBs as competing with other job demands and as an individual sacrifice in the short term in by exchange for the long-term good

of the organization (Joireman, Daniels, George-Falvy, & Kamdar, 2006). However, if the performance of discretionary sustainability-oriented behavior deviates too much from an employee's job or is completely counter to an organization's wishes, the behavior would cease being OCBE and would more closely resemble counterproductive work behavior (Dalal, 2005).

1.9. THE POSSIBLE DETERMINANTS OF OCBE:

Through prior research works, on Organization citizenship behaviour towards environment, Employee green behaviour, Pro environment behaviour and pro-social behaviour, the following factors which had an established relationship, were included for the study.

1.9.1. Perceived Organization Support(POS):

Perceived organizational support (POS) is the “degree to which employees believe that their organization values their contributions, and cares about their well-being and fulfils socioemotional needs”.Organizational support theory (Eisenberger, Huntington, Hutchinson, & Sowa, 1986; Rhoades & Eisenberger, 2002; Shore & Shore, 1995) holds that employees develop POS in order to meet needs for approval, esteem and affiliation, and to assess the benefits of increased work effort. POS increases employees' obligation to help the organization reach its objectives, their affective commitment to the organization, and their expectation that improved performance will be rewarded. Behavioral outcomes of POS include increase in in-role and extra-role performance and decrease in withdrawal behaviors such as absenteeism and turnover.

1.9.2. Perceived Supervisory Support (PSS):

Perceived Supervisory Support is defined as the “degree to which supervisors value the contributions, opinions or gestures of their subordinates and care about their well-being” (Rhoades and Eisenberger 2002). As such, PSS has been conceptualized to explain why subordinates display commitment to their supervisor. Kottke and Sharafinski (1988) developed a measurement to capture PSS. In addition, they found that employees reported more support from their supervisor than employers. Following Ramus (2001), a supportive supervisor may be said to encourage new ideas, is open-minded, provides regular training to subordinates, shares critical information, rewards efforts and shows a sense of responsibility.

1.9.3. Perceived Organization Justice (POJ):

Organisational justice, first postulated by Greenberg in 1987, refers to an employee's perception of their organisation's behaviours, decisions and actions and how these influence the employees own attitudes and behaviours at work. Organizational justice concerns how employees view fairness in places of employment. Employees want to work for fair and ethical companies and be treated with respect. Organizational justice concerns employees' perceptions of fairness within a company. Distributive, procedural, and interactional are the three types of organizational justice that companies must embrace in order to have happy and productive employees.

1.9.4. Perceived Opportunity for Rewards (POR):

Something that is given in return for good or evil done or received or that is offered or given for some service or attainment; a stimulus administered to an organism following a correct or desired response that increases the probability of occurrence of the response. A reward is a consequence that occurs after an employee's job performance and makes that performance happen more often. Whether a consequence functions as a reward depends on its effect. If an employee's job performance is followed by a consequence and the job performance occurs more often, then that consequence was a reward. On the other hand, if the job performance doesn't happen more often, then the consequence was not a reward.

1.9.5. Environmental Concern (EC):

Environmental concern is a complex concept, which has many facets because of the complex structure of the human environment and even the more complex composition of human-environment interactions. It is defined as an individual's relatively enduring beliefs and feelings about ecology such that predispositions to engage in pro-environmental actions could be anticipated. (Weigel & Weigel 1978). It is also a concept of culture based on many branches of science and civics namely, ecology, biology, geography, physics, chemistry and geology, history, sociology, ethnology, politics, technology, etc. In a concise sense it means advocacy for or work toward protecting the natural environment from destruction and pollution and it is theoretically backed by the research findings "that environment rather than heredity is the primary influence on intellectual growth and cultural development". Hutchins (1968) defines an ideal society as one that "develops intellectual mind".

All cognitive and constructivist theories of learning, value the social influence upon personality development of individuals. It is through culture that human beings understand their interaction with the environment, but culture co-evolves with evolution of concepts. Environmental concern implies worldwide efforts to bring environmental education to the

forefront of students' lives, "a belief in and active concern for the state of Earth's natural resources and for the importance and influence of environment within a society." In ethical terms, it is "a necessity for sharing and conservation, having a responsibility for our environment. Environmental problems are brought to lime light through scientific knowledge, activists' efforts and media attention, that is, through social processes".

Therefore, to understand, apply and interpret the concept of environmental concern, it is important to view the successive stages of the understanding of the concept "environment" and human attitudes to it.

1.9.6. Personal Norms (PN):

Personal norms are defined as moral norms concerning one's own responsibility, which are composed of personal normative beliefs (Schwartz, 1973). A crucial aspect of norms is that people are not bound to comply. People may have distinct norms but might not be aware of adverse, interpersonal consequences of their behavior or might not believe themselves capable of averting these consequences (Schwartz, 1973, 1977; Stern et al., 1999), and thus act as if these norms were non-existent. Regression analysis of proenvironmental behavior and willingness to pay higher prices for environmentally friendly behaviour showed that the indicator of a personal norm was strongly related to proenvironmental behavior and willingness to pay, respectively, than the 'New Ecological Paradigm scale' (Örjan Widegre, 1998).

1.9.7. Job Satisfaction (JS):

Vroom defines *job satisfaction* as "affective orientation on the part of individual towards work roles they presently occupy". It is also defined as "The pleasurable emotional state resulting from the appraisal of one's job as achieving or facilitating the achievement of one's job values and the extent to which people like (satisfaction) or dislike (dissatisfaction) their job". Job satisfaction or employee satisfaction has been defined in many different ways. Some believe it is simply how content an individual is with his or her job, in other words, whether or not they like the job or individual aspects or facets of jobs, such as nature of work or supervision.

1.9.8. Organization Commitment (OC):

Porter et al (1974), describes organisational commitment as "an attachment to the organisation, characterised by an intention to remain in it; an identification with the values and goals of the organisation; and a willingness to exert extra effort on its behalf".

In organizational behaviour and organizational psychology, organizational commitment is viewed as the individual's psychological attachment to the organization.

1.9.9. Environmental Values (VAL):

Values refer to the Worth that a community or society places on environmental goods or services such as aesthetic and recreational facilities and resources. Net impact of an organization's activities on the environment over a specific period. It is a measure of the extent to which the organization is eating into or preserving environmental capital. Research examining the relationship between values and environmental behavior has focused primarily on two of Schwartz's value categories: self-transcendence and self-enhancement. Karp (1996) found that values of self-transcendence were positively correlated with self-reported environmental behavior. In contrast, self-enhancement values were negatively correlated with both environmental attitudes and self-reported behavior (Stern, Dietz, Kalof, & Guagnano, 1995). However, the direct relationship between values and environmental behavior tends to be rather small (and in the case of self-enhancement, negative). There are two ways by which values can be related to Environmental Issues, one is all about, four value clusters namely, self-interest, altruism, traditionalism, and openness to change. And it was found that these clusters have explained, relatively consistent theoretical and empirical support on values towards environmentalism. The other way suggests that environmentalism emerges when individual's basic material needs are met. And those who are post-materialistic in their values, are more likely to exhibit pro-environmental behaviors.

1.9.10. Environmental Beliefs (BEL):

Beliefs are concerned with a specific characteristic attributed to a behavior rather than an overall evaluation. The New Ecological Paradigm (NEP), designed to measure of environmental beliefs (Dunlap, 2008), assesses "beliefs about nature and humans' role in it" (Dunlap et al., 2000). The scale in its original as well as revised versions has enabled researchers to assess environmental beliefs in different contexts (Dunlap, 2008). There are three dimension of environmental beliefs that are assessed (e.g., Besthorn, 2008): "anti-anthropocentrism," "the fragility of nature's balance," and "the possibility of an eco-crisis." Anthropocentrism is defined as "human domination" or "humanity's right to rule over the rest of nature" and the belief that "nature exists primarily for human use and has no inherent value of its own" (Dunlap et al., 2000). Anti-anthropocentrism refers to rejection of anthropocentrism. As the revised NEP Scale is designed to measure pro-environmental beliefs, high scale scores

correspond to the rejection of anthropocentrism (anti-anthropocentrism). A second dimension, “the fragility of nature’s balance,” refers to “humanity’s ability to upset the balance of nature” (Dunlap et al., 2000, p. 427). A third dimension, “the possibility of an eco-crisis,” refers to “the likelihood of potentially catastrophic environmental changes or ‘ecocrises’ besetting humankind” (Dunlap et al., 2000).

1.9.11. Perceived Behavioural Control (PBC):

Perceived Behavioral control, refers to the perception of the ease or difficulty of the particular behavior of an individual. It is linked to control beliefs, which refers to beliefs about the presence of factors that may facilitate or impede performance of the behavior. A high level of PBC should enhance individual’s intention to perform the behavior, and the low level PBC brings down the motivation to perform the behavior. A Special Issue on *Contemporary Research in Business and Economics* has stated that PBC is useful in “assessing an individual’s actual control for a specific situation”. It is likely to affect intentions and change behavior indirectly. Therefore, it is considered to be an important predictor of behavior (Ajzen, 2002).

1.9.12. Environmental Efficacy (EE):

Believing that one’s personal pro-environmental behaviors have a positive impact on negative environment conditions is considered as an important determinant of pro-environmental behavior (Iwata, 2004). The impact of an intervention on important outcomes, including potential negative effects, quality of life, and economic outcomes. A positive correlation between environmental self-efficacy and pro-environmental behavior was established, using environmental self-efficacy as a predictor variable of pro-environmental behavior, and confirmed the robustness of self-efficacy on environmental issues as a classic predictor of behavior (Juneman Abraham et al, 2015). Saribas, Teksoz, and Ertepinar (2014) stated that high self-efficacy enables that someone has to do persistent work compared with people with low self-efficacy. In addition, they found that environmental self-efficacy of an individual influences his/her environmental concerns. O Neal et al. (2012) considers his psychometric research on environmental self-efficacy, to be important in the field of environmental psychology. “A person’s beliefs about how efficacious his or her behaviour is for achieving desired outcomes are commonly referred to as self-efficacy” (Kerr, 1992; Van Lange et al., 1992). “Self-efficacy is assumed to be another important determinant of behavioural intentions, and indirectly, of actual behaviour” (Fishbein and Cappella, 2006).

1.9.13. Willingness to Sacrifice (WS):

Willingness to sacrifice is defined in terms of “the readiness to forego immediate self-interest to promote the well-being of a partner or a relationship, or something on social interest” (Paul A. M. Van Lange & Francesca Righetti, 2013). Individual express willingness to sacrifice towards environmental issues (OECD, 2014). As per a survey (PEW research Centre, 2010), Even though the Chinese are less likely than most other publics to consider global warming a very serious problem, they are by far the most willing (91%) to see prices rise to cope with this challenge. Indians (73%) and South Koreans (71%) agree. In comparison, Jordanians (21%), Pakistanis (20%) and Egyptians (20%) are the least willing pay more.

1.9.14. Perceived Threat (PT):

Personal environmental threat is a better predictor of overall environmental practices than are demographic variables and political factors. Perceived environmental threat is highest among younger residents, women, liberals, and Democrats. Future directions for research on perceived environmental threat in particular, and environmental concern in general, are discussed (Mark Baldassare, 1992) Threat perception has emerged as a possible determinant of pro-environmental behaviors (e.g., Vining & Ebreo, 2002). Some have argued that there may be an optimal level of perceived threat in fear appeals as it relates to motivating behavioural change (e.g., Jones & Owen, 2006). If an individual perceives the threat level to be too great, they may become overwhelmed and react in an adverse manner both physically and psychologically. Too little threat may have the opposite effect and encourage people to ignore the message.

1.10. ELEMENTS OF ENVIRONMENT MANAGEMENT SYSTEM (EMS):

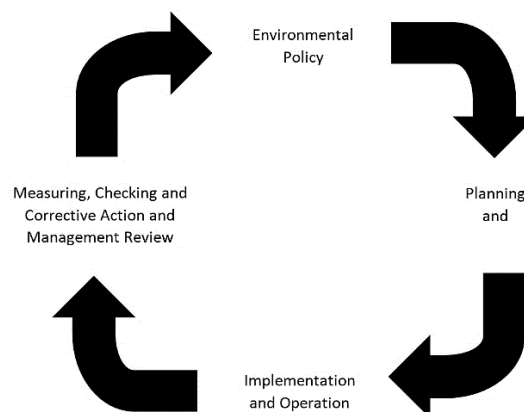
Environment Management System can be defined as formal practices aimed at integrating environmental concerns in organizational management and at providing stakeholders with tangible evidence of the environmental commitment of the organization, including the implementation of an environmental policy, the adoption of ISO-norm 14001 and environmental reporting.

From a managerial perspective, companies should be aware that the implementation of an EMS under ISO14001 is not merely a formality but also triggers effects in all the organization’s structural dimensions. There are two key aspects that must be considered: First, holding a quality certification under ISO 9001 means that the changes that take place are

fundamentally incremental and that synergies can be obtained. Second, to produce more profound effects, the energy and commitment experienced at the time of the EMS certification have to be maintained over time. With regard to this latter point, management involvement is a crucial factor in boosting the emergence of real behavioural changes.

An environment management system promotes continual improvement in environmental performance. These elements are connected in what is referred to as a “Plan, Do, Check, Act” cycle of continuous improvement. While different groups may use different terms, we have kept with the standard and most frequently used environmental management terminology.

1.2 Figure showing Environmental Management System



Source : A brief history of Environmental Management systems

1.10.1. Environmental Policy:

Establishment of an environmental policy by the President, Chancellor or other top management that is documented and widely communicated. The policy should include a commitment to continual improvement, pollution prevention, regulatory compliance and a management framework.

1.10.2. Planning:

A planning phase that covers the identification of key environmental impacts associated with activities and operations, compliance with legal requirements, commitments in the form

of objectives (e.g., goals), targets (e.g., timelines, specific reductions) and definition of programs to achieve the specified objectives and targets.

1.10.3. Implementation and operation:

Includes the definition and communication of roles and responsibilities, including authority and accountability, development and deployment of operating procedures and written programs, training of relevant faculty, staff and other personnel, and identification of operational controls and emergency response procedures to prevent and respond to environmental incidents.

1.10.4. Checking, Corrective Action and Management Review:

Includes monitoring and measuring key environmental parameters to assess performance, conducting audits and assessments, corrective action procedures in the event that specified practices are not followed or in response to environmental incidents and procedures for auditing the performance of the EMS to support continued feedback and improvement. Periodic reviews by senior leadership to ensure the suitability, adequacy and effectiveness of the EMS.

1.11. MEASURING THE ENVIRONMENTAL PERFORMANCE

Corporate environmental performance indicators are usually divided into three main categories:

- 1) Environmental impact which includes, toxicity, emissions, energy use, etc.
- 2) Regulatory compliance which includes, non-compliance status, violation fees, number of audits, etc., and
- 3) Organizational processes which includes, environmental accounting, audits, reporting, Environmental Management System, etc.

Companies use different mixes of the above categories, as per their process requirement. System for Award Management (SAM), an organization which reports on environmental issues, focuses on eco-efficiency and environmental reporting along with industry-specific criteria. KLD Research & Analytics, Inc. analyzes and selects firms based on *strengths* and *concerns* in the following categories: products and services, operations and management, recycling and climate change (Waddock & Graves, 1997).

Socially responsible investors strongly believe that, evaluating corporate environmental performance is another way of evaluating financial performance. They analyze the company's performance on environmental, social, and strategic governance issues, with a particular focus on their impact on competitiveness, profitability, and share price performance. This help them to uncover hidden risks.

1.11.1.Benchmarking

One way of measuring company's performance is to compare it against best-in-class companies with similar operations. This measurement technique is called benchmarking. Benchmarking is defined as a process of comparing and measuring an organization's business processes against best-in-place operations to inspire improvement in the organization's performance. A good example of a benchmarking study is the program developed by a group of northeastern utilities led by Niagara Mohawk Power Corporation from 1992 to 1995. A simple type of benchmarking is to compare an organization's performance against the average number of events in a particular category for the industry as a whole.

1.11.2.Environmental Performance Indices:

An environmental performance index (EPI) is used in measuring environmental performance. Worldwide, companies that have developed EPIs include the Niagara Mohawk Power Corporation, a northeastern electric utility; Nortel, the Canadian-based telecommunications firm; Rhone-Poulenc, the French chemical and pharmaceutical company; J.M. Huber Corporation, a diversified company and Polaroid Corporation, the imaging company. An EPI usually consists of one number or a score that represents an aggregation of the environmental performance of all of a company's operations. It is benchmarked against a base year. For example, an index rating of 153 might indicate that corporate performance has improved substantially from the base year value of 100. Since EPIs are constructed in different ways, the concept is best illustrated with an example. Nortel has developed one of the best-known EPIs. The Nortel system considers 25 performance parameters in 4 broad categories:

- Compliance: Notices of violation, fines and incidents
- Environmental releases: releases to air, water, land and the global environment
- Resource consumption: thermal energy, electricity, water consumption, and paper purchases
- Environmental remediation: number of remediation sites and risk factors

1.11.3. ISO 14001

ISO 14001 is another type of indicator which measures, if the elements of environment management system are in place. The check list includes, environmental policy, planning, implementation and operation, checking and corrective action, and management review. ISO 14001 does not establish absolute quantifiable requirements for environmental performance beyond commitment, in the policy, to compliance with applicable legislation and regulations and to continual improvement. “Environmental management system of an organization can be audited against the various elements, in order to determine if it is ISO certified.”

ISO 14031 standard, another addition to already existing system, “Environmental Performance Evaluation” defines a third general type of indicator, called an environmental condition indicator (ECI) which is defined as an “a measurement of a quality or property of a component of the environment.”

1.11.4. Global Reporting Initiative

(GRI) a prominent organization in the field of sustainability, encourages sustainability reporting. It further insists, through sustainability reporting organizations can march towards sustainable development. As per GRI, a “sustainability report, is a report published by a company or organization about the economic, environmental and social impacts caused by its everyday activities”.

1.11.5. Sustainability report

also presents the organization’s values and governance model, and demonstrates the link between its strategy and its commitment to a sustainable global economy. Sustainability reporting helps organizations to measure the environmental impacts they cause or experience, set environmental goals, and manage change. A sustainability report is the key platform for communicating sustainability performance and impacts – whether positive or negative. An effective sustainability reporting provides the following benefits to all reporting organizations.

1.11.5.1. Benefits of sustainability reporting: sustainability reporting provides internal as well as external benefits.

- Sustainability reporting motivates the organisation to find out the risk in the long term and to meet out risk and their effect on cost as well as on revenue.

- It enhances the goodwill among the different stakeholder and solves their problem regarding the organisation and improves their rights and condition in the organisation.

On the basis of the different companies' sustainability reports, it has been found out that they deal with a list of stakeholders, which include, shareholders, investors, government and different regulatory bodies, employees, customers, communities, business partners and contractors, media, academic institution, suppliers, industry association, and NGOs. These stakeholders directly or indirectly affect the companies or vice-versa.

1.12. THE 'INFORMATION TECHNOLOGY' SECTOR:

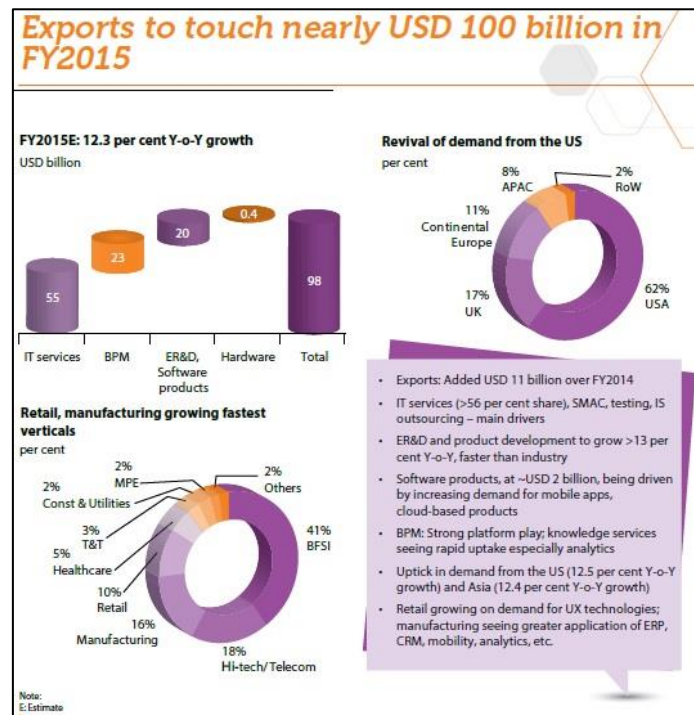
The information Technology sector, the premise for the present study, is considered as pioneer in implementing go green initiatives. The main reason being most of them are multinational companies and it is mandated by the UN, to satisfy environment regulations across all countries. Second, as they are the major consumers of energy, they are striving hard to compensate the damage done to the environment. As the process produces more heat, and the working environment need to be maintained in low temperature, using air conditioners and coolers, this sector consumes more of electricity.

Implementing green practices has never been a tough task in this sector.

The reasons are as follows:

- Capital equipment in other sectors last longer, whereas in this sector the equipment need to be turned over, every three to five years. Whenever the equipment are turned over, a more energy efficient equipment is replaced, thus greening the new investments.
- This sector is known by its technological upgradation. They indulge in complex technical decisions every now and then, and greening their process is just one more factor to consider.
- Information Technology also helps other processes in the organization like Virtual travel, video conferencing, telecommuting, and so on, which take relatively little energy.

1.3 Figure showing Growth of IT industry



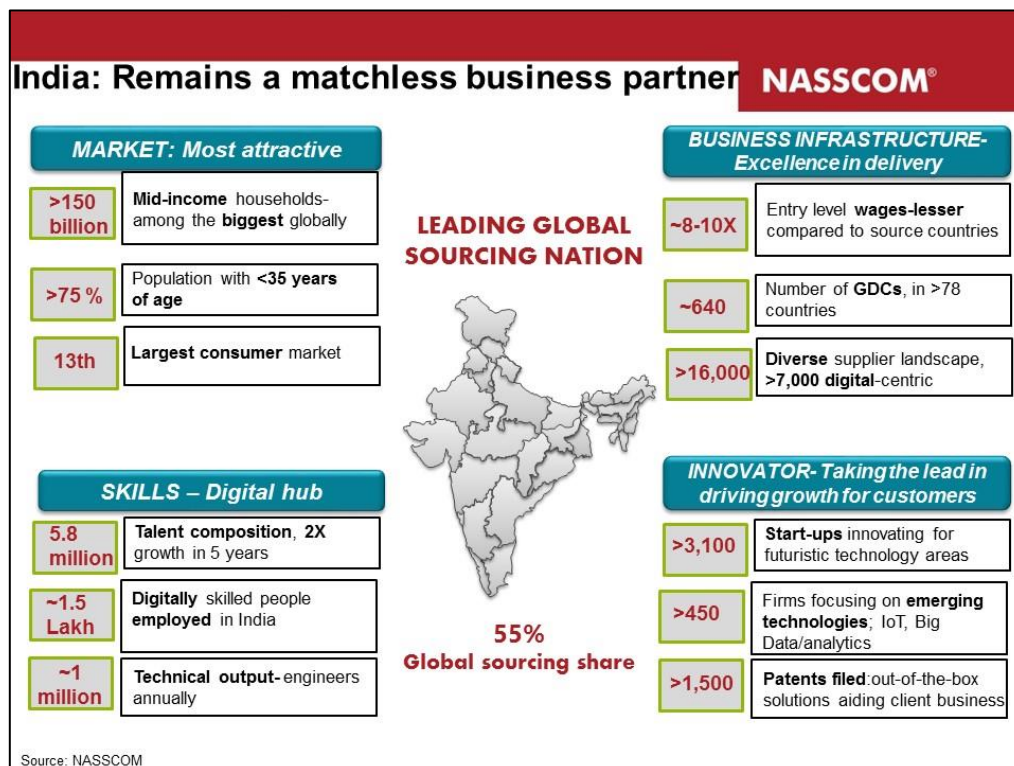
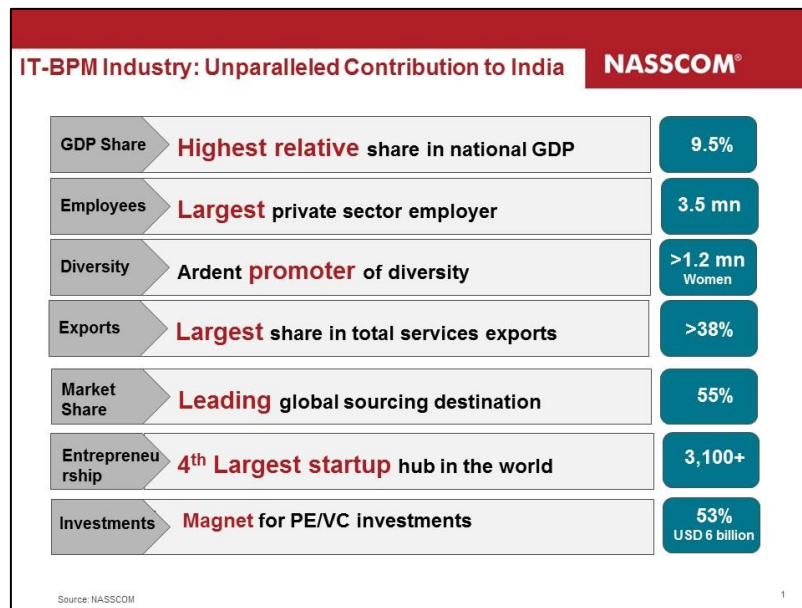
Source : Gartner Report (2014)

As per the report by Gartner, a leading research and advisory firm, India will be spending more than \$70 billion on IT and sustainability initiatives, in 2016, as compared to that of \$35 billion in 2010.

Gartner in its , ‘Hype Cycle for Green IT and Sustainability in India, 2012,’ states that green IT and sustainability are emerging as key concerns for businesses, investors and technologists across industries and policymakers in India. Though many technologies are available, government policies will eventually drive green IT and sustainability solutions adoption by Indian enterprises.

The government’s annual Indian Economic Survey, 2011-2012, had introduced a chapter on sustainable development and climate change, for the first time. As per the survey the central element of India’s 12th five year plan which commenced on April 2012, is ‘low-carbon sustainable growth’. This will set the stage for future policy initiatives and regulatory measures of the Indian government which will initiate implementation of technologies like solar energy technology, eco-labels and foot prints, e-waste, water management, advanced metering infrastructure, carbon capture and sequestration, intelligent transportation system, building integrated PV systems, combined heat and power technology, and distributed power generation- necessary to bring down energy usage.

1.4 Figures showing excerpts of IT Industry



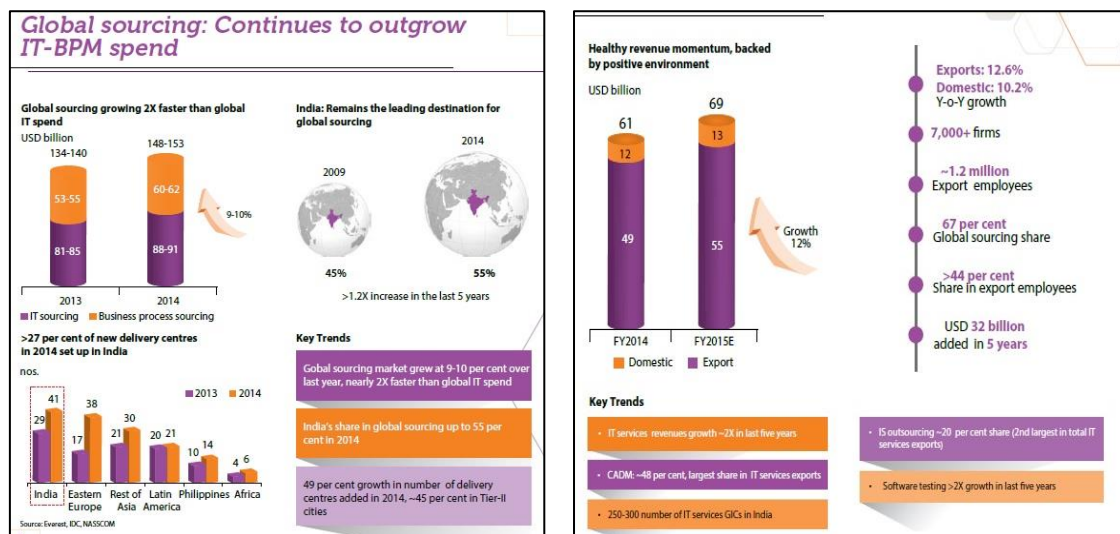
Source : NASSCOM

Many IT companies in the country have implemented green IT and sustainability solutions, and are incorporating them into business operations. As per the Nasscom report in 2014, The information technology sector, has got the highest relative share in national GDP, Largest Private sector employer, has got the largest share in total service exports and also the leading global sourcing destination. Few of them are still striving hard to understand the core

issues and key technologies, so as to mitigate the environmental impact and improve energy conservation.

However, mitigation alone, will not help us to tackle climate change challenges, we need to adapt and prepare ourselves to fight climate change. Hence the IT sector is all set to invest in research & development in adaptation technology, which are home- grown and tailored to local conditions.

1.5 Figure showing the Global sourcing in IT Industry



Source : NASSCOM

As per Nasscom, The Indian IT industry, which has got an employee base of more than 3.5 million, can motivate them to become 'green warriors' that is environment-friendly citizens, who would bring in awareness on greening the society.

Nasscom, has already sprang into action, with a three-point agenda, so as to bring in environmental awareness in the society and they are as follows:

- Make the IT sector, adopt green technologies and practices.
- Help other industries become greener using IT, and
- Transform the IT-BPO sector's employees into green crusaders.

The first imperative, turning the IT industry green, is a low hanging fruit. Companies that have new campuses, have come up with environment –friendly green buildings. Some companies have 'greened' their old campuses. Which means that most of the It companies,

have green buildings, use green computing infrastructure such as energy-efficient data centres and power-efficient PCs and they also have good e-waste management policies.

Bengaluru-based IT services firm Frontier Business Systems, for instance, has set up a new green facility at an investment of \$4 million, the building scores highly on key environmental categories such as indoor air quality, energy and water efficiency. The green building also hosts a green data center and showcases green virtualisation solutions.

Secondly, IT will have a role in implementing smart grids, smart meters that could help monitor electricity consumption in real time, in intelligent transport systems. Further the firms can provide solutions in green IT category include cloud computing, video-conferencing, Web-conferencing, motion and heat detection sensors.

Nasscom had formed three working groups in January, 2013, with representation from the government, industry, NGOs, and consultants. The groups will define a roadmap over the next 12-24 months. Nasscom is all set to work with the government on various green initiatives. “A 25-30-year environmental insurance and third party monitoring of projects could be one way to mitigate the threat to bio-diversity”, a senior Environment Ministry official has said.

In today's information age, plenty of news reports and corporate pronouncements on environmental stewardship abound. However, these show only a sample of the full breadth of activity underway business leaders and practitioners are exposed daily to fray of news and magazine articles, television programming, green advertisements, organization announcements, and company press release that describes plans, new products, and business benefits from initiatives that improve the environment.

One hears about business benefiting from revenue growth that has come from products, services and business model innovations that are in line with green stewardship. Others benefit from purchasing and using those products and services, from both increased efficiency and lower costs. The global environment also benefits from lower greenhouse gas emissions and less resource consumption.

Over the last ten years, green stewardship has gripped the collective intellect of the conscious mind. Environmental issues have challenged ourselves and started many global initiatives to respond to critical issues such as global climate change and resource depletion. As a result, attitudes toward the environment are changing to encourage innovation in conservation. The benefits that arise will outlive our current generation. The Indian regulations,

to implement the National Action Plan on Climate change and other guidelines like the extended producer Responsibility (EPR), are getting framed and have started to get rolled out to incentives such behaviors and penalize the non-starters. All business, whether on their own or under pressure, will have to join the green bandwagon some day and the soon that happens, the better for them as well as for the civilization.

CHAPTER 2

EVOLUTION OF THE CONCEPT

2.1. THE HISTORY OF ENVIRONMENTAL SUSTAINABILITY:

Globally, the concept of environmental sustainability dates back to 1850's with the destruction of California's virgin forests which led philosopher and poet James Russel Long fellow to call for a society dedicated to protect trees. Rachel Carson's Silent Spring, a book on the global problems of herbicides and pesticides written 1962, heralded the arrival of the environmental era. In 1960s environmental economics, emerged as a separate branch of economics. During this period, it was believed that growth & development and protection of the environment could not go hand in hand. Hence most of the theories on environmental issues that were developed during this period were anti-growth. On April 22nd 1970, the first earth day was declared, followed by various measures on environmental protection. In the same year U.S

clean water act was passed by congress, which was also followed by an environmental protections act.

The first Earth Summit was held in 1972, which led to the establishment of the United Nations Environment Program (UNEP). During this decade, there were some environmental economists who were optimistic enough to state that the resources will never be completely exhausted. They were also confident that technological changes like recycling and reusing, in order to conserve resources, as well as developing substitutes for natural resources were bound to take place. The “Magna Carta” declared in the first United Nations Conference on ‘Human Environment’ held in June 1972 at Stockholm was “to defend and improve the human environment for present and future generation have become an imperative goal for mankind”

The Club of Rome's renowned, “The Limits to Growth” (Meadows et al, 1979), concluded that even though there are optimistic assumptions about the inexhaustive nature of the natural resources, the earth could not support the rate at which the world's population and economy were growing for more than a few decades.

There was a shift in thinking in the 1980s. The concept of ‘zero growth’ was replaced by sustainable development, which essentially involves meeting the needs of the present without compromising the ability of future generations to meet their own needs

Though Sustainable development is defined by several people in various aspects, the definition which is considered most important and accurate is the one put forth by Brundtland commission report on environment and development-Our Common Future (1987) stated that “Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs”.

A Blueprint for a Green Economy by Pearce, Markandya and Barbier's (1989), was one of the first attempts which stated that economic growth and environment conservations, necessarily not be incompatible. They further explained that through market forces and regulations, sustainable development might be achieved. It was during this period, environmental organizations like Greenpeace and Friends of the Earth, came up.

The second Earth Summit in Rio de Janeiro, which happened in 1992, is considered to be the period of strategic action, both by the government and the corporate world. It was then that leading companies had begun to regard environmental management as a strategic tool for gaining competitive advantage. In most western countries, governments came up with the

‘Polluter pays’ principle, which affected the businesses, heavily. It was in the same year, ‘United Nations Framework Convention on Climate change’ (UNFCCC) was launched, recommended by the conference on environment and development

In the UK and Ireland, concepts like BATNEEC (best available techniques not entailing excessive costs) and BPEO (best practicable environmental option), sprung up. They insisted on striking a balance between environment conservation and economic growth.

As an extension of UNFCCC, in 1997, The Kyoto Protocol, an international treaty was passed, which required commitment from the states to reduce greenhouse emissions. It was to uphold the thinking that the alarming concern of global warming was caused by the man-made CO₂ emissions.

In the year 2012, the United Nations Conference on Sustainable Development was also held in Rio, which led to the development of 14000 certifications and also creation of a study group to determine the environmental standards.

Thus the concept of anti-growth and other steady-state theories that emerged during the 1960s and 1970s, are now being largely replaced by the concept of sustainable development. Moreover, theories of corporate strategy are also slowly incorporating environmental problems and concerns.

As far as India is concerned, environmental movement dates back to 18th century, which started off with Chipko movement by Amrita Devi and few women from Rajasthan. They stood against felling of trees as ordered by the king, just by clinging to the trees, not letting them to be cut down. This was later followed by all women who lived in villages and hilly areas, so as to save their habitat.

In 1962, the Kerala sasta sahidhya parishad, forced the authorities to abandon the silent valley project, which is a hydro-electric project. Now this stands as a powerful movement with more than four lakh members. In 1980, Sunderlal Baguhuna, revived Chipko movement in Himalayas, against felling of trees.

In 1983, Panduranga Hegde, started a movement called Appiko in Karnataka in the footsteps of Chipko, which brought awareness among the states in southern India. In 1985, Medha patkar started off the Narmada Bachao Andolan project, forcing the authorities to abandon the construction of dam on river Narmada.

In the footsteps of such movements, last two decades of this century have witnessed an undisputed consensus for the need of a realistic environmental management drive across the country. This effort was embarked on since the harmful effects of diverse pollutants amongst which the industrial wastes being the main offender that has been deteriorating and depleting the natural resources in a very fast manner, has been proved.

Recent developments in theory and research give hope for building the understanding needed to effectively alter human behaviors that contribute to environmental problems. This article develops a conceptual framework for the theory of environmentally significant individual behavior, reports on developments toward such a theory, and addresses five issues critical to building a theory that can inform efforts to promote pro environmental behavior.

Environmentally significant behaviour can reasonably be defined by its impact: the extent to which it changes the availability of materials or energy from the environment or alters the structure and dynamics of ecosystems or the biosphere itself (see Stern, 1997). Some behavior, such as clearing forest or disposing of household waste, directly or proximally causes environmental change (Stern, Young, & Druckman, 1992). Other behavior is environmentally significant indirectly, by shaping the context in which choices are made that directly cause environmental change (e.g., Rosa & Dietz, 1998; Vayda, 1988). For example, behaviors that affect international development policies, commodity prices on world markets, and national environmental and tax policies can have greater environmental impact indirectly than behaviors that directly change the environment. Through human history, environmental impact has largely been a by-product of human desires for physical comfort, mobility, relief from labour, enjoyment, power, status, personal security, maintenance of tradition and family, and so forth, and of the organizations and technologies humanity has created to meet these desires.

Individuals may significantly affect the environment through behaviours such as influencing the actions of their organizations. For example, Maintenance workers can reduce or increase the pollution, through their decisions on environmental management. Engineers can come out with a manufacturing design, in an environmentally friendly way. Bankers may include environmental factor in their investment decisions. “Such behaviors can have great environmental impact because organizational actions are the largest direct sources of many environmental problems” (Stern & Gardner, 1981a, 1981b; Stern, 2000).

2.2. THEORETICAL FOUNDATIONS:

Bamberg and Moser (2007), Ones and Dilchert (2012a), have identified three dominant theories along with their basic premises:

- The norm-activation model- the triggering role of moral norms
- The theory of planned behavior- the role of rational choices
- The value-belief-norm theory- the driving role of personal values,

which are designed to explain the processes underlying proenvironmental behavior in non-work settings.

Andersson, Shivarajan, and Blau (2005) failed to demonstrate the relevance of the value-belief-norm model to the examination of proenvironmental behavior in work settings. Based on their results, they concluded that pro-environmental behavior at work and proenvironmental behavior in the private sphere may be explained by different determinants.

Organizational support theory (Eisenberger, Huntington, Hutchison, & Sowa, 1986; Shore & Shore, 1995) supposes that to determine the organization's readiness to reward increased work effort and to meet socioemotional needs, employees develop global beliefs concerning the extent to which the organization values their contributions and cares about their well-being.

Several theoretical frameworks have been used to explain proenvironmental behaviour (PEB) in the workplace. Such frameworks include the Value-belief-norm (VBN) theory (Andersson, Shivarajan, & Blau, 2005; Scherbaum, Popovitch, & Finlinson, 2008), the cognitive theory of stress (Homburg & Stolberg, 2006) and the theory of planned behaviour (TPB) (Greaves, Zibarras, & Stride, 2013). Contrary to Scherbaum et al. (2008), Anderson et al. (2005) concluded that VBN theory cannot be generalised in work settings.

2.2.1. Theory of Planned Behaviour:

According to the theory of planned behaviour, the most proximal predictors of behavior or behavioural intentions, which are antecedent by

- (a) The extent to which individuals hold a favourable attitude toward the behavior,
- (b) Individuals' perceptions of the norms and conventions regarding the behavior, and
- (c) The extent to which the individual perceives the behavior at hand to be under his or her personal control.

Several studies have demonstrated the theory's value in predicting proenvironmental behaviors (e.g., Boldero, 1995; Sparks & Shepherd, 1992; Taylor & Todd, 1995, 1997). For example, Boldero (1995) found that intentions to recycle newspapers directly predicted actual recycling and that attitudes toward recycling predicted the recycling intentions. In another study, attitudes toward green consumerism, subjective norms, and perceived control were all significantly related to individuals' intentions to consume organic vegetables (Sparks & Shepherd, 1992).

Also in line with the theory, Taylor and Todd (1995) found that both attitudes toward recycling and perceived behavioural control were positively related to individuals' recycling and composting intentions. In another study, Cheung et al. (1999) found all three predictor variables (i.e., attitudes, norms, and perceived behavioural control) to predict intentions to recycle wastepaper and in turn recycling intentions predicted actual recycling behavior.

2.2.2. Value-Belief Norm Theory of Environmentalism:

In a recent series of articles, Stern and colleagues (e.g., Stern, 2000; Stern, Dietz, Abel, Guagnano, & Kalof, 1999; Stern, Dietz, & Guagnano, 1995; Stern, Dietz, Kalof, et al., 1995) applied a version of Schwartz's (1977, 1973) moral norm-activation theory and developed and tested the value-belief norm (VBN) theory of environmentalism—a conceptual framework to explain environmentally significant individual behavior. According to the theory, proenvironmental behaviors stem from acceptance of particular personal values, from beliefs that things important to those values are under threat, and from beliefs that actions initiated by the individual can help alleviate the threat and restore the values (Stern et al., 1999).

In line with Ajzen's (1991) notion that beliefs ante cede behavioural intentions, which in turn ante cede actual behavior, Stern and colleagues demonstrate a causal process in which environmental beliefs (e.g., adverse consequences for valued objects, perceived ability to reduce threat) ante cede behavioural norms (i.e., intentions), which in turn ante cede actual proenvironmental behaviors such as participating in proenvironmental demonstrations or donating money for environmental groups. VBN adds to Ajzen's causal chain by demonstrating that environmental beliefs are ante ceded by personal values (e.g., altruistic values, egoistic values).

The theoretical value of these findings notwithstanding, they are based on simple regression analyses. Where path models are hypothesized, some form of path analysis is required to truly demonstrate mediation effects. If it is hypothesized that B mediates the

relationship between A and C (i.e., $A \rightarrow B \rightarrow C$), it is not enough to show links between A and B and between B and C (Baron & Kenny, 1986).

Cheung et al. (1999) employed a large multinational sample that allows for the implementation of structural equation modelling (SEM) analyses, which are optimal for testing such mediation models. Furthermore, he goes beyond models based on Ajzen's (1991) and Schwartz's (1977) theories by incorporating the broader context within which personal-level attitudes and behaviors are formed, namely the cultural context. Thus, they proposed a model that presents harmony (Schwartz, 1994) and post materialism (Inglehart, 1977)—two nation-level values—as preceding individual-level environmental attitudes and behaviors. (e.g., Hofstede, 2001; Schwartz, 1994).

Three of the most widely employed models of cultural value systems are Hofstede's (2001) five-dimensional theory, Inglehart's (1997) theory of materialist and post materialist values, and Schwartz's (1994, in press) theory of cultural value orientations. Works by all three have demonstrated value differences across countries such one framework proposed to explain factors affecting the relationships between job attitudes and employee behavior is social exchange theory (Konovsky & Pugh, 1994).

This theory's basic tenet is that individuals feel obligated to reciprocate in some way when others treat them well or reward them. This concept is also contained in the "norm of reciprocity": when an organization treats employees well, the employees reciprocate in some way (Bateman & Organ, 1983; Schnake, 1991). In an organizational context, organizations treat employees well via opportunities for reward, kind treatment, or showing commitment towards the employees (Brown & Leigh, 1996; Netemeyer et al., 1997). Employees who recognize this positive support then have more favourable attitudes (e.g., higher job satisfaction, job involvement, or organizational commitment) and may reciprocate through effort exerted towards performing well on the job or serving the organization.

