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*Sustainable Human Resource Management as a Strategy –  
A Study in Indian IT Context*

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Thesis submitted to the University of Hyderabad in partial fulfillment of the  
requirement for the award of the degree of

**DOCTOR OF PHILOSOPHY  
IN MANAGEMENT**

by

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**JULY 2016**

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I, Bharat Kumar Chillakuri, hereby declare that the research embodied in the present thesis titled “Sustainable Human Resource Management as a Strategy – A Study in Indian IT Context” is a bonafide work, which is free from plagiarism, for the full period prescribed under PhD ordinances of the University. I also declare to the best of my knowledge that no part of this thesis was earlier submitted for the award of research degree to any university or institution.

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## **Acknowledgements**

I express my profound gratitude to my research supervisor, Prof. Sita Vanka, School of Management Studies, University of Hyderabad, who guided me throughout my research work. Without her encouragement, guidance and thoughtful insights, the research would have not come thus far. It is my privilege and I feel lucky to have Prof. Sita as my research supervisor, who not only guided my research but mentored me all these years. A great academician, scholar and consultant and yet very simple, is a great source of inspiration for many of the researchers in India and abroad. Commitment, dedication and timeliness makes her distinct, who cares for quality in every aspect. I am indeed privileged to be her scholar.

I wish to express my deep sense of gratitude and I am greatly indebted for all the suggestions, guidance and constant support.

I am thankful to my Doctoral Committee members – Prof. B. Raja Shekar, Dean School of Management Studies, Dr. Sapna Singh and Dr. D. V. Srinivas Kumar and the faculty members of School of Management Studies for their valuable inputs and guidance throughout the research work.

I wish to extend my gratitude to Dr. Ina Ehnert, Professor, Louvain School of Management, Université Catholique de Louvain, Belgium, Dr Sugumar Mariappanadar, Professor, Faculty of Law and Business, Australian Catholic University for taking their time off in validating the research instrument. Their suggestions and contribution are invaluable to this study.

I thank the staff of the School of Management Studies, Srinivas Rao, Rebecca, Parimala and Naganna for their support whenever required.

I am very much grateful to the members of the Indira Gandhi Memorial Library, University of Hyderabad and the Library staff at Learning Resource Centre, Indian School of Business, Hyderabad.

I extend my sincere gratitude to Indian Council of Social Science Research (ICSSR) and University of Hyderabad for the financial assistance to carry out my research work. I also thank Santander Doctoral Summer School, Germany for awarding me Santander Doctoral Scholarship to support my travel and accommodation at University of Heidelberg, Germany. The visit gave me

an opportunity to present two papers at the international conferences and enriched my learning curve.

I am thankful to SV Nathan, Chief Learning Officer - Deloitte and Vikas Gupta, Director – Deloitte, for their encouragement and the initial support provided for my research. I am obliged to all the employees and HR managers of various organizations, who devoted their valuable time to support my research through their valuable insights. I remain indebted for all the respondents for their cooperation in completion of this study. Without their support my data collection would not have been possible.

My family members have always been a great source of inspiration and motivation for me. I owe my deepest gratitude to my parents, whose many sacrifices and blessings have helped achieve my academic endeavors. I also thank my sister and younger brother, for their continuous support in my education. When the work is driven by passion, one tends to neglect a lot of matters of personal interest. My deepest love and affection to my wife and daughter for their constant support.

I fail in my duty, if I don't thank my source of inspiration, who lead me to this doctoral research. I express my sincere gratitude to Dr. Vensus George, who has sown the seeds early in my graduation days.

I thank my senior scholars, Dr. Srinivas Josyula, Dr. Ajay Shankar Gupta, Dr. Vijaya Sree, my fellow research scholars Kavita, KV Balasubmaramiam, Madhavi, and Dashmiti for their continued support. I also thank Naga Pavan, Nag Raj, Rajesh, Ramanjaneyulu and other research scholars of the School of Management Studies for their insights into the data analysis of my study.

The dissertation would have been difficult without the support of several individuals, who have helped in one way or the other in the successful completion of my study. I sincerely thank each and every one and who has helped in my research.

Bharat Kumar Chillakuri

## ACRONYMS AND ABBREVIATIONS

Sl. No	Acronym	Abbreviation
1	CFA	Confirmatory Factor Analysis
2	CMMI	Capability Maturity Model Integration
3	CSR	Corporate Social Responsibility
4	EFA	Exploratory Factor Analysis
5	GRI	Global Reporting Initiative
6	HPWP	High Performance Work Practices
7	HPWS	High Performance Work Systems
8	HRM	Human Resource Management
9	IoT	Internet of Things
10	MDG	Millennium Development Goals
11	MNC	Multinational Companies
12	NASSCOM	National Association of Software and Services Companies
13	ROI	Return on Investment
14	SDG	Sustainable Development Goals
15	STPI	Software Technology Parks of India
16	SWS	Sustainable Work Systems
17	TBL	Triple Bottom Line
18	U.S.	United States
19	UN	United Nations
20	USD	US Dollars

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## Chapter – 1

### Introduction

The very existence of traditional organizations was wealth creation and hence, they were primarily driven by profit motive, with the basic objective of maximizing their wealth (Friedman, 1970; Wallerstein, 1980; Tome, 2011). The economic expansion of the company was often seen or equated with the success of the organization. These organizations predominantly operated in the local markets with few players competing for the same space. Moreover, these traditional organizations were more hierarchical, disciplined and are characterized by centralized decision making (Mullins, 2007; Bloisi et al 2003). The decision making process in these organizations was slow and hence, there exists little room for innovation as the traditional organizations were not prepared to try anything different other than operating in their own local markets. However, the past two decades have witnessed a paradigm shift in the way the organizations operate due to the intense competition within and outside the countries, which made the organizations to think beyond the traditional way of conducting operations (Porter & Kramer, 2006; Gmur & Klimecki 2001), thus bringing the sustainability concept into the center stage of organizational survival and growth. Given this background, this chapter introduces the concept of sustainability, the three dimensions of sustainability that are often termed as the *triple bottom line*. This chapter also includes the global perspective and Indian perspective on sustainability reporting and discusses the two theories of sustainability, mainly the shareholder and stakeholder approach. It further focusses on the evolution of sustainability and the way sustainability was studied since the ages of Aristotle - the interdisciplinary approach and the management perspectives on sustainability. The chapter addresses the various global issues that are linked to sustainability in the form of millennium development goals and the sustainable development goals. Further, the chapter presents the linkages between sustainability and HRM and attempts to present sustainability as a concept for HRM.

#### 1.1. The Organizational Scenario

The Liberalization, Privatization and Globalization policy (1991) of India, paved way for the multinational companies to set up their base in India and thus, resulted in more stiff competition. With the existence of more organizations, customers had choice to choose among the various products and services available in the marketplace unlike the traditional organizations, who offered

similar products. The modern organizations looked at customizing the products as per the customer requirements (Mendelson & Parlakturk 2008), which has resulted in building competitive advantage to the firm (Porter, 1995). *Competitive Advantage refers to the ability gained through attributes and resources to perform at a higher level than others in the same industry or market.* In other words, competitive advantage is the advantage that the firm has against the competitors. Competitive advantage of the firms also signify those strategies that are unique, special, sustainable over a long period of time and which cannot be imitated by other firm so easily. The competitive advantage is mainly seen through product differentiation and offering products at a competitive price compared to the competitors. Over the years, organizations have also become conscious of the products that were doing well and discarded the products that were doing less business and thus moving toward Sustainable Competitive Advantage.

Added to this, the technological developments, competition and global demands is characterized by imperfect competition (O'Sullivan & Sheffrin, 2003) with many buyers and many sellers in the marketplace eyeing for the same market share. With too many players in the market, there exists competition and rivalry among the firms and thus only the fittest survives (Darwin, 1869) as survival has become a big challenge for majority of the organizations. This made the organizations to revisit the existing strategies and devise long term strategic plans rather than being content with the short term profits thus, the focus was more on sustaining the businesses than profits.

## **1.2. Sustainability – The Concept**

The need to respond to the tastes, needs, aspirations and demands of the people was binding more on the organizations as customers had options to choose what they want. This made the organizations to adapt to the situations and be ready to take any risk as no business is averse to risk (Savitz and Weber, 2006). In the wake of the financial crisis across the continents, the ability to sustain in business has assumed much more significance (Drexhage, & Murphy, 2010). The ability to sustain is often termed as SustainAbility (Elkington, 1997).

The word Sustainability is used predominantly in ecology, which means the capacity to endure. In other words, sustainability is the endurance of systems and processes. The concept is later applied in varied fields and more generally used in business phenomena. Sustainability is an emerging issue both in the business and the academia. From a business perspective, Sustainability is more important as it address the long term continuity of the organizations and sustainable

competitiveness to the firm (Porter & Kramer, 2006) and thus, sustainability is not about reducing carbon emission, providing health and other benefits to the employees or contributing to the society, but a fundamental principle that guides the organizations and the society.

### **1.2.1. Etymology and Definitions**

The word sustainability is derived from a Latin word “sus-tenere”, which means to hold, maintain or strengthen. Sustainability is often used synonymously for long term, durable, sound and systematic. Sustainability is a combination of two words – Sustain and Ability. Sustain means to cause or allow something while Ability refers to the quality of being able to perform (Cambridge, 1995). The word Sustainability is best defined with Sustainable Development. Development is a process of being developed over a period of time. Thus, sustainable development is defined as the ability to develop or to strengthen, and to maintain from within (Filho, 2000).

The topic of Sustainable Development has been discussed and deliberated in several international forums and conferences. The UN Conference on the Human Environment (1972), World Conservation Strategy (1980), World Commission on Environment and Development (1983), First Rio Earth Summit (1992), Earth Summit +5 (1997), The UN Millennium Declaration (2000), World Summit on Sustainable Development (2002), United Nations Economic and Social Council (2002), Intergovernmental Panel on Climate Change (2007) are but a few examples where the concept of sustainability was discussed at length. On the other hand, there were several attempts made by scholars to define Sustainable Development and various definitions have emerged in the last two decades. However, the definition given by the World Commission on Environment and Development (Brundtland Commission, 1987) is considered to be the most suitable definition. Sustainable development is defined as "*development which meets the needs of current generations without compromising the ability of future generations to meet their own needs*". The definition evidences three important pillars – the economic growth, social equity and the environmental protection.

Organizations that were traditional in nature have realized that it is not profits alone, that sustains the organization, rather concentrate on the economic, ecological and social spheres of the organization - *People, Profit and Planet*. People refers to the business practices and policies towards the employees like healthy working conditions, safety and security of the employees in the organization. Planet refers to the environmental practices, creating minimal or no harm to the

environment, while Profit refers to the economic value add that organization creates. Sustainable Development encompasses the Environment, Economic and Societal issues so much so that, sustainability has become a goal for majority of the organizations. The approach of balancing the social, economic and ecological is often referred to as the *Triple Bottom Line* (Elkington, 1994). Triple bottom line (TBL) is often used as synonymous to sustainability as Elkington named his consultancy as SustainAbility, which he started in the year 1997 (Elkington, 1997).