This notion of exchange also is central to psychological contract theory, which takes the reciprocal nature of these relationships one step further, suggesting that employees are bound by an unspoken contract to return in kind the benefits bestowed upon them by the organization for which they work (Schein, 1965). Eisenberger, Armeli, Rexwinkel, Lynch, and Rhoades (2001) found evidence in support of this reciprocal exchange in employee-organization relationships. Specifically, these authors investigated the relationship of Perceived Organizational Support (POS) and several outcome variables (i.e., job attitudes and

in-role performance), and found that POS was positively related to employees' feelings of obligation to support their organization, which in turn related to affective organizational commitment and in-role performance.

2.2.3. Stakeholders' Theory:

Stakeholder theory was originally detailed by Freeman and Reed (1983). The idea of the theory is that corporations should be run in ways that are sustainable. In other words, companies should be accountability not only to shareholders but also to the broader set of stakeholders. Flak and Dertz (2005) pointed out that the stakeholder theory is a primarily management instrument; the attributes of power, urgency, and legitimacy of claims defining the corporations' stakeholders. The theory assumes that the corporation can enhance the interests of its stockholders without damaging the interests of its wider stakeholders. Therefore, it takes into account both groups; stockholders and stakeholders.

In general, stakeholder theory can be classified into normative, instrumental, and descriptive approaches (Berman, Wicks, Kotha, & Jones, 1999; Donaldson & Preston, 1995; Freeman, 2010). The instrumental approach of the theory assumes that certain results will be gained if managers treated stakeholders in certain manner (Berman, et al., 1999). They added that corporations consider the stakeholder management as a toll to achieve the corporations' objectives, which can be profits, assure revenues, etc. managing stakeholder interests can improve the overall performance of the corporation (Berman, et al., 1999; Berrone, Surroca, & Tribó, 2007; Céspedes-Lorente, Burgos-Jiménez, & Álvarez-Gil, 2003; Miles, Munilla, & Darroch, 2006).

Therefore, this study relies on the assumption of the instrumental approach of stakeholder theory that the way corporation adopt to manage its stakeholders' interests helps the corporation avoid decisions that might promote stakeholders to undercut or thwart its objectives. It assumes that corporations operate in ways that minimize externalities, such as pollution emitted from industrial facilities (Horváthová, 2010).

Basing the previous discussion of eco-centric, congruency, and stakeholders' theory, this paper hypothesizes positive relationships between Pro-environmental determinants and organization citizenship towards environment.

2.2.4. Resource Based View-Theory:

The history of RBV dates back to the efforts of Wernerfelt (1984), who developed some simple economic tools for the purpose of analysing corporations' resource positions and strategic options related to the relationship between profitability and the resource. Wernerfelt (1984) identified a corporation's resources as "anything which could be thought of as a strength or weakness of a given firm". He said that the development of a strategy requires a balance between the exploitation of existing resources and the development of new ones. Barney (1991) redefined the RBV theory and assumed that there was a link between corporations' resources and sustained competitive advantages. He examined the role of idiosyncratic and immobile corporation resources in creating sustained competitive advantages. In Barney's theory, the corporations' resources were identified as, "The firm's resources including all assets, capabilities, organizational processes," firm attributes, information, knowledge, etc. controlled by a firm that enables the firm to conceive and implement strategies that can improve its efficiency and effectiveness.

According to Barney (1991), a corporation's resources can be classified into three groups: (1) organizational capital resources, which incorporate the reporting structure of the corporation, its formal and informal planning, coordinating and controlling systems, and the informal relations between the corporations' groups and between the corporation and other groups in its environment; (2) physical capital resources that incorporate the physical technology used in the corporation such as plants and equipment, the access to raw materials, and the location of the corporation; and (3) human capital resource, which refer to aspects such as the relationships between employees, training, experiences, and intelligence.

Barney assumed that corporations could gain sustained competitive advantage when adopting unique strategies, which are not adopted by other corporations. He added that the corporations' resources become sources of competitive advantage if they achieve the following principles: (1) they are valuable, which means that these resources give the corporation the ability to gain opportunities or avoid threats; (2) they are rare among the market or competitors; (3) they are imperfectly imitable, and (4) they have no strategic equivalent, which indicates that one resource cannot be used as an alternative to another resource.

This theory somewhat distinguishes between sustained competitive advantage and competitive advantage because it assumes that corporations having specific valuable resources are better than corporations needing to generate dynamism in an industry because these resources can generate competitive advantages. On the other hand, those with sustained competitive advantage hope that the other corporations do not obtain the corporations'

resources. Therefore, corporations have a sustained competitive advantage when the resource is an imperfectly imitable resource. In other words, the resource must have one or more of the following characteristics: (1) obtaining the resource depends on some unique historical conditions; (2) an ambiguous link between the resource and the corporations' competitive advantage; and (3) be socially complex.

Using this theory in the fields of corporate social/environmental performance started with Hart (1995), who presented the first theoretical paper that addressed the RBV theory in the corporate environmental phenomena. Hart believed that the RBV ignored aspects of the natural environment in the competitive concept. And developed a natural-resource based view of the corporation by inserting the natural environment concept into the RBV theory. He argued that the natural environment posed constraints and challenges of development of new resources and capabilities.

Hart's theory provided three interconnected strategies, namely, pollution prevention, product stewardship, and sustainability development. These three categories were linked to three key resources and three competitive advantages. The key resource of pollution prevention strategy was continuous improvement, which resulted in lowering cost. The key resource of product stewardship was stakeholder integration that results in pre-empts competition, and the key resource of sustainability development strategy was shared vision that improves the future position of the corporation

Although Hart did not test his proposition empirically, several studies have done so. For instance, Russo and Fouts (1997) empirically demonstrated that higher levels of corporate environmental performance (CEP) relate positively to superior financial performances. López-Gamero, et al. (2009) found that corporations' resources and competitive advantages mediated the relationship between environmental protection and financial performance, which can be interpreted as a support of the RBV theory. Moreover, Sarkis, et al. (2010) adopted the RBV and stakeholder theory as a complementary theoretical framework and demonstrated empirically that training is a critical mediator in the adoption of environmental practices and the pressure from stakeholders. Inoue and Lee (2010) used the RBV theory to investigate the relationship between the five dimensions of corporate social/environmental performance and future profitability of the tourism- related industries.

In general, RBV theory relies on the assumption that corporations' performances vary due to resources heterogeneity across corporations. Therefore, the ability to achieve

competitive advantages often depends on the corporation's resources and capabilities. The theory suggests that only pro-active environmental governance is a source of firm performance, which is unique to the firm and difficult to obtain by competitors, and this pro-active environmental management can be represented by eco- efficiency (Guenster, et al., 2005). From this point of view, this study considers RBV theory as a cornerstone of utilizing the resources related to environmental issues as sources of competitiveness.

2.2.5. Cognitive Stress Theory:

This part gives a brief overview of the elements of cognitive stress theory that we consider relevant for predicting pro-environmental behavior: demand appraisal, resource appraisal and coping. Demand appraisal refers to an individual's monitoring of events with regards to his or her well-being (Lazarus, 1991). Personal well-being can be threatened if a situation is appraised as impairing or threatening personal goals, health or identity (ego involvement). A range of studies have demonstrated that environmental problems are frequently appraised as threatening or damaging to personal well-being and especially to personal health (Dunlap, Gallup, & Gallup, 1993; Kuckartz & Grunenberg, 2003; Lai, Brennan, Chan, & Tao, 2003).

In both health psychology (Rippetoe & Rogers, 1987) and environmental psychology (Gardner & Stern, 1996), personal threat or harm appraisal has long been discussed as a motive for (pro-environmental) behavior. However, empirical studies examining this link between perceived threat and pro-environmental behavior have found only small effects (Baldassare & Katz, 1992; Hass, Bagly, & Rogers, 1975).

Therefore, Martens and Rost (1998) proposed that threat is an indirect determinant of pro-environmental behavior. Likewise, in our adaptation of cognitive stress theory, demand appraisal (in the form of threat and harm appraisal) is seen as a distal determinant of pro-environmental behavior (Rogers, 1983). Demand appraisal is assumed to activate problem-focused coping (e.g. information seeking, see below), which can then foster proenvironmental behavior. Demand appraisal is followed by the second distal determinant of pro-environmental behavior: resource appraisal. Resource appraisal concerns coping options—that is, whether any action could prevent harm, ameliorate it, or produce additional harm or benefit (Lazarus, 1991).

Resource appraisal, especially self-efficacy (Bandura, 1997), motivates problem-focused coping. Whereas previous research has concentrated on specific self-efficacy beliefs (e.g. "I am capable of signing a petition against the plant"), Wiegman, Taal, Bogaard, &

Gutteling, 1992; Kannapin, Pawlik, & Zinn, 1998; Lindsay & Strathman, 1997; Martens & Rost, 1998; Zinn & Pawlik, 2000) focus is laid on a more general belief in the ability to cope with environmental problems (e.g. “I can deal with pollution in domestic contexts”) (Floyd, Prentice-Dunn, & Rogers, 2000; Milne, Sheeran, & Orbell, 2000), so that demand and resource appraisal would be measured on the same level of generality. In doing so it is argued that the ability to cope with a threat can start on a general level. Specific beliefs about specific solutions will follow in later stages of the appraisal process—not until specific information is available. A negative correlation was expected between resource and demand appraisal because self-efficacy reduces threat, and threat or harm might in turn reduce self-efficacy (Lazarus, 1991).

Cognitive stress theory holds that the two mentioned cognitive appraisal processes generate problem- and solution- focused coping attempts on cognitive, emotional and behavioural levels. Thus coping consists of efforts to manage specific external or internal demands that are appraised as taxing or exceeding the resources of a person (Lazarus, 1991). Coping is regarded as a process contributing to the reduction of uncertainty and complexity of a situation (Lantermann, 1983). Problem-focused coping increases the perceived controllability of the problem and the availability of feedback (Lantermann, Döring-Seipel, & Schima, 1992).

In the last two decades, several qualitative and quantitative studies explored what kinds of coping attempts people resort to in the context of different environmental stressors (Bell, Greene, Fisher, & Baum, 2001; Gardner & Stern, 1996; Homburg & Matthies, 1998).

Most studies are based on self-report data and describe different forms of coping. However, only a few studies have investigated the relevance of problem-focused coping strategies as determinants of pro-environmental behavior (e.g. Bachrach & Zautra, 1985; Fuhrer & Wolfing, 1997; Iwata, 2002; Kannapin et al., 1998; Martens & Rost, 1998).

The results of these studies support the hypothesis that problem-focused coping is a determinant of pro-environmental behavior. We postulate that, in response to environmental stressors, problem-focused coping prepares and regulates pro-environmental behavior. We assume that coping mediates between the unspecific motivation to protect the environment (and oneself) and pro-environmental behavior.

We suggest that it is important to differentiate between problem-focused coping and pro-environmental behavior on the basis of the temporal and causal distance from the source of stress. Pro-environmental behavior explicitly aims for a reduction or solution of the environmental problem. On the other hand, coping activities like search for relevant stressor-

information, bear no direct relationship to the reduction of the given environmental problem. In several studies we found, that people who are high on problem-focused-coping scales report more information about environmental problems than people who are low on this scales (Homburg, Stolberg, & Wagner, 2006).

The relevant problem-focused coping dimensions are:

(1) Problem-solving strategies (e.g. information seeking about the stressor and seeking social support) supply the bases for pro-environmental behavior, in that they serve to make the situation more predictable and behavioural options more apparent (e.g. Miller, Leinbach, & Brody, 1989).

(2) Expressive coping strategies (expression of anger) are subtypes of action-centred ways of coping (Laux & Weber, 1990). In explaining pro-environmental behavior, more focus is laid on a problem-focused role of this strategy (Lazarus, 1998), because the expression of emotion might help to organize information and social support. And there is empirical evidence for the relevance of emotions as determinants of behavior (Grob, 1995).

(3) Self-protection strategies cover activities for the protection of oneself and/ or one's own health e.g. in the areas of nutrition and mobility (Bohmann, 1988). It is argued that, in combination with the two other ways of coping, self-protection should stimulate or facilitate pro-environmental behavior.

2.2.6. Post-Materialist Value Theory:

Developed by Ronald Inglehart the theory postulates that, the poorer nations and their individuals must focus on meeting their "material" needs before they are able to concentrate on their post-materialist needs and concerns, such as environmental problems (Dunlap and York 2008). Many view this theory in relation to Maslow's Hierarchy of Needs. Therefore, the wealthier the country, the more post-materialist values they hold, and the more pro-environmental they should be.

In recent years, this 'affluent hypothesis' has been met with opposition as developing countries have also been shown to hold pro-environmental values and attitudes (Brechtin and Kempton 1994; Brechtin 1999; Dunlap and Mertig 1997; Gelissen 2007; Marquardt-Pyatt 2007; Dunlap and York 2008). In 1995, Inglehart examined data from the World Values Survey (WVS) and the results showed only a small, weak relationship present between a nation's affluence and their environmental concern (Dunlap and York 2008). He responded to these

differences by generating an ad hoc explanation and coined the “objective problems-subjective values” (OPSV) explanation (Brechtin 1999; Gelissen 2007; Dunlap and York 2008).

The OPSV states that environmentalism found in developed nations (what Inglehart refers to as nations of the North) is due to citizens experiencing a shift in their subjective (cultural) values. Whereas, environmentalism present in less developed nations (the South) is said to be the result of citizens being subjected to higher levels of pollution and environmental degradation, or objective problems (Dunlap and York 2008). Inglehart has continued to back his theory of post-materialist values by offering slight moderations, such as the OPSV, in an attempt to explain the rising level of environmental concern and activism found in less developed nations.

To date, researchers have come to varying conclusions pertaining to the validity of the Post-Materialist Value Theory. One reason these discrepancies may exist can be attributed to the use of different measurements to gauge environmental attitudes and concerns (Klineberg, McKeever, and Rothenbach 1998; Kemmelmeier et al. 2002; Gelissen 2007; Marquart-Pyatt 2007; Duroy 2008). The four commonly used measures of environmentalism are (1) environmental concern (as measured by economy/government trade-offs), (2) perceived seriousness of local and world environmental problems, (3) pro-environmental behaviors, and (4) one’s perceived relationship between human activities and nature.

2.2.7. Eco- Centric Management Model:

This model is articulated by Shrivastava (1995a) as alternative to the traditional management model. She summarized that traditional management theories have several limitations regarding the environmental issues; (1) they have ignored the environmental issues and gave narrow concept to the environment, (2) neglecting the destructive aspects of the corporations and focusing instead on improving the corporations productivity to benefit stakeholders, (3) focusing on the risks related to the financial aspects, and neglecting the risks posed by technology, location, waste, and the impact on the natural environment, (4) they emphasize that humans have the right to exploit nature without any real concerns to protect the environment, such concerns are meaningful only as a condition of human interests.

Instead of previous assumptions of traditional management models, the eco- centric model suggests that corporations must address the ecological degradation inherent in risk societies. Corporations have to adopt a new orientation that focuses centrally on technological and environmental risks, and that doesn’t treat risks as externalities but treat them as the core

problem of the management. In the organizational aspects, the model assumes that all business functions should be more ecologically centered roles. Finance aims for long-term sustainability growth, instead of short-term profits. Accounting seeks to include the environmental cost of production, instead of externalizing them. Management seeks to provide meaningful work and safe working conditions, instead of single-mindedly pursuing labor productivity. Shrivastava (1995) states that the traditional view of the organizations objectives and strategies should be changed. She added that objectives such as profits and revenues are incomplete and inadequate. Such objectives should include minimizing the negative effects of the corporations on the environment. In other words, the impacts of the firms' activities on the environment should be addressed.

Using 3M corporation as a case study, Shrivastava (1995) demonstrated that environmental technology has significant contributions to both environmental performance (reduce waste, resources and energy consumption, and reduce pollution), and the competitiveness of the corporation.

2.2.8. The Congruence Model of Organizational Behavior:

Depending on the open-system theory, Tushman and Anderson began building the congruence model in the mid-1970s (Tushman & Anderson, 2004). The main point of this model is that corporations to be effective, they must approach a state of congruency. They stated that: The components of any organization exist together in various states of balance and consistency-what we call "fit". The higher the degree of fit -"or congruence"- among the various components, the more effective the organization.

This model emphasizes the importance of understanding the organizational work through the understanding the three elements of an organizations namely inputs, transformation process, and outputs. The heart of congruence model is the transformation process, which draws on inputs from the environment, resources, and history to produce a set of outputs (Nadler, et al., 1980).

The concept of fit assumes that transformation process contains four organizational components, and a degree of consistency or fit should be achieved to successfully transfer the input into outputs. These components are (Nadler, et al., 1980; Tushman & Anderson, 2004; Wyman, 2003) are as follows:

- (1) The work or task, which represents the basic work to be done by the organization,

(2) The individuals' characteristics of the workers such as their skills, knowledge, experience, expectations, behavior patterns, and demographics,

(3) Formal organizational arrangements, which include the various structures, processes, methods that are formally created to get individuals to perform tasks,

(4) Informal organization, which refer to the emerging arrangements including structures, processes, and relationships.

For the purpose of enhancing the performance, different types of fit should be achieved between the previous four elements as follow: individual/ organization fit, individuals/ task fit, individual/ informal organization fit, task/organization fit, task/ informal organization fit, and organization/ informal fit.

1. The fit between individual (employees' involvements) and task (environmental performance)

According to Tushman and Anderson (2004), this type of fit requires individual needs are met by their tasks, and that the individuals have the appropriate skills and abilities enable that them to do their jobs. This can reflect in the employees' involvement toward environmental issues, which is identified as the involvement of employees towards the environmental agenda laid down by top management for the improvement of corporate environmental performance (Baba, 2004). In the context of congruence model, such involvements will lead to achieve the fit between employees' skills and abilities, the pre-requisites to perform the environmental activities, which resulted in enhancing the environmental performance.

2. The fit between formal organization (environmental management system, organizational competencies) and task (environmental performance)

The congruence model assume that, the organizational arrangement which enables meeting the demands of work and motivate the behavior in consistent with the work, will enhance the fit between formal organization and the work and reflect in enhancing the performance (Nadler, et al., 1980; Tushman & Anderson, 2004; Wyman, 2003). Based on this assumption, it can be accepted that the existence of environmental management system and addressing the environmental issues in the functional areas of the corporation will improve the environmental performance.

3. The fit between informal organization (strategic planning process, stakeholder integration) and work (environmental performance).

According to Tushman and Anderson (2004), this type of fit requires that informal organization structure should facilitate the task performance by meeting the demands of the task. In line with this thought, considering the environmental issues in the strategic process and allowing to the individuals who are aware of the environmental issues, to participate in decision- making process will improve environmental performance (Russo & Harrison, 2005).

The non-integration between the environmental management aspects and strategic planning resulted in a kind of disconnection, wherein, the general management system is responsible for strategic and operations planning, and environmental management is solely responsible for planning and implementing the environmental activities (Wagner, 2007). One way to reduce this disconnection is to use cross- functional approach, a decision process can be improved, to the extent the individuals from each sub unit, provide important information (Russo & Harrison, 2005).

It has been argued that the cross-disciplinary coordination and integration can help the corporation in preventing pollution and thus improving its environmental performance (Russo & Fouts, 1997; Shrivastava, 1995).

Moreover, having informal relationships with different stakeholder might facilitate the environmental performance by meeting the demands of the task. The concept stakeholder integration refers to the ability of establishing a positive collaborative relationship with a wide variety of stakeholders (Plaza-Úbeda, de Burgos-Jiménez, & Carmona-Moreno, 2010; Rueda Manzanares, Aragón Correa, & Sharma, 2008; Sharma & Vredenburg, 1998). The ability of the corporation to manage its relationships with its stakeholders can be determined by the organizational performance (Bayoud, et al., 2012). They further added that having good relationships between the corporation and its stakeholders can effect positively on both the environmental and economic performance of the corporation.

CHAPTER 3

REVIEW OF LITERATURE

This chapter focusses on literature review which highlights the findings of different researchers and academicians. Keeping in line, the objective of the study, review of literature is presented in five parts as follows:

- A. Green Human Resource Management (GHRM).
- B. Organization Citizenship Behaviour towards Environment (OCBE).
- C. Possible Determinants of Pro-Environmental Behaviour of Employees.
- D. Environment Management Practices (EMP).
- E. Corporate Greening (CG).

3.1. GREEN HUMAN RESOURCE MANAGEMENT (GHRM):

Although many researchers and academicians have already contributed and are still contributing towards green marketing (Peattie, 1992), green accounting (Owen, 1992), and green management (McDonough and Prothero, 1997), still there exists a gap with respect to the HR perspective of Environmental Management that is Green Human Resource Management(GHRM). This is because of the non- availability of suitable guidance in the emerging literature. Though few contemporary research scholars and academicians have undoubtedly increased the understanding on Green HRM, in recent years (Jabbour, Santos, & Nagano, 2010; Berrone & Gomez-Mejia, 2009; Renwick, 2008; Stringer, 2009; Massoud, Daily, & Bishop, 2008).

GHRM or Green HRM is defined by Mampra (2013) as “the use of HRM policies to encourage the sustainable use of resources within business enterprises and promote the cause of environmentalism which further boosts up employee morale and satisfaction”. Zoogah (2011) defines GHRM as “the use of HRM policies, philosophies, and practices to promote sustainable use of business resources and thwart any untoward harm arising from environmental concerns in organizations”.

In order to expand the framework of environment management system, it becomes mandatory to have an effective human resource management practices that includes recruitment strategies, appraisal, reward systems, training and empowerment programs with a

focus on environmental management (Jabbour, Teixeira, & Freitas, Govindan, 2013). This in turn will facilitate the evolution of new set of skills and competencies among the employees of Green organizations. This makes it clear that whatever the method of research applied, all the researchers promote the belief that it is important to properly align human resource management principles with objectives of green management in an organization.

Cherian & Jolly (2012) having reviewed various works on the area of Green human resource management, have stated that by introducing GHRM principles in HR functions like recruitment, training and development, compensation, and employee relation the firm can experience improvement in the company's overall performance.

Teixeira et al., (2012) conducted interviews in nine ISO 14001 certified companies, at Brazil, so as to identify the relationship between Green HRM and Environmental training. The results revealed that organization culture and teamwork enabled the effectiveness of the environmental training. It also further revealed that the level of commitment exhibited by employees in all levels of the organization, had a significant role in enhancing the relationship between environmental training and Green HRM.

Jabbar et al., (2012) carried out an empirical study to find if there is any link between HR principles on Environment Management System in the organization and operational performance of the same. The results revealed that recruitment, feedback and compensation had an impact on environmental management practices of an organization.

Daily et al., (2012) in his study, tried to identify the impact of training and empowerment of employees and its effect on corporate environmental performance through an empirical study conducted in Mexican companies. The results revealed that HR factors such as training, empowerment, team work among employees and environmental training for the managers had an impact on corporate environmental performance.

Green Human Resources Management, encompasses two major concepts namely, environmental-friendly HR practices in organizations and preservation of knowledge capital (Dutta 2012). GHRM deals with empowering employees to promote sustainable practices in organizations and also increasing employees' awareness and obligations towards sustainability issues in the organization. GHRM is a policy which intend to create a green workforce that can comprehend and appreciate green culture in the organization.

Sarkis, Zhu and Lai, (2011) states that today's organizations are engrossed in pro-environmental behaviour and are showing immense environmental concern, due to increasing

number of benefits from the government and of course in order to gain attention in the business environment.

Through literature it is understood that importance has always been given to adoption of environment practices as a key goal of organizational functions, thus making them vital and related to HR practices (Cherian and Jacob, 2012). GHRM is mainly influenced by the unique and distinguishable forms of green decisions and behaviors of HR managers (Jackson, Jabbour, Renwick & Muller-Camen, 2011)

GHRM concentrates on employees' pro-environmental behaviour in the organization, which thus, help employees to practice pro-environmental behaviour in their personal life also (Muster and Schrader, 2011). The principal goal of GHRM is to make employees aware of the complexities of environment management, right from conception till implementation. Such exercise is carried out so as to motivate employees, and develop a sense of pride in them, which in turn, will largely boost their participation in sustainability issues.

Sarkaris et al., (2010) conducted an empirical study in 157 Spanish companies, to find out the effect of stakeholder pressure on environmental training for employees. The results revealed that environmental training provided by organizations led to effective environment management practice. He further adds that methodological environment training leads to effective environment management system.

The Human Resource Department of any organization plays an important part in building their company's sustainability culture (Harmon, Fairfield, & Wirtenberg, 2010). It is recognized that the more the strength of green human resource guidelines, the greater is the inclination for adopting environment management systems, in the organizations. (Bohdanowicz, Novotna, & Zientara, 2011).

Harmon et al., (2010) add strength to this point by stating that the human resource department of an organization has the ability, to play a significant role in the creation of sustainability culture in the organization. Hence corporate greening begins with, setting green goals, all through the HRM process which includes, recruitment, training and development, performance appraisal, compensations and rewards, employee relations and retaining the company's knowledge capital. Renwick(2008) states that distinguished policies with respect to HRM functions in an organizations that includes recruitment, performance Management and appraisal, training and development, employee relations, compensation and reward systems are

considered dominant tools for aligning employees with the environmental strategy of the organization.

The Trade Union Sustainable Development Advisory Committee (TUSDAC) in Britain, has given a recommendation that “U.K. unions, in order to strengthen workplace employee engagement in sustainable development, should negotiate a ‘sustainable workplaces framework’ agreement with employers”. A survey carried out by TUSDAC on more than three hundred British union members has revealed that, 59% of unionists were ready to support environmental initiatives in their workplace, and 41% were not ready to support, as they felt that there was not much they can do to improve the environment.

The existing literature in the field of human resources and sustainability recommends that, lot more HR executives are keen to modify HR policies in their organizations, such that, they become exclusive environmental champions.

Daily et al., (2007) conducted an empirical study among 437 employees to determine the relation between EMS training framework and HR practices in the organization. The results revealed that environmental training for employees had a significant influence on effective green management system. He further added that environmental training in an organization enables the green teams in the organizations to handle environment related issues.

Frank (2003) brought out the importance of ethical behavior of an organization and the impacts of being one such organization. As a part of this survey it was identified that most of the respondents prefer to choose an ethically and environmentally responsible firm like American Cancer society instead of one like Camel cigarette even if their wages were slightly lesser. This is further strengthened by Brekke and Nybord (2008) through a study carried out to identify the factors that would attract responsible employees towards an organization. Through a theoretical approach and model, they indicated that if job is offered by two equally placed companies, the new recruit would choose a company based on its environmental stance.

Chinander (2001) with an objective to identify internal drivers that lead to environmental awareness, carried out a qualitative case study in a steel manufacturing company. The findings revealed that feedback on environmental issues in an organization strongly influence the promotion of environment management system in the organization. They further added that such feedbacks ensures that employees as well as the employers are aware of their responsibilities, which in turn ensures better environment management system in the organization.

Bauer and Aiman-Smith (1996) in their research work has studied the effect of pro environmental stance on recruitment efforts, through an empirical study done on a fictitious firm. The findings revealed that the attractiveness of the firm increases if it is proactive in protecting the environment. It further revealed that people intend to pursue employment in a company which is pro-environmental in nature.

As observed by Huslid (1995) and many other academicians, the core functions of HRM namely, selection processes, compensation, performance management systems, employee involvement and training are vital, for any organization to succeed. There are numerous researchers who proclaim that HRM practices are effective in promoting human capital. They also recommend that such practices results in effective contribution towards organizational performance and they effect competitive advantage (Boselie, Paauwe, & Jansen, 2001).HR department of an organization has a noteworthy part in making ecological obligation, as a part of the corporate's statement of purpose. This statement is strengthened by Renwick (2008) who states that, "the human resource processes in organizations play a vital role in transforming policies into practice", and is further more strengthened by (Hersey, 2008) who states, "it is understood that human capital and its management are instrumental in achieving environment management objectives".

Stern (1992) ; Kruse (1995) stated that global environmental issues which include, the enormous growth of population, hazardous pollution and shrinkage of natural resources, pose a huge challenge to the ways individuals live. Like several other disciplines, the psychologists are in the pursuit of developing a human society, which utilizes the natural resources, reasonably.

Having summed up majority of research works and reviews in GHRM, in this section, the following section deals with Organization Citizenship behaviour (OCB).

3.2. ORGANIZATION CITIZENSHIP BEHAVIOUR TOWARDS ENVIRONMENT (OCBE):

The concept of organizational citizenship behaviour for the environment (OCBE) has emerged recently in the environmental literature, and it seems to be a promising approach to capture employees' pro-environmental behaviours in the workplace.

Pascal Paille, Yang Chen, Olivier Boiral, Jiafei Jin (2014), discovered that the relationship between environmental performance and strategic human resource management is

fully mediated by organization citizenship towards environment. They further identified that the effect of strategic human resource management on organization citizenship behaviour towards environment is moderated by the internal environmental concern. In addition they identified that environmental performance is positively influenced by OCBE.

Lamm et al. (2013), Paille and Boiral (2013) stated that, though OCBE is rooted from general OCB, OCBE is still represented as a different construct. The study also revealed that determinants like affective commitment, perceived organizational support, and environmental beliefs have a significant influence on OCBE.

Pascal Paille, Olivier Boiral and Yang Chenb (2013) carried out a research to find out if there is any relationship existing between environmental management practices and organizational citizenship behaviour towards environment. This was done in the presence of social exchange factors like perceived superior support, perceived organizational support and employee commitment. The research has proved that all the above mentioned factors have a positive influence on environment management practices.

Boiral & Paille (2012) ; Daily, Bishop & Govindarajulu (2009) have to be credited for having rooted OCBE, the concept which enables measuring pro-environmental behaviour, from organizational citizenship behaviour framework, put forth by Organ and his contemporaries. Boiral and Paille (2012) have further encouraged future research to investigate the determinants of OCBE.

Boiral & Paille (2012) enhanced their contribution to OCBE, by conducting two successive studies, first one was to identify the various dimensions of OCBE and second one was to develop tools of OCBE. The first study resulted in three dimensions namely eco-helping, eco-civic engagement, and eco-initiatives, which were validated. Measures of OCBE were developed based on factor analysis and confirmatory factor analysis.

Dhiman Deb Chowdhury (2012) in his work presented a theoretical argument, which serves the basis for future research on Organizational citizenship behaviour towards sustainability. He argues that OCB can significantly influence corporate sustainability, which in turn allows the organization to meet the stakeholders demand.

OCBE is derived from the term OCB provided by Organ and his colleagues and further Daily et al. (2009) defines OCBEs as “discretionary acts by employees within the organization not rewarded or required that are directed toward environmental improvement”

Daily et al. (2009) having known that, OCBE is derived from organizational citizenship behaviours (OCB), further investigated if the two constructs were dependent on each other or independent. But, he was not able to provide a right methodology on how to go about it.

Daily, Govindarajulu & Bishop (2009) argued that by bringing in awareness and promotion of OCBE, organizations can use the workforce for green initiatives, in many ways which they have not even considered or imagined.

Daily et al., (2009); Ramus & Killmer (2007); Boiral (2009) have stated that OCBE seem to be one of the most appropriate employee behaviours, that supports environmental performance. They went on further by proposing a model, which elucidated determinants like supervisory support, perceived corporate social performance, environmental concern, and organizational commitment as motivators of OCBE. Based on the general literature on OCB, the study also emphasizes that by encouraging green initiatives as an extra role behaviour, OCBE enhanced environmental performance.

Perez et al. (2009) carried out a comparative study between firms, with and without ISO 14001 certification. The respondents included employees as well as managers. The results revealed that environmental commitment of organizations had a positive influence on employees' OCBE, with respect to firms which were ISO 14001 certified.

Ramus & Killmer (2007); Boiral (2009); Daily et al. (2009); Perez et al. (2009) through their works have though already established that OCBE plays a vital role in improving corporate environmental performance, the literature on OCBEs and their determinants is still emergent and speculative.

Daily et al. (2009) recommended a model which postulates that supervisory support towards environmental initiatives plays a vital role in the emergence of OCBE. As per the model, "The norm of reciprocity and social exchange theory suggests that supervisor value and support for pro-environmental behaviour is related to OCBE". It also suggests that employees tend to make more environmental efforts if they perceive that organization support them, in bringing out their innovative ideas and let them engage in pro-environmental activities, leading to pro-environmental behaviour.

Renwick (2008), Wee & Quazi (2005), through their works have concluded that empowering employees, positively influenced, performance and productivity. It also further facilitated individual thinking, problem-solving skills and self-control.

Florida & Davison, (2001) states that “Employee participation in Green initiatives increases the chances of better green management as it aligns employees’ goals, capabilities, motivations, and perceptions with green management practices and systems”. In their work it is proved that indulging employees in environment management had a positive influence on environment management systems such as efficient resource usage.

Kitazawa & Sarkis (2000), in their work revealed that indulging employees in environment management has had a positive influence on environment management systems such as reducing pollution from workplace.

May & Flannery (1995), in their work revealed that indulging employees in Environment Management had a positive influence on environment management systems such as reducing waste.

3.3 DETERMINANTS OF PRO-ENVIRONMENTAL BEHAVIOUR OF EMPLOYEES:

The present study has taken into consideration all the possible determinants used in various studies and works on pro-environmental behaviour like, Environmental Concern (EC), Personal Norms (PN), Willingness to Sacrifice (WS), Environmental Efficacy (EE), Environmental Belief(BEL), Environmental Values(VAL), Perceived Threat (PT), Perceived Behavioural Control(PBC), Job Satisfaction(JS), Organizational Commitment(OC), Perceived Organizational Support(POS), Perceived Supervisory Support(PSS), Perceived Opportunity for Rewards(POR), and Perceived Organization Justice (POJ). This section reviews all the prior research works pertaining to the role of these determinants on organization citizenship behaviour towards environment (OCBE).

Lamm et al., (2013) & Paille et al., (2013) have undertaken a handful of empirical studies to clarify the underlying behavioural aspects, wherein environmental performance and practices can be improved by support from the manager.

Mandip (2012) has identified that employees are heavily encouraged by ecologically oriented senior executives in the organization. Hence organizations should take umpteen care while recruiting people for such positions in the organization. Unless the manager or the senior executive is ecologically oriented, we cannot expect them to encourage the employees, in this front.

Daily et al. (2009) state that perceived supervisor support towards environmental efforts of the employees, plays an important role in the emergence of organisation citizenship towards environment. In his further study, he has also applied the norm of reciprocity and social exchange theory to bring out if any other relations could be explored. It was found that both the supervisor value and support for pro environmental behaviour is related to OCBE.

Ramus and Killmer (2007) proposed a conceptual model which highlights the importance of supervisory support in stimulating the emergence of OCBEs, though this importance was not explicitly given in the Social Exchange Theory (SET) framework.

Andersson, Shivarajan, & Blau, (2005); Scherbaum et al., (2008) in an attempt to study the pro-environmental attitude of supervisors and lower-level employees, contradicted the earlier works by stating that attitude toward environment were weakly correlated with other determinants.

Govindarajulu and Daily (2004) argue that an organization may not succeed in its efforts to become environmentally responsible, if the employees are not encouraged to “do the right thing” so as to become an environmentally responsible organization.

Yin & Schmeidler (2009); Boiral (2007); Springett (2003) through their research works have revealed that managers are not, that committed to environment. Their commitment often appears to be superficial. They further add that managers’ behaviour seem to be just a decorative part, rather than serious pro-environmental behaviour.

Stinglhamber, Eisenberger, Sucharski, Vandenberghe & Rhoades (2002) elucidate that the employee’s perception about the supervisor does contribute to perceived organization support(POS), as the supervisors turn to be the organizational agents. The extent to which employees identify the supervisor with the organization, further strengthens this relationship.

Eisenberger and Rhoades (2002) define perceived supervisory support as “the degree to which supervisors value the contributions, opinions or gestures of their subordinates and care about their well-being”. The very concept explains the subordinates’ commitment towards their supervisor.

Ramus (2001) on examining supervisory support behaviour state that “a supportive supervisor may be said to encourage new ideas, is open-minded, provides regular training to subordinates, shares critical information, rewards efforts and shows a sense of responsibility”.

Ramus (2001) in his another study, found that if the supervisor is not supportive, the efforts put forth by organizations in order to encourage eco-innovations of employees, will have little or no impact. The findings recommend the benefit of joining different aspects of supervisor support to improve employee motivation to involve in eco-initiatives.

Ramus (2001), in his study reveal that supervisors who encouraged the employees with appreciation and rewards, enabled eco-innovativeness and problem solving among employees. Hence it is evident that supervisor support is important for encouraging employee environmental initiatives.

Ramus, (2001) state that organizations in US and Europe, a few to name like, GE Plastics in the Netherlands, Nestle Oy in Finland and Lucent Technologies in Pennsylvania have a firm practice in place, which ensures that policies must support eco-initiatives by employees and the supervisors must support environmental actions by employees.

Bansal & Roth (2000); Egri & Herman (2000); Cordano & Frieze (2000); Kearins & Collins (2012) have studied the significance of the manager's role in realising environmental objectives. Their focus was mainly on the values and commitment of the manager and the implementation of environmental issues.

The literature on pro-environmental behaviour has more often stated that environment management practices endorsed by the supervisor as well as the organization, plays a vital role in supporting and fostering perceived supervisory support(PSS) and perceived organization support(POS).

Ramus & Steger(2000); Ramus (2001) through their further research works have put forward that employees are more eager to carry out environmental initiatives when their supervisors are open in their communication, and are ready to accept suggestions from employees with regards to environmental ideas.

Ramus and Steger (2000) state that employees are more inclined to engage in eco-initiatives in their organization, when they perceive that they will be supported by the organization as well as the manager. They further suggest "companies that want to eco-innovate apparently need managers who use supportive behaviours to encourage employee environmental actions".

Cordano & Frieze(2000), Kearins & Collins (2012), Egri & Herman(2000) have further added that the successful implementation of most of the environmental practices that include ISO implementation, pollution prevention, stake holder consultation, industrial ecology and

employee participation, has revealed a strong relationship with the personal commitment of managers.

Kottke & Sharafinski (1988) in their work, have developed a tool to measure the role of perceived supervisory support. The results of their work revealed that, in order to indulge in pro-environmental activities, employees expect support and encouragement from their immediate supervisors rather than the employers.

Shamir et al., (1993) state that employees can be readily be motivated when a supervisor appeal to the values, identities and self-concepts of the individual. (Ramus and Steger, 2000) further established through an empirical evidence that a second party support influence employees' motivation towards eco-initiatives, thus strengthening the link between supervisory support and employee green behaviour.

Mischel, (1973) & Shamir et al., (1993), stated that 'pro-environmental behaviours termed as extra role behaviours, which does not come under the job description of the employees, but still exhibited by the individuals towards an organizational development. Ones, Dilchert, and Biga (2010) in their research on employee green behaviour have found that there exists a significant but moderate, direct positive relation between perceived organizational support (POS) and employee green behaviours.

Supportive behaviors from supervisors towards employees in environment management seem to encourage employees, to produce possible solutions to environmental problems. If the supervisors were supportive in environmental actions of employees, then employees are encouraged to find solutions for the environmental problems, whichever they come across.

Boiral (2009); Andersson & Bateman (2000) ; Hanna et al. (2000); Walley and Stubbs (2000) in their research works specified that organizations should encourage and support employees' actions, which in turn, would bring in employee initiatives that are much more essential for upgrading environmental performance.

Lavelle et al., (2007) through his work proved that employees had a strong belief on their employers, that employer holds employee well-being as a priority, on decisions regarding the work-place environment.

Lavelle, Rupp, & Brockner, (2007) came out with a strong empirical evidence that support from their organization are valued to a great extent by employees. Similarly, employee

loyalty and extra effort exhibited by employees beyond the job requirements, are valued to a great extent by the employers.

Cropanzano & Mitchell (2005) state that perceived organization support (POS) turned out to be a key input for initiating the social exchange process, which resulted in a positive relationship between Perceived organization support and pro-environment behaviour of employees.

Govindarajulu & Daily (2004); Ramus (2001) through their research work identified that 'Lack of support' is the major obstruction of Employees' eco-initiatives. Lack of support from management decides the tendency of managers, if they are focussing on the core activities towards environment or peripheral activities.

Linda Rhoades & Robert Eisenberger (2002) reviewed prior works on perceived organization support (POS), followed by a meta-analysis on perceived organization support, its antecedents and consequences. The antecedents of POS are supervisory support, rewards, job conditions, fairness, and employee characters. The consequences of POS are organization commitment, job involvement, performance, desire to remain and withdrawal behaviour.

Ramus (2001) recommended that attitudes, values, and personal norms of the employees largely varies based on the support of the organization, which would endorse ecological development efforts.

Woods (1993) studied on employee expression and stated that employees should be given a chance and encouraged to provide suggestions for enhancement on pro-environmental initiatives. They should also be provided with time, to turn their innovative ideas into actions.

Eisenberger, Hutchison, Hunting & Sowa (1986) state that "perceived organization support is an employee's belief, that the employer, values his/her contributions and demonstrates concern for his/her well-being at work, which would motivate them to exhibit extra role behaviour".

Daily et al. (2009) state that "an individual's personal environmental concern will prove to be the strongest predictor of his or her propensity to engage in OCBE".

Hanna et al. (2000) through an empirical work, tried to upkeep the concept of positive relationship between operations and environmental performance. The findings of the study revealed that the positive relationship is triggered by environmental concern (EC) of the employees.

Fuhrer (1995) stated that “Environmental concern is used either as a multiple or a single component approach, and covers, either environment in general or some particular aspects of environment”.

Axelrod & Lehman (1993) stated that the concept of environmental concern can only be understood by analysing the individual behaviour, rather than the behaviour of the organization as a whole. They further added that frequent questions on environment attitude can be answered, only by studying the individual’s ecological behaviour.

Stern & Dietz, Guagnano, Taylor & Todd (1995) based their research on the premise, which individuals’ behaviour towards the environment ought to have something to do with their perception on environment and pro environmental action. The pro-environmental action of employees largely depend on their perception on pro-environmental behaviour.

Inglehart (1995) carried out a cross-cultural study, across countries, which revealed a relationship between environmental attitudes of the citizens and post materialist values of the respective countries. Though this work did not look into beliefs or behaviours, which are considered to be the major influencers of pro-environmental behaviour, it sort of created a platform for research, that environmental attitude plays a vital role in development.

Scherbaum et al. (2008) stated that the net effect of personal norm depend heavily on the degree of relationship between personal norm and the dependent variable. The effect was also dependent on whether the dependent variable was simply an intention or behaviour. Personal norms concerning energy conservation were strongly correlated to energy conservation intentions.

Staats, Harland & Wllke (1999) carried out an empirical study to have a clear idea on the role of personal norms on pro-environmental behaviour as put forth by theory of planned behaviour. The main objective was to determine if personal norms had an impact on ecological behaviour apart from attitude, intention and perceived behavioural control. This supports that adding personal norm, as a measure to Theory of Planned Behaviour (TPB), would further expand our understanding of the other determinants of pro-environmental behaviour.

Ajzen & Fishbein (1973); Thomas & Velthouse (1990); Fishbein (1963) stated that the employee’s perception on social norms, i.e., his perception how he is being evaluated by his peer group, influences him to be pro-environmental.

Tudor, Barr & Gilg (2007) in their findings on beliefs towards behavioural intentions, found it to be not stable at all, with effect sizes fluctuating from trivial to large. Respondents

inclination toward environmental practices and perceived personal benefit they received for being pro-environmental behaviour, were moderately correlated to recycling behaviour.

Flannery & May (2000) identified that respondent's belief on severity of the consequences as a significant determinant of environmental decisions through a proven experiment with hypothetical scenario. In addition, they have identified that organization-related beliefs had a significant relationship with adoption of energy innovations.

Siero et al., (1989) researched the impact of driving style of drivers on environmental issues, and stated that if the drivers had a positive belief on thrifty driving style, which would lead to reduced usage of car, had a significant impact on the thrifty driving style of the drivers.

Milfont, Cameron & Duckitt, (in press); Schultz et al., (2005); Stern & Dietz, (1994) had proposed a practical approach which postulates that environmental attitude (EA) help us to understand the world, to express our basic values, and to enhance and maintain our self-esteem. This practical approach is used to specify the psychological needs that EA accomplishes, to review previous theories on EA, and to recommend an integrative function-structure model of EA.

Ajzen (1991, 2002); Lulfs & Hahn (2013); Daily et al., (2009); Smith & O'Sullivan (2012) in their research in the area of social psychology, revealed that values and beliefs have an important role in explaining behaviours, that are related to environmental endeavours.

Bansal & Roth (2000); Ketola (2010); Fukukawa et al., (2007); Cordano & Frieze (2000) Williams & Schaefer (2012) through their studies have revealed that personal values of the manager is considered as one of the major determinants of managers' commitment towards corporate environmental initiatives.

Boldero (1995) analysed the indicators of pro-environmental behaviour of employees and brought out positive relationship between Pro-environment behaviour and Socio psychological constructs such as values, attitudes, beliefs.

Kaiser (1999) carried out an empirical research, to determine, if ecological behaviour can be predicted by factors like Environmental values and environmental intention. The results revealed that even among heterogeneous groups, the relation between ecological behaviour and environmental values and intentions were comparable.

Antonakis and Atwater (2002) argued that the values and behaviours of the leaders are contagious enough to pass through various levels of organization, finally reaching the

employees. The values of the top management have a greater impact on the extra role behaviour of the employees.

Similarly, Chapman (1989) argued that if organizational norms coincide with employee's values and norms, then the employee exhibits extra role behaviours.

Witt and Wilson (1991) stated that "Personal disposition relates to a person's pre-existing values, beliefs and habits related to a particular behaviour or task. Judging by the evidence in the literature, this factor takes on an exceptionally important role in the context of prosocial and socially responsible behaviours, including corporate greening". They established a link between personal values and individual's motivation to engage in eco- initiatives.

Organ (1990) established that personal attitudes have a strong relationship with extra role behaviours compared to that of in role behaviours. Whereas, Cordano and Frieze (2000), and Rands (1990) Egri and Herman (2000) established that employees' values are major determinants of employee motivation, to engage in eco-initiatives. While, Cordano and Frieze (2000) established through an empirical research that there is a strong link between employees' attitude towards eco—initiatives and their intention to engage in eco-initiatives. Therefore an employee's personal predisposition on eco-initiatives act as strong motivator to engage in eco-initiatives.

Bandura (1977) stated that "the strength of people's conviction in their own effectiveness is likely to affect whether they would even try to cope with given situations. His own and subsequent work has shown that one's self-efficacy, the belief in one's own ability to reach the desired outcome or to complete the desired task, has a direct influence on one's behaviour". Hitherto, self-efficacy deserves attention in elucidating employees' motivation for extra role behaviours, such as engaging in eco-initiatives. Since employees are selected for their ability to perform in role tasks, we can least expect the employees to have high self-efficacy regarding extra role behaviours like engaging in eco-initiatives.

Hostager et al. (1998) established a link between self-efficacy and motivation to engage in eco-initiatives, and concluded that self-efficacy influences the eco-initiatives in the organization. Ramus and Steger (2000) further strengthens this finding by establishing a relationship between competency building on environmental issues and self-efficacy.

Junquera, Ordiz & Fernandez (2003); Boiral (2009); Perez et al. (2009) in their research work stated that, there exists a strong relationship between organizational commitment

of employees and their pro-environment behaviour. Employees being one of the main stakeholders of an organization, the above said relationship becomes significant.

Mathieu & Zajac (1990); Meyer, Herscovitch, Stanley & Topolnysky (2002), through a meta-analysis on organization commitment revealed that committed employees never had the intentions to withdraw voluntarily from organizational activities, in terms of low employee lateness, low absenteeism and low desire to leave. When experimented, committed employees exhibited 'low employee lateness', 'low absenteeism' and 'low desire to leave'.

Chinander (2001) suggested that immediate feedback on their actions, ensures employees to be aware of their obligations and communicate the link between their performance and rewards in environmental activities.

Lee & DeYoung (1994) stated that as opposed to economic motivations, intrinsic satisfaction showed a positive correlation towards recycling behaviour, though effect sizes could not be acquired.

Jeffries (1997) found that, out of all the determinants examined in the study, recognition and appreciation motivated the employees, towards environmental initiatives. In an extensive study, employees admitted that, if their environmental initiatives are appreciated, that would further encourage them to put more effort towards such activities.

Miller (1991) in his research work, stated that, employees do expect recognition and appreciation from managers, co-workers and also from their families and friends, for all their efforts towards pro-environmental initiatives. It is also found out that rewards and recognition, adds to their pro-environmental behaviour.

Atwater & Bass (1994); Leitch et al. (1995); Laabs (1992); Patton and Daley (1998); Marks (2001) in studies carried out by all the above mentioned, indicated that rewards given to the employees, motivated them to be more pro-environmental. The rewards necessarily not be financial rewards, it can also be in the form of recognition and appreciation. Awards and acknowledgment programs, benefit sharing programs, increment in pay, benefits and enticements, are some of the frameworks that can be used to appreciate employees for environmental initiatives undertaken by them, as suggested by the study.

Kohn, (1993) differ with them by stating that monetary rewards seem to motivate the pro-environmental behaviour of the employees, to a greater extent compared to that of 'acknowledgement' or 'appreciation'.

CIPD/KPMG conducted a survey in the UK , which revealed that nearly 8% of organizations in UK were rewarding employee green behaviour, with grants and financial incentives, (Phillips, 2007) and such measures helps in triggering the pro- environmental behaviour of employees(Ramus, 2002).

Forman and Jorgensen (2001) in their research work on employee participation in environmental issues, observed that if the employees were compensated monetarily, towards all their environmental actions, their commitment towards pro-environmental initiatives revealed a steep increase.

Berrone and Gomez-Mejia (2009) to understand the effectiveness of green rewards and grants, a study was conducted on 469 highly polluting US industries. Surprisingly the firms which had adopted environment management practices, were paying more for their CEO, compared to that of the firms which had not adopted environment management practices. They had also concluded that the firms which were comparatively successful in providing compensation to their employees, had environmental management practices in place.

Benz & Frey, (2007); Denis, Hanouna, & Sarin, (2006) in their works have stated that incentives for their environmental actions encourages employees to use appropriate tools to enhance and enrich their pro-environmental attitude.

Wehrmeyer (1996), in his conceptual paper, state that, IBM in UK has an environmental action program, which encourages employees and their families by providing them grant, for participating in the local environmental programs. Further he adds that an environment action plan should be in place in the organizations and each and every employee should be given an opportunity to contribute towards the action plan. This will create an awareness on the green initiatives and will also bring new ideas.

Taylor et al., (1992) carried out a study that was qualitative in approach, in 16 companies from five different countries to identify the motivator of employee green behaviour. It was observed that employees were inclined to follow principles of green management, if the companies offered incentives for being pro-environmental.

Denton (1999) adopted a qualitative study among employees in Dow Chemicals, to find the motivating factor for employee involvement in pollution control. The study revealed that employees were rewarded monetarily, whenever they came up with waste reduction ideas.

Forman and Jorgensen (2001) carried out a qualitative study in two Danish companies to examine the employees' participation in environmental activities. The results revealed that

employees largely contributed to environmental activities. He further provided a theoretical framework to support that, rewards and compensation to employees, motivated them to participate in environmental efforts.

Winett, Kagel, Battalio, & Winkler, (1978) in their research on determinant of pro-environmental behaviours, found out that rewards is positively related to pro-environmental behaviours of employees.

Marans & Lee, (1993) contradicted that by stating that recycling behaviour of the employees revealed a weak correlation with that employees' perception on the benefits of the recycling behaviour.

Biga, Dilchert, Gibby, McCance and Doyle Oudersluys (2012) recommended that if the employees are satisfied with their job, they are more likely to engage in pro-environmental behaviour at work.

Ramus and Killmer (2007); Cordano and Frieze (2000) while studying the managers' OCBE, stated that perceived behavioural control plays a vital role in OCBE. These findings support and are said to be in line with Ajzen's Social Exchange theory.

Collier & Esteban, (2007) stated that employee's willingness to sacrifice results in successful green outcomes in the organization. They further add that, employees should be encouraged to come out with their innovative ideas, irrespective of their designation. This will further enhance their interest in environmental activities.

Ajzen (1985, 1987, 1991, and 2002) proposed the theory of planned behaviour, which was effectively applied to environmental-related behaviours by Cordano and Frieze 2000; Taylor and Todd, 1995. The theory posits that the intention to indulge in pro-environmental activities is determined by the attitude, subjective norm and perceived behavioural control. As an extension of this theory, Walker and Thomas (1982) refined the model into an integrative motivation model (IMM), 'developed specifically to help explain and predict the utilisation of [preventive] health care services'. They integrated both social norms and personal predisposition. As per Korman (1974), including variables for social norms and individual habits would increase the predictive validity of expectancy theory, as supported by the IMM.

Lulfs and Hahn (2013) towards their contribution to the literature of environmental psychology, proposed a complex model that discriminates distal predictors like awareness of need, organizational context, social norms and awareness of consequences from that of motivational determinants like, personal norms, perceived behavioural control and

environmental attitude, on employee willingness. As per this model, the habitual processes moderates the relationship between intentions and actions, towards pro-environmental behaviour.

Schaninger and Turnipseed (2005) brought out through their study that both perceived supervisory support and perceived organization support played a vital role in triggering employee commitment (EC), which led to voluntary initiatives and extra efforts in the environmental domain. They also observed that social exchange concept is based on the norm of reciprocity and occurs when employees respond effectively to an organization, supervisor or colleague, who provides something that is to be valued.

Hostager et al. (1998); Ramus and Steger (2000) established through their research that norms of the organization as expressed by the top management motivate employees to engage in Eco initiatives. Through such literature, it is understood, that pro-environmental norms as put forth by the top management acts as a motivator for employees, on their corporate greening behaviours.

Govindarajulu and Daily (2004) presented a theoretical framework by identifying environmental performance of a company and its relationship to employee motivation. Their study identified that management commitment, employee empowerment, rewards and recognition, feedback are vital variables to study the environmental performance of the company.

Brief & Motowidlo (1986) stated that prosocial behaviours are exhibited by individuals with an intention to bring in development in a group or organization. Morrison & Phelps (1999) further stated, such individuals exhibit 'taking charge behaviours', which can be classified under discretionary behaviours that is intended to bring in organizational change, comprising a strong value creating component.

Fishbein and Ajzen (1975) proposed that "corporate greening behaviours are best conceived of as a special type of prosocial organizational behaviour, and develop a model that connects the corresponding literature to behavioural intent models, especially the theory of reasoned action".

Gladwin (1993); Stark & Marcus (2000) examined the determinants that motivate employees to be pro-environmental, thereby contributing to corporate greening. They have provided a framework with a theoretical background to understand the motivators of pro-environmental behaviour.

Brief & Motowidlo (1986) states that pro-environmental behaviours comprises activities like being innovative in environmental issues, assisting colleagues on their environmental initiatives, and complying with these behaviours include assisting co-workers with job-related matters, providing superior services to consumers or complying with organizational policies.

Morrison and Phelps (1999) stated that corporate greening not only influence organizations, rather it extend to employees, suppliers, customers, families of employees and other members of the community. Corporate greening behaviours are categorised under pro-social behaviours and they have a strong value-creating potential.

Katz and Kahn (1978); Van Dyne et al. (1995) stated that organization behaviours are classified as in-role, as given in the job profile and extra role or discretionary behaviours, that are not mandated in the job profile. The in-role behaviours are compensated, and extra role behaviours are not formally rewarded. The challenge faced by management on these extra role behaviours is the time spent by employees on these corporate greening activities, though these behaviours benefit the organization, greatly.

Mischel (1973); Shamir et al. (1993) stated that corporate greening behaviours are triggered by motivators like personal predispositions and difference between organizational values and individual values. Rather many organizations consider goals and rewards as the greatest motivators.

Prior research works identified four motivators of extra role prosocial behaviours, namely supervisory support, perceptions, personal disposition and one's belief. Conger (1986); Conger & Kanungo (1988); Kanter (1979, 1983) established a positive relation between supervisory support and employee motivation towards corporate greening.

Stern's (2000); Ajzen (1991) provided the environmental literature, with two most frequently applied theories namely Value Based Norm Theory (VBN) and Theory of Planned Behaviour (TPB), respectively, on pro-environmental behaviour. VBN posits that values relate to an individual's beliefs which then form intentions to act through norms. But Stern et al (1999) explained a maximum amount of variance (35%) using this model, which means individual engagement cannot be explained in green behaviours.

TPB suggests that behaviour is driven by an intention which is itself driven by a combination of attitudes (whether you think it is a good thing to do), subjective norms (whether others think you should do it), and perceived behavioural control (whether you think you can

do it). Cheung, Chan & Wong (1999); Fielding, McDonald & Louis (2008); Fielding, Terry, Masser & Hogg (2008); Ramus & Killmer (2007); Taylor & Todd, (1995) in their works on TPB have brought about significant amount of variance in green behaviours such as reducing, reusing and recycling.

Harland, Staats & Wilke (2006) stated that, out of all the pro-environmental behaviours, TPB could explain only 13% of the variance, in changing to efficient bulbs; 40% of the variance in using green commuting.

Bamberg & Moser, (2007) in a meta-analysis brought out that attitudes, perceived behavioural control and moral norms predicted 52% of the variance in intentions. Intentions in turn translated only 27% of the variance in actual behaviour.

Dechant & Altman (1994) carried out a study to examine employee's perception on environmental behaviour of the organization. As per their study employees' perception becomes more important, as they prefer to work in firms, which are pro-environmental.

Lal (1995) conducted a study on pro-environmental behaviour, with three main objectives to develop an instrument, test the model and validate the model, on two groups. One group was with traditional drivers and one was with green drivers. A structural model was proposed, which linked environmental awareness, personal values, emotions, perceived control and behaviour and was tested. The empirical analysis showed there existed a significant difference between two groups.

Arth Prabhand (2012), in his conceptual work, tried to determine, if the antecedent of OCB had a role in individual performance and organizational performance. Antecedents of OCB like job satisfaction, organizational commitment, leadership behaviour, role perception and leadership behaviour were studied. The structural framework explained a positive relationship between the antecedents of OCB with organizational performance as well as individual performance.

Casler, Gundlach, Persons & Zivnuska (2010) stated that the employees are the ones who are directly involved in implementing 'Go Green Initiatives' in their organization, and hence they should be provided with a work environment, where they can express their opinion, on environmental issues.

Schultz, Tabanico, Shriver & Khazian (2004) in their research have stated that Environment attitudes are collection of beliefs, affect, concern, personal norms and values.

Kotchenb, Clarka, Moorea, (2003) incorporated components of psychology and that of economics, to bring out the vital variables, internal as well as external, that would describe the actual occurrence of pro environmental behaviour. Attitude and similar psychological variables were tested with income and similar environmental variables.

Dietz et al, (1998) conducted a study which considered the relationship between the socio-demographic variables and the pro-environmental behaviour of the employees. The study revealed a positive relationship between pro-environmental behaviour of employees and factors like, education and age. Apparently the rest of the factors did not bring out a consistent relationship.

Eagly & Chaiken (1993) in line with the theory of planned behaviour, stated that, the employees' attitudes towards environmental initiatives like, recycling and conservation of energy, revealed a moderate relationship with the respective behavioural intentions of the employees.

Meertens, Vollenk & Midden (2002) have stated the two variables intention and attitude, much talked about in the theory of planned behaviour plays a very meagre role in environmental decision-making.

Robert Eisenberger & Linda Rhoades (2002) in their research work on various determinants have found out that variables like values, attitudes and beliefs were weakly related to Perceived Organization Support. Demographic variables like, Gender, Age and Experience were also weakly related to Perceived Organization Support. Out of all the determinants fair treatment revealed the strongest relationship with POS; Supervisor support comes second in the list; while rewards and favourable job conditions exhibited the weakest, relationship with POS.

Jones & Scherbaum,(1990) ; Popovich & Finlinson (2008) in the same premise, while studying the environmental attitudes, identified that the attitude towards recycling paper and conservation of energy deliberated a moderate correlation with their respective behavioural intentions.

Marans & Lee (1993) in their work stated that the recycling behaviour of employees revealed a weak correlation if the recycling norms were more specific. The recycling behaviour of employees revealed a moderate correlation if the recycling norms were broader.

Newhouse, (1990) reviewed prior works on pro-environmental behaviour and stated that many researchers have established the relationship between pro-environmental behaviour

and environmental attitude. Indeed, nearly two-thirds of publications on environmental psychology, has included environmental attitude in some way or other.

3.4. ENVIRONMENT MANAGEMENT PRACTICES:

SHRM survey (2010) which was carried out to study the perception of human resource managers and employees, on environmentally responsible practices, resulted in determining the drivers and barriers of environmentally responsible practices. The major driver was found to be 'contribution to society', while the outcome of such practices was found to be 'improved employee morale' as perceived by the HR managers and 'stronger public image' as perceived by the employees. The major barrier was found to be the 'implementation cost'.

Kenexa research survey (2008) was carried out to study the perception of employees on Green initiatives of their organizations. During the research it was found that India ranks first in pro-environmental attitude of employees. Employees felt that green initiatives favoured the organisations. They further stated that organizations showed improvements in all areas, since green initiatives were initialised in the organization.

Haden, Oyler, and Humphrey (2009) in their research work, have figured out that the incorporation of environmental objectives and strategies, alongside the strategic development goals of a company, results in an effective environment management system.

Iraldo, Testa & Frey (2009); Yang, Lin, Chan & Sheu (2010) carried out a great extent of empirical research focussing on the impact of environment management practices, on performance of the organizations, using different parameters.

Haden et al. (2009) stated that the integration of environmental objectives and policies, called as 'green policies', into the overall strategic goals of an organization, enables an effective Environment Management System.

Daily et al.(2007); Unnikrishnan & Hegde (2007) stated that, as per the opinion of employees, organizations need to focus on technical and management skills of the employers that caters to the environmental issues in the organization, which turns out to be a major attribute in implementing an effective environment management system.

Beard & Rees (2000) have stated that green teams in the organizations were used to generate ideas, enhance learning experiences, explore issues, identify conflict and focus action to enhance understanding about why, what, how, where, and when to pursue the best practicable environmental options.

Paille et al. (2013) stated that environmental management practices in organizations, directly reinforced the perception of employees on supervisory and organizational support, which in turn results in OCBE initiatives.

Lin, Jones & Hsieh (2001); Hart (1997) in their research work have stated that organizations are in the lookout for advanced tools for environmental management and green initiatives, which will considerably improve the sustainability of the firm. This in turn promotes a competitive advantage of the firm.

Ones & Dilchert (2012) through their green taxonomy, which lists various activities to be carried out by employees in environmental context, have provided us with a framework which determines, if employees' inclination towards pro-environmental behaviour at work, is considered as core task, that is incorporated in the job description or a discretionary behaviour, that is not incorporated in it.

Marcus Wagner (2011) carried out a research to find out if the implementation of environmental management system is triggered by the benefits, it would bring in for human resource management of the organization. A longitudinal study was conducted in a German manufacturing firm in 2001 and 2006, which focussed on recruitment and employee satisfaction. The results established a strong relationship between Employee job satisfaction and implementation of environment management practices (EMP), and a moderate relationship between recruitment and environment management practices (EMP).

Dwyer (2009) developed a conceptual approach on 'greening of strategies'. It lead to discussion on incorporating a practical oriented approach on green initiatives, which would result in enhancing competitiveness and growth. This is further said to improve performance measurement as well as the accountability of green initiatives, in organization.

Suhaimi Sudin (2011) tried to explore the constructs of green HRM, on the premise of OCBE. He came out with a strategic model of green HRM, corporate environmental citizenship (CEC). Further the study established a positive relationship between corporate citizenship behaviour and green human capital.

Smith & Perks (2010) carried out a study to determine the impact of green practices on business functions. In this study he tried to empirically establish the perception on green initiatives, its impact on business functions etc., wherein variables like logistic functions were weakly related.

Renwick, Maguire & Redman (2013) carried out a survey in order to bring together the HR elements of environment management, which would open up new areas for future research. The work considered all elements of HR process namely, recruitment, training and development, performance appraisal, employee involvement, compensation and rewards, with relevance to corporate greening. As per them the factors which trigger environmental behaviour of the organization are stake holder pressure, consumers and competitors. And they have recommended the ways through which a company can become 'green' namely, strict recruitment strategies, training and development, rewards systems, employee involvement, employee empowerment and environment management system.

Jose & Jabbour(2012), studied the relationship between HR practices and environmental factors and stated that all the environmental factors like environmental policy, environmental training, reuse, recycle, reduce, environmental awareness, environmental management system, environmental recruiting, performance appraisal have a positive relation with environmental practices in the organization. Environmental training tops the list in exhibiting a positive relation with HR practices.

Russo and Fouts (1997) ; Roy, Boiral and Lagace (2001) ; Christmann (2000) ; Delmas and Toffel (2004) through their work have identified determinants of economic benefits like savings and innovation, environmental benefits like pollution prevention and waste minimization, and social benefits like improved image and relationships with stakeholders. All the above are said to be the determinants of environment management practices.

Mitchell and Cropanzano (2005) stated that the impact of environmental management practices are not, felt directly, but they indirectly influence organizational effectiveness in the presence of perceived supervisory support and perceived organization support. They are said to play a vital role in determining employee commitment and voluntary initiatives of the employees.

Hoffman (1993) stated that major social concern as of now is environmental protection, in which environment protection in organizations, is a major component. The study further reveals that EMPs play a significant role in increasing employee satisfaction and organizational commitment, both being major determinants of OCBE.

Lin et al., (2001) and Hersey (1998) states that An EMS includes documentation of commitment and policy, planning, Implementation, measurement and evaluation, and review and improvement.

Nalini and Daily (2004) have stated that the top management of organizations, exhibit their commitment to environmental improvement, either by implementing environmental management system in the organization or by acquiring an ISO 14000 certification.

Begley (1996) states that essentially, the ISO 14000 guidelines delineate the international standards for systems of environmental management.

Amichai & Shterental, (2009) through their research works have found that the perceived environmental commitment in organisations that are certified, was higher compared to, that are not certified. Further commitment was said to be higher among employees, who perceived that their organization has got an effective EMS in place and a positive relationship is established among these two factors. The results further delineated that environment commitment of the organization was positively related to OCBs of employees, within certified firms.

Haden et al., (2009) states that “the incorporation of environmental objectives and strategies into the overall strategic development goals of a company helps in arriving at an effective environment management system”.

Iraldo et al., (2009); Crowe and Brennan, (2007); Yang et al, (2010) have reviewed various empirical works which examined the impact of environment management practices on organizational performance, through various indicators.

Hart (1997); Lin et al., (2001) through their work have stated that Organizations indulge in developing innovative tools for environmental management which would have a great impact on the sustainability of the organization.

Zutshi and Sohal (2004); Bellesi et al. (2005); Bansal and Bogner (2002); Jiang and Bansal (2003) stated that ISO 14001 plays a vital role in guiding and shaping the implementation of environment management system in organizations. Apart from these green certification helps in demonstrating environment commitment of the organization, to the clients.

Zutshi and Sohal (2004), Bellesi et al. (2005), Bansal and Bogner (2002), Corbett and Cutler (2000), Delmas (2001) stated that for any organization, Obtaining ISO14001 certification will help build a green image, which in turn would foster confidence among the stake holders.

Meyer and Rowan (1977), states that embracing formal structures and operating standards not alone improve the organization's efficiency on environmental issues. The organization will be unable to achieve environmental efficiency, if the adoption is just a ceremony and if it is far behind implementation. They further add that implementation of environmental system are not in conformity with the standards and they always remain superficial, leading to ineffective environmental performance.

DiMaggio and Powell (1983), conducted a case study on nine organizations to examine the implementation of ISO standards. The implementation of ISO 14001 was interpreted, changed, and incorporated into organizational practices. The study considered the managers' statement on ISO and their behaviour towards ISO. This revealed that there exist a huge gap between the ISO standards and implemented system. The analysis of such myths on ISO 14001 certification elucidate that organization adopt such standards due to external pressures, while implementation remains ineffective.

DiMaggio and Powell (1983) states that standards such as ISO 14001 are adopted due to external pressures and as a social legitimacy rather than concern for environment.

Kitazawa and Sarkis (2000); Boiral (1998, 2001) states that "In case of ISO 14001, despite the existence of external pressures, a supposedly rigorous certification process, and very formally defined prescriptions, organizations seem to have considerable margin for manoeuvre in the way they actually integrate the standard requirements. This internal margin for manoeuvre is likely to encourage the development of ceremonial behaviour and a superficial conformity that transforms the standard into an organizational myth rather than a genuine tool for improving environmental management".

Meyer and Rowan (1977), Mizuchi and Fein (1999), Townley (2002), Boiral (2003) states that the concept of a rational myth refers to the rupture between the reassuring image of rationality, formalism, and intellectual rigour that an organization attempts to project by adopting somewhat superficial structures and systems perceived as legitimate on the one hand, and the organization's real practices on the other hand. Hence it is understood that organizations view ISO 14001 as a formal structure to bring in a green image, rather than the effective implementation of eco-initiatives.

Townley (2002), Scheid-Cook (1992), states that, one area that has not received much attention is the nature of the rationalized concepts and myths themselves, the institutional requirements to which individuals in organizations are obliged to respond. The emergence and

integration of rational myths in organizations has not yet been the subject of much study particularly concerning ISO standards and environmental management. On the other hand, the ambiguous relationship between environmental management system superficially adopted by an organizations motivated by stake holders pressure as well as social legitimacy and the real implementation practices is brought about by various studies.

Brunsson (1989), has established the paradoxes between, the political sphere, inclined towards the social legitimacy of firms and the action oriented sphere inclined towards effective implementation of the environment management system, motivated by desire for efficiency. These conflicts between political sphere and action oriented sphere, provide an origin point for organizational hypocrisy, expressed in deceptively coherent and legitimate ideas that have far more loose ends which obstructs the implementation of real practices.

Rugman and Verbeke (1998), Hoffman (1999), King and Lenox (2000), Jiang and Bansal (2003) Bansal and Roth (2000), through various studies have established that organizations tend to focus on eco-initiatives, when there is a regulatory or institutional pressure. He further adds that the implementation of the ISO 14001 process in organizations help us to understand the paradoxes of the implementation and integration process.

McKay (2001), Sharma (2000), Hart (1995) stated that leaving behind these paradoxes and pressures, the eco-initiatives of organizations is often defined as a reactive or proactive response, reliant on green awareness, the greatness of the external constraints, or the development of specific abilities in this field.

Welch et al. (2002, 2003); Potoski and Prakash (2005); King and Lenox (2000), state that constraints and obligating to the principle of incessant improvement, as recommended in the ISO 14001 system, enhances a proactive approach, which in turn encourages self-regulation of organizations.

Crane (2000) states that the bureaucracy stands as an obstruction for efficient environment management practices and hence, conformity of organizations that are certified, are at stake. Furthermore, implementation of environment management practices in organizations is dominated by bureaucratic and “amoral” processes, which intentionally avoid questions on serious ecological issues in the organization.

Welch et al. (2002, 2003) stressed that a positive relationship between implementation of ISO 14001 in an organization and environmental performance of the organization may result in increasing the number of green organizations. This will motivate organizations to adopt the

standards though not for effective environment management system, at least for publicizing the environmental responsiveness of the organization, which is called green washing.

Morrison and Milliken (2000), Glynn et al. (2000), Zbaracki (1998) states that managers of certain organizations always tend to disclose the positive side of the environment management system, while hiding their pitfalls.

Kitazawa and Sarkis (2000) state that quite a few qualitative studies on the implementation of ISO 14001 in organizations have emphasized the importance of employee participation in corporate greening of organizations. There are few other works that deal with paradoxes between bureaucracy nature of certification and its implementation as put forth by Boiral and Sala (1998), the vital role of the standards in bringing together environmental activities as put forth by Reverdy (2000), the external pressure from regulations and society, that urged managers to adopt the standards in the organization as put forth by Jiang and Bansal (2003).

3.5. CORPORATE GREENING

Nitya Prashant (2008) states that those organizations committed to the environment demonstrate this by routinely recycling, conserving energy and working with vendors who share similar values. This sets them apart from their competition by creating a positive employment brand, and establishes an emotional tie between the employee and organization.

Anna Clark, (2008) president of earth people, stated that Companies that successfully adopt a pro-environment policy can generate profits, provide positive social impact, and reduce environmental impact. This trinity of effects is known as the triple bottom line-a paradigm that weighs a company's social and environmental contributions along with its financials as a measure of success.

“Companies using the environmental lens are generally more innovative and entrepreneurial than their competitors,” writes the author. These companies foresee the emerging issues ahead of their competitors and seek opportunities to maximise their profits, by lowering their costs on environmental burden.

Moneva et al., (2007) states that the term ‘sustainability’ was first introduced by the Bruntland Commission in 1987, which focussed on “meeting the needs of the present without compromising the ability of future generations to meet their own needs”. This idea was

gradually penetrated into factors like environmental preservation and social well-being which involves noticeable changes in the managerial models.

These models mainly focused on the maximization of shareholders' value. In the current scenario, the companies have understood the necessity to be socially responsible, so as to have a competitive edge, and bring in financial success for the firm.

Wood (2008) states that "Corporations that cannot earn profits legally, ethically, and responsibly do not deserve to survive, nor can our planet afford for business to continue to treat their stakeholders as just another environmental factor to be managed".

Roman et al., (1999); Margolis and Walsh (2003); Orlitzky et al., (2003); van Beurden and Gossling (2008); Wu (2006) through their various research works and meta-analyses on the relationship between corporate environmental performance (CEP) and corporate financial performance (CFP) have confirmed that these two factors are positively related.

Schaltegger & Synnestvedt (2002) have stated that an organization can improve its financial performance by upgrading their environmental performance, which would help them induce cost savings and increase sales.

Ortas and Moneva (2009) have stated that an organization which has set a mark in corporate environmental performance, helps in efficient functioning of the firm, improve its financial situation and will be able to call the demands of all the stake holders.

Porter and Kramer (2006) points out an interesting fact that, while formulating the strategic management policies, the managers should not ignore environmental factors, which might hold back the organization from having a competitive edge, among the competitors.

Jabbour & Jose, 2012 has confirmed through Structural Equation Modelling, that all the components of HR process namely, recruitment, training and development, performance appraisal, compensation and employee relations reveal a positive a relationship with environment factors like environmental policy, environmental management system, environmental training, environmental awareness, reduce, recycle and reuse. Out of all the factors, environmental training tops the list with significant positive relationship with HR practices.

Raju (2012) in his research work on change management in organization, has discussed the issues and challenges faced by an organization, in the process of transforming a human resource department into a green team.

Faulkner, Carlisle, Viney, Howard (2005) have carried out a longitudinal study on UK organizations for a period of the years. Though the gap between formulation of policy and implementation seems to have narrowed down, still environmental issues are not much in focus in many firms. Organizations are much concerned about short-term imperatives rather than long-term ones.

Ehnert (2009) has carried out an exploratory study on the websites of European firms, and has provided an empirical evidence that EMS, CSR and Sustainability of the organizations played a vital role in attracting new employees as well as retaining and motivating existing employees.

Branco and Rodrigues (2009) carried out a similar study with small firms in Portugal, and he also confirmed the results.

Van der Zee (2008) states that “Previously, businesses assumed that incorporating ‘green’ into their business strategy would cost money, but they now realise that ignoring negative impacts on the environment will be costly in the future”.

Shrivastava (1995) in his work has argued, that organizations should not only focus on profit maximization and competitiveness, rather should focus on environmental activities, which would help them to have an edge over the other players.

Lankoski (2000), defined corporate environmental performance as “the level of harmful environmental impact caused by a firm so that the smaller the harmful environmental impact the better the environmental performance and vice versa”.

Academicians have been measuring corporate environmental performance through various indicators like energy and water usage (Wagner, 2005), number of penalties (Cohen, et al., 1995; Ngwakwe, 2009) and the number of environmental lawsuits (Konar & Cohen, 2001).

DeSimone & Popoff (2000) & Wagner (2005) stated that organizations can achieve efficiency in both economic and ecological aspects through eco-efficiency aspect. This can be achieved by reducing material usage, conserving energy usage, eliminating toxic waste and recycling materials. Further it is stated that this concept enables us to measure the output of the corporate environmental performance.

Shrivastava (1995) in her conceptual study summarized certain limitations on environmental issues as follows (1) environmental issues have always been ignored, (2)

neglecting the destructive aspects of the corporations and instead focusing on improving the corporations productivity to benefit stakeholders, (3) focusing on the risks related to the financial aspects, and neglecting the risks posed by technology, location, waste, and the impact on the natural environment, (4) it is emphasized that humans have the right to exploit nature without any real concerns to protect the environment, such concerns are meaningful only as a condition of human interests. She states that the traditional view on objectives and strategies of an organization should be changed so as to add new dimension to the success of an organization, apart from making profits and revenues.

Shrivastava (1995) established that technological upgradations on environmental issues, has significant impact on both environmental performance of the organization and its competitiveness.

Welford (1995) states that earlier the strategy of an organization was driven by pressure from production, personnel and information. But this decade is Corporate strategy has been driven by different forces in the past, by production pressures, personnel pressures, and more lately by information pressures. Now the corporates are open to environmental pressure, which requires them to modify their objectives and strategies so as to become pro-environmental.

Welford (1995) states that the organizations have not only modified their strategies so as to encompass environmental issues, they have also broadened their policies to include principles of sustainability.

Wheelwright (1973) and Gladwin (1977) through some of their earliest studies have stated that the relationship between organization and environment is influenced by factors like public pressure, which influenced the organization's initiative to bring down the effect of environmental degradation caused by the organization.

Gilbert, (1993); Stead & Stead, (1992); Ulhoi, (1993); examined the role of organizations in reducing the harmful effects on environment, caused by them. Hence they brought in a new strategy which got international environmental management systems embedded to it, namely BS 7750(British environmental management systems standard) and ISO 14001(International ISO). These above mentioned standards guide the corporations, on how to bring down the environmental effects caused by them.

Madsen & Ulhoi (2006) have stated that until these standards came into force, solutions on environmental issues could not be arrived to that extent with the help of self-regulation of the firms. Legislation and regulation by the government in the form of such standards have

been reported to have bring in development. They further add that regulating systems of the firms produced less results compared to that of standards by the government.

Biondi et al., (2002); Madsen and Ulhøi, (2001); Gadenne, (2009) have stated that SMEs are not much bothered about their environmental impact as they have a less environmental visibility, and hence they do not have stake holder pressure. Thereby SMEs assume their environmental impact is minimal. Friedman and Miles (2002) further strengthen this point that “one problem is that many SMEs consider their environmental impact to be minor or even insignificant”. Murillo & Lozano, (2006) through their study have identified that SMEs handle environmental issues without any system or regulation, and mostly on a personal ad hoc basis.

Hillary, (2000) have found out that the cumulative environmental impact from SMEs from all the industrialised sector of the world contribute to more than two thirds of pollution, across the globe and Schaper, (2002); SBS, (2004) states that these SMEs comprise almost 90% of all private sector company's in most industrialised nations. Hence they collectively bring in more environmental impact compared to large companies.

Gladwin (1993), insisted that management should start focussing their research on corporate greening and organizational theory. Starik and Marcus (2000) have also insisted the same in the Academy of Management Journal by stating: ‘the need still remains to link organizational theories to the greening processes. The relation between corporate greening and organizational theory seem to be obvious because the term ‘organizational greening’ implies that it is an organizational change process.

In fact, the scholars who contributed to the area of corporate environmental management, have always considered the concepts of organizational theory (Egri and Herman, 2000) values and leadership styles (Flannery and May, 2000) companies' norms and ethics (Andersson and Bateman, 2000) leadership and factors affecting change management (Cordano and Frieze, 2000). Hoffman, (1999); Ramus and Steger, (2000) have established links between organizational theory and environmental management.

Ramus and Steger, (2000) states that the theoretical development of corporate greening originate from innovative ideas from individuals or groups in organizations that shall largely contribute to the environmental performance of the organization which thereby contribute to the corporate greening.

Kolluru, 1994; Ruiz-Quintanilla et al., 1996 states that Eco initiatives bring in substantial change in business performance as they result in pollution reductions, conserving energy, greening the supply chain, reducing usage of resources, recycling and reusing the resources. (Buchholz, 1991; Donaldson and Preston, 1995) further states that organizations are under constant pressure from stakeholders to become pro-environmental and are striving hard to become one so as to satisfy the stakeholder s.

Ramus, (2002) states that despite constant pressure from stakeholders, to be pro-environmental, managers of organizations do not realise, the economic benefit it would bring in, though they have environmental policies and goals. Despite knowing the fact that eco initiatives lead to corporate greening, employees are not motivated enough to carry it forward.

Brunsson (1989); ScheidCook (1992); Weick (1976) states that several studies conducted to examine the implementation of eco-initiatives revealed, there exist a huge gap between environmental standards of the organization and implementation.

3.6. RESEARCH GAP:

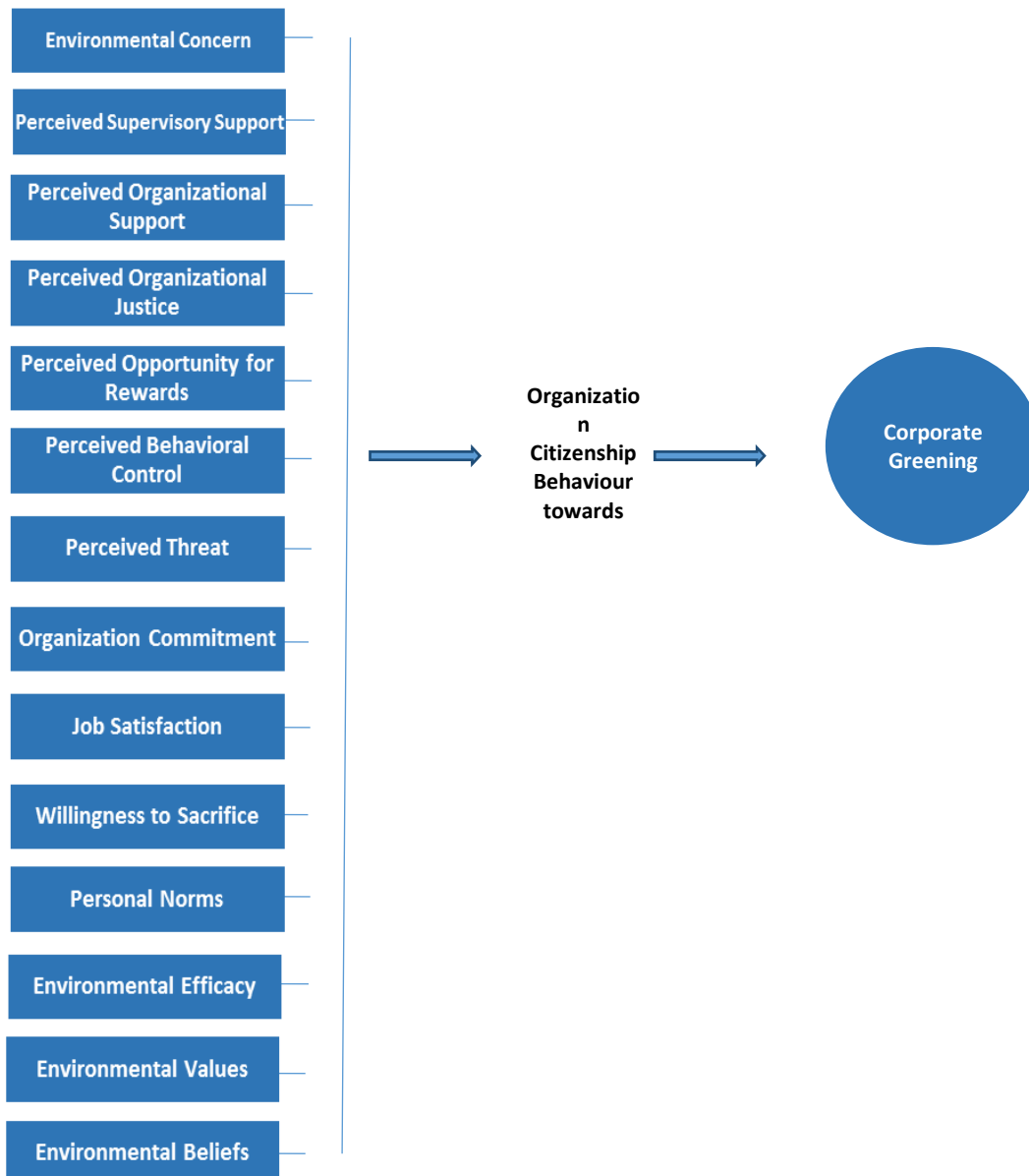
Having reviewed various works on Employee green Behaviour, Corporate environmental performance, Organization citizenship behaviour, Green human Resource Management and Green initiatives, the following research gaps were identified.

- Though many research works have been carried out in the area of Environment Management systems, since 1992, focus had been mainly on the compliance, production and marketing activities of the organizations and there are only handful of works that focussed on HR aspects. Even among them very few works looked into the Employee green behaviour, which is a major component of corporate greening.
- After having reviewed few works which deals with OCBE and employee green behaviour, it was found that those works have considered social exchange factors like POS, PSS and OC, which do not provide us with complete understanding of the determinants of the organizational citizenship behaviour towards environment.
- Focus had been mainly on the perceived organization support rather than the individual characteristics of the employees like Environmental concern, Environmental efficacy Willingness to sacrifice and Personal norms.
- The studies have also paid little attention to the three dimensions of OCBE namely, Eco-Initiatives, Eco-Civic engagement and Eco-Helping.

- The Information Technology sector is swiftly reacting to environmental issues, as the very process of IT Company, involves more of energy consumption, and is believed to be detrimental to the environment. And has got Environment Management System successfully implemented in their organizations. This sector being the high potential area for studying the pro-environmental behaviour of employees, there is no such study carried out so far in this sector, in India.

Hence the present study is an attempt to determine the Organizational as well as individual factors that contribute to employee green behaviour and their linkage to Organizational citizenship behaviour towards Environment. Further the impact of OCBE on Corporate greening is also be explored.

3.7. SCHEMATIC FRAMEWORK OF THE STUDY:



The schematic framework of the study was arrived at, after a thorough review of the major components of the study. It includes the possible determinants that were identified, whose role will be studied in the organization citizenship behaviour towards environment. Further the role of organization citizenship behaviour in corporate greening will also be studied.

CHAPTER 4

RESEARCH METHODOLOGY

The review of literature identified few gap areas in organizational citizenship behaviour towards environment. From this standpoint, research objectives for this study were formulated. The present research work has been conducted in three major IT Hubs in the southern part of India. The study focused on the following dimensions:

- Identifying and analysing the determinants of organizational citizenship behaviour towards environment, among employees.
- Examining the Managers' perspective on Employees role in corporate greening and impact of environmental practices in organization performance.

4.1. OBJECTIVES OF THE STUDY:

4.1.1. Broad Objective:

The broad objective of the present research is

- To study the determinants that influence organization citizenship behaviour towards environment.

This study aims at understanding the determinants which influence organization citizenship behaviour towards environment, from employees' perspective and role of employees in corporate greening, from managers' perspective. It further aims at studying the "green readiness" of IT companies.

Based on the broad objective, the following specific objectives were formulated.