### **1.2.2. Triple Bottom Line**

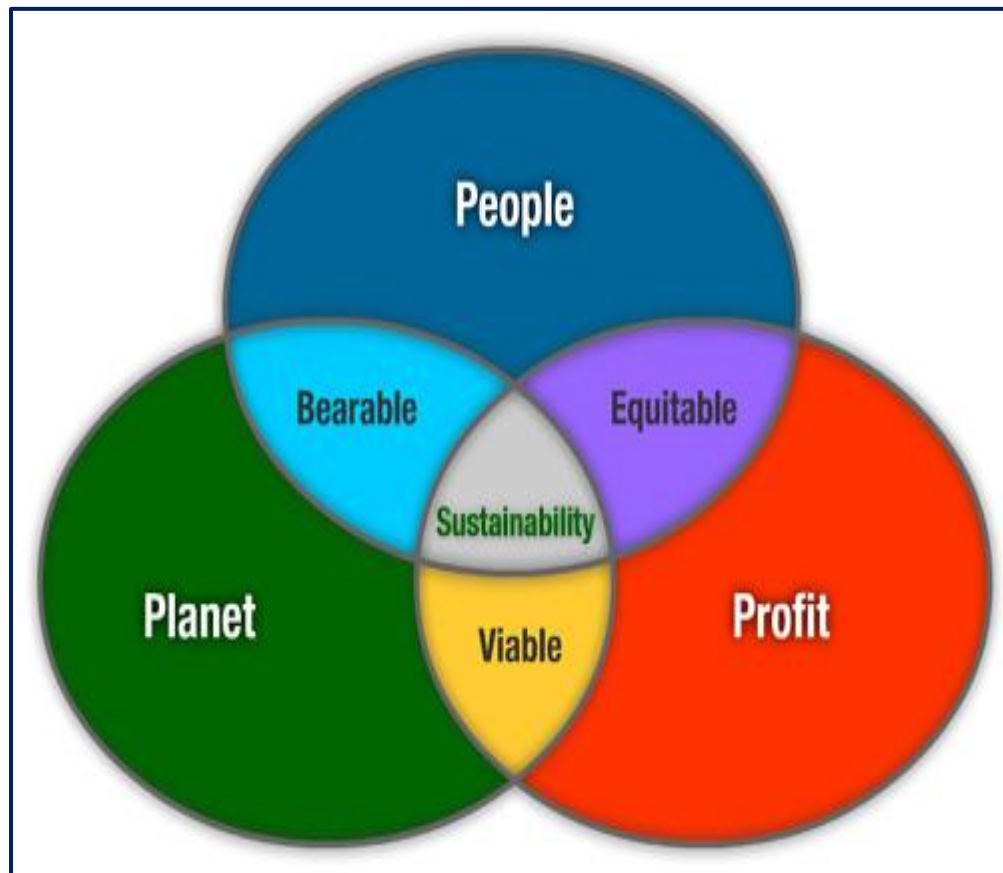
As the organizations realized the need for sustaining their business in the long run, the focus was moved to People and Planet besides the traditional focus on profit. However, measurement of people and planet practices has become a main challenge and thus, the need for a standard measure gained significance. Profit can be calculated in terms of dollars or the local currency, but the question that bothered the organizations was in calculating the environmental and societal performance of the organization (Slaper and Hall, 2011). Unless the organizations know the Return on Investment (ROI), organizations would not invest in People and Planet. It is but natural that the organizations would invest time and money only if they perceive success in it. At the same time, organizations were forced to respond and report the economic, environmental and social performance. Thus a measure becomes inevitable to know the ROI on all the three spheres – Economic, Environmental and Social (Savitz and Weber, 2006).

Triple Bottom Line (TBL) developed by John Elkington, is an accounting framework to measure sustainability. This is a revolutionary framework as it went beyond the traditional measure of profitability and included the environmental and the societal dimensions to measure the success of the organization thus, underscoring that the financial performance is not the only indicator for the success of the organization.

Triple Bottom Line is an index based framework, where each of the dimension has certain variables, which are determined by the stakeholders. The greatest feature of Elkington's TBL is the flexibility to suit the needs of the organizations. Majority of the multinational organizations have implemented Triple Bottom Line and TBL is considered as most accepted framework for measuring sustainability of the organizations. (Dyllick & Hockerts 2002; Rainey, 2006; Slaper & Hall, 2011). 68% of the top 250 companies of the Fortune 500 have embraced the Triple Bottom Line (KPMG, 2005).

The three dimensions – People, Planet and Profit (often call as 3Ps) are equally important and no dimension is superior to other. Each of the dimension is decisive, but is not adequate to achieve sustainable development and thus, Elkington calls for a balanced approach of these dimensions for the sustainable development of any organization. Figure 1.1 depicts that each of the dimensions are equally important and that the three dimensions are interrelated, underscoring the equilibrium.

*Figure 1.1. Triple Bottom Line*



Economic dimension deals with the impact that the economic system makes both at a national and global level. The economic index includes all the expenditure incurred on wages/salaries, benefits to the employee, income raised, taxes paid. In other words, it includes any single penny spent on all the activities of the organization, thus all the transactions are recorded. The environmental dimension deals with the eco-systems – land, air and water. Environmental index records the impact of the organizations’ products and services on the environment, records greenhouse emissions, waste generation, usage of hazardous materials, recycling, pollution and waste reduction (Elkington, 1994).

Social dimension deals with the organizations impact on the society and thus the societal index includes the fair trade policies, labor practices, human rights, employee safety, child labor, and other social issues that impact the stakeholders – customers, suppliers and the community around. The triple bottom line that encompasses the three dimensions People, Profit and Planet became the success *mantra* for most of the organization to sustain over a long period of time.

### **1.3. Global Reporting Initiative**

With the increased customer awareness and education, there is mounting pressure on the organizations to report the sustainable activities of the organization. Government, Stock Exchanges, Markets, Investors and Society are also necessitating the organizations to be more transparent (GRI, 2014). At the same time, the organizations are mindful about the Sustainable Reporting and have shown willingness to report the economic, sociological and ecological performance (Schaltegger & Wagner, 2006). The voluntary act of reporting the sustainability helps the organizations build their brand in the marketplace and thereby, providing an opportunity to be accountable to the general public (KPMG, 2011 & 2013).

Reporting is a channel to engage the stakeholders in a transparent way as the very process helps the organization to portray the vision, mission, goals and strategy of the organization. However, there is no single measure that quantifies sustainability. Although, the triple bottom line is majorly accepted by the multinational organizations, the flexibility of the TBL makes it much more subjective. Moreover, TBL is not a regulatory and authoritative framework, thus a need for the regulatory framework assumed significance.

In 1997, Coalition for Environmentally Responsible Economies (CERES) and the United Nations Environment Program (UNEP) launched the Global Reporting Initiative (GRI) to develop reporting guidelines for the triple bottom line accounting for economic, as well as environmental and social performance with an aim to establish sustainability reporting on par with the financial reporting. GRI has developed guidelines to enable corporations and NGOs alike to comparably report on the social impact of a business. The Global Reporting Initiative (GRI) is a leading organization in the sustainability field. GRI promotes the use of sustainability reporting as a way for organizations to become more sustainable and contribute to sustainable development. GRI provides guidelines for sustainable reporting primarily focusing on six categories - economic, environmental, social, product responsibility, human rights and decent work. Jorma Ollila, CEO

and Chairman of Nokia points out that *the aim of reporting is not about making a brochure, it's about communicating the relevance of company actions to society, to the business, to its stakeholders*, thus underscoring the importance of the organizations actions rather than a mere reporting. 93% of the world's largest companies use GRI framework to report their sustainability performance thus indicating the importance and acceptance of the GRI (Global Reporting Initiative, Accessed on 16/01/2016).

G4 is the latest version of GRI's Sustainability Reporting presented in two different documents. One document provides reporting principles and standard disclosures and the other document is an implementation manual. With the help of GRI documents, organizations report their impact on the environment, economy and the society. The reporting also helps the organizations to relook at their operations and assess the possible risk for the organization and thus, helps in better decision making. 24,000 reports have been prepared using GRI framework until December 2015 and 27 countries look at GRI's guidance for their reporting (Global Reporting Initiative, Accessed on 16/01/2016).

### **1.3.1. Sustainability – The Global Scenario**

Sustainability and Corporate Social Responsibility are interlinked so much so that they are inseparable (Stanny & Ely 2008). Similar to the annual reports that each of the organization publish every year, majority of the fortune 500 companies publish their sustainability/CSR reporting. 80% of the G250 companies have made their CSR reporting available to general public in the year 2007 (KPMG, 2008) thus, sustainability reporting has become more a responsibility of the organization to report the sustainable performance of the organization. Although Sustainable Reporting is voluntary in nature, some of the countries in Europe have legislations that mandates Sustainable reporting and thus nations like Denmark, Finland, Sweden, Belgium, Netherlands and Germany publish their sustainable reporting (Delbard 2008). UK has sustainability reporting guidelines in the form of minimum requirements, best practice guidance and the underlying principles in preparing the sustainability reporting and thus it is mandatory for the organizations to report the sustainability performance (Government Financial Reporting Manual, 2014).

Sustainability Reporting is also mandatory in the U.S. The U.S. Securities and Exchange Commission issued guidelines for the reporting sustainable activities of the organization. Some of the organizations align their sustainability reporting with the financial reporting, thus making the

reports more transparent. Organizations use various software's like Credit 360, One Report, and SAP's Sustainability Performance Management software that helps them in aligning the sustainable and financial performance of the organization (Chorn & Ghuliani, 2011).

Countries like Turkey, Brazil, and South Africa also have legislations that direct organizations to disclose their sustainable activities. Indonesia is the first country to issue Sustainability reporting guidelines. Singapore Exchange (SGX) made it mandatory for all the companies listed on their exchange to publish the sustainability reports (SGX, 2014). In China, Shanghai Stock Exchange and Shenzhen Stock Exchange (CSR Asia, 2012) made sustainability reporting mandatory and have issued guidelines for the sustainability reporting in the year 2009.

Japan has made legislations for the mandatory disclosure of sustainability. In Hong Kong, though the Hong Kong Stock Exchange provided guidelines in 2012, they are considered to be voluntary, so is the same case with South Korea, Malaysia Philippines and Vietnam, where the reporting is voluntary. However, they are working on making it mandatory in the recent days. Taiwan doesn't have any guidelines but the organizations are required to publish their CSR reports as per the Corporate Governance Best Practice Principles (CSR Asia, 2012).

In Australia, the sustainability reporting is voluntary. The public companies produce the sustainability reporting, however, in the recent past, there is huge increase in the private organizations reporting the sustainable performance of the organization (KPMG, 2007) thus highlighting the importance of sustainable reporting. Corporate Responsibility Survey by KPMG (2013) states that 78% of the companies, who report their sustainability performance follow the GRI framework.

From an academic stand point of view, Sustainability is treated as universal concept and has become a subject in the due course of time. In fact, Sustainability has become a buzz word used across the disciplines and there were many scholars who have defined sustainability and attempts are still being made to define sustainability. Majority of the universities teach masters in sustainability, a two program focusing on the sustainability and it's inter related disciplines. Sustainability Science Program (Harvard), Environment & Sciences (Stanford), Sustainable Global Enterprise (Cornell), Business Sustainability (York, Queensland), Global Business & Sustainability (Erasmus), Sustainable Resource Management (Munich), Corporate Social Responsibility & Sustainability (Illinois), Focus in Sustainability (Leeds), Sustainable Business

(Baruch), Sustainability Management (Wisconsin), Science in Sustainability (Columbia), Sustainability Leadership (Cambridge, Arizona State University), Global Sustainability (South Florida), Master of Sustainability (Sydney) are some of the universities teaching Sustainability and Sustainable Development related courses, thus underscoring the importance of Sustainability in a global text.