4.1.2. Specific Objectives:

- To examine the role of demographics on Organization citizenship behaviour towards environment (OCBE).
- To identify the determinants of OCBE.
- To examine the relationship between the determinants and OCBE.
- To compare Employee's OCBE among IT Companies.
- To understand the role of Employees on Go green Initiatives, from managers' perspective.
- To study the impact of Environment Management Practices on Organization performance as perceived by the managers.
- To study the Managers' perspective of 'Green Readiness' of their organizations.

These objectives lead to the formulation of hypotheses, which were statistically analysed.

4.2. HYPOTHESES OF THE STUDY:

The Hypotheses of the study were framed based on the objectives. Hypotheses were formulated on two dimensions; 1) Determinants of organizational citizenship behaviour towards environment and their relationship with Employees' OCBE, 2) The role of employees on corporate greening, Impact of environment management practices and Green readiness as perceived by Managers.

Section I: In this section hypotheses were formulated to understand OCBE, with respect to Determinants and Demographic factors. .

H1 (a): There exists a significant difference on OCBE with respect to Age.

H1 (b): There exists a significant difference on OCBE with respect to gender.

H1 (c): There exists a significant difference on OCBE with respect to Educational Qualification.

H1 (d): There exists a significant difference on OCBE with respect to Designation.

H1 (e): There exists a significant difference on OCBE with respect to Experience.

H1 (f): There exists a significant difference on OCBE with respect to Organizational Experience.

H1 (g): There exists a significant difference on OCBE with respect to Organizational Size.

H1 (h): There exists a Significant Difference on OCBE with respect to IT Hubs.

H2 (a): Environmental Concern Has a Significant Effect on OCBE.

H2 (b): Personal Norms has a Significant Effect on OCBE.

H2 (c): Willingness to Sacrifice towards Pro-environmental Issues has a Significant Effect on OCBE.

H2 (d): Environmental Efficacy has a Significant Effect on OCBE.

H2 (e): Belief on Pro-environmental Issues has a Significant Effect on OCBE.

H2 (f) Values On Pro-environmental Issues has a Significant Effect on OCBE.

H2 (g) Perceived Threat on Pro-environmental Issues has a Significant Effect on OCBE.

H2 (h) Perceived Supervisory Support On Pro-environmental Issues has a Significant Effect on OCBE.

H2 (I) Perceived Behavioural Control on Pro-environmental Issues has a Significant Effect on OCBE.

H2 (j) Perceived Opportunity for Rewards on Pro-environmental Issues has a Significant Effect on OCBE.

H2 (k) Job Satisfaction has a Significant Effect on OCBE.

H2 (l) Organization Commitment has a Significant Effect on OCBE.

H2 (m) Perceived Organization Support has a Significant Effect on OCBE.

H2 (n) Perceived Organization Justice has a Significant Effect on OCBE.

H3: OCBE has a significant impact on Corporate Greening Initiatives.

Section II: In this section hypotheses were formulated to examine the role of employees on corporate greening, the Impact of environment management practices on organizational performance and 'Green readiness' of the companies as perceived by Managers.

H4: There Is a Significant influence of Organizational Size on Implementation of Green Initiatives.

H5: There Is a Significant influence of Organizational size on Environmental Management Practices.

H6: There is significant influence of The Manager's Experience on Perceived Barriers of Green Initiatives.

H7: There Is a Significant Influence of Manager's Experience on Driving Factors of Green Initiatives.

4.3. RESEARCH DESIGN AND METHODOLOGY:

4.3.1. Research Approach:

The present study is an empirical research with a descriptive approach.

Empirical Research: Is grounded on observed and measured phenomena and derives knowledge from actual experience rather than from theory or belief. The main components of empirical research are as follows:

Literature Review: Discussion on theoretical frameworks and previous studies, on the topic chosen.

Methodology: Includes the research design which describes the population, research process, and analytical tools.

Results: Findings generally presented in the form of statistical data.

Discussion: Implications of the results

The key characteristics of an empirical research are as follows

- Specific research questions
- Population, behavior, or phenomena -Definitions
- Description of the process used to study this population or phenomena, including selection criteria, controls, and testing instruments.

To satisfy and meet objectives of the study, qualitative methodologies along with quantitative techniques were employed. Various qualitative aspects of the behavioural and attitudinal components of the individual and organizational behavior were measured and analysed empirically by using different statistical and quantitative techniques.

Descriptive Approach: Involves gathering data that describes events and then organizes, tabulates, depicts and describes data collection (Glass & Hopkins, 1984). Descriptive studies reports summary data such as measures of central tendency, including the mean, median, and mode, deviation from the mean, variation percentage and correlation between the variables.

Descriptive approach is structured with clearly stated hypotheses based on the investigative questions. This clearly describes the features of Employees' OCBE, estimates the proportion of populations that have similar features and examines the association among the variables under the study.

4.4. SOURCES OF DATA:

Both primary as well as secondary data were collected for the present study.

4.4.1. Sources of Primary Data:

The study was designed in such a way, to identify the determinants of Employees' OCBE, as well as Employees' OCBE as perceived by the managers of the organizations. Hence primary data was collected from both employees as well as managers who are in charge of green initiatives in the organizations. Survey method was used for data collection. Two different specially designed Structured Questionnaires were used to collect data from the employees and the Managers. Respective Questionnaires were distributed among employees and Managers in IT companies.

4.4.2. Sources of Secondary Data:

Secondary data was collected from the Sustainability reports, journals, and books and from internet websites. The major sources of secondary data were published documents prepared by authors, which included journals, publications, periodicals and various books on different aspects of Green Initiatives. The background information was also collected through internet gateways and various bibliographic sources.

4.5. SAMPLE DESIGN

The research was carried out in 30 IT companies which topped the list in green initiatives across three major IT hubs namely, Chennai, Hyderabad and Bangalore.

4.5.1. Sampling Method

The sampling method adopted for the study involved purposive sampling

4.5.2. Purposive Sampling:

Purposive sampling, which is also known as **judgmental**, **selective** or **subjective** sampling, focuses on sampling techniques where the **units** that are investigated are based on the **judgement** of the researcher. The main goal of purposive sampling is to focus on particular characteristics of a population that are of interest, which will best enable the researcher to answer the research questions.

The sample being studied is not representative of the population, but for researchers pursuing **qualitative** or **mixed methods research designs**, this is not considered to be a weakness. Rather, it is a choice, the purpose of which varies depending on the **type** of purposive sampling technique that is used. The sampling is carried out in following three steps:

- A. Determining the characteristics of the respondents, from research perspective.
- B. Determining the population.
- C. Choosing the sample from the population.

Few parameters were identified to select organizations:

- List of top 100 companies from the Information Technology sector, as per the Dataquest report (2014) was taken.
- Out of the above list, companies that are registered with NASSCOM (National Association of Software and Services Companies), were chosen.
- Care was taken if the companies have green policies embedded to their corporate policies.
- Finally 30 companies, which are listed in the Global reporting Initiative, where they have to disclose their environmental impact periodically, were shortlisted for the study.

4.5.3. Description of the Sample for the Study:

The sample for the present study consisted of 794 employees from 30 IT companies across Chennai, Hyderabad and Bangalore. Employees included technical people, who hit the floor regularly, and who are in proximity with the green initiatives taking place in the

organization. As they are the ones, who are responsible for the success/ failure at the implementation level. First level, Middle level and top level software engineers were considered for the study.

The HR managers and the sustainability managers of the companies were contacted to get access to the employees for the survey to be carried out. The structured questionnaires were distributed to those employees and responses were collected.

Online version of the questionnaires were created and the links were sent to the employees. Managers' perspective was collected by another structured questionnaire that was specially designed to collect data from the managers who are responsible for the green initiatives in the organization, and responses were collected from 16 such managers.

Table 4.1 showing Distribution of the Sample: Employees and Managers across IT Hubs.

IT Hub	Employees	Managers
Chennai	264	7
Bangalore	249	3
Hyderabad	281	6
Total	794	16

4.6. DATA COLLECTION:

4.6.1. Tools/Instruments Used For Data Collection:

Data was collected using self-designed structured questionnaires which were tested and standardized by a pilot study.

- **Employee Green Behaviour Scale (EGB scale):** To collect data on how employees' organizational and individual perceptions influences Organization citizenship behaviour towards environment.
- **Interview Schedule Form for Managers:** To collect information on Green readiness, Environment Management Practices, Motivators & barriers of green initiatives and Employees role in green initiatives as perceived by the Managers.

4.7. CONSTRUCTION OF QUESTIONNAIRES:

There are two different approaches for generating scale items namely, the deductive or the inductive approach (Hinkin 1995). In this study deductive approach has been used wherein, items related to each construct were formulated based on extensive review of literature.

The Employees questionnaire was developed by adopting measures from prior studies and modifying them to fit the context of this study. All multi-item measures were based on five-point Likert scales. As the study involves various factors, items were adopted from relevant scales from prior works. The source of the constructs are listed in the table below.

Table 4.2 showing, Source of constructs of the questionnaire

Constructs	Original Source	With respect to pro-environmental behaviour
Organization Commitment	Bentein, Stinglhamber, and Vandenberghe (2002).	Pro-environmental behavior at work: Construct validity and determinants Pascal Paillé*, Olivier Boiral 1
Job Satisfaction	Hackman and Oldham (1975)	Pro-environmental behavior at work: Construct validity and determinants Pascal Paillé*, Olivier Boiral 1
Perceived Organization Support	Eisenberger, Huntington, Hutchison, and Sowa (1986)	Pro-environmental behavior at work: Construct validity and determinants Pascal Paillé*, Olivier Boiral 1
Perceived Supervisory Support	Kottke and Sharafinski (1988)	Linking environmental management practices and OCBE a social exchange perspective Pascal Paillé a , Olivier Boiral a & Yang Chen b
Environment Management Practices	Ramus and Montiel (2005).	Linking environmental management practices and OCBE a social exchange perspective Pascal Paillé a , Olivier Boiral a & Yang Chen b
Perceived behavioural control	Cordano and Hanson Frieze (2000)	Leading by Example: A Model of Organizational Citizenship Behavior for the Environment Olivier Boiral, David Talbot and Pascal Paillé*
Environmental Efficacy		German ISSP 2000 methods report
Willingness to sacrifice		A Value-Belief-Norm Theory of Support for Social Movements: The Case of Environmentalism Paul C. Stern
Beliefs and values		Ecological Attitude Scale

		Y Florian G. Kaiser ¹ , Sybille Wolfig And Urs Fuhrer
OCBE	Podsakoff and Mackenzie's (1994)	OCBE Scale: Boiral and Paille' (2012).
Environmental Concern		Organization Citizenship Scale :Keit Douglas
Organizational Justice And Rewards		Organization Citizenship Scale : Keit Douglas

The constructs were fit in the questionnaire such that, information on all dimensions of employee green behaviour could be elucidated.

4.8. DESCRIPTION OF THE DATA COLLECTION TOOLS:

4.8.1. The Employee Green Behaviour Scale (EGB Scale):

The scale designed for studying the employee green behaviour consisted of two dimensions: 1) individual factors and 2) the organizational factors as perceived by the individuals. The individual factors include, environmental efficacy, values, beliefs, personal norms, environmental concern, organization commitment and willingness to sacrifice. The organizational factors as perceived by the individuals include, perceived threat, perceived behavioural control, job satisfaction, perceived organization support, perceived supervisory support, organizational rewards and perceived organizational justice.

4.8.2. Managers' Interview Schedule Form:

The scale designed for studying the Managers perspective on Employee green behaviour and the green readiness of the organizations consisted the following factors: Go green initiatives, Environmental management practices, barriers go green initiatives, drivers of green initiatives, impact of environmental management practices and few open ended questions.

4.9. PILOT STUDY

A Pilot study was conducted on a sample of 100 respondents to validate the questionnaire for the study.

4.9.1. Sample Design: The study was carried out in IT/ITES companies situated in Chennai, Hyderabad and Bangalore. Purposive sampling was used to select the respondents. 100 respondents from various IT/ITES companies were taken as a sample.

4.9.2. Data Collection: Data was collected through structured questionnaire for employees. Hardcopies were distributed and collected by the researcher. Online responses were also collected by sending them the link of the online questionnaire.

4.9.3. Data Analysis: Data thus collected was analysed to test the reliability of the specially designed questionnaires. Reliability tests such as Cronbach's alpha and Split Half method were used to test the internal consistency of both scales.

4.9.4. Validity of the Questionnaire:

Validity is the ability of the instrument to measure what it is intended to measure. The extent to which an empirical measure adequately reflects the real meaning of the concept under consideration. (Babbie, 1989) Two main types of validity which research need and must take account of, include external and internal validity.

4.9.4.1. External Validity: It refers to the extent to which the results of a sample are transferable to a population. Generalizability depends on whether the observed measurement is representative of the statistical population. The sample design adopted in the present study (Purposive sampling) has facilitated the selection of a representative sample of the general population. Thus the population validity exists in the present study and thus it can be considered to have external validity.

4.9.4.2. Internal Validity: It reflects the extent to which the content of a measurement reflects the intended content to be investigated. As the questionnaires (Scales) were prepared through the deductive as well as inductive approach, the contents of the scale could be considered to be valid as it has incorporated opinions of industry experts in the area of employee green behaviour. Also, a review of literature and information available on employee green behaviour has given clear insights into the valid content for designing both the scales.

4.9.4.3. Content Validity: The extent to which a measuring instrument covers a representative sample of the domain of the aspects measured, whether items and question cover the full range of the issues or problem being measured. As the questionnaire has considered all the items pertaining to this domain, from prior research, which are proved empirically and hence satisfies the requirement of content validity.

4.9.4.4. Construct Validity: Construct validity involves relating a theoretical concept to a specific measuring device or procedure. It refers to the degree to which inferences can legitimately be made from the operationalization in the study to the theoretical constructs on which that operationalization is based. As the present questionnaires are being prepared after a thorough study of the literature, the theoretical relationships between the measures of the concepts are examined and the empirical evidence is interpreted in terms of how it clarifies the construct validity of the particular measure being tested.

4.9.4.5.Face Validity: The extent to which a measuring instrument appears valid on its surface, each question or item on the research instrument must have a logical link with the objectives. Due care was taken while constructing the questionnaire that each of the item in the questionnaire must have strong link to the objectives thus satisfying face validity.

4.10.1. Reliability

Reliability consists of two features: First one is the repeatability, that is, the researcher would get the similar results if the questionnaire is tested on the same group later. The second one is the consistency of the questionnaire. The present study has used both internal consistency method and Split half method to test the reliability of the scale.

4.10.1.1. Internal Consistency Method: It is used to determine a scale's reliability by measuring the commonness of a set of items that measure a particular construct. It measures the consistency of presentation between test items by computing the coefficient of correlation. The more the test items intercorrelate, the higher is the internal reliability i.e., all the items in the test are measuring the same characteristic.

Cronbach Alpha test was used to assess the internal reliability. An alpha of 0.8 or above is regarded as highly acceptable for assuming homogeneity of items, while 0.7 is the limit of acceptability.

Table 4.3 showing the Reliability analysis of Employee Green Behaviour Scale:

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.947	.953	54

The employee Green Behaviour scale consisting of 54 items was tested for reliability and the alpha value was found to be 0.947.

4.10.1.2. Split-Half or Inter-Item Reliability Method: It is based on the proposition that many temporary factors could be eliminated if a reliability coefficient could be determined from the values of a single assessment or observation. The two values can be obtained simply by splitting the assessment into halves. A commonly accepted way of splitting a test into two halves is to divide it into odd numbered items and even numbered items. The values in one half are correlated with the other half. The two halves must be equivalent. This test was used to correlate the odd-even items on the test.

Table 4.4 Showing Split Half Reliability Test for Employee Green Behaviour Scale:

Cronbach's Alpha	Part 1	Value	.874
		N of Items	27 ^a
	Part 2	Value	.937
		N of Items	27 ^b
	Total N of Items		54
Correlation Between Forms			.783
Spearman-Brown Coefficient	Equal Length		.878
	Unequal Length		.878
Guttman Split-Half Coefficient			.877

The second reliability test was carried out through Split Half method, Spearman-Brown Coefficient value was .878. The Guttman Split Half Coefficient value was 0.877. The obtained Correlation value of 0.783 shows high correlation between both the halves of the scale.

Scales are considered as reliable for academic purposes if the alpha coefficient exceeds 0.7. Hence, it may be accepted that Employee Green Behaviour Scale can be used to study the determinants of organization citizenship behaviour towards environment based on the values obtained.

Therefore, the Employee Green Behaviour scale so constructed are found to be reliable and valid and could be further used for final data collection and analysis.

CHAPTER 4

ANALYSIS AND DISCUSSION

The standardised questionnaires were administered to the sample of 794 Employees who belong to the technical department of IT companies, and 16 Managers who are in charge of sustainability initiatives in the companies. The sample was selected from IT companies located in the three major IT Hubs, namely, Chennai, Hyderabad and Bangalore. Online responses were collected by sending links and offline responses were collected by distributing questionnaires to the respondents.

The data thus collected was coded, tabulated, tested empirically using SPSS 20. Descriptive statistics and inferential statistics were used to analyze data. Descriptive statistics include frequency distribution and standard deviation were used, inferential statistics, like Correlation, Regression, ANOVA, T-test and Factor analysis. Each hypothesis was empirically tested as per the objectives of the study and conclusions were drawn accordingly. The entire analysis is divided into two sections:

Section I – Analysis based on Employees’ responses

Section II – Analysis based on Employers’ responses

5.1. SECTION I-ANALYSIS BASED ON EMPLOYEES RESPONSES

This section deals with the analysis of the factors which contribute to the OCBE of the employees. This was analysed using the OCBEGB scale which was standardised and validated in the pilot study.

5.1.1 Frequency Distribution of the Sample:

In the present study, the demographics of the employees were collected through the instrument, so as to understand how the perception varies based on these factors namely, Age, Gender, Educational qualification, overall experience, Organizational Experience, Designation and IT hubs. The following tables and charts provides us with the frequency distribution of the respondents based on these demographic factors.

Table 5.1 Showing The Frequency Distribution Of The Sample Based On Gender:

Gender	Frequency	Percentage
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Male	558	70.3
Female	236	29.7
Total	794	100.0

The above given table shows the frequency distribution of the sample based on gender. Out of the 794 respondents, who comprised the representative sample of IT companies from Chennai, Hyderabad and Bangalore, 558 (70.3%) are males and 236(29.7%) are females. The below given chart depicts the distribution of the sample based on gender.

Chart 5.1 Showing The Distribution Of The Sample Based On Gender:

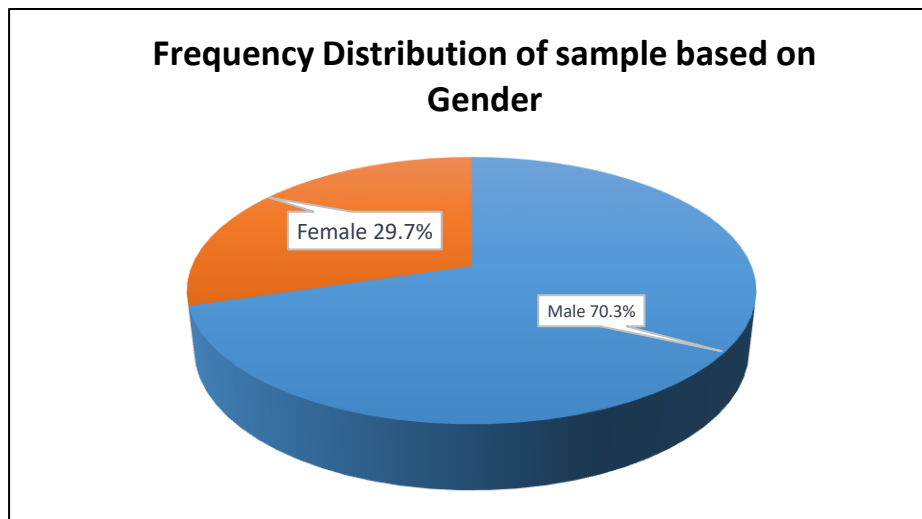


Table 5.2 showing the frequency distribution of the sample based on Age:

Age	Frequency	Percentage
Below 30	517	65.1
30-40	205	25.8
40-50	72	9
Total	794	100.0

The above given table shows the frequency distribution of the sample based on Age. Out of the 794 respondents, 514 (65.1%) of them belonged to 'Below 30' age group, 205(25.8%) of them belonged to '30- 40' age group, and 72 (9%) of them belonged to '40-50' age group. As IT companies attract more freshers, most of the technicians belong to the age group of 'Below 30', while senior technicians and middle level managers belong to the age group of '30-40'. Top level managers comprise the '40-50' age group and most of the employees quit the job once they attain 50. Hence the corresponding decrease in the number of employees as the age of the employees increase.

Chart 5.2 Showing The Distribution Of The Sample Based On Age:

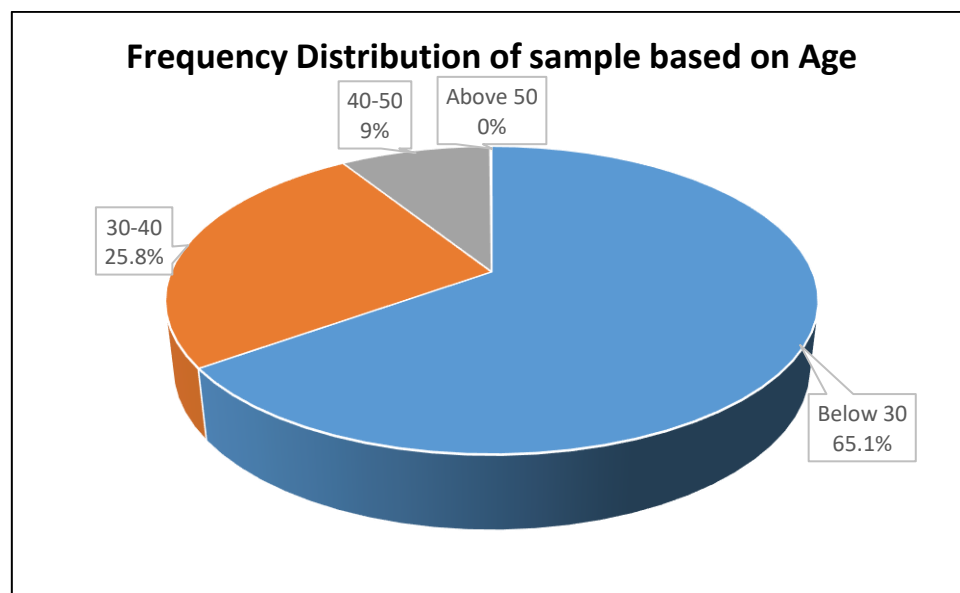


Table 5.3 Showing The Frequency Distribution Of The Sample Based On Education:

Educational Qualification	Frequency	Percentage
Arts	167	21.0
Science	161	20.3
Commerce	110	13.9
Engineering	356	44.8
Total	794	100.0

The above given table shows the frequency distribution of the sample based on Educational qualification. Out of the 794 respondents, 356 (44.8%) of them belonged to 'Engineering' group, 167(21%) of them belonged to 'Arts' group, 161 (20.3%) of them belonged to 'Science' group, and 110 (13.9%) of them belonged to 'Commerce' group. As the preferred degree for an IT employee is engineering, the sample comprised more of engineering graduates and rest of them were almost equally distributed among Arts, Science and Commerce.

Chart 5.3 Showing The Distribution Of The Sample Based On Education:

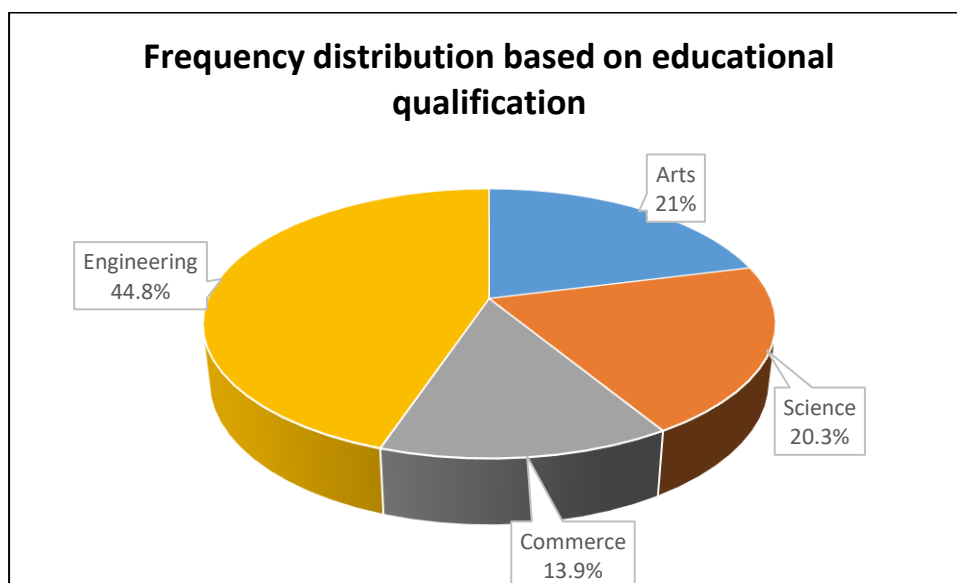


Table 5.4 Showing the Frequency Distribution Of The Sample Based On Overall Experience:

Overall Experience	Frequency	Percentage
Less than 5 Years	325	40.9
5-10 Years	327	41.2
10-15 Years	79	9.9
Above 15 years	63	7.9
Total	794	100.0

The above given table shows the frequency distribution of the sample based on Overall Experience. Out of the 794 respondents, 327 (41.2%) of them belonged to '5-10' years of

Overall Experience, 325(40.9%) of them belonged to ‘Less than 5 years’ of overall experience, 79 (9.9 %) of them belonged to ‘10-15’ years of overall experience, and 63 (7.9%) of them belonged to ‘Above 15 years’ of overall experience. Most of the respondents had an overall experience of less than 10 years because, as mentioned earlier, most of the fell under below 30 age group.

Chart 5.4 Showing The Distribution Of The Sample Based On Overall Experience:

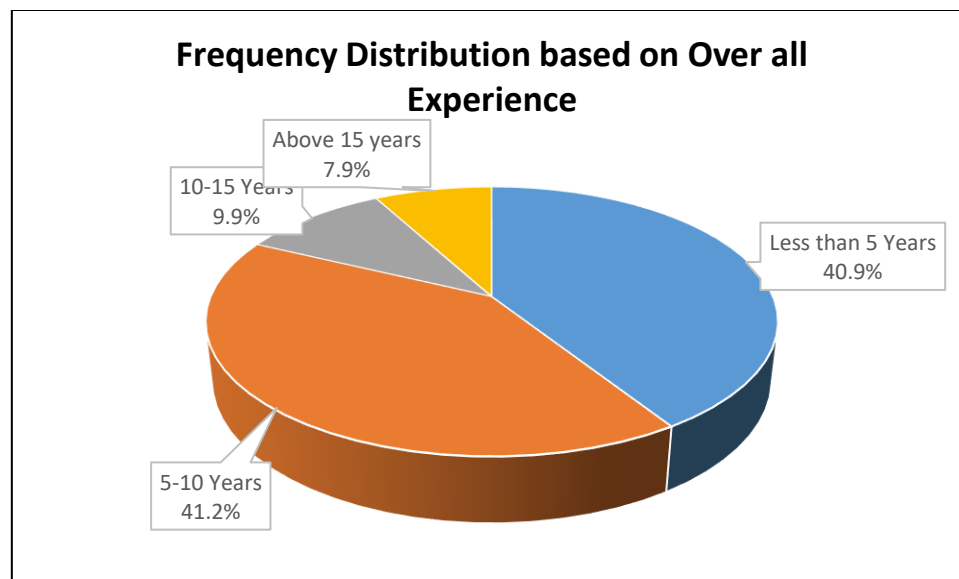


Table 5.5 Showing The Frequency Distribution Of The Sample Based On Organizational Experience:

Organizational Experience	Frequency	Percent
Less than 5 Years	531	66.9
5-10 Years	221	27.8
10-15 Years	37	4.7
Above 15 years	5	.6
Total	794	100.0

The above given table shows the frequency distribution of the sample based on the current organizational experience. Out of the 794 respondents, 531 (66.9%) of them belonged to ‘Less than 5 years’ of organizational Experience, 221(27.8%) of them belonged to ‘5-10 years’ of organizational Experience, 37 (4.7 %) of them belonged to ‘10-15’ years of

organizational experience, and 5 (.6%) of them belonged to ‘Above 15 years’ of organizational experience. The organizational experience of the respondents are corresponding to the age of the respondents.

Chart 5.5. Showing The Distribution Of The Sample Based On Organizational Experience:

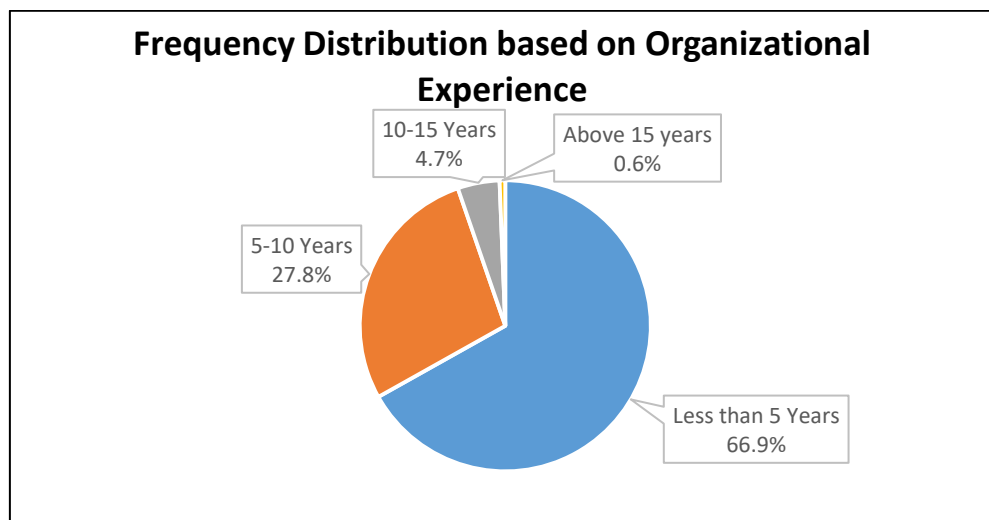


Table 5.6 showing the frequency distribution of the sample based on Designation:

Designation	Frequency	Percentage
First Level	379	47.7
Middle Level	407	51.3
Top Level	8	1.0
Total	794	100.0

The above given table shows the frequency distribution of the sample based on their designation. Out of the 794 respondents, 379 (47.7%) of them belonged to ‘First Level’ like Technicians, Junior programmers and Support Engineers of each organization. 407(51.3%) of them belonged to ‘Middle level’ like senior support engineers, Delivery Managers 8 (1.0 %) of them belonged to ‘Top-Level’ like Senior Managers and Vice Presidents. The below given chart depicts the frequency distribution based on designation.

Chart 5.6 showing the distribution of the sample based on Designation:

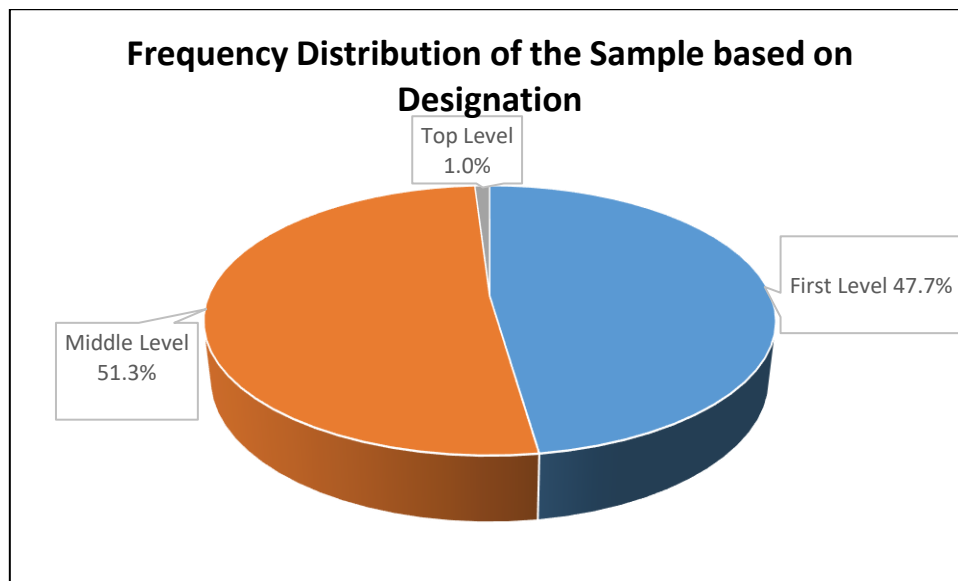
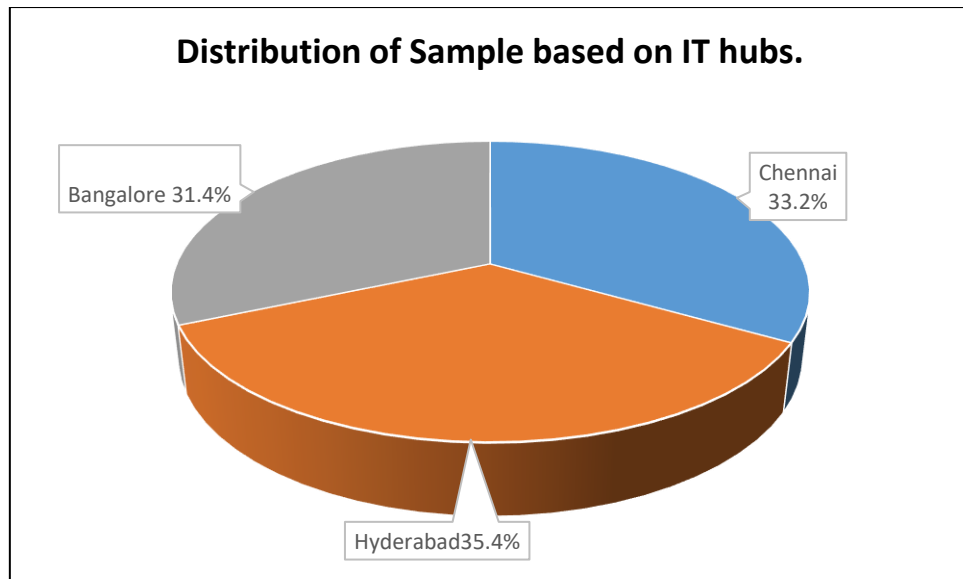


Table 5.7 showing the frequency distribution of the sample based on IT Hubs:

IT Hub	Frequency	Percentage
Chennai	264	33.2
Hyderabad	281	35.4
Bangalore	249	31.4
Total	794	100.0

The above given table shows the frequency distribution of the sample based on the IT hubs. Out of the 794 respondents, 264 (33.2 %) of them hail from ‘Chennai’, 281(35.4%) of them hail from ‘Hyderabad’ and 249 (31.4 %) of them hail from ‘Bangalore’.

Chart 5.7 showing the distribution of the sample based on IT hubs:



5.1.2. Descriptive Statistics:

Statistical techniques which are used to describe the data referred to as descriptive statistics which summarize sets of numerical data. The term descriptive statistics relates to the process of collecting, organizing, and a presenting data in some manner that quickly and easily describes the data

The data collected for the present study was analysed using descriptive statistics which includes measures of central tendency such as Mean median and Mode as well as measures of dispersion such standard deviation and variance. Measures of central tendencies describes the central position of a frequency distribution in a grouped data. Measures of dispersion describes the dispersion of data from its mean.

In this study the possible determinants of organization citizenship behaviour towards environment, under two dimensions namely, Individual and organizational, are listed as follows:

- Individual
 - Environmental Concern
 - Personal Norms

- Willingness to sacrifice
- Environmental Efficacy
- Belief
- Values
- Perceived Threat
- Perceived behavioural control

➤ Organizational

- Job Satisfaction
- Organization Commitment
- Perceived Organization support
- Perceived Supervisory Support
- Perceived Opportunity for Rewards
- Perceived Organization justice

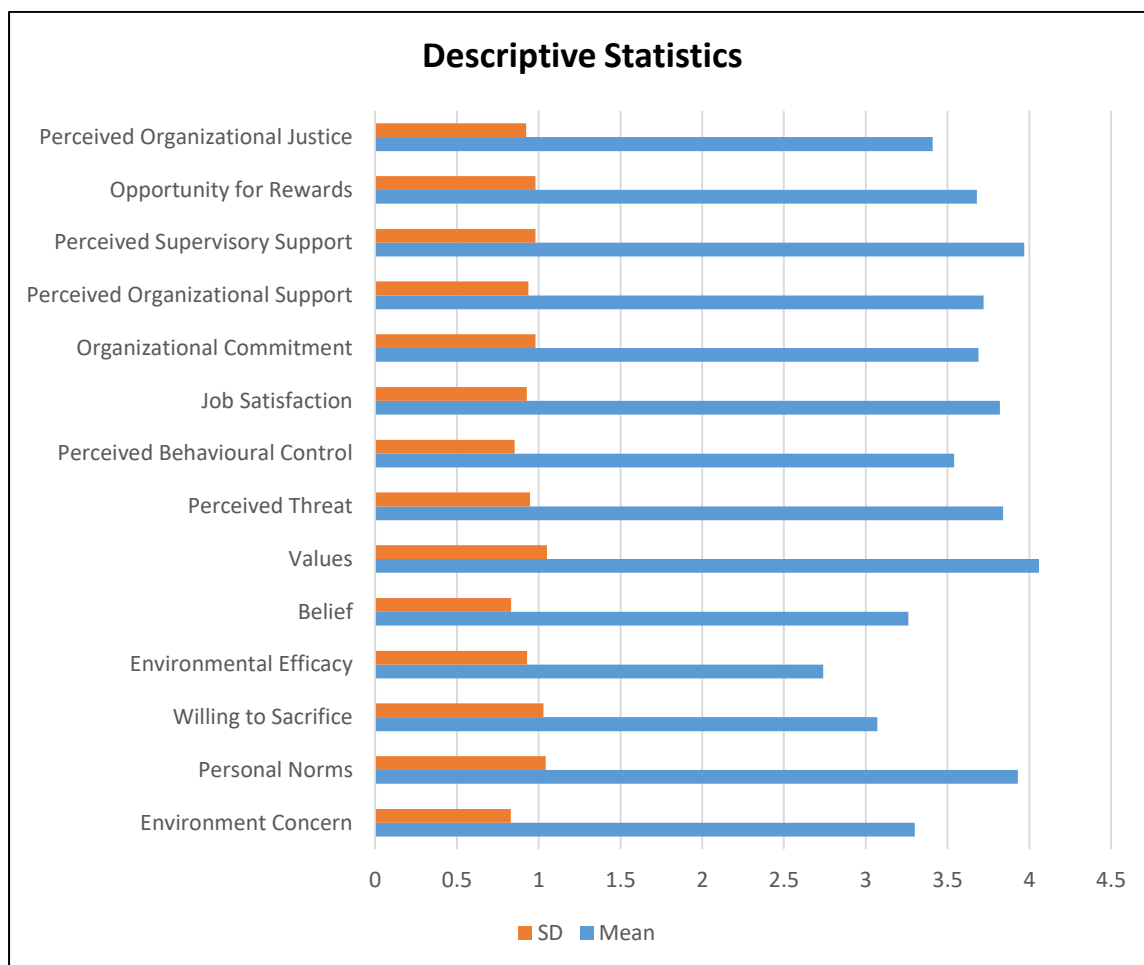
These variables were analysed and descriptive statistics was carried out to understand the mean values.

Table 5.8 showing descriptive statistics of all the variables of pro-environment behaviour of employees:

Variables	Min.	Max.	Mean	Std. Deviation	Variance
Environment Concern	1	5	3.3	0.83	0.689
Personal Norms	1	5	3.93	1.043	1.087
Willing to Sacrifice	1	5	3.07	1.028	1.056
Environmental Efficacy	1	5	2.74	0.929	0.862
Belief	1	5	3.26	0.832	0.692
Values	1	5	4.06	1.051	1.105
Perceived Threat	1	5	3.84	0.946	0.895
Perceived Behavioural Control	1	5	3.54	0.852	0.725
Job Satisfaction	1	5	3.82	0.927	0.859
Organizational Commitment	1	5	3.69	0.98	0.961
Perceived Organizational Support	1	5	3.72	0.936	0.876
Perceived Supervisory Support	1	5	3.97	0.979	0.959
Opportunity for Rewards	1	5	3.68	0.979	0.959
Perceived Organizational Justice	1	5	3.41	0.923	0.852

Descriptive statistics of the study show that employees' 'values' on environmental issues, has the highest mean value of 4.06, followed by 'perceived supervisory support' with mean value of 3.97 and 'personal norms' with mean value of 3.93. This reflects that one's values on certain issues, influences his/her actions towards such issues. Environmental efficacy, that is the employees' perception on their ability, has the lowest mean. Hence the result if central tendency reflects that Employees values on pro-environmental issues contributes towards the organization citizenship behaviour. Employees perception on supervisory support and Personal Norms of the employees, have relatively high means.

Chart 5.8 showing descriptive statistics of all the variables of pro-environment behaviour of employees:



5.1.3. Inferential Statistics:

Inferential statistics is all about making inferences about populations using data drawn from the population. Rather than collecting data from the entire, the statistician will collect a sample or samples from the millions of residents and make inferences about the entire population using the sample. The two methods of inferential statistics are,

1. Estimation of Parameters- refers to the process by inferences are made about a population, based on information obtained from a sample.
2. Testing of Hypotheses- Hypothesis testing is a process which uses sample data, so as to evaluate the credibility of a hypothesis, about a population.

In the present study, Testing of Hypotheses was used, so as to bring out inferences from the data. Hypothesis testing is one of the most important concepts in research. Here the logic seems to operate backwards. The logic of traditional hypothesis, requires that we set up two competing statements, the null hypothesis and the alternative hypothesis. The null hypotheses

is an assumption that any difference or relationship that exists between populations is due to chance. The alternative hypothesis is a restatement of hypothesis in the same terms as those used in the null hypothesis except that the differences or relationship are assumed to be real and not due to be chance. These hypotheses are mutually exclusive and exhaustive.

In the present study hypotheses were formulated based on the objectives and research questions, and they were tested using appropriate statistical tools. As mentioned earlier the first section deals with analysis based on employees' responses.

5.1.3.1 Demographics based analysis

It is evident from the prior studies that pro-environmental behaviours have a strong correlation with age, gender, religiosity and race. (Stern, Dietz & Kalof, 1993; Franzen & Meyer, 2010; Johnson, Bowker & Cordell, 2004). Hence the influence of demographic factors such as Age, Gender, Education, Experience and Organization size on OCBE were studied.

H1 (a): There exists a significant difference on OCBE with respect to Age.

This hypothesis was framed in order to find out if there is any difference on OCBE exhibited by the respondents with respect to their age. Analysis of Variance (ANOVA) which is multi variate statistical tool, is used to find out the statistically significant difference among groups, if they are more than two. It is of two types, namely one way ANOVA and Two way ANOVA. In the present study One-Way ANOVA is used.

Table 5.9 showing ANOVA:Age on OCBE

Descriptives								
OCBE VS Age								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Less than 30	517	3.4812	.95721	.04210	3.3985	3.5639	1.00	5.00
31-40	205	3.6327	.92987	.06495	3.5046	3.7607	1.00	5.00
41-50	72	2.7278	1.24880	.14717	2.4343	3.0212	1.00	5.00
Total	794	3.4520	1.00741	.03575	3.3818	3.5222	1.00	5.00
OCBE								

			Sum of Squares	df	Mean Square	F	Sig.
Between Groups	(Combined)		44.898	2	22.449	23.368	.000
	Linear Term	Unweighted	35.878	1	35.878	37.346	.000
		Weighted	13.319	1	13.319	13.864	.000
		Deviation	31.580	1	31.580	32.872	.000
Within Groups			759.903	791	.961		
Total			804.802	793			

Considering the prior works that which tried to establish relationship between Age and Pro-environmental behaviour, common stereotypes reflected in the media and popular studies indicate that older individuals are purportedly less environmentally concerned than younger ones. (Irvine 2012, Twenge et al 2012). Older workers are also often characterized as inflexible, unwilling to adopt new habits, and unable to learn new skills (Dennis and Thomas, 2007).

As employees enter middle age they are more likely to move into high level managerial and leadership positions that afford them the opportunity to encourage and motivate other employees, implement training program and provide support for others. However older employees also hold strong value for properly completing work, frugality and responsibility (Morris & Venkatesh 2000, Smola & Sutton, 2002) and the personality traits conscientiousness and agreeableness tend to increase with age (Roberts et al, 2000). These characters are at the core of many pro-environmental behaviour such as reducing use, avoiding waste and proper waste disposal. So age-related traits suggest that older workers may perform more of their behaviours. Few studies have found environmental concern to be higher among younger individuals (Wiernik, 2016)

The Mean values reveal that Employees belonging to the age group 31-40 ($X=3.6327$), exhibit more of OCBE, followed by Less than 30 Group ($X=3.4812$) and respondents belonging to 41-50 age group ($X=2.7278$), comparatively exhibit lesser level of OCBE. The difference between these groups with respect to OCBE level, is statistically significant ($p=.000$).

Hence the hypothesis there exists a significant difference on OCBE with respect to age is **accepted**.

H1 (b): There exists a significant difference on OCBE with respect to Gender.

This hypothesis was framed in order to find out if there is any difference on OCBE exhibited by the respondents in their work environment, with respect to their gender. As there are only two groups Males and Females, the statistical tool, T-test was used to find out if there is any statistically significant difference between these two groups.

Table 5.10 showing T-test: Gender on OCBE

Group Statistics										
	GEN	N	Mean	Std. Deviation				Std. Error Mean		
OCBE	Male	558	3.5543	.94471				.03999		
	Female	236	3.2102	1.10714				.07207		
Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
										Lower
OCBE	Equal variances assumed	10.086	.002	4.451	792	.000	.34413	.07731	.19237	.49589
	Equal variances not assumed			4.175	386.550	.000	.34413	.08242	.18208	.50618

Considering the prior works which tried to establish relationship between Gender and environment behaviours, the relationship between gender and pro-environmental behaviour was also found to be robust across fourteen countries, with females reporting greater

participation in pro-environmental behaviours than males in eleven of fourteen countries (Zelezny, Chua & Aldrich, 2000).

In contrast to the findings (Kathrine Schraiber, 2011) that women are wired to look at nature in a particular way- and that leads to a different sense of environmental concern, the female employees in this study, exhibited comparatively less OCBE, to that of males. Studies have also found out that women are more likely to participate in a greater number of private behaviours than men do, whereas men tend to perform public behaviours more often than women (Mcstay & Dunlap, 1983; Mohai, 1992).

Interestingly the result is supported by a university of St. Thomas study, which reveals that women who say, their appearance is largely important to their self-concept and who feel it's crucial to always look their best, engage in very fewer planet-friendly behaviours and express fewer green attitude than less appearance-observed women do. Observing one's own appearance prevents them from feeling connected to the world beyond their body, wherein the concept of attention allocation comes in, where one devotes time for his/her looks and would not have much left for the world.

The Mean values reveal that males ($X = 3.5543$) exhibit more of OCBE than females ($X = 3.2102$) in IT companies, and the difference is statistically significant ($p = .000$).

Hence the hypothesis there exists a significant difference on OCBE with respect to gender, is **accepted**.

H1 (c): There exists a significant difference on OCBE with respect to Educational Qualification

This hypothesis was framed in order to find out if there is any significant difference on OCBE exhibited by respondents with respect to their educational qualifications. Four major educational backgrounds in India were taken into consideration. One-way ANOVA was used, as there are more than two groups.

Table 5.11 showing ANOVA: Education on OCBE

Descriptives								
OCBE								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Arts	167	3.0018	.97273	.07527	2.8532	3.1504	1.00	5.00
Science	161	3.3478	1.14712	.09041	3.1693	3.5264	1.00	5.00
Commerce	110	3.6364	.80180	.07645	3.4848	3.7879	1.30	5.00
Engineering	356	3.6534	.93950	.04979	3.5554	3.7513	1.00	5.00
Total	794	3.4520	1.00741	.03575	3.3818	3.5222	1.00	5.00
OCBE								
				Sum of Squares	df	Mean Square	F	Sig.
Between Groups	(Combined)			53.770	3	17.923	18.853	.000
	Linear Term	Unweighted		53.265	1	53.265	56.029	.000
		Weighted		49.144	1	49.144	51.694	.000
		Deviation		4.626	2	2.313	2.433	.088
Within Groups				751.032	790	.951		
Total				804.802	793			

Considering the prior works on establishing relationship between educational qualification and pro-environmental behaviour, environmental attitudes found to be stronger for certain attitudinal scales for more highly educated individuals (Tarrant & Cordell, 1997). In a contemporary meta-analysis of the education and environmental behaviour literature, D' Mello, Wiernik, Ones and Dilchert (2011) confirmed a general positive trend between education and sustainability.

More educated people tend to engage in more recycling behaviours (Arbuthnot, 1977) and purchase more environmentally conscious products (Thogerson and Olander, 2006). The awareness level among people who were into technical education, had small to moderate positive relationships with conserving behaviours, such as recycling, avoiding waste, and reusing materials(Dilchert, 2011)

Mean values reveal that respondents with Engineering background ($X=3.6534$) exhibit more of OCBE, followed by Commerce graduates ($X=3.6364$). Respondents with science background are positioned third in OCBE($X=3.3478$) followed by Arts graduates($X=3.0018$). And the groups reveal a statistically significant difference ($p=.000$).

Hence the hypothesis, there exists a significant difference on OCBE with respect to Educational Qualification, is **accepted**.

H1 (d): There exists a significant difference on OCBE with respect to Designation.

This hypothesis was framed in order to find out if there is any significant difference on OCBE exhibited by respondents with respect to their Designation. Three levels of designation namely, First level, Middle level and Top level were taken into consideration. One-way ANOVA was used as there are more than two groups.

Table 5.12 showing ANOVA: Designation on OCBE

Descriptives								
OCBE								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max
					Lower Bound	Upper Bound		
First Level	379	3.3501	1.08998	.05599	3.2400	3.4602	1.00	5.00
Middle Level	407	3.5570	.90833	.04502	3.4685	3.6455	1.00	5.00
Top Level	8	2.9375	1.20705	.42676	1.9284	3.9466	1.90	5.00
Total	794	3.4520	1.00741	.03575	3.3818	3.5222	1.00	5.00
ANOVA								
OCBE								
				Sum of Squares	df	Mean Square	F	Sig.
Between Groups	(Combined)			10.538	2	5.269	5.247	.005
	Linear Term	Unweighted		1.334	1	1.334	1.328	.249
		Weighted		5.570	1	5.570	5.547	.019
		Deviation		4.968	1	4.968	4.947	.026
Within Groups				794.264	791	1.004		
Total				804.802	793			

Considering the prior research works which attempted to establish the relationship between pro-environmental behaviour and Designation, which revealed that the contribution towards environmental initiatives differed as per departments and designation. The percentage of contribution is as follows: CEO/President (22 percent), green team (12 percent), board of directors (9 percent), sustainability department (8 percent), HR department (6 percent), public relations department (2 percent) and finance department (1 percent).

The study further revealed that the contribution employees on implementing the green strategies is just four percent. Based on the designation of the employees, the study reveals that

top level and middle level employees are more likely to engage in environmental initiatives compared to that of first level of employees (SHRM, 2011). Contrary to these findings, this study revealed that middle level employees exhibit more of OCBE, compared to the other levels.

Mean values reveal that employees in the middle level exhibit more of OCBE ($X=3.5570$), followed by First level Employees ($X=3.3501$). The top level which includes Senior Managers and VPs', are positioned third OCBE($X=2.9375$). And the groups reveal a statistically significant difference ($p=.005$).

Hence the hypothesis, there exists a significant difference on OCBE with respect to Designation, is **accepted**

H1 (e): There exists a significant difference on OCBE with respect to Experience.

This hypothesis was framed in order to find out if there is any significant difference on OCBE exhibited by respondents with respect to their Experience. The overall experience of the employees were grouped into 4, based on the years of total experience they have put in. One-way ANOVA was used as there are more than two groups.

Table 5.13 showing ANOVA: Over all Experience on OCBE

Descriptives							
OCBE							
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	Min	Max

					Lower Bound	Upper Bound		
< 5	325	3.3406	.85794	.04759	3.2470	3.4342	1.30	5.00
5-10	327	3.5997	1.11549	.06169	3.4783	3.7210	1.00	5.00
10-15	79	3.3937	1.11117	.12502	3.1448	3.6426	1.00	5.00
> 15	63	3.3333	.91616	.11543	3.1026	3.5641	1.90	5.00
Total	794	3.4520	1.00741	.03575	3.3818	3.5222	1.00	5.00
ANOVA								
OCBE								
			Sum of Squares	df	Mean Square	F	Sig.	
Between n Groups	(Combined)		12.321	3	4.107	4.094	.007	
	Linear Term	Unweighted	.279	1	.279	.278	.598	
		Weighted	.434	1	.434	.433	.511	
		Deviation	11.887	2	5.943	5.925	.003	
Within Groups			792.481	790	1.003			
Total			804.802	793				

Kegans, McCamey RB, Hammond.(2012) compared the relationship of elements of the Organizational Citizenship Behavior (OCB) and years of work experience. Work experience research has shown a relationship between OCB and work experience through mediating roles of various work related characteristics does exist. Work experience is described as the overall length of time in an occupation or workforce. Civic virtue was the only element of organizational citizenship behavior to have a statistically significant correlation with years of work experience in this study.

Mean values reveal that respondents with 5-10 years of experience exhibit more of OCBE (X=3.5997), followed by 10-15 years of experience (X=3.3937). Respondents with Less than 5 years' experience are positioned third in OCBE(X=3.3406) followed by Respondents with 15 years of experience, (X=3.0018). And the groups reveal a statistically significant difference (p=.007).

Hence the hypothesis, there exists a significant difference on OCBE with respect to Overall years of experience, is **accepted**.

H1 (f): There exists a significant difference on OCBE with respect to Organizational Experience

This hypothesis was framed in order to find out if there is any significant difference on OCBE exhibited by respondents with respect to their Organizational Experience. The Organizational experience of the employees were grouped into 4, based on the years of total experience they have put in. One-way ANOVA was used as there are more than two groups.

Table 5.14 showing ANOVA: Organizational Experience on OCBE

Descriptives								
OCBE Vs Organizational Experience								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max
					Lower Bound	Upper Bound		
< 5	531	3.5384	.96058	.04169	3.4565	3.6203	1.00	5.00
5-10	221	3.2715	1.10118	.07407	3.1255	3.4175	1.00	4.90
10-15	37	3.2649	.97246	.15987	2.9406	3.5891	1.30	5.00

> 15	5	3.6400	.76026	.34000	2.6960	4.5840	3.30	5.00
Total	794	3.4520	1.00741	.03575	3.3818	3.5222	1.00	5.00
ANOVA								
OCBE								
				Sum of Squares	df	Mean Square	F	Sig.
Between Groups	(Combined)			12.639	3	4.213	4.201	.006
	Linear Term	Unweighted	.048	1	.048	.048	.827	
		Weighted	8.852	1	8.852	8.828	.003	
		Deviation	3.787	2	1.893	1.888	.152	
Within Groups				792.163	790	1.003		
Total				804.802	793			

Pablo Cardona (2013) in his book, “Manager-Subordinate trust, a Global Perspective” reinstates that longer employment in an organization affects three aspects of relationship: 1) brings in a trust worthy relationship between manager and subordinate 2) increased knowledge and experience on organizational practices and policies 3) strongly associated networking which increases a person’s involvement in the organization. Hence longer tenure in organization increase the occurrence of OCBE among employees and a positive relationship is established between the two.

In line with those findings, the results of the present study reveal that respondents with Above 15 years of experience exhibit more of OCBE ($X=3.6400$), followed by Less than 5 years of experience ($X=3.5384$). Respondents with 5-10 years of experience are positioned third in OCBE($X=3.2715$) followed by Respondents with 10-15 years of experience, ($X=3.2649$). And the groups reveal a statistically significant difference ($p=.006$)

Hence the hypothesis, there exists a significant difference on OCBE with respect to Organizational experience, is **accepted**

H1 (g): There exists a significant difference on OCBE with respect to Organizational Size.

This hypothesis was framed in order to find out if there is any significant difference between various sizes of organizations, with respect to OCBE exhibited by them, in their work environment. The size of the organization is determined by the number of employees working in the organization. One-way ANOVA was used as there are more than two groups.

Table 5.15 showing ANOVA: Organizational Size on OCBE

Descriptives								
OCBE								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max
					Lower	Upper		
< 200	237	3.5882	.96855	.06291	3.4642	3.7121	1.00	4.90
200-500	177	3.0751	1.09215	.08209	2.9131	3.2372	1.00	5.00
501-1000	119	3.5185	.91901	.08425	3.3517	3.6853	1.00	5.00
Above 1000	261	3.5536	.96291	.05960	3.4363	3.6710	1.00	5.00
Total	794	3.4520	1.00741	.03575	3.3818	3.5222	1.00	5.00
ANOVA								
				Sum of Squares	df	Mean Square	F	Sig.
(Combined)				32.756	3	10.919	11.173	.000

Between Groups	Linear Term	Unweighted	1.334	1	1.334	1.365	.243
		Weighted	.689	1	.689	.705	.401
		Deviation	32.067	2	16.033	16.406	.000
Within Groups			772.046	790	.977		
Total			804.802	793			

Evidence suggest that larger firms are at least perceived as more socially responsible firms (Fombrun and Shanley, 1990). Etzion(2007) established positive relationship between firm size and pro-environmental behaviour stating that smaller firms might possess less environmental know how and might be more concerned with matters of economic survival, but at the same time face fewer constraining factors stifling environmental initiatives.

The few attempts at clarifying the causal nature of the relationship between organizational size and pro-environmental behaviour have so far been limited to specific industries (Sharma & Henriques. 2005)

Contrary to the previous findings employees of small companies exhibit more of OCBE.Mean values reveal that small companies with less than 200 employees($X=3.5882$) exhibit more of OCBE, followed by above 1000($X=3.5536$). Companies which have 501-1000 employees, second big in size, positioned third in OCBE($X=3.5185$) followed by companies with 200-500 employees($X=3.0751$). And the groups reveal a statistically significant difference (.000).

Hence the hypothesis, there exists a significant difference on OCBE with respect to Organizational size is **accepted**.

H1 (h): There exists a Significant Difference on OCBE with respect to IT Hubs.

This hypothesis was framed in order to find out if there is any significant difference between the three IT hubs considered in the study, with respect to OCBE. Respondents hail from the three major IT hubs in South India. One-way ANOVA was used as there are more than two groups.

Table 5.16 showing ANOVA: IT Hubs on OCBE

Descriptive								
MEAN OCBE								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max
					Lower Bound	Upper Bound		
1	264	3.4594	.79301	.04881	3.3633	3.5555	1.00	5.00
2	281	3.4793	.78578	.04688	3.3871	3.5716	1.22	4.69
3	249	3.4887	1.05746	.06701	3.3567	3.6207	1.00	5.00
Total	794	3.4757	.88115	.03127	3.4143	3.5370	1.00	5.00
ANOVA								
MEAN OCBE								
			Sum of Squares	Df	Mean Square	F	Sig.	
Between Groups			.116	2	.058	.075	.928	
Within Groups			615.595	791	.778			
Total			615.711	793				

Mean values of respondents' OCBE remains almost same for all the IT hubs, viz, Chennai(X=3.4594) Hyderabad (X=3.4793) and Bangalore(X=3.4887). And there is no statistically significant difference between the groups ($p=.928>0.05$). Hence the hypothesis, There exists a Significant Difference on OCBE with respect to IT Hubs is **rejected**

5.1.3.2. Determinants based Analysis

Employees can help attain long term sustainability by behaving in environmentally responsible ways. Hence determinants of pro-environmental behaviour must be identified in order to understand, predict and modify individual behaviour that contribute to or detract from environmental sustainability. All organizational actions with an impact on environmental sustainability can be traced to organizational members. It is not the organization that acts or behaves, but rather it is employees who do. Hence the following hypotheses were framed keeping in mind, the determinants of pro-environmental behaviours, so as to focus on the major influencers.

Regression analysis is a statistical tool which is used for the investigation of relationships between variables. In a research, the researcher seeks to ascertain the causal effect of one variable upon another by bringing together data on the variables under the study. And regression techniques enables the researcher to estimate the quantitative effect of the causal variables on the dependent variables. The statistical significance of the estimated relationship, that is, the degree of confidence, that the true relationship is close to the estimated relationship, is also assessed using regression techniques. Hence linear regression was carried out to test the following set of hypotheses.

In this section appropriate statistical tools have been used establish relationship between the determinants those were identified from prior works. Hypotheses were formulated for each of these determinants and were tested.

H2 (a): Environmental Concern Has a Significant Effect on OCBE

This hypothesis was framed in order to find out if environmental concern of the respondents, have a statistically significant effect on OCBE.

Table 5.17 showing Regression: Environmental Concern on OCBE

Model Summary						
Model	R	R Square	Adjusted R Square		Std. Error of the Estimate	
1	.625	.391	.390		.68822	
a. Predictors: (Constant), EC						
ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	240.580	1	240.580	507.926	.000
	Residual	375.132	792	.474		
	Total	615.711	793			
a. Dependent Variable: OCBE						
b. Predictors: (Constant), EC						
Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.284	.100		12.809	.000
	EC	.663	.029	.625	22.537	.000
a. Dependent Variable: OCBE						

Considering the prior works on environmental concern, Fuhrer (1995) stated that “Environmental concern is used either as a multiple or a single component approach, and covers, either environment in general or some particular aspects of environment”.

Axelrod & Lehman (1993) stated that the concept of “environmental concern can only be understood by analysing the individual behaviour, rather than the behaviour of the organization as a whole. They further added that frequent questions on environment attitude can be answered, only by studying the individual’s ecological behaviour”.

With the rise of environmental concerns within the workplace, this idea has been used to explain how employees agree to engage in discretionary (voluntary) behavior that improves the organization by engaging in innovative and spontaneous pro-environmental behaviors. Voluntary extra efforts are now recognized as important behaviors (Ramus and Killmer, 2007).

The R value (.625) explains a strong correlation between Environmental concern of the respondents and OCBE. The R Square value (.391) indicates that 39% of variation on OCBE is explained by Environmental Concern. The P value (.000) less than significance level (0.05), indicates that the regression model, statistically significantly predicts the outcome variable. Coefficients explain a significant relationship (.000) and implies that EC predicts OCBE. The regression equation is present as $OCBE = 1.284 + .663(EC)$.

Hence the hypothesis, Environmental Concern Has a Significant Effect on OCBE, is **accepted**.

H2 (b): Personal Norms has a Significant Effect on OCBE

This hypothesis was framed in order to find out if personal norms of the respondents, have a statistically significant effect on OCBE.

Table 5.18 showing Regression: Personal Norms on OCBE

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.702	.493	.493	.62758
a. Predictors: (Constant), MEAN PN				

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	303.781	1	303.781	771.311	.000
	Residual	311.930	792	.394		
	Total	615.711	793			
a. Dependent Variable: OCBE						
b. Predictors: (Constant), PN						
Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.142	.087		13.143	.000
	PN	.594	.021	.702	27.772	.000
a. Dependent Variable: OCBE						

Scherbaum et al. (2008) stated that the net effect of personal norm depend heavily on the degree of relationship between personal norm and the dependent variable. The effect was also dependent on whether the dependent variable was simply an intention or behaviour. Personal norms concerning energy conservation were strongly correlated to energy conservation intentions.

Staats, Harland & Wllke (1999) carried out an empirical study to have a clear idea on the role of personal norms on pro-environmental behaviour as put forth by theory of planned behaviour. This supports that adding personal norm, as a measure to Theory of Planned Behaviour (TPB), would further expand our understanding of the other determinants of pro-environmental behaviour.

In line with the prior works, the R value (.702) explains strong correlation between Personal Norms and OCBE. The R Square value (.493) indicates that 49% of variation on OCBE is explained by Personal Norms. The P value (.000) less than significance level (0.05), indicates that overall, the regression model statistically significantly predicts the outcome variable. Coefficients explains a significant relationship (.000) and implies that personal norms predicts OCBE. The regression equation is present as $OCBE = 1.142 + .594 (PN)$

Hence the hypothesis Personal Norms has a significant effect on OCBE, is **accepted**

H2 (c): Willingness to Sacrifice towards Pro-environmental Issues Has a Significant Effect on OCBE

This hypothesis was framed in order to find out if Willingness of the respondents to sacrifice towards pro-environmental issues, have a statistically significant effect on OCBE.

Table 5.19 showing Regression: Willingness to Sacrifice on OCBE

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.262 ^a	.068	.067	.85098		
a. Predictors: (Constant), MEAN WS						
ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	42.171	1	42.171	58.234	.000 ^b

	Residual	573.540	792	.724		
	Total	615.711	793			
a. Dependent Variable: OCBE						
b. Predictors: (Constant), WS						
Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.787	.095		29.285	.000
	WS	.224	.029	.262	7.631	.000
a. Dependent Variable: OCBE						

Collier & Esteban, (2007) stated that employee's willingness to sacrifice results in successful green outcomes in the organization. They further add that, employees should be encouraged to come out with their innovative ideas, irrespective of their designation. This will further enhance their interest in environmental activities.

Individual express willingness to sacrifice towards environmental issues (OECD, 2014). As per a survey (PEW research Centre, 2010), Even though the Chinese are less likely than most other publics to consider global warming a very serious problem, they are by far the most willing (91%) to see prices rise to cope with this challenge. Indians (73%) and South Koreans (71%) agree. In comparison, Jordanians (21%), Pakistanis (20%) and Egyptians (20%) are the least willing pay more.

In line with the above works, the R value (.262) explains strong correlation between Willingness to Sacrifice and OCBE. The R Square value (.068) indicates that 6.8% of variation on OCBE is explained by WS. The P value (.000) less than significance level (0.05), indicates that overall, the regression model statistically significantly predicts the outcome variable. Coefficients explains a significant relationship (.000) and intend to predict OCBE from WS

The regression equation is present as $OCBE = 2.787 + .224 (WS)$

Hence the hypothesis Willingness to Sacrifice towards pro-environmental Issues, is **accepted**.

H2 (d): Environmental Efficacy Have a Significant Effect on OCBE

This hypothesis was framed in order to find out if Environmental Efficacy of respondents, have a statistically significant effect on OCBE.

Table 5.20 showing Regression: Environmental Efficacy on OCBE

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.506	.256	.255	.76059		
a. Predictors: (Constant), EE						
ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	157.545	1	157.545	272.336	.000
	Residual	458.167	792	.578		
	Total	615.711	793			
a. Dependent Variable: OCBE						
b. Predictors: (Constant), EE						
Coefficients						
Model		Unstandardized Coefficients	Standardized Coefficients	t	Sig.	

		B	Std. Error	Beta		
1	(Constant)	1.758	.108		16.349	.000
	EE	.496	.030	.506	16.503	.000
a. Dependent Variable: OCBE						

The psychological variable that is suspected to influence pro-environmental behavior is environmental self-efficacy which is “beliefs concerning their capability to act in order to limit environmental degradation” (Wu & Mweemba, 2010:). The suggested correlation is a positive correlation. The mechanism is that self efficacy increases the internal motivation and further increases pro-environment behavior (Tabernero & Hernández, 2011).

In accordance with the prior works, the results revealed, the R value (.506) Explains strong correlation between Environmental Efficacy of the respondents and OCBE. The R Square value (.256) indicates that 25.6% of variation on OCBE is explained by EE. The P value (.000) less than significance level (0.05), and indicates that overall, the regression model statistically significantly predicts the outcome variable. Coefficients explains a significant relationship (.000) and intend to predict OCBE from EE. The regression equation is present as $OCBE = 1.758 + .496 (EE)$

Hence the hypothesis, Environmental Efficacy has a significant impact on OCBE, is **accepted.**

H2 (e): Belief on Pro-environmental Issues Have a Significant Effect on OCBE

This hypothesis was framed in order to find out if Belief on Pro-environmental Issues, have a statistically significant effect on OCBE.

Table 5.21 showing Regression: Environmental Beliefs on OCBE

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.093 ^a	.009	.007	.87793		
a. Predictors: (Constant), BELIEF						
ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.274	1	5.274	6.843	.009
	Residual	610.437	792	.771		
	Total	615.711	793			
a. Dependent Variable: OCBE						
b. Predictors: (Constant), BELIEF						
Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.796	.126		30.069	.000
	BELIEF	.098	.037	-.093	-2.616	.009
a. Dependent Variable: OCBE						

Tudor, Barr & Gilg (2007) in their findings on beliefs towards behavioural intentions, found it to be not stable at all, with effect sizes fluctuating from trivial to large. Respondents inclination toward environmental practices and perceived personal benefit they received for being pro-environmental behaviour, were moderately correlated to recycling behaviour.

Flannery & May (2000) identified that respondent's belief on severity of the consequences as a significant determinant of environmental decisions through a proven experiment with hypothetical scenario. In addition, they have identified that organization-related beliefs had a significant relationship with adoption of energy innovations.

The R value (.093) explains a weak correlations between Belief on pro-environmental issues and OCBE. The R Square value (.009) indicates that .9% of variation on OCBE is explained by Belief. The P value (.009) less than significance level (0.05), indicates that overall, the regression model statistically, significantly predicts the outcome variable. Coefficients explains a significant relationship (.000) and intend to predict OCBE from BEL. The regression equation is present as $OCBE = 3.796 + .098 (BEL)$.

Hence the hypothesis, Belief on Environmental issues has an impact on OCBE, is **accepted**.

H2 (f) Values On Pro-environmental Issues have a Significant Effect on OCBE

This hypothesis was framed in order to find out if Values of the respondents on Pro-environmental Issues, have a statistically significant effect on OCBE.

Table 5.22 showing Regression: Environmental Values on OCBE

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.273 ^a	.075	.073	.84822		
a. Predictors: (Constant), VALUE						
ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	45.884	1	45.884	63.773	.000
	Residual	569.828	792	.719		
	Total	615.711	793			
a. Dependent Variable: OCBE						
b. Predictors: (Constant), VALUE						
Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.598	.114		22.786	.000
	VALUE	.223	.028	.273	7.986	.000
a. Dependent Variable: OCBE						

Antonakis and Atwater (2002) argued that the values and behaviours of the leaders are contagious enough to pass through various levels of organization, finally reaching the

employees. The values of the top management have a greater impact on the extra role behaviour of the employees.

Similarly, Chapman (1989) argued that if organizational norms coincide with employee's values and norms, then the employee exhibits extra role behaviours.

Witt and Wilson (1991) stated that Personal disposition relates to a person's pre-existing values, beliefs and habits related to a particular behaviour or task. Judging by the evidence in the literature, this factor takes on an exceptionally important role in the context of prosocial and socially responsible behaviours, including corporate greening. They established a link between personal values and individual's motivation to engage in eco- initiatives.

The R value (.273) explains a weak correlation. The R Square value (.075) indicates that 7.5% of variation on OCBE is explained by Values of the respondents on environmental issues. The P value (.000) less than significance level (0.05), indicates that overall, the regression model statistically significantly predicts the outcome variable. Coefficients explain a significant relationship (.000) and intend to predict OCBE from VAL. The regression equation is present as $OCBE = 2.598 + .223 (VAL)$

Hence the hypothesis, Values on Environmental issues has a significant impact on OCBE, is **accepted**.

H2 (g) Perceived Threat on Pro-environmental Issues has a Significant Effect on OCBE

This hypothesis was framed in order to find out if Perceived Threat of the respondents on Pro-environmental Issues, have a statistically significant effect on OCBE.

Table 5.23 showing Regression: Perceived Threat on OCBE

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.302 ^a	.091	.090	.84057		
a. Predictors: (Constant), PT						
ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	56.120	1	56.120	79.428	.000 ^b
	Residual	559.591	792	.707		
	Total	615.711	793			
a. Dependent Variable: OCBE						
b. Predictors: (Constant), PT						
Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.345	.130		17.988	.000
	PT	.289	.032	.302	8.912	.000
a. Dependent Variable: OCBE						

The theoretical underpinnings of Perceived Environmental Threat are well established, as research on job insecurity has recognized the ~potential threatening effect organizational and environmental activity may have upon an individual's perceived job security. In examining the management literature, numerous threats to job security have been identified. Thus, for example, mergers and acquisitions are frequently cited as sources of threat (Greenhalgh & Rosenblatt, 1984; Schweiger & Ivancevich, 1985; Schweiger & Denisi, 1991), as are downsizing and reorganization (Brockner, Grover, Reed, & Dewitt, 1992); and external forces

including global competition, economic decline, weak job market, technologies that eliminate jobs, equity market instability, and lower labour cost alternatives (Burchell, 1999).

The R value (.302) explains strong correlation between Perceived Threat and OCBE. The R Square value (.091) indicates that 9.1% of variation on OCBE is explained by Perceived Threat. The P value (.000) less than significance level (0.05), indicates that overall, the regression model statistically significantly predicts the outcome variable. Coefficients explains a significant relationship (.000) and intend to predict OCBE from Perceived Threat. The regression equation is present as $OCBE = 2.345 + .289 (PT)$

Hence the hypothesis, Perceived threat has a significant effect on OCBE, is **accepted**.

H2 (h) Perceived Supervisory Support On Pro-environmental Issues has a Significant Effect on OCBE

This hypothesis was framed in order to find out if Perceived Supervisory Support of the respondents, has a statistically significant effect on OCBE.

Table 5.24 showing Regression: Perceived Supervisory Support on OCBE

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.532 ^a	.283	.282	.74658		
a. Predictors: (Constant), PSS						
ANOVAa						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	174.262	1	174.262	312.642	.000
	Residual	441.449	792	.557		
	Total	615.711	793			
a. Dependent Variable: OCBE						
b. Predictors: (Constant), PSS						
Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.577	.111		14.263	.000
	PSS	.479	.027	.532	17.682	.000
a. Dependent Variable: OCBE						

Ramus and Killmer (2007) proposed a conceptual model which highlights the importance of supervisory support in stimulating the emergence of OCBEs, though this importance was not explicitly given in the Social Exchange Theory (SET) framework.

Andersson, Shivarajan, & Blau, (2005); Scherbaum et al., (2008) in an attempt to study the pro-environmental attitude of supervisors and lower-level employees, contradicted the earlier works by stating that attitude toward environment were weakly correlated with other determinants.

Govindarajulu and Daily (2004) argue that an organization may not succeed in its efforts to become environmentally responsible, if the employees are not encouraged to “do the right thing” so as to become an environmentally responsible organization.

The R value (.532) explain strong correlation between Perceived Supervisory Support and OCBE. The R Square value (.283) indicates that 28.3% of variation on OCBE is explained by PSS. The P value (.000) less than significance level (0.05), indicates that overall, the regression model statistically significantly predicts the outcome variable. Coefficients explains a significant relationship (.000) and intend to predict OCBE from .479. The regression equation is present as $OCBE = 1.577 + .479 (PSS)$

Hence the hypothesis, Perceived Supervisory Support has a significant impact on OCBE is **accepted**.

H2 (I) Perceived Behavioural Control On Pro-environmental Issues Have a Significant Effect on OCBE

This hypothesis was framed in order to find out if Perceived Behavioural Control of the respondents, has a statistically significant effect on OCBE.

Table 5.25 showing Regression: Perceived Behavioural Control on OCBE

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.498	.248	.247	.76460
a. Predictors: (Constant), PBC				

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	152.699	1	152.699	261.197	.000
	Residual	463.013	792	.585		
	Total	615.711	793			
a. Dependent Variable: OCBE						
b. Predictors: (Constant) : PBC						
Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.653	.116		14.244	.000
	PBC	.515	.032	.498	16.162	.000
a. Dependent Variable: OCBE						

Ramus and Killmer (2007); Cordano and Frieze (2000) while studying the managers' OCBE, stated that perceived behavioural control plays a vital role in OCBE. These findings support and are said to be in line with Ajzen's Social Exchange theory.

Bamberg & Moser, (2007) in a meta-analysis brought out that attitudes, perceived behavioural control and moral norms predicted 52% of the variance in intentions. Intentions in turn translated only 27% of the variance in actual behaviour.

The R value (.498) explains strong correlation between Perceived behavioural control and OCBE. The R Square value (.248) indicates that 24.8% of variation on OCBE is explained by PBC. The P value (.000) less than significance level (0.05), indicates that overall, the regression model statistically significantly predicts the outcome variable. Coefficients explains a significant relationship (.000) and intend to predict OCBE from Perceived Behavioural Control. The regression equation is present as $OCBE = 1.653 + .515 (PBC)$.

Hence the hypothesis, Perceived Behavioural Control has a significant effect on OCBE is **accepted**.

H2 (j) Perceived Opportunity for Rewards on Pro-environmental Issues Have a Significant Effect on OCBE

This hypothesis was framed in order to find out if Perceived opportunity for rewards by the respondents, on Pro-environmental issues, has a statistically significant effect on OCBE.

Table 5.26 showing Regression: Perceived Opportunity for Rewards on OCBE

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.556 ^a	.309	.308	.73307		
a. Predictors: (Constant), POR						
ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	190.096	1	190.096	353.737	.000

	Residual	425.616	792	.537		
	Total	615.711	793			
a. Dependent Variable: OCBE						
b. Predictors: (Constant), POR						
Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.637	.101		16.188	.000
	POR	.500	.027	.556	18.808	.000
a. Dependent Variable: OCBE						

Miller (1991) in his research work, stated that, employees do expect recognition and appreciation from managers, co-workers and also from their families and friends, for all their efforts towards pro-environmental initiatives. It is also found out that rewards and recognition, adds to their pro-environmental behaviour.

Atwater & Bass (1994); Leitch et al. (1995); Laabs (1992); Patton and Daley (1998); Marks (2001) in studies carried out by all the above mentioned, indicated that rewards given to the employees, motivated them to be more pro-environmental. The rewards necessarily not be financial rewards, it can also be in the form of recognition and appreciation. Awards and acknowledgment programs, benefit sharing programs, increment in pay, benefits and enticements, are some of the frameworks that can be used to appreciate employees for environmental initiatives undertaken by them.

The R value (.556) explains strong correlation between Perceived opportunity for rewards and OCBE. The R Square value (.309) indicates that 30.9% of variation on OCBE is explained by Perceived Opportunity for Rewards. The P value (.000) less than significance level (0.05), indicates that overall, the regression model statistically significantly predicts the outcome variable. Coefficients explains a significant relationship (.000) and intend to predict OCBE from POR. The regression equation is present as $OCBE = 1.637 + .500 (POR)$

Hence the hypothesis, perceived opportunity for rewards has an impact on OCBE is **accepted**.

H2 (k) Job Satisfaction has a Significant Effect on OCBE

This hypothesis was framed in order to find out if Job satisfaction of the respondents, has a statistically significant effect on OCBE.

Table 5.27 showing Regression: Job Satisfaction on OCBE

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.574 ^a	.329	.328	.72227		
a. Predictors: (Constant), JS						
ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	202.541	1	202.541	388.247	.000
	Residual	413.171	792	.522		
	Total	615.711	793			
a. Dependent Variable: OCBE						
b. Predictors: (Constant), JS						
Coefficients						

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.394	.109		12.829	.000
	JS	.545	.028	.574	19.704	.000
a. Dependent Variable: OCBE						

Marcus Wagner (2011) carried out a research to find out if the implementation of environmental management system is triggered by the benefits, it would bring in for human resource management of the organization. A longitudinal study was conducted in a German manufacturing firm in 2001 and 2006, which focussed on recruitment and employee satisfaction. The results established a strong relationship between Employee job satisfaction and implementation of environment management practices (EMP), and a moderate relationship between recruitment and environment management practices (EMP).

A strong correlation (0.4) exists between OCB and job satisfaction (Organ, 1988). It is empirically proved that there exists a strong correlation between job satisfaction and performance of the employees, though not causal. Performance that are related to citizenship behaviour are affected by job satisfaction.

The R value (.574) explains strong correlation between Job satisfaction and OCBE. The R Square value (.329) indicates that 32.9% of variation on OCBE is explained by Job satisfaction. The P value (.000) less than significance level (0.05), indicates that overall, the regression model statistically significantly predicts the outcome variable. Coefficients explains a significant relationship (.000) and intend to predict OCBE from JS. The regression equation is present as $OCBE = 1.394 + .545 (JS)$.

Hence the hypothesis, Job satisfaction has a significant effect on OCBE, is **accepted**.

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.580 ^a	.336	.335	.71847		
a. Predictors: (Constant), OC						
ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	206.886	1	206.886	400.793	.000
	Residual	408.825	792	.516		
	Total	615.711	793			
a. Dependent Variable: OCBE						
b. Predictors: (Constant), OC						
Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.551	.099		15.586	.000
	OC	.521	.026	.580	20.020	.000
a. Dependent Variable: OCBE						

Junquera, Ordiz & Fernandez (2003); Boiral (2009); Perez et al. (2009) in their research work stated that, there exists a strong relationship between organizational commitment of employees and their pro-environment behaviour. Employees being one of the main stakeholders of an organization, the above said relationship becomes significant.

Mathieu & Zajac (1990); Meyer, Herscovitch, Stanley & Topolnysky (2002), through a meta-analysis on organization commitment revealed that committed employees never had the intentions to withdraw voluntarily from organizational activities, in terms of low employee lateness, low absenteeism and low desire to leave. When experimented, committed employees exhibited 'low employee lateness', 'low absenteeism' and 'low desire to leave'.

The R value (.580) explains strong correlation between Organization commitment of the employees and OCBE. The R Square value (.336) indicates that 33.6% of variation on OCBE is explained by OC. The P value (.000) less than significance level (0.05), indicates that overall, the regression model statistically significantly predicts the outcome variable. Coefficients explains a significant relationship (.000) and intend to predict OCBE from OC. The regression equation is present as $OCBE = 1.551 + .521(OC)$.

Hence the hypothesis, Organization commitment of the employees has a significant effect on OCBE is, **accepted**.

H2 (m) Perceived Organization Support has a Significant Effect on OCBE

This hypothesis was framed in order to find out if perceived organization support, has a statistically significant effect on OCBE.

Table 5.29 showing Regression: Perceived Organizational Support on OCBE

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.584	.342	.341	.71542		
a. Predictors: (Constant), MEAN POS						
ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	210.343	1	210.343	410.964	.000
	Residual	405.368	792	.512		
	Total	615.711	793			
a. Dependent Variable: OCBE						
b. Predictors: (Constant), POS						
Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.431	.104		13.754	.000
	POS	.550	.027	.584	20.272	.000

Cropanzano & Mitchell (2005) state that perceived organization support (POS) turned out to be a key input for initiating the social exchange process, which resulted in a positive relationship between Perceived organization support and pro-environment behaviour of employees.

Govindarajulu & Daily (2004); Ramus (2001) through their research work identified that 'Lack of support' is the major obstruction of Employees' eco-initiatives. Lack of support

from management decides the tendency of managers, if they are focussing on the core activities towards environment or peripheral activities.

Linda Rhoades & Robert Eisenberger (2002) reviewed prior works on perceived organization support (POS), followed by a meta-analysis on perceived organization support, its antecedents and consequences. The antecedents of POS are supervisory support, rewards, job conditions, fairness, and employee characters. The consequences of POS are organization commitment, job involvement, performance, desire to remain and withdrawal behaviour

In accordance with precious finding The R value (.584) explains strong correlation between Perceived Organizational support and OCBE. The R Square value (.342) indicates that 34.2% of variation on OCBE is explained by POS. The P value (.000) less than significance level (0.05), indicates that overall, the regression model statistically significantly predicts the outcome variable. Coefficients explains a significant relationship (.000) and intend to predict OCBE from POS. The regression equation is present as $OCBE = 1.431 + .550 (POS)$

Hence the hypothesis, Perceived organization support has a significant effect on OCBE is **accepted**.

H2 (n) Perceived Organization Justice has a Significant Effect on OCBE

This hypothesis was framed in order to find out if perceived organization justice, has a statistically significant effect on OCBE.

Table 5.30 showing Regression: Perceived Organizational Justice on OCBE

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.484 ^a	.234	.233	.77160
a. Predictors: (Constant), POJ				

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	144.186	1	144.186	242.183	.000
	Residual	471.525	792	.595		
	Total	615.711	793			
a. Dependent Variable: OCBE						
b. Predictors: (Constant), POJ						
Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.901	.105		18.134	.000
	POJ	.462	.030	.484	15.562	.000
a. Dependent Variable: OCBE						

Organisational justice, first postulated by Greenberg in 1987, refers to an employee's perception of their organisation's behaviours, decisions and actions and how these influence the employees own attitudes and behaviours at work. Organizational justice concerns how employees view fairness in places of employment. Employees want to work for fair and ethical companies and be treated with respect. Organizational justice concerns employees' perceptions of fairness within a company.

If organizations make sure that employees are treated equally in all activities happening within the organization, employees perceive the organization to be fair in its procedures. Hence perceived organization justice influences the pro-environmental behaviour of the employees.

The R value (.484) explains strong correlation between Perceived organization justice and OCBE. The R Square value (.234) indicates that 23.4% of variation on OCBE is explained by POJ. The P value (.000) less than significance level (0.05), indicates that overall, the

regression model statistically significantly predicts the outcome variable. Coefficients explains a significant relationship (.000) and intend to predict OCBE from POJ. The regression equation is present as $OCBE = 1.901 + .462 (POJ)$

Hence the hypothesis, Perceived organization justice has a significant impact on OCBE is, **accepted**.

H3: OCBE has a significant impact on Corporate Greening Initiatives

This hypothesis was framed in order to find out if OCBE has a significant impact on corporate green Initiatives, as perceived by the employees.

Table 5.31 showing Regression: OCBE on Go Green Initiatives

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.626	.392	.391	.64773		
a. Predictors: (Constant), OCBE						
b. Dependent Variable: GG						
ANOVAa						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	214.270	1	214.270	510.717	.000 ^b

	Residual	332.282	792	.420		
	Total	546.552	793			
a. Dependent Variable: GG						
b. Predictors: (Constant), OCBE						
Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.522	.082		18.537	.000
	OCBE	.516	.023	.626	22.599	.000
a. Dependent Variable: GG						

The R value (.626) explains strong correlation between OCBE and Corporate greening initiatives. The R Square value (.392) indicates that 39.2% of variation in Corporate Greening Initiatives is explained by OCBE. The P value (.000) less than significance level (0.05), indicates that overall, the regression model statistically significantly predicts the outcome variable. Coefficients explains a significant relationship (.000) between OCBE and Corporate greening Initiatives. The regression equation is present as Corporate Greening Initiatives =1.522+.516 (OCBE)

Hence the hypothesis OCBE has a significant effect on corporate greening Initiatives, is **accepted**.

5.2. SECTION II – ANALYSIS BASED ON EMPLOYERS’ RESPONSES

Continued pressure over the years from various stakeholder groups including government, shareholders, employees, NGOs and local communities has resulted in organizations paying more attention to their environmental behaviour and environmental costs. Organizations are putting in all efforts to effectively implement green practices, which adds to the brand image of the company.

This section deals with description and analysis of the data collected through the interview schedule form, designed specifically for the sustainability managers of the IT companies on green readiness, as perceived by the sustainability managers. A sustainability manager develop, implement and monitor organizational environmental strategies. He/she will

communicate plans, formulate budgets and market the company's green strategies to vendors and customers apart from training employees on bringing down the negative environmental impacts. If not a sustainability manager, the person who was in charge of the sustainability activities, in the organization was approached for the study.