### **1.3.2. Sustainability - An Indian Scenario**

The concept of Sustainability in India is at a nascent Stage. Unlike the Europe and U.S., Sustainability reporting is not mandatory in India. However, some of the large companies report sustainability issues with the help of GRI framework. Indian IT giants like Infosys, Wipro, and TCS are some of the organizations that report the sustainable performance. There is a growing need for the largest companies to discuss sustainability and corporate social responsibility. One of main reason is the Companies Act (2013), which mandates that 2% of the net profits have to be spent on CSR activities. This is applicable to companies whose net profit is more than 5 crores. The act also calls for a representation of CSR committee in the board of directors. These organizations either carry the CSR activities by themselves or can appoint a trust to take care of the CSR activities.

Indian economy is immense that it is considered to be the 7<sup>th</sup> largest, based on the Gross Domestic Product (GDP) and poised to become third largest by 2030 (Economic Times, 2015) As a developing economy, India started to realize the effects of sustainability reporting and CSR activities. With the effect of the Section 135 and Schedule VII of the Companies Act (2013), Organizations have taken the CSR seriously. The CSR activities are designed by the organizations in such a way that they not only help the society at large, but also help in creating goodwill and reputation among the general public (Sustainability Reporting, 2012).

In terms of academics, India is not far away from the world. There are several organizations that promote Sustainability and environmental Protection both in terms of practice and theory as well. CII-ITC Centre of Excellence for Sustainable Development, IGCS Indo-German Centre for Sustainability, Indian Environmental Society, Institute of Corporate Sustainability Management, Indian Institute of Sustainable Enterprise, Indian Institute of Ecology and Environment, Centre for Environmental Education provide certificate courses and training on sustainability. Similarly, there are few universities that offer post graduate programs in Sustainability; Business

Sustainability, Sustainable Development Practice (Teri), MBA in Sustainability (Xavier), Environment & Sustainable Development (BHU), Environmental Education (IIT Delhi), Sustainable Management (IIM Lucknow), Ecology, Environment and Sustainable Development (TISS), Natural Resources and Sustainable Development (Amity), Sustainable Architecture (Bharati Vidyapeeth) are a few examples. The fact, that these universities offer sustainable development courses is an indicator that there is growing awareness among the public on sustainable related activities in India. These universities offer Sustainability as an interdisciplinary course and mostly linked to science, business and healthcare.

#### **1.4. Approaches to Sustainability**

Although, many of the universities and institutions offer sustainability as a course, the understanding of sustainability still remains to be at a nascent stage for most of the organizations. It is known that the larger organizations are not owned by a single persons rather owned by a number of shareholders. The ethical questions that often arises to the management as to who should be the priority for the organization - the shareholders or the stakeholders? Should they maximize and increase the shareholder value as they are the people, who take risk and invest money in the organization and thus, without shareholders, organizations cease to exist. Similarly, should the organizations strive to serve the interests of the stakeholders? (MIT Sloan Management Review, Accessed on 16/01/2016) This ethical dilemma continues even today for the organizations as these are conflicting interests between the shareholders and the stakeholders and thus, a study of shareholder and stakeholder approaches to sustainability remains critical.

##### **1.4.1. The Shareholder Approach**

The premise that organizations primary motive is to create profits forms the basis for shareholder approach (Friedman, 1970). The traditional businesses were started to gain profits and opined that that those organizations that doesn't make profits are bound to lose its existence. Hence, they believed that organizations can survive in the long run only if they make profits. In the words of Friedman "If an organization doesn't make profits, there is something wrong with the organization" (Friedman, 1970). Employees are hired only to grow the business and hence, the only activity they should indulge is to grow the profits. Since, it is the shareholders of the business, who invests money in the business, it is the responsibility of the employees to safeguard the interests of the shareholders, which again is nothing but mere profit. Profitability and internal

stability are very essential for the organization (Landrum & Edwards, 2009). The shareholder approach doesn't entertain serving the society or doing something other than growing the business and making profits.

Shareholders theory also upholds taxation. According to Friedman, taxation is unfair as the shareholders earn profits because they invested money in the business and the government taking away money from these businesses in the form of taxation is unjust. The organizations should not be liable to any tax and they should be let free in making profits. Friedman also claims that the organizations that earn more profits make the society better by paying fair and better salaries to its employees.

One of the main criticism the theory faces is that the shareholders in pursuit of maximizing their profits may indulge in ways that might not be ethical and can cause harm to the society, thus the self-interests of the shareholders may take priority over the society. The decisions taken by shareholders in pursuit of the profit maximization could often result in unethical and illegal action thus, resulting in failure of the organizations like Enron, Arthur Anderson, and Global Crossing (Shim, 2014). On the other hand, the advocates of the shareholder theory states that this theory is often misunderstood and states that the shareholder theory supports charity, giving funds to society in so far as they are in the best interests of the organization.

#### **1.4.2. The Stakeholder Approach**

The stakeholder theory is opposite to the shareholder view, which states that the organizations owes responsibility towards its stakeholders – Employees, Customers, suppliers, public authorities, financial partner and the community around etc. Stakeholders are those who have any direct or indirect stake in the organization or anyone, who is affected by the actions of the organizations (Freeman, 1984; Donaldson and Preston, 1995). The concept of stakeholder approach is mostly used in the Corporate Social Responsibility (CSR) literature (Freeman, 1984). According to them, the organizations can sustain in the long run, only if they can maintain a sustainable relationship among all its stakeholders.

One of the key assumption of this theory is that the shareholders are not the only owners of the organization, but any one, who are affected directly or indirectly are also the owners and hence, the organizations are not allowed to indulge in unethical activities as the society and the community around are part of the stakeholders. The stakeholders influence the organization in the

way it is operated and hence, the capacity of the organization to flourish in the long run depends on the interrelations among all the stakeholders. Anything that goes against the interests of the stakeholders are called off.

The success of the organizations cannot be merely measured in financial terms rather a holistic and comprehensive stakeholder assessment is required. An integrated system that measures the performance of the organization thus assumes significance. Balance Scorecard (Kaplan & Norton, 1992), Environment and social reports (Bennett & James, 1999), Triple bottom line (Elkington, 1994, 1997) are some of the tools organizations use to elicit information that would help in the decision making process. Global Reporting initiative framework (GRI) provides directions for reporting and enables the organizations for standardized way of measuring sustainable activities in the organization.

With the existence of legislations in each country, organizations are bound to consider the impact that they are making on the society. This is one of the main reason for organizations explicitly letting know the society and the general public of the impact that they create. The impact could be either positive or negative. The act of publicizing the reports is voluntary in majority of the countries (KPMG, 2011, 2013). However, the organizations still continue to publish as this helps the organization becoming more transparent and accountable to its stakeholders.

At the same time, it is important for the organizations to look at what the stakeholders are interested to know about the organization thereby, ensuring that they do not publish only the positive aspects but a holistic perspective of the actions of the organizations covering economic, environmental and societal dimensions. The concept of sustainability has its roots grounded in the stakeholder theory, which calls for a balanced approach among the people, profit and planet (Elkington, 1994) as its allows conceptualizing organizational performance beyond the economic dimension (Ehnert, 2015) and on the other hand sustainable HRM does not support the short-term approaches that has adverse effects on employees, families and the communities. Moreover, Sustainable HRM also has multiple stakeholders like stakeholder theory. There were other scholars, who attempted to give a theoretical background using negative externalities (Mariappandar, 2003, 2012).

### **1.4.3. Shareholder Theory vs. Stakeholder Theory**

The shareholder theory lays importance on the economic value of the firm, while the stakeholder theory emphasizes on the economic, social and environment values of the organization. While the

shareholder theory looks at the short term interests in maximizing their wealth resulting in cost reduction, the stakeholder approach more deals with long-run and the sustainability of the firm and thus invests in the processes, tools and people. Table 1.1 gives a better representation of the shareholder theory and the stakeholder theory.

**Table 1.1. Shareholder Theory vs Stakeholder Theory**

	<b>Shareholder Theory</b>	<b>Stakeholder Theory</b>
Objective	Maximize Shareholders' Wealth	Create value for Stakeholders (Shareholders, Employees, Creditors, Customers, Suppliers, Community)
Pursuit	Stock price	Common Good (Public Good)
Planning Horizon	Short-term	Long-term
Utility	Profitability	Sustainability
Optimization	Single Optimization (Profit)	Multiple Optimization or Single optimization with many constraints
Thesis	Separation (Business vs. Ethics)	Integrated (Business Ethics)
Value	Economic	Economic, Social, Environmental, Political
Policy	Fire & Hire	Stabilization of employment
Minimization	Short-run production cost	Long-run impact costs

*Source: Adapted from (Shim, 2014)*

### **1.5. Sustainability – The Evolution**

The origin of the term sustainability dates back to 400 B.C. where, Aristotle discussed about the concept of household, which was characterized by the ability to produce and reproduce that is required for a living (Muñler-Christ, 2001; Nagle 2006). The concept of sustainability is very popular in the early 1700's in Europe especially in Germany, when they realized the scarcity of the wood. Wood was primarily used for the construction those days and thus have witnessed lot of deforestation. Germans soon realized the scarcity of wood and started reforestation keeping in

mind the future generations, which they called as *Nacchaltigkeit or Sustainability*. From Europe, the concept moved to North America, where it was applied in various industries (Hußmann, 2003).

Until 19<sup>th</sup> century, sustainability was more looked as a balance between the consumption and the reproduction. In 1970's, sustainability was more looked from an ecological and environmental concept (meadows, et al., 1972). Since 1980's, the concept picked up the pace and it was more looked as a strategy especially for the business organizations (Barney, 1991; Grant, 1991; Porter, 1980). Later the concept was seen from a societal context, focusing on the future generations (WCED, 1987). After the Brundtland commission, Sustainability has gained much more significance and the Commission defined what Sustainable Development is meant for the larger society. The commission campaigned rigorously for the need to balance the economic, ecological and social dimensions of the society, simultaneously. With the application of the triple bottom line, Sustainability was seen more as a corporate concept, thereby organizations trying to strike a balance between the three pillars – Economic, Ecological and Societal pillars (Elkington 1997). In the early 1990's, the concept of sustainability was seen more a corporate concept and slowly the concept has taken a new shape in the business fraternity, where sustainability was seen more from an ethical and moral standpoint of view, thus giving birth to Corporate Social Responsibility (Boudreau and Ramstad 2005; Kira, 2003).

### **1.5.1. Sustainability – An Interdisciplinary Approach**

Until 20<sup>th</sup> century, sustainability is more seen as an environmental issue. However, there is a paradigm shift after the Millennium Summit of the United Nations in 2000. Millennium Development Goals (MDGs) are outcomes of the United Nations Millennium declaration and was attended by 189 United Nations members. The declaration provided 8 goals and 21 targets that are of pivotal importance to each of the nations with a time frame from 2000 – 2015. The goals were framed with specific objectives and the goals are – Extreme Poverty and Hunger, Primary Education, Gender Equality, Child Mortality, Maternal Health, HIV/AIDS and Malaria, Environmental Sustainability, Global Partnership for Development (United Nations, 2000; accessed website on 02/01/2016).

These goals provided an impetus for the international cooperation and provided a sense of direction for the nations in achieving sustainable growth, which are evident by the results, they have shown

during the past fifteen years. There has been significant growth in the decline of the mortality rate of children (reduced to half), reduction in the poverty (836 million from 1.9 billion), decline in the malnutrition (reduced to half), school drop-outs reduced from 57 million from 100 million (Sustainable Development Goals, 2015). The numbers clearly evidences the impact the millennium development goals had on the member nations and the entire world. However, the goals and the targets are not yet completely accomplished and thus, calls for certain universal goals that are termed as *Sustainable Development Goals* (SDGs).