Organizations strive hard to be tagged as a 'Green' company, so as to satisfy the stake holders, which includes, Vendors, Customers and Employees. Employees being one of the stake holders, it becomes essential to understand their role in Green Readiness of the Organizations, as perceived by the managers. The responses of sustainability managers on questions related to the green readiness of the IT companies are also analysed below.

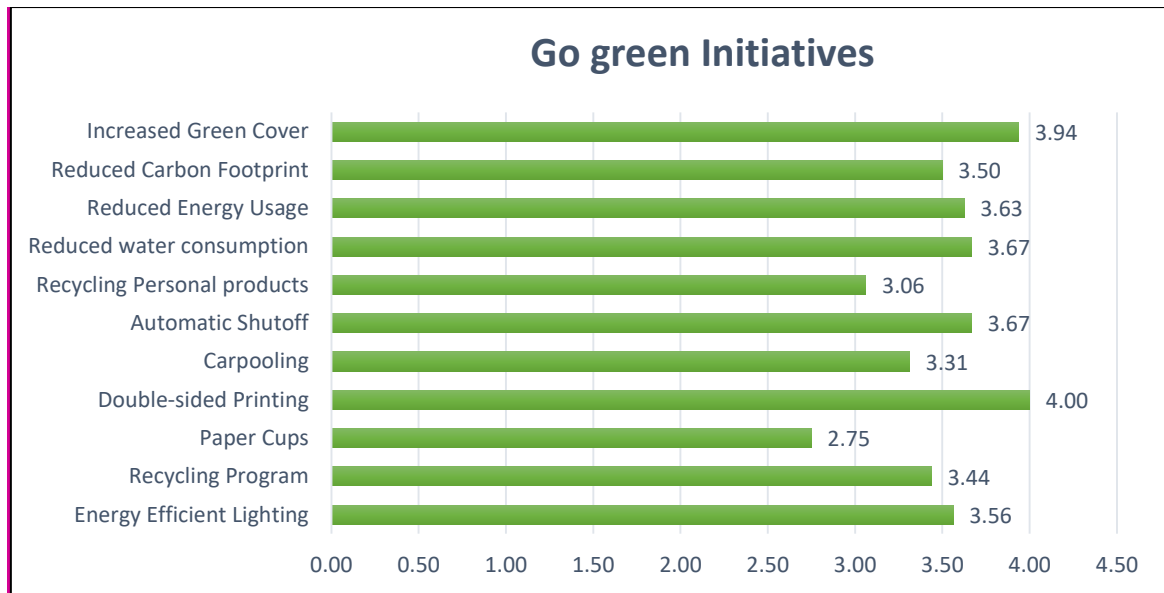
Go Green Initiatives in IT companies

Through prior surveys and interviews, the activities that encompass go green initiatives in IT companies were identified and they were included in the interview schedule form to be rated by the sustainability managers. The tasks such identified are listed in the following table, with average scored by the sustainability managers.

Table 5.32 showing Average Scores of Go green Initiatives, as perceived by Managers.

Go Green Initiatives	Average
Energy Efficient Lighting	3.56
Recycling Program	3.44
Paper Cups	2.75
Double-sided Printing	4.00
Carpooling	3.31
Automatic Shutoff	3.67
Recycling Personal products	3.06
Reduced water consumption	3.67
Reduced Energy Usage	3.63
Reduced Carbon Footprint	3.50
Increased Green Cover	3.94

Chart 5. 9 showing Go Green Initiatives as perceived by the sustainability managers.



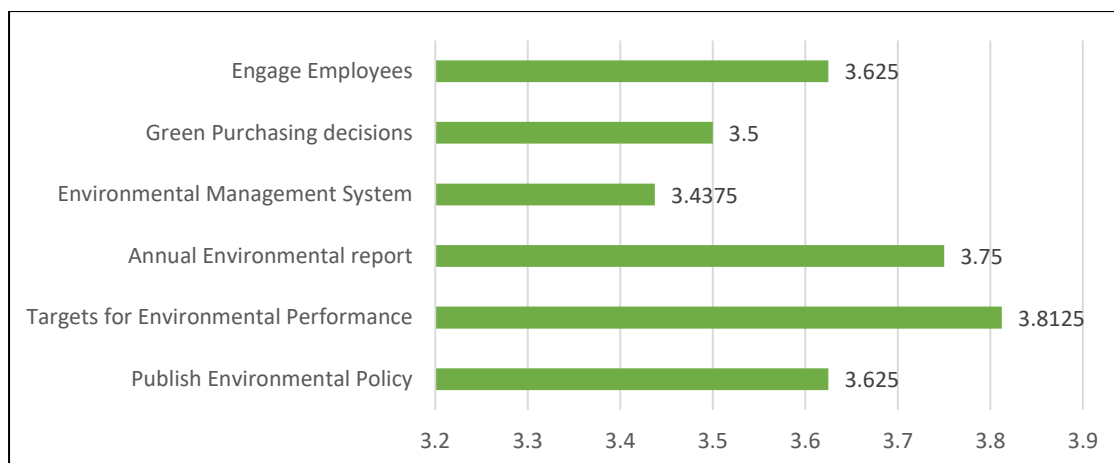
Out of the activities carried out in IT companies towards greening the organization, as perceived by sustainability managers, double sided printing with an average score of 4 on 5, that is reducing paper consumption by printing on both the sides of paper, tops the list of green activities. And is followed by increased green cover (3.94 on 5), which means planting more trees in the company premises. Automatic shut off (3.67 on 5), where in the machines shut down automatically, after some idle time and reduced water consumption (3.67 on 5) are positioned third in the list. Less usage of paper cups is the less preferred activity.

Through prior surveys and interviews, the activities that encompass Environment management practices initiated by IT companies were identified and they were included in the interview schedule form to be rated by the sustainability managers. The tasks such identified are listed in the following table, with average scored by the sustainability managers.

Table 5.33 showing Environmental Management practices in IT companies as perceived by managers.

Environmental Management Practices	Average
Engage employees	3.63
Green purchasing decisions	3.5
Environmental management systems	3.43
Annual environment report	3.75
Target for environmental performance	3.81
Publish Environmental policy	3.62

Chart 5.10 showing Environmental Management practices in IT companies as perceived by managers.



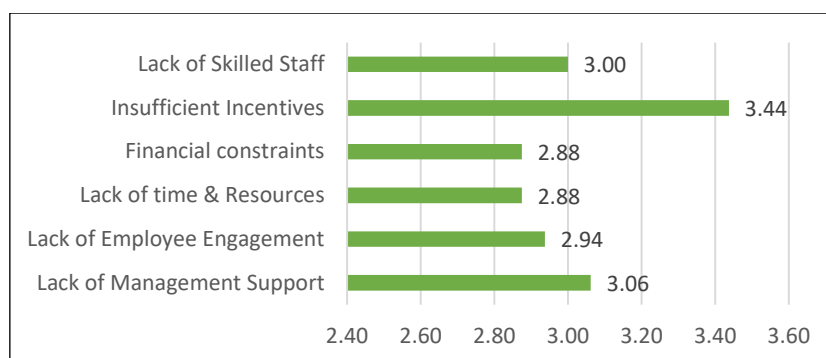
Prior surveys on Environmental management practices in IT organizations, lead to these set of activities, carried out by the organization so as to be called as a green company. From the perspective of sustainability managers, setting targets for environmental performances, tops the list with an average of 3.8 on 5, followed by annual environmental report published by the organizations (3.75 on 5). Engaging employees in go green initiatives and publishing environmental policies in accordance with organizational policies (3.625 on 5) are also rated as an important component of environmental management practices.

Table 5.34 showing Barriers of environmental management practices as perceived by Managers:

Through prior surveys and interviews, certain issues were identified to be the barriers of Environment management practices in IT companies, and they were included in the interview schedule form to be rated by the sustainability managers. The tasks such identified are listed in the following table, with average scored by the sustainability managers.

Barriers	Average
Lack of skilled staff	3.00
Insufficient incentives	3.44
Financial constraints	2.88
Lack of time and resources	2.88
Lack of employee engagement	2.94
Lack of Management support	3.06

Chart5.11 showing Barriers of environmental management practices as perceived by Managers



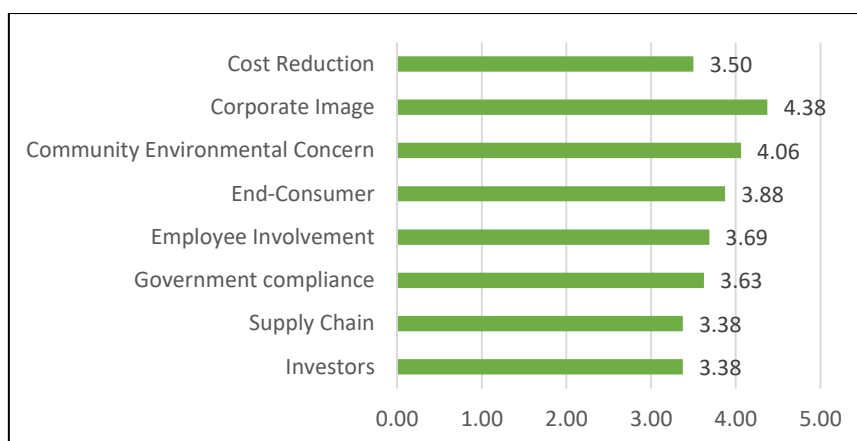
From the perspective of sustainability managers, insufficient incentives for the employees, tops the list with an average of 3.44 on 5, followed by lack of management support (3.06 on 5). Lack of skilled staff (3 on 5), to practice go green initiatives in organizations is also a major concern, as perceived by sustainability managers.

Table 5.35 showing Drivers of Environmental Management Practices as perceived by managers.

Through prior surveys and interviews, drivers of Environment management practices in IT companies, were identified, and they were included in the interview schedule form to be rated by the sustainability managers. The tasks such identified are listed in the following table, with average scored by the sustainability managers.

Drivers	Average
Cost reduction	3.50
Corporate image	4.38
Community environmental concern	4.06
End-consumer	3.88
Employee involvement	3.69
Government Compliance	3.63
Supply chain	3.38
Investors	3.38

Chart 5.12 showing Drivers of Environmental Management Practices as perceived by managers.



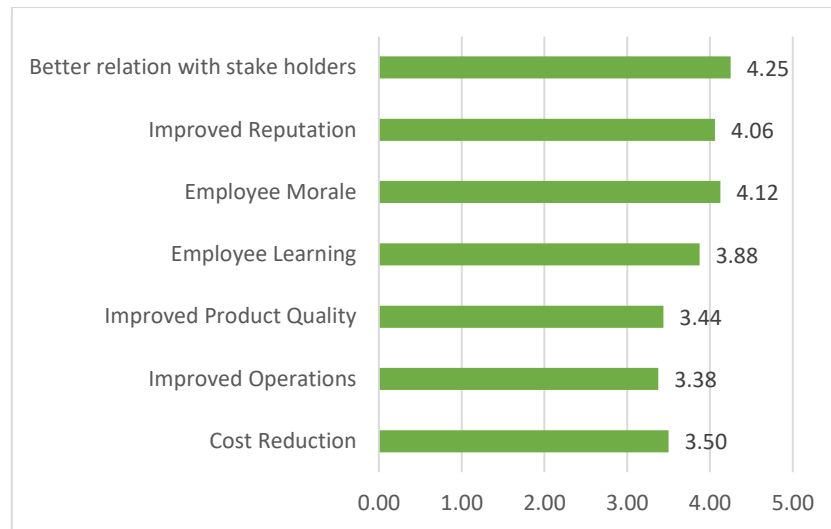
From the perspective of sustainability managers, corporate image is rated as the major driver of Environment management practices in IT companies, with an average of 4.38 on 5. Community environmental concern (4.06 on 5) followed by Expectation from End-consumer (3.88 on 5).

Table 5.36 showing Impact of Environmental Management Practices as perceived by managers.

Through prior surveys and interviews, major impact factors of Environment management practices in IT companies, were identified, and they were included in the interview schedule form to be rated by the sustainability managers. The tasks such identified are listed in the following table, with average scored by the sustainability managers.

Impact of EMP	Average
Better relation with stake holders	4.25
Improved reputation	4.06
Employee morale	4.13
Employee learning	3.88
Improved Product Quality	3.44
Improved operations	3.38
Cost reduction	3.50

Chart 5.13 showing Impact of Environmental Management Practices as perceived by managers.



From the perspective of sustainability managers, better relation with stake holders with an average score of 4.25 on 5, is the major impact of environmental management practices in IT companies. Employee morale seemed to elate (4.13 on 5) and reputation of the organization improved (4.06 on 5).

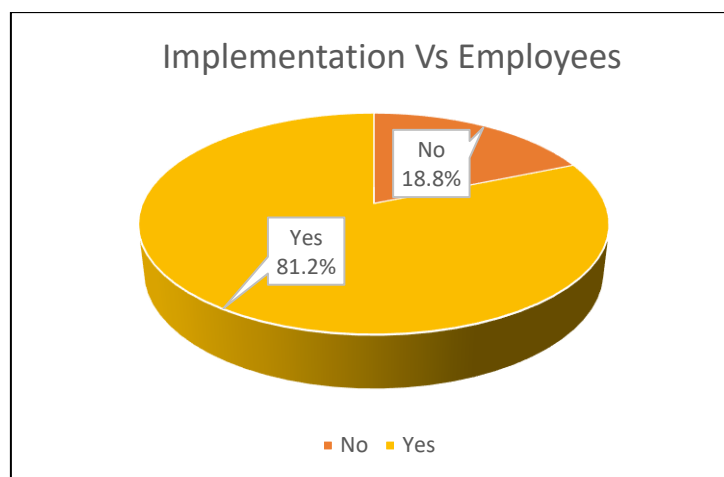
Employees Role in Implementation of Go Green Initiatives

In order to understand the role of employees in the implementing the go green Initiatives in organizations, as perceived by the sustainability managers, It was asked, if successful implementation of go green Initiatives depend on Employees of the organization.

Table 5.37 showing Manager's perception on Employees role in Implementation of Go Green Initiatives

Employees in Implementation	Frequency	Percent	Cumulative Percent
No	3	18.8	18.8
Yes	13	81.2	100.0
Total	16	100.0	

Chart 5.14 showing Manager's perception on Employees role in Implementation of Go Green Initiatives



Out of the 16 sustainability managers who have been interviewed, 13 (81.2%) of them opined that employees have a role in implementation of go green initiatives in the organization, as they needed input from the employees right from strategy formulation. Whereas, 3(18.8%) of them opined that employees do not have a role in implementation of Go Green initiatives as they strongly felt that employees has nothing to do with implementation, and they will have to only execute what to their asked to do.

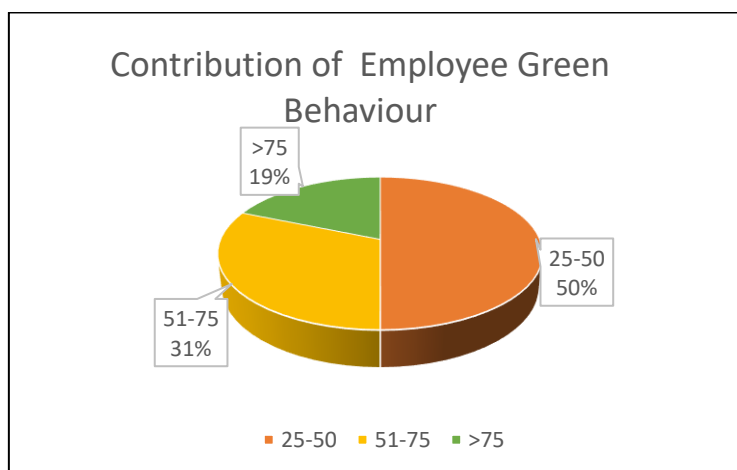
To study the strength of employees' role in successful implementation of go green initiatives, it was asked how much percentage of Employee green behaviour contributes to it. The responses of the sustainability managers are tabulated below.

Table 5.38 showing Employees contribution towards Go Green Initiatives

Contribution of EGB	Frequency	Percent	Cumulative Percent
---------------------	-----------	---------	--------------------

25-50	8	50.0	50.0
51-75	5	31.3	81.3
>75	3	18.8	100.0
Total	16	100.0	

Chart 5.15 showing Employees contribution towards Go Green Initiatives



Out of the 16 sustainability managers who have been interviewed 8(50%) of them opined that employees' green behaviour contributes only 25-50 percent towards go green initiatives, as they felt that employees comes into picture, only while fulfilling the tasks such as double sided printing etc., 5 (31%) of them opined that employees' green behaviour contributes 51-75 percent, towards go green initiatives, as they felt that motivated employees enables the peer group to get into action. 3(19%) of them opined that employees' green behaviour contributes more than 75% towards, successful implementation of go green initiatives, as they strongly felt that employees have a big role in green initiatives right from conceptualization.

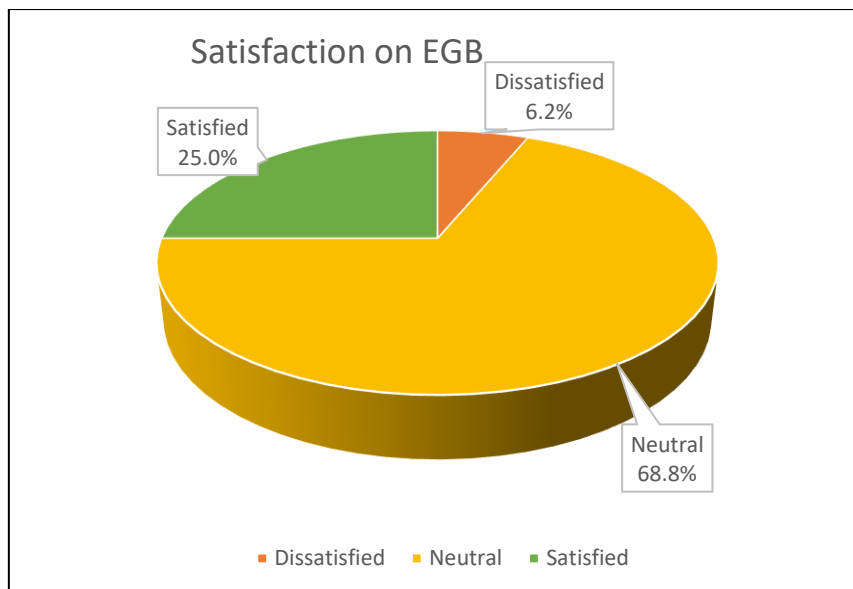
Manager's satisfaction on Employees' Green Behaviour

Are these managers really satisfied with Employee green behaviour exhibited by the employees? The response of the sustainability managers when asked if he/she is satisfied with employees' green behaviour, is tabulated below.

Table 5.39 showing Managers' satisfaction on Employee green behaviour

Satisfactory Level	Frequency	Percent	Cumulative Percent
Dissatisfied	1	6.2	6.2
Neutral	11	68.8	75.0
Satisfied	4	25.0	100.0
Total	16	100.0	

Chart5.16 showing Managers' satisfaction on Employee green behaviour



Out of the 16 sustainability managers who have been interviewed 11 (68.8%) of them opined that they are neither satisfied nor dissatisfied, as they felt that employees are not alone to be blamed, due to discrepancies that exist, in time spent by the employees, on green initiatives. 4 (25%) of them opined that they are satisfied with green behaviour exhibited by the employees. 1 (6.2%) of them responded that they were dissatisfied, as employees do not come forward to indulge in such activities, that are not mentioned in their job description.

Sustainability Managers

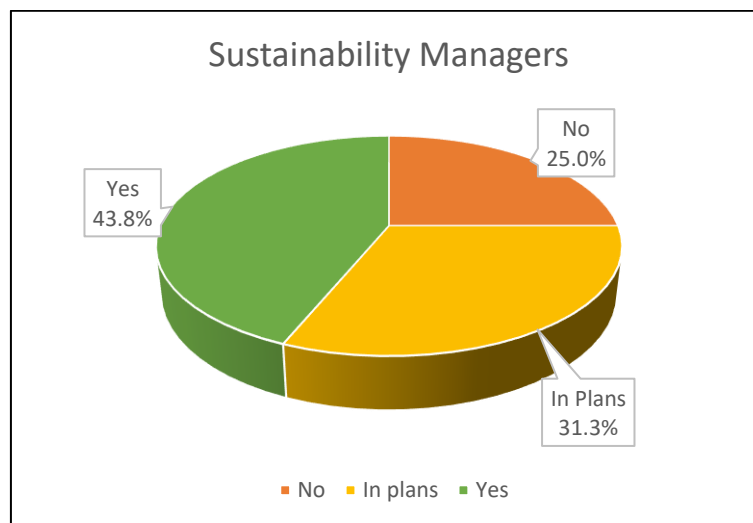
As mentioned earlier in this section, only few are designated sustainability managers, and the rest are operations/HR managers who are uncharged of sustainability issues. The

responses, when asked if there is a position called sustainability manager in their organization, are tabulated below.

Table 5.40 showing the distribution on availability of sustainability Managers

Sustainability Managers	Frequency	Percent	Cumulative Percent
No	4	25.0	25.0
In plans	5	31.3	56.3
Yes	7	43.8	100.0
Total	16	100.0	

Chart 5.17 showing the distribution on availability of sustainability Managers



Out of the 16 sustainability managers who have been interviewed 7 (43.8%) of them opined that there is a position called sustainability manager in their organization, who have got a green team working under them. 5 (31.3%) of them opined that the organization is planning to create a designation called sustainability manager, to take care of the sustainability issues. 4 (25%) of them responded that as there is no sustainability officer in their organization, either the HR manager or the Operations manager is in charge of the sustainability issues.

ISO 14001 Certification

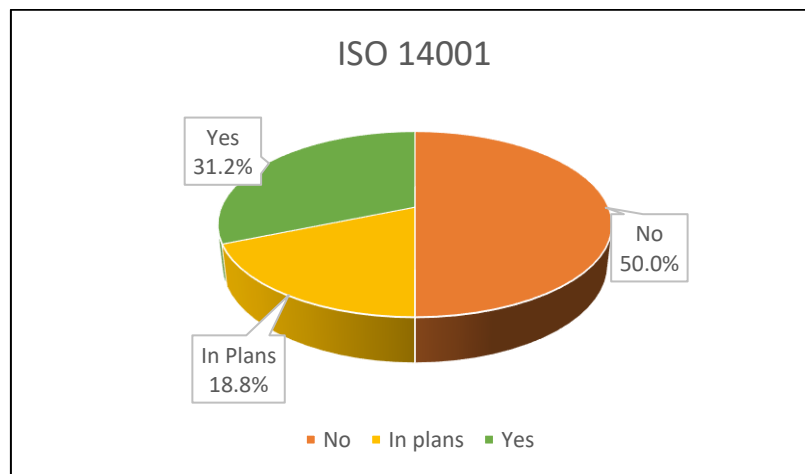
ISO 14001 is a formalised structure for an environmental management system through which organizations can be independently assessed. Organizations that are already certified with ISO 9001, can integrate their environmental management system rather than starting anew. By creating such system and organizations send across a message to the world, that they

are determined to do their share of activities, towards environmental sustainability. The responses, when asked if the organization is ISO certified, are tabulated below.

Table 5.41 showing distribution based on ISO 14001 Certification

ISO 14001	Frequency	Percent	Cumulative Percent
No	8	50.0	50.0
In plans	3	18.8	68.8
Yes	5	31.2	100.0
Total	16	100.0	

Chart 5.18 showing distribution based on ISO 14001 Certification



Out of the 16 sustainability managers who have been interviewed 5 (31.2%) of them stated that their organization is ISO 14001 certified. 8 (50%) of them stated that they have not gone for ISO 14001 certification. 3 (18.8%) of them stated that ISO 14001 certification is in their cards, as they are working towards conversion of ISO 9000 to ISO 14001.

Rewards for Employee green Behaviour

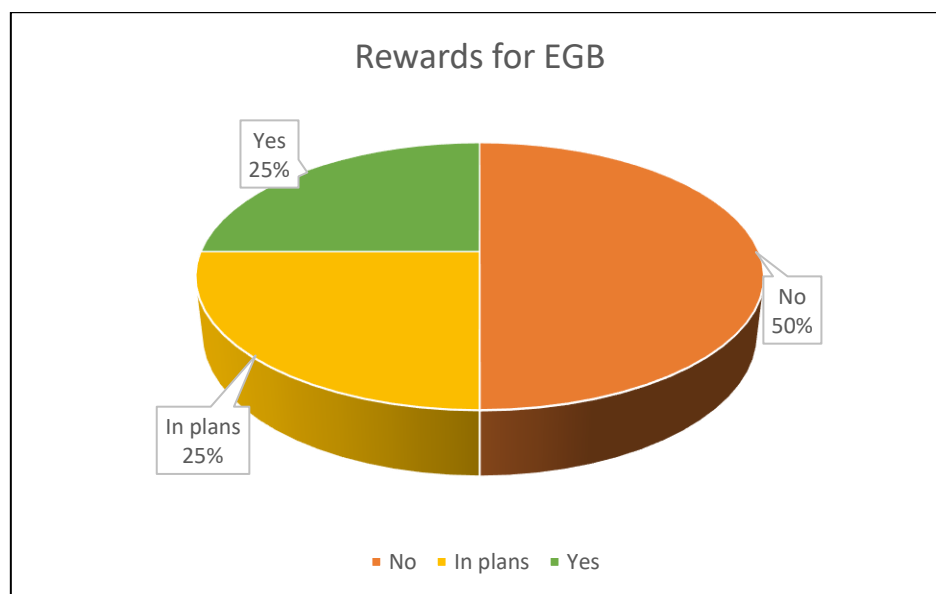
Though employee green behaviour is discretionary in nature, and is not included in any job description, rewards and recognition for such behaviour, certainly motivates the employees to go an extra mile. Responses of the sustainability managers on such rewards for employee green behaviour, is tabulated below.

Table 5.42 showing Rewards for Employee Green Behaviour

Rewards	Frequency	Percent	Cumulative Percent

No	10	50.0	50.0
In Plans	4	25.0	50.0
Yes	4	25.0	100.0
Total	16	100.0	

Chart 5.19 showing Rewards for Employee Green Behaviour



Out of the 16 sustainability managers who were interviewed 4 (25%) of them stated that rewards and recognition for employee green behaviour is already in place, which is taken care by the green team. 4 (25%) of them stated that rewards for employee green behaviour is cards, and will be implemented soon. 8 (50%) of them stated that rewards for employee green behaviour is not in plans as of now.

Awards for Environmental Sustainability

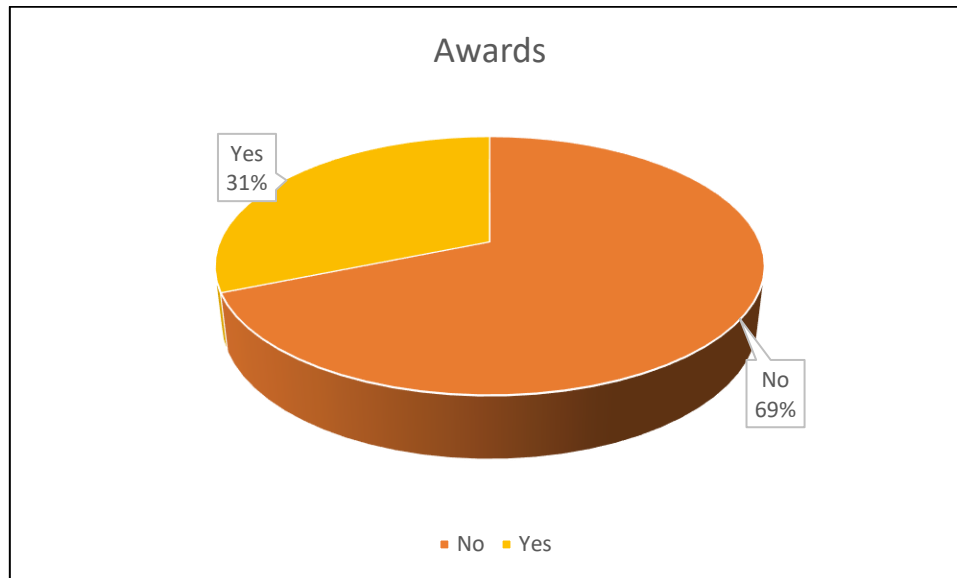
With an objective to motivate greening of companies, many international organizations like United Nations Council and Indian organizations like Go Green India, annually announces awards for green companies. The performance of the companies towards environmental sustainability is measured using corporate environmental performance metrics. The responses of the managers, on awards their organizations have received, is tabulated below.

Table 5.43 showing Awards for Environmental sustainability

Awards	Frequency	Percent	Cumulative Percent
No	11	69	69

Yes	5	31	100.0
Total	16	100.0	

Chart 5.20 showing Awards for Environmental sustainability



Out of the 16 sustainability managers who were interviewed 5 (31%) of them stated that their organization has already received awards for their achievements in environmental sustainability. 11 (69%) of them stated that they have not received any awards so far.

H 4: There Is a Significant influence of Organizational Size on Implementation of Green Initiatives.

This hypothesis was framed in order to find out if the size of the organization has a significant effect on the implementation of go green initiatives in the organization.

Table 5.44 showing Regression:Organizational Size On Go Green Initiatives

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.626	.392	.391	.64773		
a. Predictors: (Constant), OS						
b. Dependent Variable: GGI						
ANOVAa						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.908	1	0.908	2.449	0.139
	Residual	5.191	14	0.370		

The R value (.0008) explains weak correlation between Managers' Experience and Managers' perception on barriers of green initiatives. The R Square value (7.15) indicates that 7.1% of variation on managers' perception on barriers on green initiatives is explained by Managers' experience. The P value (.9975) greater than significance level (0.05), indicates that there is no statistically significant relationship between Managers experience and managers perception on barriers.

Hence the hypothesis, Managers experience has an influence on perception on barriers is **rejected**.

H 7: There Is a Significant Influence of Manager's Experience on Driving Factors of Green Initiatives.

This hypothesis was framed in order to find out if there an influence of managers' experience on his/her perception on the drivers of go green initiatives in the organization

Table 5.47 showing Regression: Managers' Experience On Drivers Of Green Initiatives

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	0.213	0.045	-0.0226	0.496851		
a. Predictors: (Constant), ME						
b. Dependent Variable: DRI						
ANOVAa						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.165	1	0.165039	0.66855	0.4273
	Residual	3.456	14	0.246861		
	Total	3.621	15			
a. Dependent Variable: DRI						
b. Predictors: (Constant),ME						
Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.531	0.277		12.713	4.44
	OS	0.101	0.124	.626	0.817	0.427
a. Dependent Variable: DRI						

The R value (0.213) explains weak correlation between Managers' Experience and Managers' perception on drivers of green initiatives. The R Square value (0.045) indicates that 4.5% of variation on managers' perception on drivers on green initiatives is explained by

Managers' experience. The P value (.4273) greater than significance level (0.05), indicates that there is no statistically significant relationship between Managers experience and managers perception on drivers of go green initiatives.

Hence the hypothesis, Managers' experience influences perception on drivers of go green initiatives is **rejected**.

5.3. FACTOR ANALYSIS:

After having found the relationship between demographics and OCBE, as well as the determinants identified through prior works with that of OCBE, in depth study on the determinants had to be carried out. That is, identifying the determinants which are major predictors of OCBE. Hence factor analysis was carried out, so as to enable data reduction and extract major determinants out of all the items.

Table 5.48 showing KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.897
Bartlett's Test of Sphericity	Approx. Chi-Square	13834.194
	df	435
	Sig.	.000

KMO Test explains the sampling adequacy for conducting the factor analysis. Ideally it should be above 0.7. Looking at the table it can be seen that it is 0.897 which proves that sample is sufficient for this research. The Bartlett's test checks if the observed correlation matrix diverges significantly from the identity matrix (theoretical matrix under H0: the variables are orthogonal). The PCA can perform a compression of the available information only if we reject the null hypothesis. Looking at the table it can be seen that the significance level is 0.00 which is less than 0.05 so the null hypothesis is rejected.

Table5.49 showing Total Variance Explained

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	10.728	35.759	35.759	10.728	35.759	35.759	6.353	21.177	21.177
2	2.233	7.445	43.204	2.233	7.445	43.204	3.615	12.049	33.226
3	1.928	6.428	49.631	1.928	6.428	49.631	2.670	8.901	42.127
4	1.776	5.919	55.550	1.776	5.919	55.550	2.454	8.180	50.307
5	1.367	4.556	60.106	1.367	4.556	60.106	2.119	7.062	57.369
6	1.189	3.962	64.068	1.189	3.962	64.068	1.580	5.266	62.635
7	1.095	3.650	67.718	1.095	3.650	67.718	1.525	5.083	67.718
8	.798	2.661	70.380						
9	.770	2.568	72.947						
10	.697	2.325	75.272						
11	.641	2.137	77.409						
12	.610	2.035	79.444						
13	.583	1.944	81.388						
14	.542	1.806	83.194						
15	.536	1.785	84.979						
16	.469	1.563	86.542						
17	.452	1.506	88.049						
18	.404	1.348	89.397						
19	.397	1.322	90.719						
20	.376	1.255	91.974						
21	.372	1.239	93.213						
22	.327	1.090	94.303						
23	.298	.992	95.295						
24	.264	.879	96.174						
25	.247	.824	96.998						
26	.228	.761	97.759						
27	.196	.654	98.413						
28	.192	.639	99.052						
29	.171	.570	99.622						
30	.113	.378	100.000						
Extraction Method: Principal Component Analysis.									

The Total Variable Explained table shows us the Eigenvalues for our factor analysis. The initial eigenvalues explains for each of those 30 factors, how much of the variance in the 30 items was captured by that factor. A factor with an eigenvalue of 1 has captured as much variance as there is in one variable. Looking at the table it can be seen that 7 factors have been extracted which explain about 67% variance in the model.

Table 5.50 showing Rotated Component Matrix

Rotated Component Matrix^a

	Component						
	1	2	3	4	5	6	7
Perceived Supervisory Support 2	.815						
Perceived Supervisory Support 1	.814						
Perceived Supervisory Support 3	.808						
Reward for Opportunity 1	.762						
Perceived Organization Support 3	.743						
Perceived Organization Support 2	.674						
Reward for Opportunity 2	.654						
Reward for Opportunity 3	.609						
Perceived Organization Support 1							
Organization Commitment 3							
Job Satisfaction 2							
Job Satisfaction 3		.778					
Organization Commitment 2		.738					
Job Satisfaction 1		.672					
Organization Commitment 1		.639					
Environmental concern6			.742				
Personal Forms3			.647				
Personal Forms2			.633				
Personal Forms1			.631				
Willingness to Sacrifice 3				.827			
Willingness to Sacrifice 1				.810			
Willingness to Sacrifice 2				.661			
Environmental Efficacy 1				.602			
PT1					.820		
Perceived Threat 2					.765		
Perceived Threat 3					.720		
Environmental concern2						.848	
Environmental concern1						.717	
Environmental Efficacy 2							.807
Environmental Efficacy 3							.777

Varimax rotation which attempts to minimize the complexity of the factors by making the large loadings larger and the small loadings smaller within each factor is used for this data set. The Rotated Factor Matrix gives the loadings after the rotation. From the table it can be seen that 8 items are loaded positively on Factor 1, 4 items are loaded on Factor 2, 4 items are loaded on Factor 3, 4 items are loaded on Factor 4, 4 items are loaded on Factor 4, 3 items are loaded on Factor 5, 2 items are loaded on Factor 6 and 2 items are loaded on Factor 7.

These factors are named as below;

- Factor1-Perceived Organization Support

- Factor2-Organization Commitment
- Factor3-Personal Norms
- Factor4-Willingness to Sacrifice
- Factor5-Perceived Threat
- Factor6- Environmental Concern
- Factor7- Environmental Efficacy

Factor 1- Perceived Support and Recognition

The items that loaded into factor 1, are listed in the below given table.

Table 5.51 showing the list of items loaded on Factor 1, Perceived Support and Recognition:

S.No	Item Code	Items	Factor Loadings
1	PSS2	<i>“Help is available from my supervisor whenever I have a problem”.</i>	.815
2	PSS1	<i>“My supervisor considers my opinions”.</i>	.814
3	PSS3	<i>“My supervisor cares about my well-being”.</i>	.808
4	REW1	<i>“If I work hard and am productive, I will be compensated by my organization”.</i>	.762
5	POS3	<i>“My organization is prepared to help me when I need a special favour”.</i>	.743
6	POS2	<i>“My organization considers my aspirations and values”.</i>	.674
7	REW2	<i>“I have plenty of opportunities to be rewarded for the work I do”.</i>	.654
8	REW3	<i>“My organization rewards my efforts towards environment”.</i>	.609

All the above given items, POS2 and POS3 belonging to perceived organization support, PSS1, PSS2 and PSS3 belonging to perceived supervisory support and opportunity for rewards, are grouped into Factor1, named as Perceived Support and recognition.

Table 5.52 showing Regressions analysis to understand the effect of Perceived Support and Recognition on OCBE:

Model Summary						
Model	R				Change Statistics	

		R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin- Watson
1	.686 ^a	.471	.465	.73652	.471	87.324	8	785	.000	1.941
a. Predictors: (Constant), POS3, REW1, PSS1, REW3, POS2, REW2, PSS3, PSS2										
b. Dependent Variable: OCBE										

The R value (.686) explains strong correlation between Perceived Support & Recognition (PSR) and OCBE. The R Square value (.471) indicates that 47.1% of variation on OCBE is explained by PSR. The P value (.000) less than significance level (0.05), indicates that overall, the regression model statistically significantly predicts the outcome variable.

Factor 2- Organizational Belongingness

The items that loaded into factor 2, are listed in the below given table.

Table 5.53 showing the list of items loaded on Factor 2, Organizational Belongingness:

S.No	Item Code	Items	Factor Loadings
1	JS3	<i>"Most of my colleagues appreciate my organization."</i>	.778
2	OC2	<i>"I feel as if my organization's problems are my own."</i>	.738
3	JS1	<i>"I am satisfied with this organization."</i>	.672
4	OC1	<i>"I feel that I belong to this company."</i>	.639

All the above given items, JS1 and JS3 belonging to Job satisfaction, OC1 and OC2 belonging to Organizational commitment, are grouped into factor 2 named as, organizational belongingness.

Table 5.54 showing Regressions analysis to understand the effect of Perceived Support and Recognition on OCBE:

Model Summary						
Model	R	R Square		Std. Error of	Change Statistics	Durbin- Watson

Factor 4- Willingness to Sacrifice

Table 5.57 showing the list of items loaded on to Factor 4- Willingness to Sacrifice

All the above items, WS1, WS2 & WS3, belonging to willingness to sacrifice, EE1 belonging to environmental efficacy are grouped to form factor 4, Willingness to sacrifice.

Model Summary ^b										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.468 ^a	.219	.215	.89234	.219	55.428	4	789	.000	1.861

a. Predictors: (Constant), EE1, WS1, WS2, WS3

b. Dependent Variable: OCBE

The R value (.468) explains strong correlation between Willingness to sacrifice (WS) and OCBE. The R Square value (.219) indicates that 21.9% of variation on OCBE is explained by WS. The P value (.000) less than significance level (0.05), indicates that overall, the regression model statistically significantly predicts the outcome variable.

Factor 5- Perceived Threat

The items that were loaded into factor5, that is perceived threat, are listed in the below given table.

Table 5.59 showing the list of items loaded on to Factor 3- Personal Norms

	Item Code	Items	Factor Loadings
1	PT1	<i>“Mankind is severely abusing the environment.”</i>	.820
2	PT2	<i>“When humans interfere with nature it often produces disastrous consequences.”</i>	.765
3	PT3	<i>“The earth is like a spaceship with only limited room and resources.”</i>	.720

All the above items, PT1, PT2 & PT3 belonging to perceived threat, are grouped to form factor 5, Perceived threat.

Table 5.60 showing Regressions analysis to understand the effect of Perceived Threat on OCBE

Model Summary ^b										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.218 ^a	.048	.044	.98494	.048	13.200	3	790	.000	1.832
a. Predictors: (Constant), PT3, PT2, PT1										
b. Dependent Variable: OCBE										

The R value (.218) explains weak correlation between Perceived Threat (PT) and OCBE. The R Square value (.048) indicates that 4.8% of variation on OCBE is explained by

PT.The P value (.000) less than significance level (0.05), indicates that overall, the regression model statistically significantly predicts the outcome variable.

Factor 6 – Environmental Concern

The items that loaded into Factor 6, that is Environmental Concern are in the below given table.

Table 5.61 showing Regressions analysis to understand the effect of Perceived Threat on OCBE

	Item Code	Items	Factor Loadings
1	EC2	<i>“I would prefer to drive to work, only if absolutely necessary, when no other mode of transportation is available”</i>	.848
2	EC3	<i>“I use non-disposable cups & plates at work”</i>	.717

All the above items, EC2 & EC3, belonging to environmental concern are grouped into factor 6, named as Environmental concern

Table 5.62 showing Regressions analysis to understand the effect of Environmental Concern on OCBE

Model Summary ^b										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.403 ^a	.163	.161	.92298	.163	76.862	2	791	.000	1.834

a. Predictors: (Constant), EC3, EC2

b. Dependent Variable: OCBE

The R value (.403) explains strong correlation between Environmental concern (EC) and OCBE. The R Square value (.163) indicates that 16.3% of variation on OCBE is explained by EC.The P value (.000) less than significance level (0.05), indicates that overall, the regression model statistically significantly predicts the outcome variable.

Factor 7 – Environmental Efficacy

The items that loaded into factor 6, that is Environmental efficacy are listed in the table given below.

Table 5.63 showing Regressions analysis to understand the effect of Environmental Efficacy on OCBE

	Item Code	Items	Factor Loadings
1	EE2	<i>“There is no point in doing what I can for the environment unless others do the same.”</i>	.807
2	EE3	<i>“There are more important things to do in life than protect the environment.”</i>	.777

The above given items, EE2 & EE3, belonging to Environmental efficacy, are grouped factor 6 named as environmental efficacy.

Table 5.64 showing Regression analysis to understand the effect of Environmental Efficacy on OCBE

Model Summary^b										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.093 ^a	.009	.006	1.00430	.009	3.459	2	791	.032	1.801
a. Predictors: (Constant), EE3, EE2										
b. Dependent Variable: OCBE										

The R value (.093) explains weak correlation between Environmental efficacy (EE) and OCBE. The R Square value (.009) indicates that 9% of variation on OCBE is explained by EE. The P value (.032) less than significance level (0.05), indicates that overall, the regression model statistically significantly predicts the outcome variable.

5.4. EMPLOYEE GREEN BEHAVIOUR MODEL- REGRESSION ANALYSIS:

After having extracted the factors through factor analysis, a model that arises out of these factors, would enable to expand the study in various arenas and strengthen the theory. Hence building a model for Employee green behaviour was attempted, using multiple regression. It allows us to examine how multiple independent variables are related to a dependent variable. Once the multiple variables are identified, it is related to the dependent variable. Information about the independent variables will lead to powerful predictions about why things are the way they are. The objective of multiple linear regression (MLR) is to model the relationship between the explanatory and response variables. The idea is to develop all possible regression equations, using all possible combination of the independent variables and choosing the best model with highest adjusted r^2 .

Stepwise regression methods are sometimes relied upon to determine a set of independent variables that purportedly represent the —best set of predictors of a particular dependent variable (Hinkle, Wiersma, and Jurs, 2003). This method provides alternative models as variables are added one by one. Hence stepwise regression was carried out to arrive at model with best fit. It can be done in two ways.

- 1) Stepwise regression can be done with one independent variable at a time and later, including it in the regression model if it is statistically significant.
- 2) The other way is to include all potential independent variables in the model and eliminating those that are not statistically significant.

In the present study, independent variables that are statistically significant, were considered for the model.

Table 5.65 showing the model summary of the Stepwise Regression

MODEL SUMMARY										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.646 ^a	.417	.416	.76970	.417	566.465	1	792	.000	
2	.750 ^b	.562	.561	.66738	.145	262.450	1	791	.000	
3	.785 ^c	.616	.614	.62571	.053	109.871	1	790	.000	
4	.804 ^d	.646	.644	.60122	.030	66.670	1	789	.000	
5	.818 ^e	.669	.667	.58100	.024	56.891	1	788	.000	
6	.823 ^f	.677	.674	.57514	.007	17.112	1	787	.000	
7	.827 ^g	.684	.681	.56922	.007	17.470	1	786	.000	
8	.830 ^h	.690	.687	.56402	.006	15.571	1	785	.000	
9	.833 ⁱ	.693	.690	.56100	.004	9.471	1	784	.002	
10	.835 ^j	.697	.693	.55802	.004	9.384	1	783	.002	
11	.837 ^k	.701	.696	.55501	.004	9.521	1	782	.002	
12	.839 ^l	.704	.699	.55272	.003	7.504	1	781	.006	
13	.840 ^m	.706	.701	.55077	.002	6.532	1	780	.011	
14	.842 ⁿ	.708	.703	.54883	.002	6.510	1	779	.011	
15	.843 ^o	.711	.705	.54676	.003	6.914	1	778	.009	1.816

From the above table it is clear that, all the independent variables are included one by one. In Model 1, as it shown, where only one independent variable Perceived Organization support is included and the values turned out be R=0.646, R Square= 0.622 and adjusted R square=.416. The model with highest adjusted R square is termed to be the best fit model.

Hence **Model 15**, which has got a highest adjusted R square = .705, and hence it is, **accepted**. 71.1 of variation in OCBE is explained by the determinants in this model.

Employee Green Behaviour Model

Table 5.66 showing the Significance levels of the selected model

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
15	(Constant)	-.391	.117		-3.356	.001	-.620	-.162
	PN3	.228	.023	.285	9.769	.000	.182	.274
	POR3	.205	.026	.234	7.814	.000	.153	.256
	JS2	.229	.026	.237	8.947	.000	.179	.279
	EC2	.087	.016	.123	5.588	.000	.056	.117
	PN2	.136	.022	.155	6.047	.000	.092	.180
	PSS3	-.129	.030	-.142	-4.259	.000	-.188	-.069
	POS3	.110	.028	.115	3.881	.000	.054	.165
	EC3	.040	.015	.058	2.648	.008	.010	.070
	EE2	.044	.013	.068	3.425	.001	.019	.069
	PSS2	-.080	.029	-.086	-2.703	.007	-.137	-.022
	PN1	.067	.024	.086	2.818	.005	.020	.114
	PT1	-.046	.018	-.054	-2.491	.003	-.082	-.010
	EE1	.064	.020	.078	3.215	.001	.025	.103
	EC1	.039	.015	.062	2.678	.008	.010	.067
	JS1	.058	.022	.069	2.629	.009	.015	.101

Independent Variables that are statistically significant and that were included in the model are – Personal Norms(1,2,3),Environmental Concern (1,2,3,),Job Satisfaction (1,2), Perceived opportunity for rewards(3),Perceived Organization Support(3), Environmental Efficacy(1,2), Perceived Supervisory Support(2,3) and Perceived Threat(1).

5.4.1. Calculation of Employee Green Behaviour Implementation Index

- Regression Equation $Y = a + bx$

For number of variables, $Y = a + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + \dots + b_nx_n$,

Where Y = dependent Variable

$X_1 \dots X_n$ = Independent Variables

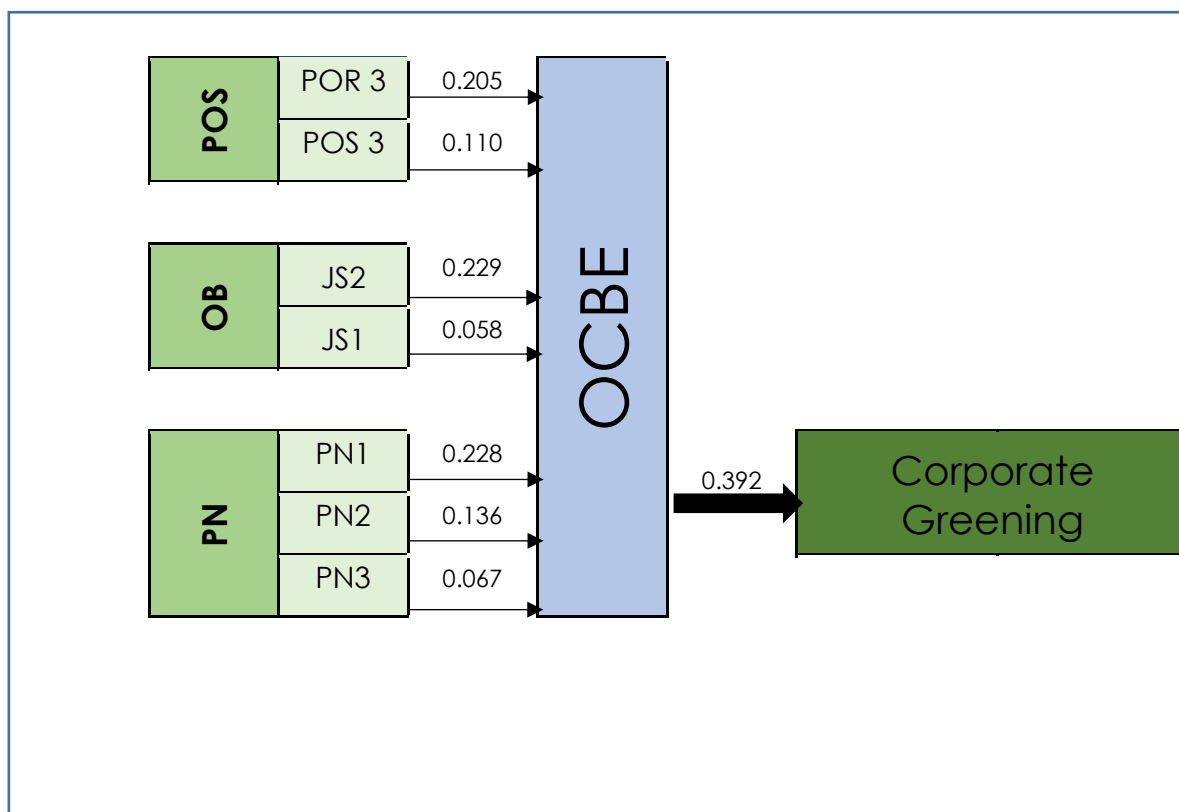
- Y = Dependent Variable : Organization Citizenship Behaviour Towards Environment
- $X_1 \dots X_n$ = Independent Variables : Personal Norms(1,2,3), Environmental Concern (1,2,3), Job Satisfaction (1,2), Perceived opportunity for rewards(3), Perceived Organization Support(3), Environmental Efficacy(1,2), Perceived Supervisory Support(2,3) and Perceived Threat(1).

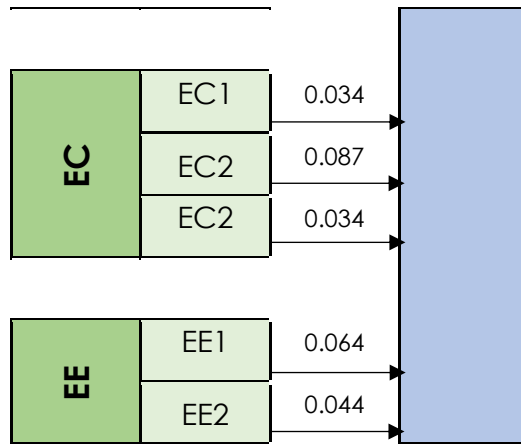
5.4.1.1. Employee Green Behaviour Implementation Index

OCBE = $-.391 + .228(\text{Personal Norm } 3) + .205(\text{Perceived Opportunity for Rewards } 3) + .229(\text{Job Satisfaction } 2) + .087(\text{Environmental Concern } 2) + .136(\text{Personal Norms } 2) + .110(\text{Perceived Organization Support } 3) + .040(\text{Environmental Concern } 3) + .044(\text{Environmental Efficacy } 2) + .067(\text{Personal Norms } 1) + .064(\text{Environmental Efficacy } 1) + .034(\text{Environmental Concern } 1) + .058(\text{Job Satisfaction } 1) + (-.142, \text{Perceived Supervisory support } 3) + (-.086, \text{Perceived Supervisory Support } 2) + (-.042, \text{Perceived Threat})$

5.4.1.2. Illustration of Employee Green Behaviour

1.7. Figure showing the Employee Green Behaviour Model





5.5. VALIDATING THE MODEL

The final step in the model-building process is to validate the selected regression model. Validating the model is to confirm that selected model is a purified enough to be applied for relevant studies. This can be done using following methods,

- 1) Collect new set of data and compare the results.
- 2) Compare the results of the regression model with that of the results from previous studies.
- 3) Data splitting, in which the entire data is split into two and cross validation is done.

In the present study, validation was carried out using Data splitting method. In this, the entire data was split into two parts at random, using Data selection in SPSS. The first part to develop model and the second part to measure predictive accuracy.

Sample 1 consisted of 384 data cases, which were picked at random from the complete data set, using SPSS, and multiple regression was carried out. The regression analysis output is given in the table below.

Table 5.67 showing the Regression of Sample 1 in data splitting

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.850 ^a	.722	.711	.54095
a. Predictors: (Constant), REW3, PT1, EC2, EE2, EC3, EE1, EC1, JS2, PN2, POS3, JS1, PN3, PSS2, PN1, PSS3				

b. Dependent Variable: OCBE						
ANOVA^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	280.690	15	18.713	63.946	.000 ^b
	Residual	107.981	369	.293		
	Total	388.671	384			
a. Dependent Variable: OCBE						
b. Predictors: (Constant), REW3, PT1, EC2, EE2, EC3, EE1, EC1, JS2, PN2, POS3, JS1, PN3, PSS2, PN1, PSS3						

The R value (0.850) explains strong correlation between the independent variables and the dependent variable. The R Square value (0.722) indicates that 72.2% of variation on OCBE is explained by the independent variables. The P value (.000) lesser than significance level (0.05), indicates that there is a statistically significant relationship between OCBE and Independent variables. The adjusted R square is .711, which indicates that the model if best fit.

Table 5.68 showing the coefficients Sample 1 in data splitting

Coefficients								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.474	.167		-2.845	.005		
	EC1	.053	.021	.083	2.521	.012	.687	1.455
	EC2	.118	.022	.164	5.363	.000	.801	1.248
	EC3	.068	.022	.097	3.022	.003	.728	1.373
	PN1	.071	.033	.091	2.112	.035	.406	2.466
	PN2	.133	.032	.152	4.115	.000	.551	1.815
	PN3	.205	.034	.255	6.016	.000	.418	2.394
	EE1	.089	.028	.109	3.115	.002	.612	1.633
	EE2	.065	.019	.100	3.431	.001	.886	1.128
	PT1	-.067	.026	-.080	-2.560	.011	.768	1.301
	JS1	.030	.032	.037	.936	.350	.486	2.058
	JS2	.212	.038	.220	5.552	.000	.481	2.077
	POS3	.092	.041	.093	2.208	.028	.427	2.343

PSS2	-.045	.042	-.047	-1.076	.283	.389	2.574
PSS3	-.122	.044	-.138	-2.773	.006	.303	3.300
REW3	.191	.039	.212	4.953	.000	.411	2.434

a. Dependent Variable: OCBE

Sample 2 consisted of 408 data cases, which were picked at random from the complete data set, using SPSS, and multiple regression was carried out. The regression analysis output is given in the table below.

Table 5.69 showing the Regression of Sample2 in data splitting

Model Summary						
Model		R	R Square	Adjusted R Square	Std. Error of the Estimate	
1		.846 ^a	.715	.704	.54910	
a. Predictors: (Constant), PN2, EE2, PT1, EC2, EC3, JS2, EE1, EC1, JS1, POS3, PN3, REW3, PSS3, PN1, PSS2						
b. Dependent Variable: OCBE						
ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	297.467	15	19.831	65.772	.000 ^b
	Residual	118.495	393	.302		
	Total	415.963	408			
a. Dependent Variable: OCBE						
b. Predictors: (Constant), PN2, EE2, PT1, EC2, EC3, JS2, EE1, EC1, JS1, POS3, PN3, REW3, PSS3, PN1, PSS2						

The R value (0.846) explains strong correlation between the independent variables and the dependent variable. The R Square value (0.715) indicates that 71.5% of variation on OCBE is explained by the independent variables. The P value (.000) lesser than significance level (0.05), indicates that there is a statistically significant relationship between OCBE and Independent variables. The adjusted R square is .704, which indicates that the model is best fit.

Table 5.70 showing the Coefficients of Sample 2 in data splitting

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.373	.167		-2.232	.026		
	PN3	.251	.032	.313	7.762	.000	.447	2.239
	EC1	.027	.020	.043	1.335	.183	.683	1.464
	EC2	.058	.022	.082	2.597	.010	.725	1.379
	EC3	.019	.021	.028	.909	.364	.775	1.290
	EE1	.037	.028	.045	1.319	.188	.635	1.575
	EE2	.030	.018	.047	1.691	.092	.930	1.076
	PT1	-.025	.026	-.028	-.951	.342	.809	1.236
	JS1	.081	.030	.096	2.680	.008	.561	1.783
	JS2	.250	.036	.257	7.026	.000	.543	1.843
	POS3	.123	.039	.132	3.136	.002	.411	2.431
	PSS2	-.116	.042	-.129	-2.750	.006	.332	3.013
	PSS3	-.128	.043	-.139	-2.982	.003	.336	2.980
	REW3	.220	.036	.258	6.081	.000	.401	2.491
	PN1	.056	.034	.071	1.639	.102	.386	2.590
	PN2	.144	.032	.165	4.515	.000	.542	1.843
a. Dependent Variable: OCBE								

Both the samples, resulted in higher R square adjusted values, Sample1 (.711) and sample 2 (.704). As the difference between the R square adjusted values of both the samples are negligible, the model remains validated.

5.7. SUMMARY OF HYPOTHESES.

The table below provides the list of hypotheses with their acceptance / rejection details

Table 5.71 showing the summary of Hypotheses

H1 (a):	There exists a significant difference on OCBE with respect to Age.	Accepted
H1 (b):	There exists a significant difference on OCBE with respect to gender.	Accepted

H1 (c):	There exists a significant difference on OCBE with respect to Educational Qualification.	Accepted
H1 (d):	There exists a significant difference on OCBE with respect to Designation.	Accepted
H1 (e):	There exists a significant difference on OCBE with respect to Experience.	Accepted
H1 (f):	There exists a significant difference on OCBE with respect to Organizational Experience.	Accepted
H1 (g):	There exists a significant difference on OCBE with respect to Organizational Size.	Accepted
H1 (h):	There exists a Significant Difference on OCBE with respect to IT Hubs.	Rejected
H2 (a):	Environmental Concern Has a Significant Effect on OCBE.	Accepted
H2 (b):	Personal Norms has a Significant Effect on OCBE.	Accepted
H2 (c):	Willingness to Sacrifice towards Pro-environmental Issues Has a Significant Effect on OCBE.	Accepted
H2 (d):	Environmental Efficacy Have a Significant Effect on OCBE.	Accepted
H2 (e):	Belief on Pro-environmental Issues Have a Significant Effect on OCBE.	Accepted
H2 (f):	Values On Pro-environmental Issues Have a Significant Effect on OCBE.	Accepted
H2 (g):	Perceived Threat on Pro-environmental Issues Have a Significant Effect on OCBE.	Accepted
H2 (h):	Perceived Supervisory Support On Pro-environmental Issues Have a Significant Effect on OCBE.	Accepted
H2 (I):	Perceived Behavioural Control On Pro-environmental Issues Have a Significant Effect on OCBE.	Accepted
H2 (j):	Perceived Opportunity for Rewards on Pro-environmental Issues Have a Significant Effect on OCBE.	Accepted
H2 (k):	Job Satisfaction Have A Significant Effect on OCBE.	Accepted
H2 (l):	Organization Commitment Have A Significant Effect on OCBE.	Accepted
H2 (m):	Perceived Organization Support Have A Significant Effect on OCBE.	Accepted
H2 (n):	Perceived Organization Justice Have A Significant Effect on OCBE.	Accepted
H3:	OCBE has a significant impact on Corporate Greening Initiatives.	Accepted
H4:	There Is a Significant influence of Organizational Size on Implementation of Green Initiatives.	Rejected
H5:	There Is a Significant influence of Organizational size on Environmental Management Practices.	Accepted
H6:	There is significant influence of The Manager's Experience on Perceived Barriers of Green Initiatives.	Rejected

H7:	There Is a Significant Influence of Manager's Experience on Driving Factors of Green Initiatives.	Rejected
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From the data collected from IT employees and Managers, a thorough analysis was carried out using demographics and appropriate statistical tools. Dimension reduction was done using factor analysis. A model on employee green behaviour was developed using Regression. The model was then validated using Data splitting method.

This chapter on analysis has provided new insights in the organizational citizenship behaviour of employees, both expected and unexpected. Some results go hand in hand with the prior works and some does not. Different target segment and different set of determinants could be the reason for few results deviating from the prior findings.

Findings of the analysis and suggestions based on the findings on employee green behaviour are dealt in chapter 5, Findings and Suggestions.

CHAPTER 6

FINDINGS AND SUGGESTIONS

The analysis of data consisting of responses from 794 IT employees and 16 Managers, on Organization citizenship behaviour towards environment, has led to new findings, to be discussed in this chapter. Based on the findings suggestions on enhancing employee green behaviour are also delineated in this chapter.

The findings are divided into three sections

- 1) Demographics Vs OCBE- Employees

- 2) Determinants Vs OCBE – Employees
- 3) OCBE & Green Readiness- Managers

6.1. DEMOGRAPHICS VS OCBE- EMPLOYEES

6.1.1 Age and OCBE

The results revealed that age has a significant effect on OCBE of employees. Employees belonging to the 31-40 age group exhibit more of OCBE, followed by Less than 30 Group. And respondents belonging to 41-50 age group comparatively exhibit lesser level of OCBE. OCBE level of the employees decrease as they get older. There was a significant difference on OCBE exhibited by different age groups.

6.1.2 Gender and OCBE

The Mean values revealed that males, exhibit more of OCBE than females and there is significant difference on OCBE exhibited by these two groups.

6.1.3 Education and OCBE

Mean values reveal that respondents with engineering background exhibit more of OCBE, followed by Commerce graduates. Respondents with science background are positioned third in OCBE followed by Arts graduates. There is significant difference on OCBE exhibited by these groups.

6.1.4 Designation and OCBE

Mean values reveal that employees in the middle level exhibit more of OCBE followed by First level Employees. The top level which includes Senior Managers and VPs', are positioned third OCBE. There is a significant difference on OCBE exhibited by these groups.

6.1.5. Overall Experience and OCBE

Mean values reveal that respondents with 5-10 years of experience exhibit more of OCBE, followed by 10-15 years of experience. Respondents with Less than 5 years' experience are positioned third in OCBE followed by Respondents with 15 years of experience. There is a significant difference on OCBE exhibited by these groups.

6.1.6. Organizational Experience and OCBE

Mean values reveal that respondents with Above 15 years of experience exhibit more of OCBE followed by Less than 5 years of experience. Respondents with 5-10 years of

experience are positioned third in OCBE followed by, Respondents with 10-15 years of experience. There is a significant difference on OCBE exhibited by these groups.

6.1.7. Size of the organization and OCBE

Mean values reveal that small companies with less than 200 employees, exhibit more of OCBE, followed by above 1000. Companies which have 501-1000 employees, positioned third in OCBE followed by, companies with 200-500 employees. And the groups reveal a statistically significant difference.

6.1.8. IT hubs and OCBE

Mean values of respondents' OCBE remains almost same for all the IT hubs, viz, Chennai, Hyderabad and Bangalore. And there is no statistically significant difference between the groups.

6.2. DETERMINANTS VS OCBE

6.2.1. Environmental Concern and OCBE

There is a strong correlation between Environmental concern of the respondents and OCBE. The R Square value indicates that 39% of variation on OCBE is explained by Environmental Concern. The P value indicates that the regression model, statistically significantly predicts the outcome variable.

6.2.2. Personal Norms and OCBE

There is a strong correlation between Personal Norms of the respondents and OCBE. The R Square value indicates that 49% of variation on OCBE is explained by Personal Norms. The P value indicates that the regression model statistically significantly predicts the outcome variable.

6.2.3. Willingness to Sacrifice and OCBE

There is a correlation between Willingness to Sacrifice of the employees towards environmental issues and OCBE. The R Square value indicates that 6.8% of variation on OCBE is explained by WS. The P value indicates that, the regression model statistically significantly predicts the outcome variable.

6.2.4. Environmental Efficacy and OCBE

There is a strong correlation between Environmental Efficacy of the respondents and OCBE. The R Square value indicates that 25.6% of variation on OCBE is explained by EE. The

P value indicates that, the regression model statistically significantly predicts the outcome variable.

6.2.5. Belief and OCBE

There is a weak correlation between Belief of the respondents on pro-environmental issues and OCBE. The R Square value indicates that .9% of variation on OCBE is explained by Belief. The P value indicates that, the regression model statistically, significantly predicts the outcome variable.

6.2.6. Values and OCBE

There is a weak correlation between Values of the respondents on environmental issues. The R Square value indicates that 7.5% of variation on OCBE is explained by Values. The P value, indicates that, the regression model statistically significantly predicts the outcome variable.

6.2.7. Perceived Threat and OCBE

There is a strong correlation between Perceived Threat of the respondents on environmental issues and OCBE. The R Square value indicates that 9.1% of variation on OCBE is explained by Perceived Threat. The P value, indicates that, the regression model statistically significantly predicts the outcome variable.

6.2.8. Perceived Supervisory Support and OCBE

There is a strong correlation between Perceived Supervisory Support and OCBE. The R Square value indicates that 28.3% of variation on OCBE is explained by PSS. The P value, indicates that, the regression model statistically significantly predicts the outcome variable.

6.2.9. Perceived Behavioural Control and OCBE

There is a strong correlation between Perceived behavioural control and OCBE. The R Square value indicates that 24.8% of variation on OCBE is explained by PBC. The P value, indicates that, the regression model statistically significantly predicts the outcome variable.

6.2.10. Perceived Opportunity for rewards and OCBE

There is a strong correlation between Perceived opportunity for rewards and OCBE. The R Square value indicates that 30.9% of variation on OCBE is explained by Perceived Opportunity for Rewards. The P value, indicates that, the regression model statistically significantly predicts the outcome variable.

6.2.11. Job Satisfaction and OCBE

There is a strong correlation between Job satisfaction and OCBE. The R Square value indicates that 32.9% of variation on OCBE is explained by Job satisfaction. The P value, indicates that, the regression model statistically significantly predicts the outcome variable.

6.2.12. Organizational Commitment and OCBE

There is strong correlation between Organization commitment of the employees and OCBE. The R Square value indicates that 33.6% of variation on OCBE is explained by OC. The P value, indicates that, the regression model statistically significantly predicts the outcome variable.

6.2.13. Perceived Organization support and OCBE

There is strong correlation between Perceived Organizational support and OCBE. The R Square value indicates that 34.2% of variation on OCBE is explained by POS. The P value, indicates that, the regression model statistically significantly predicts the outcome variable.

6.2.14. Perceived organizational Justice and OCBE

There is a correlation between Perceived organization justice and OCBE. The R Square value indicates that 23.4% of variation on OCBE is explained by POJ. The P value, indicates that, the regression model statistically significantly predicts the outcome variable.

6.2.15. Environmental Concern and OCBE

The R value (.626) explains strong correlation between OCBE and Corporate greening initiatives. The R Square value (.392) indicates that 39.2% of variation in Corporate Greening Initiatives is explained by OCBE. The P value (.000) less than significance level (0.05), indicates that overall, the regression model statistically significantly predicts the outcome variable. Coefficients explains a significant relationship (.000) between OCBE and Corporate greening Initiatives. The regression equation is present as Corporate Greening Initiatives = $1.522 + .516 (\text{OCBE})$

Summing Up the Results on Determinants,

- Personal Norms of the employees emerged as the major contributor, explaining 49% of variation in OCBE followed by Environmental Concern of the employees explains 39% of variation in OCBE.

- Organization Support as perceived by the employees, Rewards for extra role, Job satisfaction of the employees, and Organization commitment of the employees have their own share of contribution towards OCBE and explains variation between 30%-40% in OCBE.
- Supervisory Support as perceived by the Employees, Perceived behavioural control, Perceived organization justice and Environmental Efficacy also contributes to OCBE and explains a variation between 20%-30% in OCBE.
- Perceived threat, values, Willingness to sacrifice and Beliefs despite explaining less than 10% of variance in OCBE, they do contribute towards OCBE.

6.3. ENVIRONMENTAL MANAGEMENT PRACTICES AS PERCEIVED BY MANAGERS.

From the perspective of managers, setting targets for environmental performances, tops the list, followed by annual environmental report published by the organizations. Engaging employees in go green initiatives and publishing environmental policies in accordance with organizational policies are also important component of environmental management practices, as per the managers.

6.3.1. Barriers of Go Green Initiatives As Perceived By Managers.

From the perspective of sustainability managers, insufficient incentives for the employees, tops the list, followed by lack of management support, which hinders go green initiatives in organizations. Lack of skilled staff, to practice go green initiatives in organizations is also a major concern, as perceived by managers.

6.3.2. Drivers of Go Green Initiatives As Perceived By Managers.

From the perspective of managers, corporate image is rated as the major driver of Environment management practices in IT companies, followed by Community environmental concern. Expectation from End-consumer is also rated as an important driver of go green initiatives.

6.3.3. Impact of Environmental Management practices

From the perspective of managers, better relation with stake holders with an average score is the major impact of environmental management practices in IT companies. Elated Employee morale and improved reputation of the organization were noted.

6.3.4. Employees' role in Implementation of go green initiatives

Majority of the managers opined that employees have a role in implementation of go green initiatives in the organization, as they needed input from the employee's right from strategy formulation. Whereas few of them opined that employees do not have a role in implementation of Go Green initiatives as they strongly felt that employees has nothing to do with implementation, and they will have to only execute what to their asked to do.

6.3.5. Employees contribution towards Go green Initiatives

Nearly half of the managers interviewed of them opined that employees' green behaviour contributes only 25-50 percent towards go green initiatives, as they felt that employees comes into picture, only while fulfilling the tasks such as double sided printing etc., Few of them opined that employees' green behaviour contributes 51-75 percent, towards go green initiatives, as they felt that motivated employees enables the peer group to get into action. And rest of them opined that employees' green behaviour contributes more than 75% towards, successful implementation of go green initiatives, as they strongly felt that employees have a big role in green initiatives right from conceptualization.

6.3.6. Satisfaction of Employee Green Behaviour

Majority of the managers opined that they are neither satisfied nor dissatisfied, as they felt that employees are not alone to be blamed, due to discrepancies that exist, in time spent by the employees, on green initiatives. Few of them opined that they are satisfied with green behaviour exhibited by the employees. 1 of them responded that he was dissatisfied, as employees do not come forward to indulge in such activities that are not mentioned in their job description.

6.3.7. Sustainability Manager

Nearly half of the companies that have been contacted for the study, had a position called sustainability managers, while few companies mentioned that they are in the process of creating a position for sustainability managers and the rest mentioned that they do not have any plans as of now, as it now the sustainability issues are taken care by operational managers.

6.3.8. ISO 14001 certification

Among the companies that were included for the study only 4 companies were ISO 14001 certified, and half of the companies have not gone for any such certification, while some are in the process of converting ISO 9000 to ISO 14001.

6.3.9. Rewards and Recognition for employees

In nearly 25% of the companies' rewards and recognition for employee green behaviour is already in place, which is taken care by the green team. 25% of them stated that rewards for employee green behaviour is cards, and will be implemented soon. 50% of them stated that rewards for employee green behaviour is not in plans as of now.

6.3.10. Awards for Environmental sustainability

Out of the 16 managers who were interviewed 5 (31%) of them stated that their organization has already received awards for their achievements in environmental sustainability. 11 (69%) of them stated that they have not received any awards so far. Out of the thirty companies that are under the study, 13 of them have already received awards, while the remaining are yet to.

6.3.11. Organizational Size on Go Green Initiatives as perceived by the managers.

The R value explains correlation between Organizational size and Go Green Initiatives. The R Square value indicates that 14.8% of variation on Implementation of Green Initiatives is explained by the Size of the organization. The P value indicates that there is no statistically significant relationship between Implementation of green Initiatives and Size of the organization, as perceived by the managers.

6.3.12. Organizational size on Environmental Management Practices as perceived by the Managers.

The R value (.538) explains correlation between Organizational size and Environmental Management Practices. The R Square value indicates that 28.9% of variation on Environmental management practices is explained by the Size of the organization. The P value, indicates that there is a statistically significant relationship between Environmental Management Practices and Size of the organization

6.3.13. Managers' Experience on Barriers of Green Initiatives

The R value explains weak correlation between Managers' Experience and Managers' perception on barriers of green initiatives. The R Square value indicates that 7.1% of variation on managers' perception on barriers on green initiatives is explained by Managers' experience. The P value, indicates that there is no statistically significant relationship between Managers experience and managers perception on barriers.

6.3.14. Managers' Experience on Drivers of Green Initiatives

The R value (0.213) explains weak correlation between Managers' Experience and Managers' perception on drivers of green initiatives. The R Square value (0.045) indicates that 4.5% of variation on managers' perception on drivers on green initiatives is explained by Managers' experience. The P value (.4273) greater than significance level (0.05), indicates that there is no statistically significant relationship between Managers experience and managers perception on drivers of go green initiatives.

Summing up the findings from the Managers' perception,

- OCBE of employees contribute to Corporate greening
- Organizational Size influences the implementation of Environmental Management practices
- Better relationship with stake holders is the major outcome Environmental Management practices, followed by Employee Morale
- Target for Environmental performance tops the list of environmental; management practices
- Double sided printing tops the list of green initiatives followed by Increased green cover
- Insufficient incentives tops the list of barriers of green initiatives followed by lack of management support
- Corporate Image tops the list of Drivers of Green Initiatives, followed by community environmental concern.

6.4. SUGGESTIONS TO THE ORGANIZATIONS AND MANAGERS.

As the study reveals, Personal Norms and Environmental Concern of the employees are The major determinants of Organization Citizenship Behaviour towards environment, which are rather individual based, organizations and recruiters should focus on hiring potential recruits. Individuals who are 'value driven' and has an inclination towards environmental issues are the potential recruits.

Recruiters should look for the candidate's inclination towards pro-environmental behaviour, so that they approach their corporate environmental culture in a serious way. Hence Greening the HR process should begin with recruiting!

Such employees, apart from being proud about the organization they work for, will also recommend the organization, as a great place to work, to others also. This in turn would contribute to the improved reputation with the customers.

Attract Potential Recruits: Hence the first and foremost thing to be done is finding ways to attract potential recruits. Organizations can increase their attractiveness, by developing a reputation emphasizing sustainable development and ecological sensitivity, which would increase the ability of the organization to access a wider and higher quality candidate pool.

Do Sustainable recruiting : While recruiting, apart from the traditional methods, using technology for pre-screening, interviews, joining formalities, etc. can save lots of paperwork, travelling and time ultimately reducing the carbon footprints for both the employer and the job seekers.

On-Boarding Employees for sustainability: Once hiring is done, the inculcation of firm's sustainability values and goals should be should happen. New employee socialization process to make the employees aware of the organization's efforts towards sustainability, through company orientation and training programs, formal communication by upper management, and involving them in corporate environmental efforts, should take place.

Post-on-Boarding performance management: Performance assessment of employees, rewards and incentive system, will make employees, understand how important an ecological mind-set is. Communicating with the employees on environmental sustainability, performance management and reward system may be utilized to indoctrinate employees in the environment values of the organization.

Focus on Current Employees: Apart from that, it is essential to identify and study the current employees, on their attitude towards environmental issues. Surveys or focus group interviews can be conducted among employees, to understand the employees' opinion on organizations' commitment to environmental issues. The pro-environment attitude of the employees can also be studied. Brainstorming sessions can be conducted to gather ideas on what can be done for the betterment of sustainability issues in the organization, and personally, how

would they like to be involved in green initiatives in the organization. This information will help organizations to build strategy, on how to engage employees.

The millennials, are looking for a company that has got a mission beyond its profitability, process that encompasses benefits to the community, on environmental aspect. They are eager to work with companies, which is known for CSR activities, which has got a green image, in which they feel they can make a difference. Employee engagement in sustainability does not stop with formation of green teams, there is much more than that. Green teams just consist of environment –minded individuals, who indulge themselves greening their lives at home and work. Beyond this, enormous effort is expected out of them to bring in fantastic results.

Clear vision on environmental contribution, is the back bone for engaging employees in environmental issues. Environment policy of the organization should be aligned to the corporate policy and management infrastructure which is required to support sustainability, should be established. This means integrating sustainability strategies into the overall business strategy, with clear vision, goals and metrics and also having strong executive sponsorship and a collaborative governance structure for decision making and resource allocation.

With the foundation built, the next step is to create the cornerstones of engagement strategy.

- Communicate the vision for sustainability, to all the stakeholders, tell them why it is important, and also let them know, what people need to do to support it.
- Communicate the level of performance expected and how progress will be measured.
- Give a clear description on roles and competencies required for indulging in sustainability initiatives.
- Educate and train them on sustainability issues, their benefits and the consequences, if not taken seriously.
- Engage employees in planning and implementation of environmental initiatives.
- A continuous Improvement program to review the processes, and progress need to be established, so as to take necessary actions then and there.
- Necessary resources to support engagement namely training budget, education and backfilling need to be established.

- Motivate employees, to remain committed to the strategy and communicate to them then and there, the benefits and the importance of their contributions.
- Organization need to support, solicit and address questions and concerns on environmental issues.
- An efficient rewards management team should be in place, which would recognize and rewards the environmental initiatives of the employees and celebrate environmental accomplishments of the employees.

Nowadays, the green image of a company is looked into, by consumers, suppliers and investors. It has become mandatory for the organizations to show their interests towards environmental issues.

6.4.1. The Bottom Line:

Without fully engaging employees insustainability initiatives, companies might leave out one of the most dynamic and powerful tools to build a culture of commitment, and potentially a competitive edge.

Companies have started implementing EMS (Environmental Management System) a strategic tool, to gain competitive advantage. EMS providesa check on the firm's environmental impacts. The system includes policy, planning, implementation, measurement, evaluationand review. It contributes to the development of a HR system that fit with organization's culture and long-term goals.Green HR

Policies can touch upon every facet of employee career cycle, right fromrecruitment to exit of an employee. Positioning the company not only as 'employee friendly' but also 'eco-friendly, will bring in lots of potential candidates during recruitment. An UK survey results has revealed that top ranking graduates, consider the environmental performance of the company, as a criterion, while applying for jobs.

Organizations should include environment training and development programmes for employees, at all levels, like energy conservation at the floor level and strategic sustainability issues at executive management and board level. It should include all social, environmental and economic risks and opportunities involved in greening the organization. In the training programme, employees should be well informed with the green procedures and policies

including the vision / mission statement of the company, benefits of sustainability, green initiatives like double sided printing, avoiding paper cups, car pooling and using technology to bring down energy consumption. Training is a key intervention to greening the organization. Companies can encourage forming of green teams, which would continuously provide awareness on green issues, among the employees.

Using performance management (PM) in environmental management (EM) presents the challenges of how to measure environmental performance standards across different units of the firm, and gaining useful data on the environmental performance of managers. Some firms have installed corporate wide environmental performance standards (which cover on-site use, waste management, environmental audits, and the reduction of waste) to measure environmental performance standards, and developing green information systems and audits (to gain useful data on managerial environmental performance).

Besides all these, the organizations need to develop rewards and recognition program to encourage and reinforce sustainability behaviors. A separate management structure need to be developed, to execute the sustainability strategy and engage employees.

A variable pay element can be added to the compensation system by linking the pay to eco-performance. Work organizations can benefit from rewarding waste reduction practices that teams develop. For example, when implementing a green suggestion a portion of the savings that accrued from its results can be returned back to the team or the employee who suggested the idea.

Reward packages are related to acquiring designated skills and competencies (and not just for performance), as they are seen to be important factors in performance over the long-term. Disincentives include negative reinforcements like suspensions, criticisms and warnings and may be needed to get employees to make environmental improvements, e.g. if employees engage in lapses in the handling of hazardous waste. Organizations may wish to engage in giving employees positive rewards in terms of verbal feedback from supervisors, as such informal verbal and written feedback which might help motivate employees towards environmental improvements.

The job description should be aligned with green tasks and goals to be achieved. The HR staff should modify the performance appraisal rating system to include dimensions for

rating people on the following behavioral and technical competencies: teamwork, collaboration, diversity, innovation, and environmental stewardship.

HR systems such as e-HR can be introduced to be able to help management and employees track their own carbon emissions. It is suggested that if environmental criteria are integrated into the process of staff appraisal (by writing such responsibilities into all staff action plans), then a learning culture in EM can be encouraged.

Also the managers can ask employees to bring specific green ideas pertaining to their individual jobs to their performance evaluation meetings. These ideas can be brainstormed together to include them into the objectives for the upcoming year. Attaining these objectives would be the basis of performance evaluation.

An important way in which employee involvement and participation can be encouraged within the organization is to seek entrepreneurs within the company who are socially or ecologically oriented known as eco-entrepreneurs. "They have the ability to organize existing financial, human and natural resources in a way that adds value to the company's products or services where it didn't exist previously." Employees need to be involved in formulating environmental strategy, so that they can create and expand the knowledge needed to market "green products."

A suggestion program and problem solving circles should be initiated wherein the specialist staffs is more involved in project initiation while line level workers are more likely to participate in project implementation. Other ways in which employees can be encouraged are to pursue green commuting habits like allowing flexible work weeks, establishing a car-pool program, offering free or discounted free transportation passes, adding car sharing as an employee benefit and setting up transportation savings account.

In general terms, grievance and discipline in firms encourages internal environmental breaches. The need to raise grievances is seen in high risk operations (for their safety record), and in such cases disciplinary procedures are attached to environmental rules and duties where noncompliance occurs. Indeed, expert legal opinion is that some firms may eventually move to ensure that environmental obligations are secured by including clauses in staff contracts to do so, i.e. that environmentally unfriendly behaviour may constitute a breach of contract and therefore possible grounds for dismissal.

Improved employee morale, stronger public image, increased consumer/customer confidence, employee loyalty and brand recognition, position as an employer of choice, increased workforce productivity and employee retention are few of the many advantages and benefits an organization can have by implementing and developing such Green HRM techniques.

Such competencies would reinforce the company's core values (Liebowitz, 2010,). Managers should discuss the performance of the employees and give the needed feedback not only during the scheduled time of appraisal, but also all-round the year. This practice will help the employees to enhance their knowledge, skills and ability.

A number of small steps, some of which don't cost money to implement, can vary significantly change how business is conducted. Here are some actions companies can take to go green:

- Conduct an energy audit
- Conduct annual "Going green" or "Sustainable Organization" Surveys
- Go paperless
- Recycle
- Reduce business travel- Teleconferencing
- Save energy

6.4.2. Limitations of the study

- Only the IT sector was considered.
- Corporate environmental performance metrics would have added more value

6.4.3. Scope of future research

Future research should address,

- The study can further be expanded to other sectors, with larger sample size
- Influence on one's pro-environmental behaviour on Employee green behaviour can be studied

- Green employer's enthusiasm in achieving the environmental goals and how the potential job seekers perceive or rate them on the parameters of sustainability as claimed.
- Research on Green recruitment
- Research on retaining Knowledge capital
- Research addressing these questions will help the new recruits to carry on with the green policies as well as cooperate with the management in establishing green policies to achieve the goals of the company.

6.4.5. Conclusion

The aim of this thesis has been to understand Organizational citizenship behaviour towards environment, of the employees in IT industry. It was conducted in three major IT hubs of South India, namely Chennai, Hyderabad and Bangalore. The study was carried out to understand the determinants of OCBE of IT employees from two perspectives, the Employees and the Managers.

The questionnaire that was designed for the employees primarily consisted of items on the determinants of OCBE, identified through prior studies. It also consisted 10 statements On OCBE, the dependent variable. From the responses collected through that questionnaire, a clear understanding on the role of these determinants on OCBE was brought out. The highest contributing determinant that is the personal norms of the employees on environmental sustainability was found out. The contribution of the rest of the determinants are also delineated.

Considering the questionnaire that was designed for managers, the study attempted to find out the green readiness of the IT companies and employee green behaviour as perceived by the managers. This also brought out the information that most of the companies are geared up to become a green company. As for as the manager's opinion on Employee green behaviour is considered, they have an opinion, that employee should involve themselves further more for the betterment of the environment. They were being in mentioning, as proper environmental management practices are yet to be in place in companies, still discrepancy exist, if employees can spend time in extra role behaviour such as green initiatives. May be this why employee's

holds back from such activities, thinking it is not in their job description, and fearing spending time on such things would deviate them from their priorities.

Awareness about role of employees in go green initiatives in the company is the need of the hour. Organizations should bring in a strategic alignment in their Human resource policies so as to align it with green strategies. The alignment should take place right from recruitment of the employee. Organizations should focus on green recruiting having in mind the triple bottom line, people, planet and profits. This should go hand in hand, so as to achieve environmental sustainability within the organization, which could be transferred to sustainability worldwide.