Sustainable Development Goals are the outcomes of The United Nations Conference on Sustainable Development known as Rio+20 summit held in Brazil in 2012. The outcome document “The Future We Want” describes the process in accomplishing the SDGs. The Sustainable Development Goals are built on the Millennium Development Goals and thus, these goals were considered to be universal in nature. SDG’s call for a support from the nations, governments, policy makers and politicians in achieving a sustainable society. Like MDGs, SDGs also have a time frame and these goals were to be achieved from 2015 – 2030. In the recent United Nations Sustainable Development Summit held at New York on September 25 – 27, 2015, the world leaders have announced the 17 sustainable goals and the associated 169 targets, which are centered around People, Planet, Prosperity, Peace and Partnership (Sustainable Development, 2015: website accessed on 03/01/2016).

These 17 sustainable goals are focused on Poverty, Food, Health, Education, Women, Water, Energy, Economy, Infrastructure, Inequality, Habitation, Consumption, Climate, Oceans, Bio diversity, Institutions and Global partnership. SDGs asks the richer nations to play a significant role in achieving this goals by bringing about economic reforms, helping the other member nations create sustainable income, sustainable consumption and more importantly establish international cooperation and peace among the countries.

The recent developments are a witness to the growing importance of Sustainability across the world. Sustainable Development Goals not only calls for eradicating poverty, sustainable economic growth but also stresses the importance of sustainable management of water, oceans, energy, forests and more importantly the climate change. The climate change also warn that damage done to one part of the earth would have adverse effect on other parts of the earth. Sustainable development goals thrust areas are People, Planet, Prosperity, Peace and Partnership.

These 5 P's can be considered as an extension to the triple bottom line, which calls for an integrated approach of balancing economic, ecological and social dimensions of the organizations.

### **1.5.2. Sustainability – The Management Perspective**

The sustainable development goals are framed for the welfare of the human beings (People) – present and future. Similarly, it is People, who needs to ensure that there is a balance between the consumption and the production. Although, the 3P's are equally important for the sustainable development, the role of *People* assumes much more significance in striking the balance between 3 P's and thus awareness of sustainable development for mankind is extremely important. Leah Filho (2000) points out that it is very important to understand the meaning of sustainability as one's attitude towards sustainability depend on the understanding and acceptance of the same. The three dimensions of sustainability – economical, ecological and societal are translated in to environmental integrity, social equity and economic prosperity (Bansal, 2005). Environmental Integrity refers to preserving the environment and doing away from over exploitation of the natural resources. Economic Prosperity is very important for the organizations to survive in the long run, however, Economic prosperity itself alone is not sufficient for sustainable development (Gladwin et al., 1995; Dyllick and Hockerts 2002). Social Equity refers to intra and inter-generational access to resources and opportunities like quality of life, healthcare, education, political freedom ((Bansal, 2005).

Sustainability as a concept is popular with the triple bottom line. The approach of triple bottom line was further extended by Muller-Christ and Remer (1999), who defined Sustainability as a balance between the resource consumption and the resource production. Sustainability is used synonymously with Corporate Social Responsibility (CSR) and as such CSR is defined as meeting the needs of the firm's direct and indirect stakeholders without compromising the ability to meet the needs of future stakeholders (Dyllick & Hockerts, 2002). Boudreau and Ramstad (2005) define sustainability as an ethical and moral value, which he terms it as Social Responsibility. CSR was seen more from a moral and ethical view on the part of the business owners as CSR was not mandatory in the 1990's.

Sustainability was also studied in relation to Strategic HRM. As Strategic HRM focuses on managing human resources to support the long term business goals, sustainability also looks at the long term organizational viability for future generations. Strategic HRM is defined as the pattern

of planned human resource deployments and activities intended to enable the firm to achieve its goals (Wright et al., 1994). With the effect of Strategic HRM, the focus was more on long term and thus, the organizations were involved in more CSR activities. The People dimension of the sustainability which was dominated by the CSR literature (Ehnert, 2009) focused on organizations helping the societies and thus, there is hardly any focus on the *Human Resources thus giving rise to Sustainable Human Resource Management*. Sustainable HRM is more considered as an extension to strategic HRM, an addition to the existing body of knowledge.

### **1.6. Linkages between Sustainability and Human Resource Management**

Swiss researchers were the first to link sustainability to HRM, focusing on the economic and social dimensions leaving out the ecological dimension (Zaugg, 2001, 2009). Australian approach focused on human dimensions of the sustainability, but more from a high involvement work systems (Gollan, 2001, 2005). However, Van De Voorde et al. (2012) highlights the negative effects of HPWS although there is an increase in the organizational performance. The German approach was more based on the Sustainable resource management. Several authors have tried to systematically link Sustainability with Human Resource management – impact of downsizing activities (Mariappandar, 2003, 2012), Human Sustainability (Pfeffer, 2010; Schulz & Muller, 2010; Osranek & Zink, 2008), Stakeholder approach (Guerci, 2014). The underlying point of all these scholars is that the human sustainability is neglected. The People dimension in the triple bottom is dominated by CSR and Societal activities like greening (Pfeffer, 2010). The CSR team in the organization were focused more on ecological and societal dimensions, ignoring the human sustainability, thus exhibits the need to study human sustainability.

Sustainable HRM is at an emerging stage. One of the primary reason for an emerging state is because of the dualities, dilemmas and paradoxes that exist in establishing Sustainable HRM as a course of study (Ehnert, 2009). There exists conflicting interests between HRM and Sustainability as HRM focuses on the efficiency and the effectiveness of the individuals and Sustainability focus on the long term sustainable activities. Exploiting human resources and reproducing human resources are both two opposite poles and thus Muller-Christ (2001) says maximizing efficiency and sustainability are impossible. The duality problem was addressed by Ehnert (2009) using deductive theory development, analogies and metaphors.

Linking HRM with sustainability is better understood through the Hard and Soft approaches of HRM. Hard HRM is often referred as core HRM, which stresses the quantitative aspects of managing the resources. Hard HRM is associated with the scientific management approach or Taylorism of 19<sup>th</sup> century, who applied science to the engineering of processes in the manufacturing industry. Hard HRM looked at minimizing the cost of labor and used the employees as flexible as possible (Druker et al., 1996).

Hard HRM looks at the employees as any other factors of production, whereas the Soft HRM looks employees as greatest asset and the key to the organizations. Soft HRM is more associated with the Human relations movement of Elton Mayo. Soft HRM believes in the employee's creativity, commitment, skills and thus should be groomed carefully. Although, there is a distinction between the Soft HRM and the Hard HRM, the ultimate goal of both the approaches is organizational effectiveness. The task of the HRM is not only attracting, selecting and retaining employees, but should also look at the enhancement of the employee's commitment, motivation, job satisfaction etc. (Armstrong, 2003; 2005).

With the rise of sustainability as a concept, there is a paradigm shift from shareholders approach to the stakeholders approach. Ulrich & Brockbank (2005) states that HR professionals should be ready to accept any unforeseen changes like changes in workforce demographics, technology, globalization, competitiveness etc. and thus, leading to more sustainable HRM practices and considers sustainability as having a strategic potential for HRM (Losey et al., 2005; Ehnert, 2009).

### **1.7. Application of Sustainability as a Concept for HRM**

The premise that Human Resources are being consumed and are not reproduced (Kira, 2002, 2003; Zaugg, 2004) forms the basis for sustainable human resource management. Ina Ehnert (2009) argues that the concept of sustainability emerged mainly because of two reasons:

1. When the resources are scarce – Economic, Natural or Social resources
2. Side and feedback effects that arise out of long term exploitation of the resources

Human resources are not only critical but also are scarce in nature. Scarcity of the human resources does not refer to the human resources physically but refers to the skillset, competencies etc. that might be scarce in the future. Mariappandar (2003, 2012, and 2014) also argues that HRM not only brings positive results to the organization but also negative effects. Unfortunately, both these

problems are found in Human Resource management - the scarce human resources and the side and feedback effects, which are the outcomes of over exploitation of the resources. Scarcity of human resources does not mean the shortage of human beings rather refers to the shortage of skills, qualifications that are required by the organizations (Drumm, 2000). Human resources are defined as *all of the people who currently contribute to doing the work of the organization, as well as those people who potentially could contribute in the future, and those who have contributed in the recent past* (Schuler and Jackson, 2006). There is a dearth of highly skilled people and thus, organizations need to treat employees as any other natural sources that are scarce. This trend is witnessed majorly in service enabled organizations as they are willing to invest extra money and time in getting the right talent on boarded. On the other hand, developing and nurturing the talent and retaining the resources has become a herculean task for the organizations (Stahl et al., 2007).

With the increased competition among the businesses, human resources have become critical to every organizations. However, the advocates of Sustainable HRM argue that these resources are consumed physically, cognitively, socially and emotionally because of the increased work load at the workplace. In other words, human resources are more exploited leading to in negative and side effects resulting in health problems, stress, burnout, psychosomatic disorders, (Docherty et al., 2002; Kira, 2003). The need for nurturing the skills, knowledge, cooperation, trust, motivation, employability, industrial relations (Docherty, 2002) thus, assumes significance in helping the human resources strike a balance between quality of work life and performance.

These two issues that the HRM faces helps in establishing sustainability as a concept for HRM. In fact, Sustainability as a concept was born when the people realized the scarcity of the wood and repercussions of over exploiting the natural resources were witnessed by them. Thus, the scarcity of the human resources and the negative effects of exploitation created a platform for establishing sustainability as a concept for HRM (Ehnert, 2009). Technology has transformed the way in which the organizations viewed people as resources and the way in which the function of HRM has evolved over the years. Moreover, sectors such as IT, Pharma, Biotech, infrastructure, in the Indian context have revolutionized the operations, activities and organizations.

One of the fastest growing industry in India is the Information Technology industry with USD 125 billion and provides a direct employment to 3.5 million (NASSCOM, 2015). The industry pays very high salaries for the skilled engineers but also draws severe criticism for the long working

hours, over and underutilization of the resources, engineers doing the back office work, tight deadlines for the project delivery, working on multiple projects simultaneously, slow paced career path and retrenchment of employees. The IT industry in India faces the two issues that the HRM faces, where the employees are consumed more in the wake of tight project schedules, where the employer prioritizes the client over the employees. The negative and the side effects that arises due to the over consumption and the long working schedules give rise to stress, boredom, burnouts, depression and other psychological effects. Thus, a study of Information Technology industry is imminent and appropriate for an empirical study of Sustainable HRM in an emerging economy like India.

### **Summary**

This chapter has introduced the concept of sustainability, definition, the triple bottom line and the sustainability reporting. Sustainability from a global perspective covering all the continents along with the Indian perspective is also presented. The chapter also discussed the two theories of sustainability, mainly the shareholder and stakeholder approach. The evolution of sustainability and the way sustainability was studied since the ages of Aristotle, the interdisciplinary approach and the management perspectives on sustainability is included in the chapter. Finally, the chapter presented the linkages between sustainability and HRM and made an attempt to present sustainability as a concept for HRM. Chapter two presents an overview of the IT sector in India.

## Chapter 2

### The Information Technology Industry

The focus of the study is Information Technology Industry in India, since it exhibits the two issues that the Sustainable HRM confronts. The chapter presents an overview of the IT industry, its evolution and market size of the industry both in terms of domestic and exports revenue. This chapter attempts to study the projected estimates of the salary increments of IT professionals with other sectors across the levels. Availability of the talent pool is one of the biggest strength of Indian IT industry and hence, it attempts to study the graduate additions every year. The chapter also tries to discuss some of the challenges that are faced by the industry along with the nature of the job. Against this background, the chapter tries to provide justification for the choosing IT for the study.