BIBLIOGRAPHY

1. Abelson, R. (1981). Psychological Status of the Script Concept. *American Psychologist*, 36(7), 715-729.
2. Ahmad, (2015). Green Human Resource Management: Policies and Practices. *Cogent Business & Management* 2: 1030817 [Http://Dx.Doi.Org/10.1080/23311975.2015.1030817](http://dx.doi.org/10.1080/23311975.2015.1030817)
3. Atwater, D.C. And Bass, B. (1994). Transformational Leadership in Teams, In Bass, B.M.
4. Avolio, B.J. (Eds), (1994). Improving Organizational Effectiveness through Transformational Leadership, Sage Publication, London, and Pp. 48-83.
5. Bandura, A. (1977). *Self-Efficacy: The Exercise of Control*. New York: Freeman
6. Barrow, C. (1999). *Environmental Management: Principles and Practice*. London: Routledge, Taylor & Francis Group.
7. Beard, C. And Rees, S. (2000), "Green Teams and the Management of Environmental Change in A UK County Council", *Environmental Management and Health*, Pp. 27-38.
8. Bebbington, J. (2001). Sustainable Development: A Review of the International Development, Business and Accounting Literature. *Accounting Forum*, 25, 128–157. [Http://Dx.Doi.Org/10.1111/Accf.2001.25.Issue-2](http://dx.doi.org/10.1111/Accf.2001.25.Issue-2)
9. Beechinor, F. (2007). How to Reduce Your Carbon Footprint. *People Management*, 13, 46–47.
10. Benz, M., & Frey, B. S. (2007). Corporate Governance: What Can We Learn From Public Governance? *Academy Of Management Review*, 32, 92–104. [Http://Dx.Doi.Org/10.5465/Amr.2007.23463860](http://dx.doi.org/10.5465/Amr.2007.23463860)
11. Berrone, P., & Gomez-Mejia, L. R. (2009). Environmental Performance and Executive Compensation: An Integrated Agency-Institutional Perspective. *Academy Of Management Journal*, 52, 103–126. [Http://Dx.Doi.Org/10.5465/Amj.2009.36461950](http://dx.doi.org/10.5465/Amj.2009.36461950)
12. Bohdanowicz, P., Zientara, P., & Novotna, E. (2011). International Hotel Chains and Environmental Protection: An Analysis of Hilton's we Care! *Journal of Sustainable Tourism*, 19, 797–816. [Http://Dx.Doi.Org/10.1080/09669582.2010.549566](http://dx.doi.org/10.1080/09669582.2010.549566)
13. Boiral, O. (2002). Tacit Knowledge and Environmental Management. *Long Range Planning*, 35, 291–317. [Http://Dx.Doi.Org/10.1016/S0024-6301\(02\)00047-X](http://dx.doi.org/10.1016/S0024-6301(02)00047-X)
14. Borzykowski, B. (2013). How One Company Went Completely Paperless. Retrieved 12 January, 2014 from [Http://Www.Theglobeandmail.Com/Tecjnology/Tech-News](http://www.theglobeandmail.com/Technology/Tech-News)

15. Bolles, R. (1972). Reinforcement, Expectancy, and Learning. *Psychological Review*, 79(5), 394-409.
16. *Business Strategy and the Environment* (2013), Published Online In Wiley Online Library
17. Cameron & D. A. Whetten (Eds.), Organizational Effectiveness: A Comparison of Multiple Methods (Pp. 1-24). NY: *The Academic Press*.
18. Carter, C., & Dressner, M. (2001). Purchasing's Role in Environmental Management: Cross-Functional Development of Grounded Theory. *The Journal of Supply Chain Management*, 12-27.
19. Carver, C. S. (2004). Negative Affects Deriving From the Behavioral Approach System. *Emotion*, 4, 3-22.
20. Casler, A., Gundlach, M. J., Persons, B., & Zivnuska, S. (2010). Sierra Nevada Brewing Company's Thirty-Year Journey toward Sustainability. *People & Strategy*, 33, 44-51.
21. Catherine A. (2013) Environmental Beliefs and Concern about Animal Welfare: Exploring the Connections *Journal of Sociology & Social Welfare*, December, Volume XI, Number 4
22. Cherian, J., & Jacob, J. (2012). A Study of Green Hr Practices and Its Effective Implementation in the Organization: A Review. *International Journal of Business and Management*, 7, 25-33.
23. Christmann, P., & Taylor, G. (2002). Globalization and the Environment: Strategies for International Voluntary Environmental Initiatives. *Academy Of Management Executive*, 16, 121-135. <http://Dx.Doi.Org/10.5465/Ame.2002.8540373>
24. Chinander, K.R. (2001), "Aligning Accountability and Awareness for Environmental Performance in Operations", *Production and Operations Management*, fall, Pp. 276-91.
25. Collier, J., & Esteban, R. (2007). Corporate Social Responsibility and Employee Commitment. *Business Ethics: A European Review*, 16, 19-33. <http://Dx.Doi.Org/10.1111/Beer.2007.16.Issue-1>
26. Coppel, D., & Smith, R. (1980). Acquisition of Stimulus-Outcome and Response-Outcome Expectancies as a Function of Locus of Control. *Cognitive Therapy and Research*, 4(2), 179-188.
27. Corraliza, J., & Berenguer, J. (2000). Environmental Values, Beliefs, and Actions: A Situational Approach. *Environment & Behavior*, 32, 832-848.
28. Crognale, G. (1999). *Management Strategies: The 21st Century Perspective*. Upper Saddle River, New Jersey: Prentice-Hall Ptr.
29. Crowe, E., & Higgins, T. (1997). Regulatory Focus and Strategic Inclinations: Promotion and Prevention in Decision-Making. *Organizational Behavior and Human Decision Processes*, 69(2), 117-132.

30. Daily, B., & Huang, S. (2001). Achieving Sustainability through Attention to Human Resource Factors in Environmental Management. *International Journal of Operations & Production Management*, 21, 1539–1552.
31. Daily, B. F., Bishop, J. W., & Govindarajulu, N. (2009). Conceptual Model For Organizational Citizenship Behavior Directed Toward The Environment. *Business & Society*, 48, 243–256.
32. Daily, B. F., Bishop, J., & Steiner, R. (2007). The Mediating Role of Ems Teamwork As It Pertains To Hr. Factors and Perceived Environmental Performance. *Journal of Applied Business Research*, 23, 95–109.
33. Davies, G. & Smith, H. (2007). Natural Resources. *People Management*, 26–31. Retrieved://Www.Cipd.Co.Uk/Pm/Peoplemanagement/B/Weblog/Archive/2013/01/29/Naturalresources-2007-03.Asp
34. Daily, B. And Steiner, R. (2001), “An Empirical Analysis Of Environmental Performance: Examining The Impact Of Human Resource Factors On The Implementation Of Iso 14001”, *Proceedings Of National Decision Science Institute Meeting*, San Francisco.
35. Daily, B., & Huang, S. (2001). Achieving Sustainability through Attention to Human Resource Factors in Environmental Management. *International Journal of Operations & Production Management*, 21(12), 1539-1552.
36. Daily, B. F., Bishop, J., & Steiner R. (2007). The Mediating Role of Ems Teamwork As It Pertains To Hr Actors and Perceived Environmental Performance. *Journal of Applied Business Research*, 23(1), 95-109.
37. Darnall, N., & Edwards, D. (2006). Predicting the Cost of Environmental Management System Adoption: The Role of Capabilities, Resources and Ownership Structure. *Strategic Management Journal*, 27, 301-320.
38. Darnall, N., Gallagher, D., Andrews, R., & Amaral, D. (2000). Environmental Management Systems: Opportunities for Improved Environmental and Business Strategy. *Environmental Quality Management*, 9(3), 1-9.
39. David B. Zoogah: The Dynamics of Green Hrm Behaviors
40. Denis, D. J., Hanouna, P., & Sarin, A. (2006). Is There A Dark Side To Incentive Compensation? *Journal of Corporate Finance*, 12, 467–488. [Http://Dx.Doi.Org/10.1016/J.Jcorpfin.2005.08.006](http://Dx.Doi.Org/10.1016/J.Jcorpfin.2005.08.006)
41. Dutta, S. (2012). Greening People: A Strategic Dimension. *Zenith: International Journal of Business Economics & Management Research*, 2, 143–148.

42. Emerson, T., Meima, R., Tansley, R. & Welford, R. J. (1997). Human Resource Management, Strategic Organizational Capabilities and Sustainable Development. In R. J. Welford (Ed.), *Corporate Environmental Management 2*. Earth scan, London.
43. Epstein, M., & Roy, M. (1997). Using Iso 14000 for Improved Organizational Learning and Environmental Management. *Environmental Quality Management*, 7, 21–30. [Http://Dx.Doi.Org/10.1002/\(Issn\)1520-6483](http://Dx.Doi.Org/10.1002/(Issn)1520-6483)
44. Feldman, S., Soyka, P., & Ameer, P. (1997). Does Improving a Firm's Environmental Management System and Environmental Performance Result in a Higher Stock Price? *Journal of Investing*, 6(4), 87-97.
45. Fernández, E., Junquera, B., & Ordiz, M. (2003). Organizational Culture and Human Resources in the Environmental Issue: A Review of the Literature. *The International Journal of Human Resource Management*, 14, 634–656. [Http://Dx.Doi.Org/10.1080/0958519032000057628](http://Dx.Doi.Org/10.1080/0958519032000057628)
46. Florian G. Kaiser¹, Sybille Wolfing and Urs Fuhrer (2011), Environmental Attitude and Ecological Behaviour, *Journal of Environmental Psychology*
47. Florida, R., & Davison, D. (2001). Gaining From Green Management: Environmental Management Systems Inside and Outside the Factory. *California Management Review*, 43, 64–84. [Http://Dx.Doi.Org/10.2307/41166089](http://Dx.Doi.Org/10.2307/41166089)
48. Forman, M., & Jorgensen, S. (2001). The Social Shaping Of Participation Of Employees In Environmental Work Within Enterprises—Experiences From A Danish Context. *Technology Analysis & Strategic Management*, 13, 71–90.
49. Frederiksen, N. (1986). Toward A Broader Conception of Human Intelligence. *American Psychologist*, 41, 445-452.
50. Gioia, D., & Poole, P. (1984). Scripts in Organizational Behavior. *Academy Of Management Review*, 9(3), 449-459.
51. Glavas, A., Senge, P., & Cooperrider, D. L. (2010). Building A Green City On A Blue Lake—A Model For Building A Local Sustainable Economy. *People & Strategy*, 33, 26–33.
52. González-Benito, J., & González-Benito, O. (2006). A Review of Determinant Factors of Environmental Proactivity. *Business Strategy and the Environment*, 15, 87–102. [Http://Dx.Doi.Org/10.1002/\(Issn\)1099-0836](http://Dx.Doi.Org/10.1002/(Issn)1099-0836)
53. Govindarajulu, N., & Daily, B. F. (2004). Motivating Employees for Environmental Improvement. *Industrial Management & Data Systems*, 104, 364–372. [Http://Dx.Doi.Org/10.1108/02635570410530775](http://Dx.Doi.Org/10.1108/02635570410530775)
54. Grolleau, G., Mzoughi, N., & Pekovic, S. (2012). Green Not (Only) For Profit: An Empirical Examination of the Effect of Environmental-Related Standards on Employees Recruitment. *Resource and Energy Economics*, 34, 74–92. [Http://Dx.Doi.Org/10.1016/J.Reseneeco.2011.10.002](http://Dx.Doi.Org/10.1016/J.Reseneeco.2011.10.002)

55. Guastello, S. (1995). *Chaos, Catastrophe, and Human Affairs: Applications of Nonlinear Dynamics to Work, Organizations, and Social Evaluation*. Mahwah, NJ: Lawrence Erlbaum Associates.
56. Gupta, A. (2008). Earth on Fire: Implications for Corporate Responsibility. *American Journal of Business*, 23, 3–4.
57. Haden, S. S. P., Oyler, J. D., & Humphrey, J. H. (2009). Historical, Practical, and Theoretical Perspectives on Green Management. *An Exploratory Analysis Management Decision*, 47, 1041–1055.
58. Hanna, M.D., Newman, W.R. And Johnson, P. (2000), “Linking Operational and Environmental Improvement through Employee Involvement”, *International Journal of Operations & Production Management*, Vol. 20 No. 2, Pp. 148-65.
59. Harmon, J., Fairfield, K. D., & Wirtenberg, J. (2010). Missing an Opportunity: Hr Leadership and Sustainability. *People & Strategy*, 33, 16–21.
60. Hart, S. (1997). Beyond Greening: Strategies for a Sustainable World. *Harvard Business Review*, 75, 66–76.
61. Hemingway, C., & MacLagan, P. (2004). Managers’ Personal Values as Drivers of Corporate.
62. Hersey, K. (1998), “A Close Look At ISO 14000”, *Environmental Management*, July, Pp. 26-9.
63. Higgins, T. (1998). Promotion and Prevention: Regulatory Focus as a Motivational Principle in. In M. P. Zanna (Ed.), *Advances In Experimental Social Psychology* (Vol. 30, Pp. 1-46). New York: Academic Press.
64. Holtom, B. C., Mitchell, T. R., Lee, T. W., & Eberly, M. B. (2008). 5 Turnover And Retention Research: A Glance At The Past, A Closer Review Of The Present, And A Venture Into The Future. *The Academy Of Management Annals*, 2, 231–274. [Http://Dx.Doi.Org/10.1080/19416520802211552](http://dx.doi.org/10.1080/19416520802211552)
65. Hopfield, J. (1982): Neural Networks and Physical Systems with Emergent Collective Properties. *Proceedings of the National Academy Of Sciences, USA*. 79, 2554-2558
66. Huselid, M. (1995). The Impact of Human Resource Management Practices on Turnover, Productivity, and Corporate Financial Performance. *Academy Of Management Journal*, 38, 635–672. [Http://Dx.Doi.Org/10.2307/256741](http://dx.doi.org/10.2307/256741)
67. Inman, R.A. (1999), “Environmental Management: New Challenges for Production and Inventory Managers”, *Production and Inventory Management Journal*, Third Quarter, Pp. 46-9.

68. Iraldo, F., Testa, F., & Frey, M. (2009). Is An Environmental Management System Able To Influence Environmental And Competitive Performance? The Case of the Eco Management and Audit Scheme (Emas) In the European Union. *Journal of Cleaner Production*, 17, 1444–1452. [Http://Dx.Doi.Org/10.1016/J.Jclepro.2009.05.013](http://Dx.Doi.Org/10.1016/J.Jclepro.2009.05.013)
69. Jabbour, C. J. C., Santos, F. C. A., & Nagano, M. S. (2010). Contributions Of Hrm Throughout The Stages Of Environmental Management: Methodological Triangulation Applied To Companies In Brazil. *The International Journal of Human Resource Management*, 21, 1049–1089. [Http://Dx.Doi.Org/10.1080/09585191003783512](http://Dx.Doi.Org/10.1080/09585191003783512)
70. Jabbour, C. J., Jabbour, L. S., Govindan, K., Teixeira, A. A., & Freitas, W. R. (2013). Environmental Management and Operational Performance in Automotive Companies in Brazil: The Role of Human Resource Management and Lean Manufacturing. *Journal of Cleaner Production*, 47, 129–140. [Http://Dx.Doi.Org/10.1016/J.Jclepro.2012.07.010](http://Dx.Doi.Org/10.1016/J.Jclepro.2012.07.010)
71. Jackson, S., Renwick, D., Jabbour, C. J. C., & Muller-Camen, M. (2011). State-Of-The-Art and Future Directions for Green Human Resource Management. *Zeitschrift Für Personalforschung: German Journal of Research in Human Resource Management*, 25, 99–116.
72. Jackson, S. (1997). *The Iso 1400 Implementation Guide: Creating an Integrated Management System*. New York, NY: John Wiley & Sons, Inc.
73. Jeffries, R. (1997), “Reaping the Rewards of Recognition”, *Hr Focus*, January, P. 9.
74. Katz, D., & Kahn, R. (1978). *The Social Psychology of Organizations*. New York, NY: Wiley.
75. Kerrie L. Unworthy*, Alina Dmitri Eva and Elisa Adrianople (2013) Work Place Interventions to Bring In Organizational Behaviour
76. Kee-Hung, L., Cheng, T., & Tang, A. (2010). Green Retailing: Factors for Success’. *California Management Review*, 52, 6–31.
77. Kitazawa, S., & Sarkis, J. (2000). The Relationship between Iso 14001 and Continuous Source Reduction Programs. *International Journal of Operations and Production Management*, 20, 225–248. [Http://Dx.Doi.Org/10.1108/01443570010304279](http://Dx.Doi.Org/10.1108/01443570010304279)
78. Klein & S. W. J. Kozlowski (Eds.), *Multilevel Theory, Research, and Methods in Organizations: Foundations, Extensions, and New Directions* (Pp. -90). San Francisco: Jossey-Bass.
79. Klassen, R.D. And McLaughlin, C.P. (1993), “Tqm and Environmental Excellence in Manufacturing”, *Industrial Management & Data Systems*, Vol. 93 No. 6, Pp. 14-22.
80. Kozlowski, S., & Klein, K. (2000). A Multilevel Approach to Theory and Research in Organizations: Contextual, Temporal, and Emergent Processes.

81. Kohn, A. (1993), "Why Incentive Plans Cannot Work", *Harvard Business Review*, September/October, Pp. 77-8.
82. Lado, A. A., & Wilson, M. C. (1994). Human Resource Systems and Sustained Competitive Advantage: A Competency Based Perspective. *Academy Of Management Review*, 19, 699–727.
83. Liebowitz, J. (2010). The Role of Hr in Achieving a Sustainability Culture. *Journal of Sustainable Development*, 3, 50–57.
84. Lin, B., Jones, C., & Hsieh, C. (2001). Environmental Practices and Assessment: A Process Perspective. *Industrial Management & Data Systems*, 101, 71–80.
85. Linda Steg, Charles Vlek(2009) Encouraging Pro-Environmental Behaviour: An Integrative Review and Research Agenda *Journal of Environmental Psychology* 29 309–317
86. Linda Rhoades And Robert Eisenberger(2002).*Journal Of Applied Psychology* , Vol. 87, No. 4, 698–714 0021-9010/02/\$5.00 Doi: 10.1037//0021-9010.87.4.698 698
87. Louis, M. (1980). Surprise and Sense Making: What Newcomers Experience In Entering Unfamiliar Organizational Settings. *Administrative Science Quarterly*, 25(226), 251.
88. Maon, F., & Swaen, V. (2009). Shaping The Processual View Of Car: A Multipartite Sense making- Sense giving Conceptualization. Working Paper Series, Center for Responsible Business, Uc Berkeley.[Http://Escholarship.Org/Uc/Item/0cg2s5qs](http://Escholarship.Org/Uc/Item/0cg2s5qs).
89. Margerum, R. (1999). Integrated Environmental Management: The Foundations For Successful Practice. *Environmental Management*, 24(2), 151-166.
90. Melnyk, S., Sroufe, R., & Calantone, R. (2003). Assessing the Impact of Environmental Management Systems on Corporate and Environmental Performance. *Journal of Operations Management*, 21, 329-351.
91. Mallak, L.A. And Kurstedt, H.A. (1996), "Understanding And Using Empowerment To Change Organizational Culture", *Industrial Management*, Vol. 38 No. 6.
92. Mampra, M. (2013,). Green Hrm: Does It Help To Build A Competitive Service Sector? A Study. In *Proceedings of Tenth Aims International Conference on Management* (Pp. 1273–1281). Retrieved From [Http://Www.Scribd.Com/Doc/126544005/Green-Hrm-Competitive-Service-Sector-Pdf](http://Www.Scribd.Com/Doc/126544005/Green-Hrm-Competitive-Service-Sector-Pdf)
93. Mandip, G. (2012). Green Hrm: People Management Commitment to Environmental Sustainability. *Research Journal of Recent Sciences*, 1, 244–252.
94. Marcus, A., & Fremeth, A. (2009). Green Management Matters Regardless. *Academy Of Management Perspectives*, 23, 17–26.

95. Marhatta, S., & Adhikari, S. (2013). Green Hrm and Sustainability. *International Ejournal Of Ongoing Research In Management & It*. Retrieved From [Www.Asmgroup.Edu](http://www.asmgrouppdf.com/Incon/Publication/Incon13-Hr-006pdf). In/Incon/Publication/Incon13-Hr-006pdf
96. Massoud, J. A., Daily, B. F., & Bishop, J. W. (2008). Reward for Environmental Performance: Using the Scanlon Plan as Catalyst to Green Organizations. *International Journal of Environment, Workplace and Employment*, 4, 15–31. [Http://Dx.Doi.Org/10.1504/Ijewe.2008.022255](http://dx.doi.org/10.1504/Ijewe.2008.022255)
97. Mathapati, C. M. (2013). Green Hrm: A Strategic Facet. *Tactful Management Research Journal*, 2(2), 1–6.
98. May, D. R., & Flannery, B. L. (1995). Cutting Waste with Employee Involvement Teams. *Business Horizons*, 38, 28–38. [Http://Dx.Doi.Org/10.1016/0007-6813\(95\)90033-0](http://dx.doi.org/10.1016/0007-6813(95)90033-0)
99. Mcdonagh, P., & Prothero, A. (1997). *Green Management: A Reader*. London: Dryden Press.
100. Miller, S., Shoda, Y., & Hurley, K. (1996). Applying Cognitive-Social Theory to Health-Protective Behavior: Breast Self-Examination in Cancer Screening. *Psychological Bulletin*, 119, 70-93.
101. Mischel, W. (1968). *Personality and Assessment*. New York: Wiley
102. Mischel, W., Shoda, Y. (1995). A Cognitive-Affective System Theory of Personality: Conceptualizing Situations, Dispositions, Dynamics, and Invariance in Personality Structure. *Psychological Review*, 102, 246-268.
103. Mischel, W., & Ayduk, O. (2002a). Self-Regulation in a Cognitive-Affective Personality System: Attentional Control in the Service of the Self. *Self and Identity*, 1, 113-120.
104. Muller-Camen, M., Jackson, S. J., Charbel, R., & Douglas (2010). Call For Papers Special Issue On The Topic: “Green Human Resource Management.”
105. Milad Abdelnabi Salem (2012) Environmental Issues And Corporate Performance: A Critical Review *Journal Of Environment And Earth Science* [Www.Iiste.Org](http://www.iiste.org) Issn 2224-3216 (Paper) Issn 2225-0948 (Online) Vol 2, No.10.
106. Molina-Azorín, J. F., Claver-Cortés, E., Pereira-Moliner, J., & Tarí, J. J. (2009). Environmental Practices and Firm Performance: An Empirical Analysis in the Spanish Hotel Industry. *Journal of Cleaner Production*, 17, 516–524. [Http://Dx.Doi.Org/10.1016/J.Jclepro.2008.09.001](http://dx.doi.org/10.1016/j.jclepro.2008.09.001)
107. Murari, K., & Bhandari, M. (2011). Green Hr: Going Green with Pride. *Journal of Social Welfare and Management*, 3, 107–110.
108. Muster, V., & Schrader, U. (2011). Green Work-Life Balance: A New Perspective for Green Hrm. *Zeitschrift Fur Personalforschung*, 25, 140–156.

109. Ole Busck Employee Participation in Environmental Work in Companies Chapter 7 Pg 110-112
110. Olivier Boiral, David Talbot and Pascal Paillé (2013) Leading by Example: A Model of Organizational Citizenship Behavior for the Environment, Canada, *Business Strategy and the Environment*. Bus. Strat. Env. Published Online In Wiley Online Library
111. Opatha, H. H., & Arulrajah, A. A. (2014). Green Human Resource Management: Simplified General Reflections. *International business Research*, 7, 101–112.
112. Owen, D. (1992). *Green Reporting: Accountancy and the Challenge of the Nineties*. London: Chapman Hall.
113. Pascal Paillé*, Olivier Boiral, (2013) Pro-Environmental Behavior at Work: Construct Validity and Determinants, *Journal of Environmental Psychology* 36 , 118e128
114. Pascal Paillé, Linking Environmental Management Practices and Organizational Citizenship Behaviour for the Environment: A Social Exchange Perspective
115. Paul Harland,* Henk Staats, and Henk A. M. Wille (1999) Personal Norms and Planned Environmental Behavior *Journal Of Applied Social Psychology*, , 29, 12, Pp. 2505-2528.
116. Pascal Paille' • Yang Chen • Olivier Boiral • Jiafei Jin the Impact of Human Resource Management on Environmental Performance: An Employee-Level Study Springer Science Business 22 April 2013
117. Pascal Paillé, Olivier Boiral, Organizational And Environmental Citizenship Behavior: Assessing The Construct Validity And Distinctiveness Of Domains (2012) Ibsen Original Manuscript– 978-2-89524-371-7
118. Peattie, K. (1992). *Green Marketing*. London: Pitman.
119. Phillips, L. (2007). Go Green To Gain The Edge Over Rivals. *People Management*, 13, 9.
120. Pillai, R., & Sivathanu, B. (2014). Green Human Resource Management. *Zenith International Journal of Multidisciplinary Research*, 4, 72–82. Retrieved 5 November, 2014 from [Www.Zenithresearch.Org.In](http://www.zenithresearch.org.in)
121. Ramus, C. And Steger, U. (2000), “The Roles of Supervisory Support Behaviors and Environmental Policy in Employee ‘Eco Initiatives’ At Leading-Edge European Companies”, *Academy Of Management Journal*, August, Pp. 605-26.
122. Ramus, C. A. (2001). Organizational Support for Employees: Encouraging Creative Ideas for Environmental Sustainability. *California Management Review*, 43, 85–105.
123. Ramus, C. A. (2002). Encouraging Innovative Environmental Actions: What Companies And Managers Must Do? *Journal of World Business*, 37, 151–164. [Http://Dx.Doi.Org/10.1016/S1090-9516\(02\)00074-3](http://dx.doi.org/10.1016/S1090-9516(02)00074-3)

124. Ramus, C. (2005). Context and Values: Defining a Research Agenda for Studying Employee Environmental Motivation in Business Organizations. In S. Sharma & A. Aragon-Correa (Eds.), *Corporate Environmental Strategy and Competitive Advantage* (Pp. 71-95).
125. Raju 'Hr Green Initiatives- Need of the Hour' Jims 8m October-December 2012 Conference Proceedings
126. Renwick, D. (2008). *Green Hrm: A Review, Process Model, and Research Agenda* (Discussion Paper Series). The University Of Sheffield. Retrieved From [Http://Www.Shef.Ac.Uk/Content/1/C6/08/70/89/2008-01.Pdf](http://Www.Shef.Ac.Uk/Content/1/C6/08/70/89/2008-01.Pdf)
127. Renwick, D. W.S., Redman, T., & Maguire, S. (2013). Green Human Resource Management: A Review and Research Agenda. *International Journal of Management Reviews*, 15(1), 1–14. [Http://Dx.Doi.Org/10.1111/Ijmr.2013.15.Issue-1](http://Dx.Doi.Org/10.1111/Ijmr.2013.15.Issue-1)
128. Renwick, D., Redman, T., & Maguire, S. (2008). Green Hrm: A Review, Process Model, and Research Agenda. Discussion Paper No 2008.01. [Http://Www.Devonshirequarter.Org.Uk/Content/1/C6/08/70/89/2008-01.Pdf](http://Www.Devonshirequarter.Org.Uk/Content/1/C6/08/70/89/2008-01.Pdf). Accessed On August 25, 2010.
129. Robert Eisenberger, Florence Stinglhamber, Christian Vandenberghe, Ivan L. Sucharski And Linda Rhoades; Perceived Supervisor Support: Contributions To Perceived Organizational Support And Employee Retention, *Journal Of Applied Psychology* 2002, Vol. 87, No. 3, 565–573
130. Rothenberg, S. (2003). Knowledge Content and Worker Participation in Environmental Management at Gummi. *Journal of Management Studies*, 40(7), 1783-1802
131. Ruiz, M., & Hain, Y. (2004). Metaphoric Description And Individualized Emotion Profiling Of Performance Related States In High-Level Karate Athletes. *Journal of Applied Sport Psychology*, 16, 1-16.
132. Sathyapriya, J., Kanimozhi, R., & Adhilakshmi, V. (2014). Green Hrm-Delivering High Performance Hr Systems. *International Journal of Scientific Research*, 3, 31–34.
133. Schuler, R., & Jackson, S. (1987). Linking Competitive Strategy and Human Resource Management Practices. *Academy Of Management Executive*, 3, 207-19.
134. Seyed Mehdi Mousavi Davoudi A Comprehensive Study Of Organizational Citizenship Behavior (Ocb) Introducing The Term, Clarifying Its Consequences And Identifying Its Antecedents *Journal Of Economics And Management* Vol.1 Issue 2, May 2012, Issn 2278-0629
135. Shaikh, M. (2010). Green Hrm: A Requirement of 21st Century. *Journal of Research in Commerce and Management*, 1, 122–127.

136. Sharman, M. P., & Fernando, C. S. (2008). Environmental Risk Management and the Cost of Capital. *Strategic Management Journal*, 29, 569–592. [Http://Dx.Doi.Org/10.1002/\(Issn\)1097-0266](http://Dx.Doi.Org/10.1002/(Issn)1097-0266)
137. Shrivastava, P., & Berger, S. (2010). Sustainability Principles: A Review and Directions. *Organization Management Journal*, 7, 246–261. [Http://Dx.Doi.Org/10.1057/Omj.2010.35](http://Dx.Doi.Org/10.1057/Omj.2010.35)
138. Simms, J. (2007). Direct Action. *People Management*, 36–39. Cipd. Retrieved From [Www.Cipd.Co.Uk/Pm/ Peoplemanagement/B/Weblog/Archive/2013/01/29/Directation-2007-07.aspx](http://www.Cipd.Co.Uk/Pm/Peoplemanagement/B/Weblog/Archive/2013/01/29/Directation-2007-07.aspx)
139. Stringer, L. (2009). *The Green Workplace. Sustainable Strategies That Benefit Employees, the Environment, and the Bottom Line*. New York, NY: Macmillan.
140. Sharma, S., & Aragón-Correa, A. (2005). Corporate Environmental Strategy and Competitive Advantage: A Review from the Past to the Future. In S. Sharma & Aragón-Correa, J.A. (Eds.), *Environmental Strategy and Competitive Advantage*. Edward Elgar Academic Publishing, Northampton.
141. Sharma, S., & Ngan, O. (1999). The Biotechnology Industry and Biodiversity Conservation Strategies: The Influence of Managerial Interpretations and Risk Propensity. *Business Strategy and the Environment*, 8, 46-61.
142. Sharma, S., Pablo, A., & Vredenburg, H. (1999). Corporate Environmental Responsiveness Strategies: The Importance of Issue Interpretation and Organizational Context. *Journal of Applied Behavioral Science*, 35(1), 87-108.
143. Shoda, Y., & Smith, R. (2004). Conceptualizing Personality as a Cognitive-Affective Processing System: A Framework for Models of Maladaptive Behavior Patterns and Change. *Behavior Therapy*, 35, 147-165.
144. Simon, H. (1979). Information Processing Models of Cognition. *Annual Review of Psychology*, 30, 363-396.
145. Smith, R. (2006). Understanding Sport Behavior: A Cognitive-Affective Processing Systems Approach. *Journal of Applied Sport Psychology*, 18, 1-27.
146. Snyder, M. (1974). Self-Monitoring Of Expressive Behavior. *Journal of Personality and Social Psychology*, 30, 526-537.
147. Steger, U. (2000). Environmental Management Systems: Empirical Evidence and Further Perspectives. *European Management Journal*, 18(1), 23-37.
148. Taylor, S., Egri, C., & Oland, J. (2010). Hrm's Role in Sustainability: Systems, Strategies, And Practices. Human Resources Management Call For Papers.
149. Tinsley, S., & Pillai, I. (2006). *Environmental Management Systems: Understanding Organizational Drivers and Barriers*. London: Earth scan.
150. Ulrich, D., Brockbank, W., & Johnson, D. (2009). The Role of Strategy Architect in the Strategic Hr Organization. *People and Strategy*, 32, 24–31.

151. Ungson, G., Braunstein, D., & Hall, P. (1981). Managerial Information Processing: A Research Review. *Administrative Science Quarterly*, 26, 116-134.
152. Unnikrishnan, S., & Hegde, D. S. (2007). Environmental Training and Cleaner Production in Indian Industry—a Micro-Level Study. *Resources Conservation And Recycling*, 50, 427–441. [Http://Dx.Doi.Org/10.1016/J.Resconrec.2006.07.003](http://Dx.Doi.Org/10.1016/J.Resconrec.2006.07.003)
153. Victor, D. G. (2001). *The Collapse of the Kyoto Protocol and the Struggle to Slow Global Warming*. Princeton, NJ: Princeton University Press.
154. Wee, S., & Quazi, H. (2005). Development and Validation of Critical Factors of Environmental Management. *Industrial Management & Data Systems*, 105(1), 96-114.
155. Wehrmeyer, W. (1996). *Greening People: Human Resources and Environmental Management*. Sheffield: Greenleaf.
156. Wirtenberg, J., Harmon, K. D., Russell, W. G., & Fairfield, K. D. (2007). Hr.'s Role in Building a Sustainable Enterprise. *Human Resource Planning*, 30, 10–20.
157. Wehrmeyer, W., & Parker, K (1996). Identification and Relevance of Environmental Corporate Cultures as Part of a Coherent Environmental Policy. In W. Wehrmeyer (Ed.), *Greening People* (Pp. 163-184). Sheffield, England: Greenleaf Publishing.
158. Welford, R. (1997). *Hijacking Environmentalism*. London: Earth scan Publications.
159. Yang, C., Lin, S., Chan, Y., & Sheu, C. (2010). Mediated Effect Of Environmental Management On Manufacturing Competitiveness: An Empirical Study. *International Journal of Production Economics*, 123, 210–220. [Http://Dx.Doi.Org/10.1016/J.Ijpe.2009.08.017](http://Dx.Doi.Org/10.1016/J.Ijpe.2009.08.017)
160. Yusliza, M. Y., Ramayah, T., & Othman, N-Z. (2015). While Examining Adoption Factors, Hr Role And Attitude Towards Using E-Hrm Is The Start-Of In Determining The Successfulness Of Green Hrm? *Journal of Advanced Management Science*, 3, 337–343. Retrieved 5 November, 2014 from [Www.Joams.Com](http://www.joams.com)
161. Zoogah, D. (2011). The Dynamics of Green Hrm Behaviors: A Cognitive Social Information Processing Approach. *Zeitschrift Fur Personalforschung*, 25, 117–139.
162. Ziegler, A., & Neared, J. (2009). Environmental Management Systems and Technological Environmental Innovations: Exploring the Causal Relationship, *Research Policy*, 38(5), 885-893.
163. Zoogah, D. (2010). *The Dynamics of Continuous Employee Development Behaviors: A Cognitive-Social Information Processing Approach*. Working Paper, Morgan State University, Baltimore Maryland, USA

A study on Employees Green Behaviour.

I, M.Chithra pursuing my doctoral level research in the School of Management Studies at University of Hyderabad. My research is aimed at identifying the determinants of organization citizenship behaviour towards environment. The collected responses will be used exclusively for academic purpose and I assure the respondents that the identities and individual responses will be kept confidential. This survey may take less than ten minutes of your time. Participation in this survey is purely voluntary.

For each of the following statements, please circle the number which best reflects your opinion on each statement.

1-NEVER, 2-RARELY, 3-OCCASSIONALLY, 4-FERQUENTLY, 5-ALWAYS

	POSSIBLE DETERMINANTS OF OCBE	1	2	3	4	5
1	I prefer to have indoor plants on my desk.	1	2	3	4	5
2	I drive to work, only if no other mode of transportation is available.	1	2	3	4	5
3	I use non-disposable cups & plates at work.	1	2	3	4	5
4	I turn off my PC at the close of business hours.	1	2	3	4	5
5	I make more use of video-conferencing.	1	2	3	4	5
6	I prefer electronic filing (soft copy) rather than printing (hardcopy).	1	2	3	4	5
7	I adhere to wastage reduction by reusing items whenever possible.EC	1	2	3	4	5
8	I see to it that my work processes, reduce negative impacts on the environment.	1	2	3	4	5
9	When there is a choice, I choose products that are better for the environment.	1	2	3	4	5
10	I would be willing to pay much higher taxes in order to protect the environment.	1	2	3	4	5
11	I would be willing to accept cuts in my standard of living to protect the environment.	1	2	3	4	5
12	I would be willing to pay much higher prices in order to protect the environment.	1	2	3	4	5
13	I do what is right for the environment, even when it costs more money or takes more time.	1	2	3	4	5
14	In my work, I weigh the consequences of my actions before doing something that could affect the environment.	1	2	3	4	5
15	I voluntarily carry out environmental actions and initiatives in my daily work activities.	1	2	3	4	5

16	I make suggestions to my colleagues about ways to protect the environment more effectively, even when it is not my direct responsibility.	1	2	3	4	5
17	I actively participate in environmental events organized in and/or by my company.	1	2	3	4	5
18	I stay informed about my company's environmental initiatives.	1	2	3	4	5
19	I undertake environmental actions that contribute positively to the image of my organization.	1	2	3	4	5
20	I volunteer for projects, endeavours, or events that address environmental issues in my organization.	1	2	3	4	5
21	I spontaneously give my time to help my colleagues take the environment into account in everything they do at work.	1	2	3	4	5
22	Encourage my colleagues to adopt more environmentally conscious behaviours.	1	2	3	4	5
23	I encourage my colleagues to express their ideas and opinions on environmental issues.	1	2	3	4	5

1-STRONGLY DISAGREE, 2-DISAGREE, 3-NEITHER AGREE NOR DISAGREE, 4-AGREE, 5-STRONGLY AGREE

		1	2	3	4	5
24	There is no point in doing what I can for the environment unless others do the same.	1	2	3	4	5
25	There are more important things to do in life than protect the environment.	1	2	3	4	5
26	Environmental protection will help people to have a better quality of life.	1	2	3	4	5
27	We don't need to worry much about the environment because future generations will be better able to deal with these problems than we are now.	1	2	3	4	5
28	All things, whether humans, animals, plants, or stones have the right to exist.	1	2	3	4	5
29	Mankind is severely abusing the environment.	1	2	3	4	5
30	Humans must live in harmony with nature in order to survive.	1	2	3	4	5
31	When humans interfere with nature it often produces disastrous consequences.	1	2	3	4	5
32	The earth is like a spaceship with only limited room and resources.	1	2	3	4	5
33	It is within my control whether or not indulge environmental initiatives.	1	2	3	4	5

34	I can obtain the resources needed to increase the number of environmental initiatives at our facility.	1	2	3	4	5
35	Facility management supports my efforts to execute environmental initiatives.	1	2	3	4	5
36	I am satisfied with this organization.	1	2	3	4	5
37	I am satisfied with the kind of work I do in this organization.	1	2	3	4	5
38	Most of my colleagues appreciate this organization.	1	2	3	4	5
39	I feel that I belong to this company.	1	2	3	4	5
40	I feel as if my organization's problems are my own.	1	2	3	4	5
41	My organization has a great deal of personal meaning for me.	1	2	3	4	5
42	My organization cares about my well-being.	1	2	3	4	5
43	My organization considers my aspirations and values.	1	2	3	4	5
44	My organization is prepared to help me when I need a special favour.	1	2	3	4	5
45	My supervisor considers my opinions.	1	2	3	4	5
46	Help is available from my supervisor whenever I have a problem.	1	2	3	4	5
47	My supervisor cares about my well-being.	1	2	3	4	5
48	If I work hard and am productive, I will be compensated by my organization.	1	2	3	4	5
49	I have plenty of opportunities to be rewarded for the work I do.	1	2	3	4	5
50	My organization rewards my efforts towards environment.	1	2	3	4	5
51	Job decisions are made by the management in an unbiased manner.	1	2	3	4	5
52	The reward procedures in my organization are fair.	1	2	3	4	5
53	Concerning decisions made about my job, my supervisor discusses the implications of the decisions with me.	1	2	3	4	5
54	Successful implementation of go green initiatives mainly depends on employees of the organization	1	2	3	4	5

Demographic Details:

Name (Not Mandatory)	_____
Gender	☐ Male ☐ Female
Age	☐ Below 30 ☐ 31-40 ☐ 41-50 ☐ Above 50
Educational Qualification	_____
Name of the organization	_____

How many years of full-time work experience do you have?	☐ Less than 5 ☐ 5-10 ☐ 11-15 ☐ Above 15.
How long have you worked in this organization?	☐ Less than 5 ☐ 5-10 ☐ 11-15 ☐ Above 15
Which level are you at, within this organization?	☐ First-Level ☐ Middle Level ☐ Top Level.
Size of the organization (No: of employees)	☐ < 200 ☐ 200-500 ☐ 501-1000 ☐ > 1000

Thank You

EMPLOYEE GREEN BEHAVIOUR.

(To be filled in by a Sustainability Officer/Facilities Manager/Operations Manager)

I, M.Chithra, am pursuing my doctoral level research in School of Management Studies at University of Hyderabad, on Employee Green Behaviour of IT employees. My research is aimed at identifying the determinants of organization citizenship behaviour towards environment. The collected responses will be used exclusively for academic purpose and I assure the respondents that the identities and individual responses will be kept confidential. Participation in this survey is purely voluntary.

1. Tick the number which best reflects your opinion on **Go Green Initiatives** of your organization.

(1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree)

i	We use energy efficient lighting systems and equipment	1	2	3	4	5
ii	We have a recycling program for office products.	1	2	3	4	5
iii	We do not use paper cups and paper plates	1	2	3	4	5
iv	We adhere to double-sided printing.	1	2	3	4	5
v	Our employees are provided with carpooling.	1	2	3	4	5
vi	We have installed automatic shut off for equipment.	1	2	3	4	5
vii	We have a recycling program for selected personal products.	1	2	3	4	5
viii	We have minimised water consumption.	1	2	3	4	5
ix	We have brought down our energy usage.	1	2	3	4	5
x	We have reduced our carbon footprint.	1	2	3	4	5
xi	We have increased the green cover in the organization premises.	1	2	3	4	5

2. Tick the number which best reflects your opinion on the **Environmental Management Practices** of your organization.

(1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree)

i	We publish environmental policy	1	2	3	4	5
ii	We determine targets for environmental performance	1	2	3	4	5
iii	We publish annual environmental report	1	2	3	4	5
iv	We use an environmental management system	1	2	3	4	5
v	We determine environmental criteria for purchasing decisions	1	2	3	4	5
vi	We make employees more responsible for the environmental performance	1	2	3	4	5

3. Tick the number which best reflects your opinion on **the significant barriers of Go Green Initiatives** in your organization.
(1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree)

I	Lack of management commitment and support	1	2	3	4	5
Ii	Lack of engagement or commitment from staff	1	2	3	4	5
Iii	Lack of time and resource to focus on environmental issues.	1	2	3	4	5
Iv	Excessive financial constraints	1	2	3	4	5
V	Insufficient incentives in place to encourage pro environmental behaviour	1	2	3	4	5
Vi	Lack of availability of skilled staff	1	2	3	4	5

4. Tick the number which best reflects your opinion on the **driving factors behind go green initiatives** of your organization.
(1-Never, 2- Rarely, 3-To some extent, 4-Often, 5- Always)

I	Investors	1	2	3	4	5
Ii	Supply Chain	1	2	3	4	5
Iii	Government Compliance	1	2	3	4	5
Iv	Employee Interest	1	2	3	4	5
V	End-Consumer	1	2	3	4	5
Vi	Community environmental concern	1	2	3	4	5
Vii	Corporate image	1	2	3	4	5
viii	Cost reduction	1	2	3	4	5

5. Tick the number which best reflects your opinion on the **Impact of environmental practices**.
(1-Extremely poor, 2- Poor, 3-neutral, 4-Good, 5- Extremely Good)

i	Reduction in costs	1	2	3	4	5
ii	Improved operations	1	2	3	4	5
iii	Improved product quality	1	2	3	4	5
iv	Organization-wide learning among employees	1	2	3	4	5
v	Improved employee morale	1	2	3	4	5
vi	Overall improved company reputation or goodwill	1	2	3	4	5
vii	Better relationships with stakeholders such as local communities, regulators, and environmental groups	1	2	3	4	5

6. Is your organization ISO 14001 Certified?
i) Yes ii) In Plans iii) No
7. Do you think successful implementation of go green initiatives mainly depends on employees of the organization?
i) Yes ii) In Plans iii) No
8. How much percentage of Employee green behaviour as per your opinion contributes to the successful implementation Go green Initiatives?
i) <25 ii) 25-50 iii) 51-75 iv) >75
9. Is there sustainability officer to lead corporate sustainability strategy?
i) Yes ii) In Plans iii) No
10. Is executive compensation tied to environmental Performance?
i) Yes ii) In Plans iii) No
11. As a Green Leader, are you satisfied with Employees' contribution towards corporate environmental performance?
i) Extremely dissatisfied ii) Dissatisfied iii) Neutral iv) Satisfied
v) Extremely satisfied
13. Has your organization been awarded/recognised for the Go Green Initiatives Undertaken?
i) Yes ii) No
If Yes, Please Provide the details of the awards.
1.
2.
3.

Demographic details:

Name (Not Mandatory)	
Gender	☐ Male ☐ Female
Age (Years)	☐ Below 30 ☐ 31-40 ☐ 41-50 ☐ Above 50
Educational Background	☐ Arts ☐ Science ☐ Commerce ☐ Engineering
Name of the organization	
How many years of full-time work experience do you have?	☐ 5 5-10 ☐ 11-15 ☐ >15. ☐

How long have you been working in this organization? (Years)	☐ 5 ☐ 5-10 ☐ 11-15 ☐ > 15 ☐
Which level are you at, within this organization?	☐ First-Level ☐ Middle Level ☐ Top Level.
Size of the organization (No: of employees)	☐ 200 ☐ 201-500 ☐ 501-1000 ☐ 1000+

Thank You