#### 2.1. Information Technology Industry - An Overview

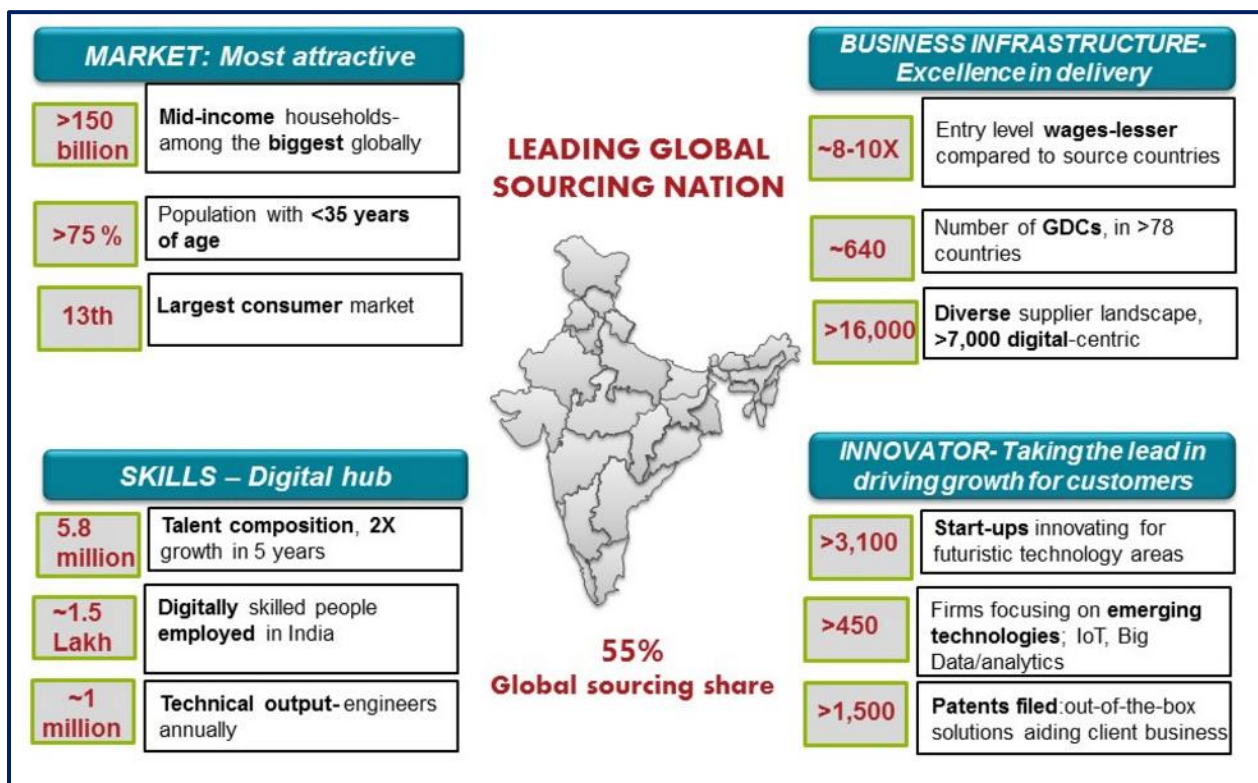
The IT industry in India plays a significant role, contributing USD 146 billion to the nation's GDP in 2015, a growth by 13 percent compared to last year. The industry is expected to reach USD 225 billion by 2020 and USD 350 billion by 2025 (NASSCOM, 2015). Exports contribute to about USD 98.1 million and the domestic contributes to USD 21.0 million in 2014. Two thirds of the export revenue is generated from US and the rest of the world contributes to one third of the revenues. In the last five years, the industry has been providing services to other geographies, especially Europe and thus, the increase in the revenues is seen (CRISIL, 2015 accessed website on 17/01/2016).

The industry considered, to be a *sunshine or sunrise sector* provides a direct employment to 3.5 million and an indirect employment to 9 million (NASSCOM, 2015). Availability of the talented young professionals, low cost, English language speaking people are the main reasons for the world to look at India for various IT and IT enabled services. India's competitiveness is seen mainly from the cost savings, which is considered 3 - 4 times lesser than that of US and thus, India has become a leading destination for IT and ITeS services (Arora and Athreye, 2002). The use of Information Technology by the organizations across the industries also helped the industry to provide more employment. With the multinational companies showing interest in setting up offshore development centers, the numbers seems to be on rise in the future too. The industry continues to provide larger employment to the young professionals and is expected to provide

employment to 30 million by 2020 (NASSCOM, 2015). The emergence of the latest technologies also facilitated the industry to provide employment to the youth of the nation.

The IT industry in India comprises of both information technology and information technology enabled services like Business Process Management, Engineering, Research and Development, Internet & Mobility, eCommerce and other software products that includes full software development life cycle (SDLC). The industry positioned as a leading destination for IT services in processing, planning, creating, testing and development of products has brought a new image to the country (A.T. Kearney, 2014). *Digital India*, an initiative by the current Prime Minister Sri Narendra Modi brings in a more secure position to the IT industry in India. The value proposition that the IT industry provides is depicted in the figure 2.1.

**Figure 2.1. India Value Proposition**



Source: Adapted from (NASSCOM, 2015)

### 2.1.1. Evolution of Information Technology Industry in India

The last three decades had positioned India as a global leader for IT and ITeS services like Knowledge Process Outsourcing, Business Process Outsourcing, Product Development, Product

Reengineering, Research & Development, and Remote Infrastructure Management. The IT industry in India has started to grow in the mid 1970's, where Indian software engineers predominantly worked on IBM mainframes. IBM and Datamatics are the early organizations that engaged Indian engineers from IIT's for their hardware programming. Tata Consultancy Services (TCS) was a sales agent for the IBM machines and the employees of TCS used to travel to US to install system software for the IBM client Burroughs. This marked the beginning of onsite travels, which resulted in providing global exposure to the Indian IT engineers (Ramadorai, 2002).

As IBM expanded their markets, their clients used the services of the Indian firms to install system required software to make IBM software compatible with their systems. There were many small players that came in to existence after IBM took an exit from mainframes. Soon, they realized that the Indian labor is not only cheap (Dossani, 2005), but also the quality of the programming was good and therefore the Indian engineers were exposed to marketing, back office, customer care and other support services, (Sharma, 2008). Although, these companies evaluated opportunities at Israel, Ireland, China and other countries, however, their first choice was always India due to the availability of the talented engineers and low cost of production (Dossani, 2005). By the end of 1980, there were 21 firms engaged in software services to serve various clients in the U.S.

Later the American Original Equipment Manufacturer (OEM) companies engaged the Indian IT professionals in smaller way until Citi Bank setup their own offshore development center for managing their internal backend work. Citibank setup its firm in the year 1984 with an initial capital of 2 crores and supported their branches across the regions (Sharma, 2008). The advent of PC's also gave a push to the beginning of IT industry. However, India didn't have the necessary infrastructure to provide support to the American clients and hence, preferred to work in the client location. Indian IT companies were engaged in imparting necessary training skills for the Indian IT engineers and send them onsite for a period of 6 - 18 months. This process was very popular in the 1980's, which is often referred as *body shopping*. TCS, Infosys were the pioneers in the body shopping, who send IT professionals to work for various clients in the U.S. Due to the large presence of Indian population in the U.S, it was easy for the IT professional in India to establish a link between the US and India.

Prior to the LPG, industry had set up National Association of Software and Service Companies (NASSCOM) in 1988, an organization that represents and sets the tone for public policy for the

software industry. *The vision of NASSCOM is to help the IT and IT enabled products and services industries in India to be trustworthy, respected, innovative and society-friendly (NASSCOM, 2015).* With the establishment of Software Technology Parks of India (STPI), a society set up by the Ministry of Communications and Information Technology in the year 1991, the exports and the outsourcing has become more promiscuous. STPI provides consulting, mentoring and training services to the registered companies under STPI. The companies thus registered are also entitled to the benefits like tax incentives, duty-free import, 100% foreign equity etc. (STPI, website accessed on 20/01/16).

As the industry grew, more focus was laid on the quality as by then India had built a reputation as a leading destination for IT and ITeS services. Several of the companies are certified by the International Standard organizations – ISO 9000, 9001, 9002, 9003. Furthermore, these organizations are being reassessed and are CMMI certified. The Capability Maturity Model (CMMI) is a methodology to develop and refine the process, which consists of 5 Levels. CMMI Level 5 is considered to be the benchmark and majority of the larger organizations in India are CMMI level 5 certified.

Use of IT and its services has grown significantly and has become pervasive in every sector. Each year, the industry raises its benchmark by providing innovative solutions and adding a new gamut of services. What has initially started off as body shopping is now seen as *Knowledge Centre* for all IT services like enterprise applications, testing, system integration, mobile applications, remote infrastructure management, Business Intelligence, Analytics and cloud computing etc. The industry caters to the needs of all the verticals – Retail, Manufacturing, Healthcare and Life Sciences, Energy, BFSI, Media, Telecom, Education, Publishing etc. thus, helping them achieve their organizational goals. Similarly, the various departments in the organizations – finance, Human Resource Department, Marketing, Production, and Operations are integrated with the help of systems thus helping the departments function in an effective and efficient way.

### **2.1.2. Shift from Body Shopping to Outsourcing**

Shortage of technical skills in the U.S and the Europe fueled body shopping, that involved coding, debugging, data conversion, migration and other legacy systems. However, with the increased IT professionals going to client locations for shorter duration and the maturity of the IT industry association, there was a paradigm shift from Body Shopping to *Outsourcing*. Chartered Institute

of Procurement & Supply (CIPS) defines Outsourcing as *the process of identifying the most suitable expert third party service provider to undertake the management, administration and provision of the service in question.*

In other words, Outsourcing refers to subcontracting some of the tasks to another organization or third party for a certain period of time, which was otherwise performed in-house. Outsourcing in India is relatively popular not only in IT industry but also in other industries like Pharmaceuticals, Research and Development, Manufacturing etc. The year 1986 witnessed a new development in the Indian IT industry as the industry started supporting the larger clients in the US and other regions from the offices in India. However, the breakthrough is impounded to LPG policy (1991) that paved way for the software exports (Richard, 1996).

### **2.1.3. Offshoring**

India is not only a leading destination for outsourcing but also for offshoring. Cambridge dictionary defines offshoring as *the act of paying someone in another country to do part of a company's work.* It is undeniable fact that it is the cost that supports the organization decision in establishing their own offshore development centers in India. However, cost is not the only factor, but the availability of the skilled labor, productivity, quality, turnaround time, the time zone difference, infrastructure and government support are some of the value propositions that drives the organizations in offshoring decisions (NASSCOM, 2008). Unlike Outsourcing, organizations do not give their works to third parties but rather get it done by their own employees working in a different geography. The accountability and the sense of ownership in having their own subsidiaries is more and the time zone difference helps in the development life cycle, thus providing 24/7 support.

Texas Instruments was the first organization to set up its own offshore development center in Bangalore in the year 1985. Since, then there were many companies that have set up their development centers in India. Hackett Group predicts that the U.S and Europe will move 750,000 jobs to India and other nations by 2016 (Business Standard, 2013 website accessed on 18/01/2016). The very fact that there are 600 multinational companies having their offices in India demonstrates that India is not only a destination for outsourcing but also for offshoring (NASSCOM, 2012). Microsoft, Computer Science Corporation, HP, Accenture, Capgemini, IBM, Deloitte, Dell, Syntel

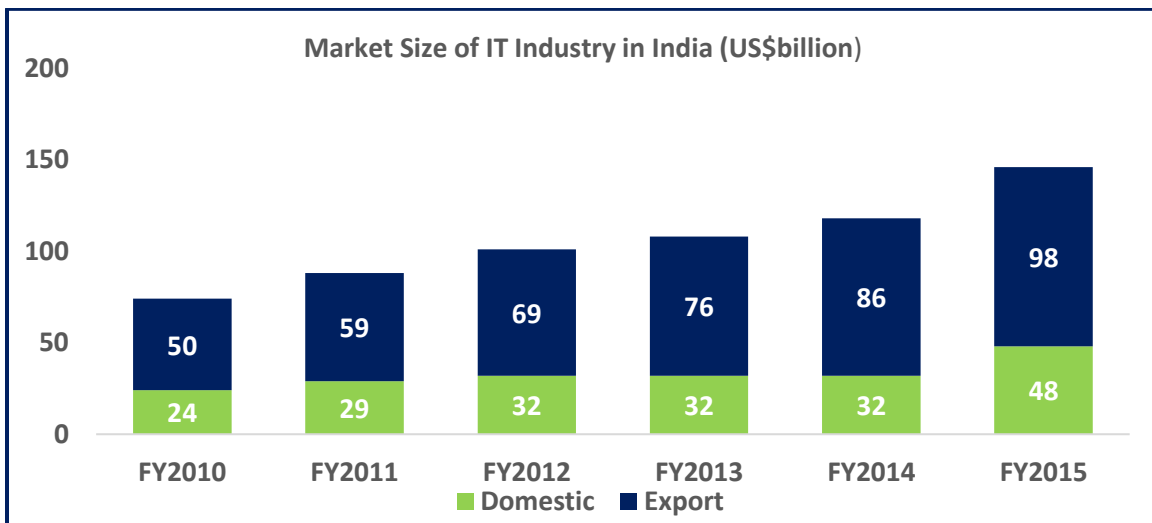
etc. are some of the large multinational companies, which have built their own offshore development centers over the years

## 2.2. Growth of IT industry in India

The IT industry is considered to be one of the fastest and dynamic industry contributing the India's economy (Taylor, 1996). Industry was initially started in Mumbai and slowly expanded to other major cities in India. As the business in India grew, organizations have focused in establishing offices at Bangalore, Chennai, Delhi, Gurgaon, Hyderabad and Kolkata (Heeks, 1996), which are known as Tier I cities. These locations have witnessed growth in terms of economic growth and infrastructure development. There were at least 700 organizations employing 50,000 people with revenues of 747 million by the end of 1995 (Dataquest, 1995).

The industry has grown multifold since 1980's. In the late 1980's the industry exports were about USD 50 million. By the end of 1993, revenues grew up to USD 200 million. Industry grew about 50-60% during the late 1990's and by the end of 2003, the industry achieved staggering double digits of USD 10 billion revenues in the form of exports and domestic, thus indicating a steady growth (Bhatnagar, 2006). IT industry has gone through serious of challenges in the form of Y2K, the dotcom bubble, twin tower attack in the U.S and the global recession in 2007-2008. Notwithstanding these, the industry continues to grow at a steady pace.

*Figure 2.2 Market Size of IT industry in India (USD in Billions)*

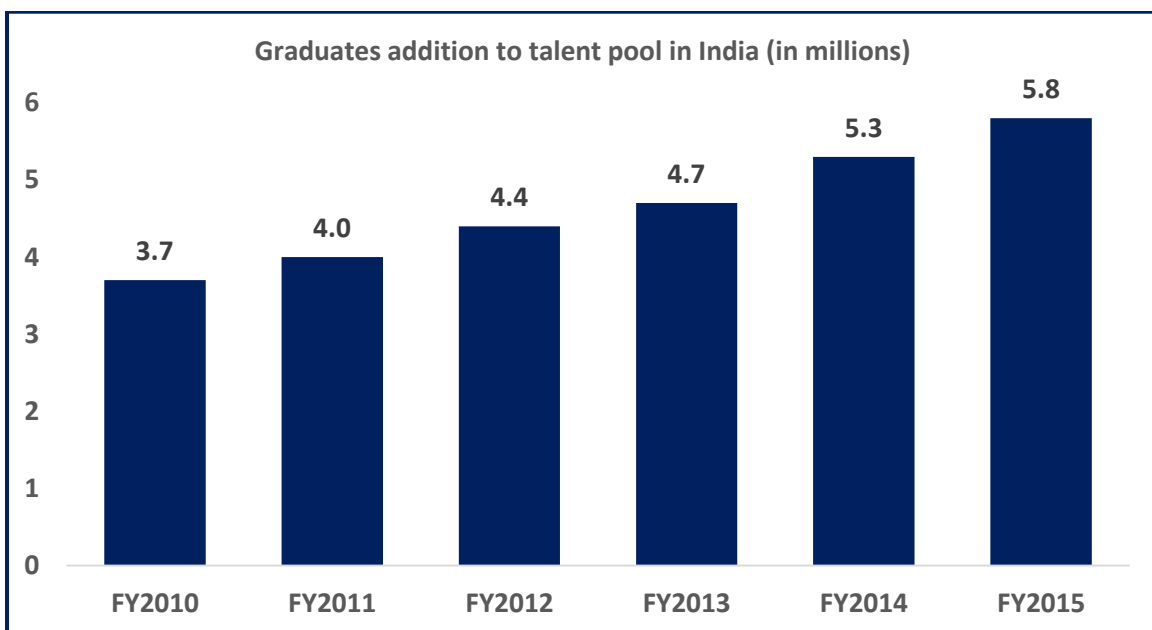


Source: NAASCOM, TechSci Research

IT industry in India contributed 9.5 percent to the national GDP in FY2015. Figure 2.2 shows the steady increase in the revenues both in the domestic and exports since FY2010. The Export revenues, which were USD 50 billion in the FY2010 have almost doubled by FY2015. Industry expected to achieve USD 146 million by the end of the year – a growth by 13 % over the last year. Majority of the revenues come from the largest software firms – Tata Consultancy Services, Infosys, Wipro, HCL Technologies and Tech Mahindra, accounting for 36 percent of the industry revenues (NASSCOM, 2015).

Indian is second largest populated country next only to China. As of January 01, 2016, Indian population was estimated to be 1.30 billion, thus showing an increase of 1.34% over the last year. However, in terms of youth population, India has taken over China with 356 million, who are in the age group of 10-24 years (United Nations, 2015). With the increase in the young population, the availability of these younger people for employment is also on rise. Figure 2.3 indicates the growing number of graduates every year. It is estimated that as of FY2015, there are 5.8 million youth, who are graduating from the colleges/universities and these youth are available to be deployed in various sectors. The availability of the younger generation is one of the greatest advantages that India has for the growth of the economy and the business. The IT industry plays a seminal role by providing a direct employment to 3.5 million. In fact, the IT industry is the largest private employer in India. (NASSCOM, 2015).

**Figure 2.3 Graduates Addition to Talent Pool in India**



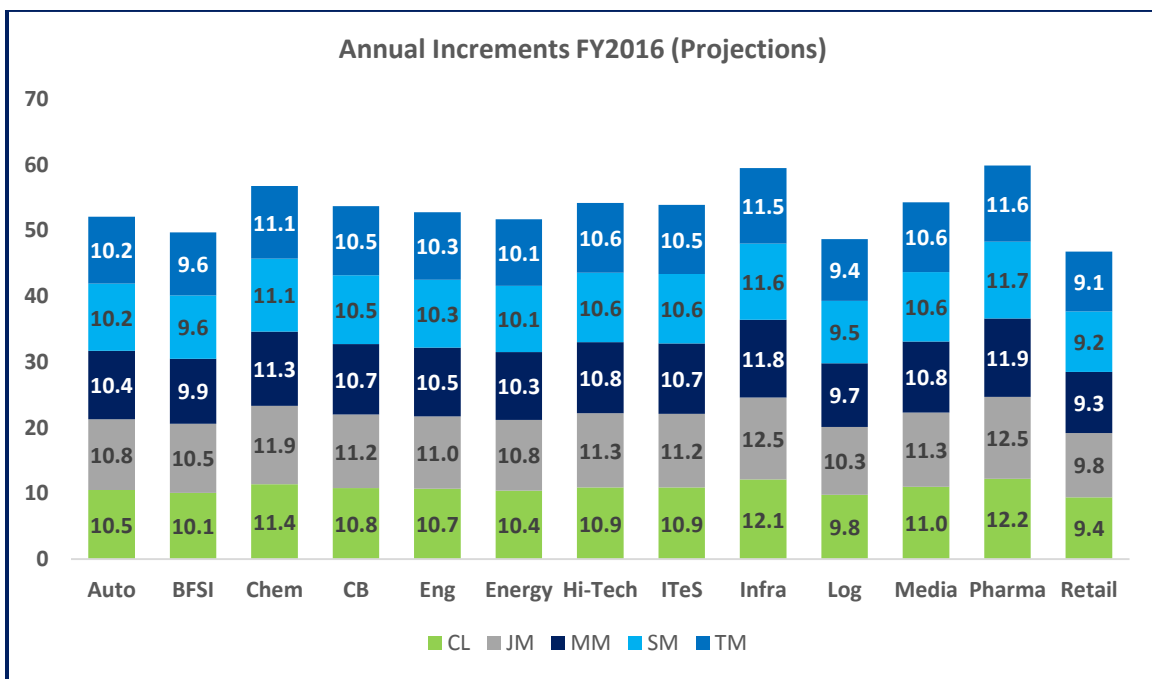
Not only the graduates are on rise, but the industry also has grown geographically by expanding its footprints to tier II and III cities. Initially, the software industry was dominant in Maharashtra (Mumbai, Pune) and slowly moved to Delhi (NCR region), Bangalore, Hyderabad and Chennai. Today, Bangalore contributes to 38% of the exports and is considered to be the *Silicon Valley of India*. Growing costs and the increase in the real estate also play a dominant role and thus, industry is on look for cost reduction measures, which made them to invest in tier II cities. Figure 2.4 provides information on the tier II and tier III cities. Cities like Kochi, Trivandrum, Vishakhapatnam and Coimbatore are picking up the pace. The move has not only helped the companies reduce the cost, but also provided employment to the local people. Organizations need to diversify to provide business continuity. In the event of natural calamities or any other unforeseen circumstances, the risk can be minimized as certain application data resides in the servers and thus, these servers locating in different locations provides business continuity to the organizations round the clock.

**Figure 2.4 Competitive Landscape**



IT industry is also known for higher salaries and benefits it provides to the employees. The package for an employee depends on the experience and the demand for technology in the marketplace. Larger IT organizations maintains a well balance between the new hires and the experienced. These organization recruits the new hires in bulk and thus often prefer campus placements through tier I and tier II Universities and Colleges. Package for the new hires also vary depending on their affiliated institution. Figure 2.5 projects the annual increments in FY2016 across the sectors. Pharmaceuticals, Infrastructure and the Chemical sectors are projected to have huge increments in FY2016 owing to the demand and the nature of the business while the logistics industry is projected to have less increments. The IT industry stands fifth but attracts large pool of talent.

**Figure 2.5 Annual Increments FY2016 (Projections)**



Source: Annual Compensation & Benefits Trends Survey India FY2015-2016 by Deloitte

The Industry continues to grow larger in its length and breadth of the services and thus, contributing to India's economy. It has withstood against the recession in 2007 - 2008 and the global economic slowdown. With the stable government at the center and Prime Minister's *Digital India*, increased number of startups, the industry is bound to grow bigger. In the year 2015, NAASCOM has mentored 500 IT starts ups thus underscoring the growing numbers. The goal of NAASCOM is to encourage and mentor 10,000 startups by 2020 (NAASCOM, 2015).

### **2.3. IT Industry Outlook**

Technology is ever growing and has become a backbone for the world economy. The emergence of new technologies like big data analytics, Internet of Things (IoT), cloud computing, additive manufacturing, cognitive computing and open platforms will not only create opportunities but also challenge the businesses to be competitive in the markets. Innovation, Privacy and Security solutions remain to be the important components to be considered in adopting the newer technologies. The new technologies are expected to help businesses understand the customer needs and anticipate the customer needs, thus focusing on what is required and needed by the markets. (2016 Technology Industry Outlook by Deloitte).

Indian IT industry is poised to achieve USD 225 billion by 2020. Figure 2.2 indicates that export revenues contribution is double than that of the domestic revenues. However, much of these revenues depend on the IT spend by the multinational companies across the globe. Forrester research, an independent technology and market research company reports that the Chief Information Officer (CIO) and the technology heads main focus would be on winning, serve and retaining the customer (Forrester, 2015 website accessed on 25/01/2016). Similarly, spending on software, tech consulting, and systems integration will be on rise. They anticipate the industry to grow about 5-6% in 2016. CIO's will need to play a great role in integrating various departments of the organization, providing optimal solutions that helps the organization mature, compete and grow in the marketplace (Forrester, 2015).

Although, Forrester expects a moderate growth this year, the Indian IT industry is poised for solid revenues with the emergence of the new technologies like analytics, social media, big data analytics etc. These technologies help the clients analyze, forecast and plan the day to day business activities and hence the need for these technology continues to be on rise. Indian IT industry should focus on moving to untapped markets and focus more on other regions like EMEA, APAC, Australia apart from the Americas and Europe thereby marching towards the target of USD 225 billion by FY2020.

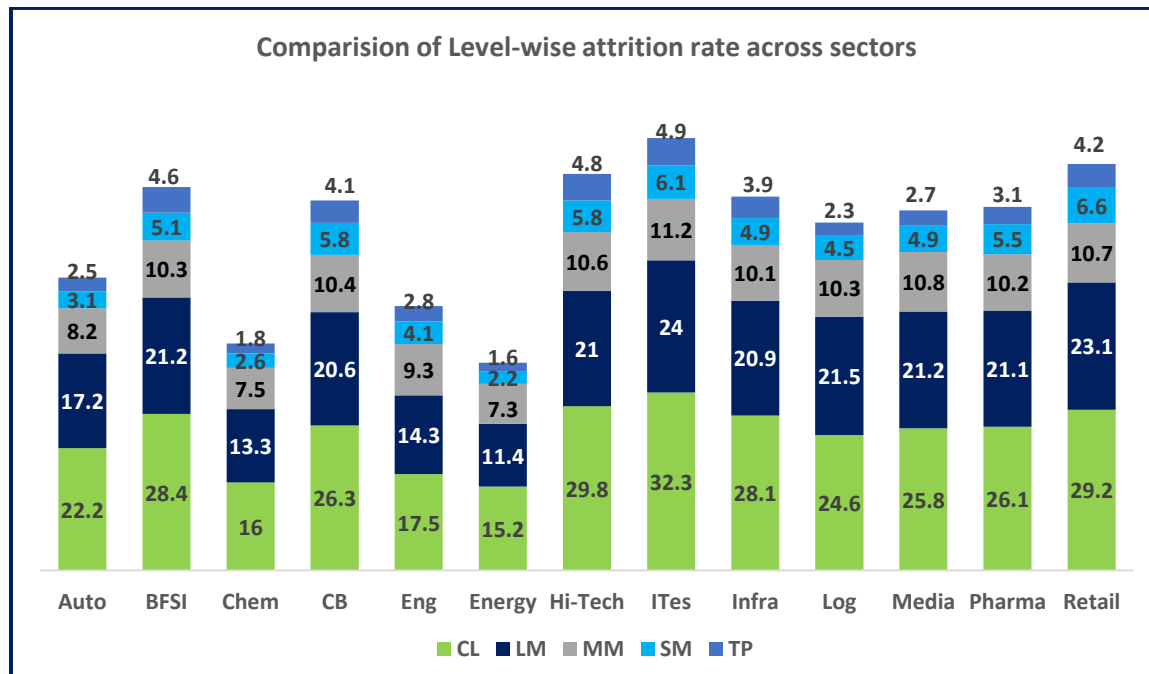
### **2.4. Challenges faced by Indian IT Industry**

Economic slowdown in the Americas and the Europe continues to impact the growth of the Indian IT Industry. The industry depends on U.S. so much so that it accounts for about 62% of the work.

The political, legal changes in the U.S. may reduce the volume of outsourcing in the future (NAASCOM Strategic Review, 2014). China, Russia, Philippines, Israel, Canada are emerging as the new destinations of IT and ITeS services thus causing a concern for the Industry. China provides high end IT analytic solutions to European market and stands second to India and thus, India needs to be cautious although India has an edge over China in terms of the lower labor wage. Non enforcement of cybersecurity laws also poses a threat as India is bureaucratic and takes longer time to enforce strict laws.

Some of the multinational organizations are revisiting their strategies with the changes in the leadership. Growing unemployment in the U.S creates unrest in the Indian Companies as this would have a huge impact on the revenues and the industry as a whole. On the other hand, increasing attrition rates also poses a serious threat. The attrition rate for all the sectors in FY2016 is estimated to range between 15-20% of which IT and ITeS attrition is estimated to be to 25% While IT and ITeS has high attrition, Pharma, Manufacturing, FMCG, aviation might face less attrition ((PeopleStrong HR Services, 2015).

**Figure 2.6 Comparison of Level-wise Attrition Rate across Sectors**



Source: Annual Compensation & Benefits Trends Survey India FY2015-2016 by Deloitte

The above figure gives an estimate of the attrition in various levels across the sectors. The percentage of attrition is seen more in the clerical cadre and ITeS is projected at 32.3%. Similarly the highest attrition in the top management is also seen in the IT industry only. The largest IT service providers had seen greater attrition rates in the last quarter of the FY2015 - TCS (14.9%), Wipro (15%), and Infosys (18.9%).

Although, Organizations and the industry come up with different policies, remedial measures and attractive retention programme, attrition rate continues to be a cause of worry for majority of the organizations. Growing number of startups, market stability, lower pay, poaching of employees by the rival companies are some of the reasons that are considered to be the key reasons for the high attrition rates in India. Thus, the onus is on each of the companies to help facilitate sustainable business practices that helps to strike a balance between the individual objectives and the organizational objectives for the betterment of the society thus, focusing on the sustainable performance.

## **2.5. Sustainability in the IT Organizations**

There has been a growing awareness among all the industries in achieving sustainable performance. Majority of the organizations in varied sectors depend on the IT capabilities to reduce the economic costs. *Smart 2020: Enabling the Low Carbon Economy in the Information Age IT*, a report by The Climate Group on behalf of the Global eSustainability Initiative (GeSI) states that smarter use of technology by organizations can reduce carbon emissions by 15% thereby saving USD 720 billion by 2020. Smart 2020 also states that IT industry contributes to 2% of the global carbon emissions, which is way below the industry averages. The industry not only produces less but helps other industries reduce the carbon footage through innovative enterprise solutions.

Sustainability awareness is much more in the IT organizations as employees wanted to know about the measures that the organizations takes for the sustainable growth. These initiatives can be seen in energy conservation, elimination of paper, having lights or computers shut off at a set time, maintaining room temperature at an automated schedule, use of energy-efficient hardware, consolidation of data centers etc. (Jones & D'Agostino, 2009). The industry is also a pioneer in the use of solar energy and focusses on greener building, green IT etc. Infosys, one of the largest IT service provider received Gold Award for sustainable buildings at the 2014 International Ashden Awards thus, underscoring the importance of energy conservation and green buildings

(Infosys, 2015 website accessed on 25/01/2016). One of the finest example for sustainable IT is the Dell Servers, which uses less power and provides 400% more performance. Dell has been considered as greenest IT firm on the planet.

Sustainability is often used synonymously with Corporate Social Responsibility. IT organizations in India have committed themselves to the Corporate Social Responsibility. Few of the large organizations have adopted villages, schools and contributing for the betterment of the society. The IT organizations are not as big as manufacturing firms in the CSR space, but they have been contributing to education, health and other philanthropic activities through their affiliates and foundations.

Infosys setup Infosys foundation, whose mission is to support the less privileged sections of society, create opportunities and strive towards a more equitable society (<https://www.infosys.com/infosys-foundation>), Wipro's Azim Premji Foundation works to improve quality and equity of education in India (<http://www.azimpremjifoundation.org>), TCS drives CSR activities through TCS foundation, whose core principles lies in empowerment. Similarly Tech Mahindra Foundation, the CSR arm of Tech Mahindra focuses on education, vocational training and disability with a keen focus on corporate volunteering (<http://www.techmahindrafoundation.org>). HCL Technologies Foundation by HCL aims at providing dignified life to 100,000+ less privileged individuals through coaching and counseling (<http://www.hclfoundation.org>). The erstwhile Satyam Computers carried out their CSR activities through Byrraju foundation dedicated to promote healthcare, education, and improve livelihood in remote villages (<http://www.byrrajufoundation.org>).

Mid-tier IT companies like iGate through their Akshara foundation focuses on quality education (<http://www.akshara.org.in>). Hyderabad based mid-tier IT company ValueLabs is also actively involved in CSR activities through ValueLabs Foundation (VLF) that focuses on health care, education, environmental awareness, child welfare and traffic awareness (<http://www.valuelabs.com/about-us/social-responsibility>).

Each of these foundations are started with a mission as mentioned. They are also involved in other CSR activities like Adult Literacy Program, University Alliance Programme, TCS IT Wiz, InsignT, The TCS Employability Programme, Advanced Computer Training Centre (TCS), Campus Connect, Project Genesis, Spark Rural Reach Program, Catch them Young, Spark Guru

(Infosys), Microsoft Student Partner Program, Project Jyoti (Microsoft), School Program – Applying thought in School (Wipro), K-12 Education, Education beyond classrooms, Science Competitions, Intel Higher Education Program (Intel), Nannagu Shale, Aalamba Program, i-Lead, Nurture Merit (Mphasis), Don Bosco Tech, QUEST Alliance, Business School for illiterate Women (Accenture), Be a Teacher, Educate a Village, Street Children Empowerment Program, Talhunt, Notebook Drives (Cognizant), Shikshak Samman Awards (Tech Mahindra), Library Drives, Teach at Office (HCL Technologies), reinventing Education Program, Smart Rural Aggregation Platform (IBM), India i-community, Education Innovation Fund (HP), Technology Education Programs, ThinkQuest international competition (Oracle), Project Samudaya (Cisco Systems), Social Sabbatical: Leveraging Talent, Internet Access in India (SAP Labs) underscoring their commitment towards social and outreach activities.

IT companies are not only way forward in the execution and implementation of CSR activities but have also embraced the Sustainability reporting with the help of the Global Reporting Initiative (GRI) framework. These reports provide the sustainable practices that each of the organizations followed accommodating the three dimensions – Economic, Social and Environmental. Infosys reports sustainable business practices using the GRI's G4 framework and is the first IT services company in the world to report sustainability based on G4. Each year, they publish sustainability reports demonstrating their commitment to society and various projects undertaken through Infosys foundation (<https://www.infosys.com/sustainability>).

TCS, the largest IT services provider in India also publishes sustainable reports annually. TCS have been publishing since 2006, however they are adopting G3.1 reporting guidelines TCS was recognized among Global Leaders in 2013 Dow Jones Sustainability World Index for its corporate sustainable practices and ranks 90<sup>th</sup> percentile in 2013 Dow Jones Sustainability World Index (DJSI World) ([http://www.tcs.com/about/corp\\_responsibility/Pages/default.aspx](http://www.tcs.com/about/corp_responsibility/Pages/default.aspx)). Wipro's sustainability reporting is much exhaustive and provides a sustainability presentation to its stakeholder's before it is being published. The presentation includes the ecological, education & community, supplier sustainability, workplace sustainability, customer stewardship, Green IT, public regulation & policies dimensions. Wipro is a member of Dow Jones Sustainability Indices for the fifth time in a row and adheres to GRI-G4 comprehensive framework (<http://www.wipro.com/about-Wipro/sustainability>).

Tech Mahindra along with TCS and Wipro is a member of the DJSI world index. Tech Mahindra recognizes the impact of its business on People, Profit and Planet and thus publishes their sustainability reports annually (<http://www.techmahindra.com/company/Sustainability.aspx>). HCL Technologies, another leading IT services provider published their first sustainability report – *Rebalance* in the year 2011 (<http://www.hcltech.com/sustainability-desk>). Adoption of the GRI's framework demonstrates the maturity of these IT organizations in understanding the importance of the sustainability reporting practices thereby addressing the interests of the stakeholders. Each of these organizations have a sustainability management department headed by a Chief Sustainability Officer, who monitors the sustainable business practices of the organization.

## **2.6. Nature of IT Job**

Besides these organizations, several other leading organizations do publish sustainability reports citing the sustainable business practices they adopt in the organizations. IT industry is the leading industry, where majority of the youth in India look up for employment. The reasons could be many – organization's reputation, high salaries, on-site opportunities, work culture, work-life balance, interest towards technology. Just like a coin has two sides, the industry is also not averse to criticism. The industry is severely criticized for employing intelligent people in backend process and treating the employees as *cybercoolies* (De, 2008).

Industry attracts large volume of young people through the campus placements. Organizations prefer campus placements at the entry level. 55-75% of the recruitments have been at the entry level out of which 35-40% are recruited through campus recruitment (Upadhya & Vasavi, 2006). The young engineers are deployed in projects as per the requirement of the organization and rarely do they get a chance to work on the technologies and projects that interests them. Most of these engineers are deployed in the backend / support projects which requires to work in different shifts. IT has become a career option for most of the graduates due to high salaries at the entry level.

Manufacturing Industry that is engaged in production is the only industry that works in different shifts other than the Indian regular shift (9AM IST – 6 PM IST). All other industries including the public sector works in the day time. Indian IT Industry in a constant endeavor to provide 24/7 support started to work in different shifts. This was considered to be a revolutionary as far as India is concerned keeping in view the infrastructure and the logistics support that India had in the early 2000's. Due to high salaries and the other allowances associated with the shifts, employees accept

the change in the working hours. As the organizations get matured in terms of functioning, employees had no choice but to accept the shifts.

IT professionals not only work in different shifts but also work longer hours. Time zone differences between the client location and the host country, tight deadlines for the delivery of the services, handling multiple projects at the same time are considered to be the reasons for the long working hours. Some of the professionals work on multiple projects given their domain area as they are billed to multiple clients. It is also noticed that employees take pride in working longer hours and in working for multiple clients. What is noteworthy is these organizations provide flexible working hours, telecommuting, work from home options. Flexible working options helped the organizations in increased productivity and reduced absenteeism (Baltes et al., 1999). However, with the flexible work initiatives, staggered shifts, the volume of the work is not reduced and hence, the employee whether in the office or at home continues to put the extra hours in delivering the services in time (Jhunjhunwala, 2012).

Increased competition, tight deadlines and insecurity of the job enabled the individuals to work for longer hours (Tam, 1999). Research shows that long working hours have negative effects on health leading to fatigue and stress (Golden et al., 2005), traumatic stress disorders (Brenner et al., 2004) resulting in low productivity the next day (Dong, 2005). Work under pressure, work intensity are likely to increase the work-family conflict (Jacobs & Gerson, 2004). Work-family conflict had always been a topical relevance for the past two decades particularly with the rise of the multinational organizations and continues to be a topic of discussion even today (Wharton, 2006).

Until the recession that shook the IT industry in 2007, organizations used to assure on-site trips to the professionals they hire (De, 2008). Their dream of going abroad also lead them to work longer hours in the organizations to be in the good books of their immediate supervisors. Working long hours and meeting tight deadlines may give personal gratification but these are likely to increase negative spillover from work (Moen, 2000). The advantages of onsite travel cannot be ruled out, as it provides an opportunity to the employees to observe, learn and understand from the client point of view. Experience of onsite also helps the individuals in their career path. However, onsite travel also poses severe challenges like culture acclimatization, staying away for the relations and loved ones thus, sacrificing their personal life for the sake of professional life. Longer stints at the

client locations keeps them away from their family and thus employees are unable to strike a balance between the professional and personal life.

Besides, the IT industry is a volatile industry, where new technologies emerge every day and hence employees need to deliver and learn newer skills and tools to sustain in the industry. These organizations also conduct trainings/workshops to learn new tools and technologies. There is growing stress and imbalance noticed in the employees as the need to learn continues to grow with each new project. In such a work setting, where job security is uncertain, it is difficult to give the best and thus leading to burnout (De, 2008).

IT industry is characterized by high performance, innovation, mobility and high attrition. Organizations encourage high performance and are rewarded accordingly as per the performance. Organizations implement high performance work practices (HPWP) to obtain maximum performance. Voorde et al. (2012) in a study on HPWP observed that there is a correlation between the HPWP and the organizational performance but also noticed the negative effect of HPWP. HPWP are characterized by work intensification, work overload and competing task demands (Mariappanadar, 2012). It is also observed that employees when they do not figure in the high performance list either experience burnout or look for other options like role change or moving out to different organizations.

The industry, which has grown rapidly in the last three decades is trying to establish as a matured industry with policies and regulations in place. The leading IT organizations project as employee organizations and formulates policies for the welfare of the individual. However, the client commitment, tight deadlines takes precedence over the various benefits organizations consider.

Sustainable Reporting by these organizations evidences the amount of time and the money each organization invests. It is evident from the sustainable reports that organizations focusses not only on profit, but also consider Planet and People dimension equally. However, the people dimension is more dominated by Corporate Social Responsibility – doing good to the society (Zaugg, 2004). People dimension can be seen in two forms – External and Internal. External refers to the society, whereas internal refers to the employees of the organizations. In an endeavor to balance the three pillars of the sustainability – Profit, Planet and People, lot of importance is given to the society and organizations tend to forget the very aspect of the human resources within the organization (Paauwe, 2004).

People are considered to be the most valued asset of the organization and in a services organization like IT and ITeS, the demand for skilled employees is increasing every day (Backes-Gellner, 2004). Although, the organizations realize the importance of the human resources, competition and global demands make the organizations exploit the human resources to the maximum. This exploitation of human resources by the organization formed the basis for *Sustainable Human Resource Management*. The premise that Human Resources are being consumed and are not reproduced (Kira, 2002; 2003, Zaugg, 2004, Ehnert, 2006 & 2009, Mariappan) forms the basis for sustainable human resource management. As the IT engineers frequently face work related stress, work-family conflicts, stress and burnout, the study of sustainable human resource management practices in the IT industry assumes much more significance.

## **2.7. Justification for choosing IT Industry for the Study**

IT Industry is very volatile in nature as technology is ever changing. Technology is developed keeping in view the current and the future needs, however it is known that the human wants are unlimited and the thirst for knowledge enables human to try new. As a result, industries always looks for innovative, skilled and talented people, who can understand the technology and keep moving with it. However, resources, who are innovative, skilled and talented are scarce in the present scenario. Thus, the need to develop and generate such resources is binding on the industry. Besides the IT professionals are engaged in long hours providing round the clock support to clientele resulting in negative outcomes that have an adverse impact on the IT professionals. The negative effects could be seen in terms of imbalance between personal and professional life, health problems, stress, burnout, work-family conflicts etc. Since, the industry faces similar problems that formed the basis for the concept of Sustainability linked to HRM, it is apt to choose and study IT industry to empirically test the Sustainable HRM model.

### **Summary**

This chapter established that IT industry is one of the fastest growing industries in India. An overview of the IT industry and its evolution is presented in the chapter. The industry which was started to support backend operations, hardware support has grown gradually and moved from body shopping to developing solutions in India. Growth of the IT industry and market size of the industry both domestic and exports is also presented in the study. IT industry is one of the highest

paid industry and hence a comparison is provided along with the other sectors at various levels of the employees. Besides the compensation trends and the graduate additions every year, the industry outlook is also provided in the chapter. Although, the industry grows at a good rate and provides direct employment to 3.5 million, it faces several challenges like attrition, recession, scarcity of highly skilled people etc. The chapter also discussed few of the largest IT service providers sustainable reporting and their CSR activities. Finally, the chapter studied the nature of the IT job and provided a justification for studying Sustainable HRM practices in IT industry. The literature on sustainable HRM is presented in chapter three.

## Chapter - 3

### Literature Review

The success of an organization depends upon the utilization of the available resources in an efficient and effective manner. These resources can be classified into four categories - Financial, Physical, Human and Organizational Capital (Barney, 2002). Of the four, three of the resources can be owned by the organizations, where as human resources that are intangible in nature cannot be treated as products or goods and thus, cannot be owned by the organization. Organizations leverage these resources to be successful, however those organizations that leverages human resources are considered to be better off than the other organizations as human resources are rational, mobile, difficult to comprehend and unique in nature and hence, needs to be treated differently from other resources (Helfat et. al. 2007, Paauwe, 2004). Moreover, it is the human resources that manages the other factors of production. In the words of Peter F. Drucker, the proper use or improper use of these resources depends on the human resources. Literature denotes Human Resources under various names – People, Labor, Intellectual Capital, Human Capital, Talent and Human Resources. The study uses the term Human Resources sparingly to indicate employees or people in the organization and does not refer to Human Resource Management function.

The word Human is derived from a Latin word *humus*, meaning earthly and the word Resource is derived from *resurgere*, which mean rise again. Combining these two words, human resource is a substance, which is earthly and that can be risen. Human Resources is defined as *all of the people who currently contribute to doing the work of the organization, as well as those people who potentially could contribute in the future, and those who have contributed in the recent past* (Schuler & Jackson, 2006). This being the importance of human resources, a lot of attention has been devoted to the study of the same by the scholars and exciting interventions and experiments by the practitioners in the organizational context.

Against this background, Chapter three reviews the literature on Sustainable Human Resource management, definitions, and attempts to link Sustainability to Human Resource management. The chapter presents the literature highlighting the available and relevant literature on the subject and the interrelationships among the concepts as well. Sustainable HRM is often misunderstood as a concept of Corporate Social Responsibility and hence, the chapter attempts to establish

Sustainability as a concept of HRM and identifies the gaps in the literature, which were not focused by the early researchers.

### **3.1. The Beginning**

The early 18<sup>th</sup> century was characterized by capitalist economy, which marked the growth of industrialization. It was purely a transactional relationship that existed between the employee and the employer. Employees often termed as labor were engaged in long working hours, severe working conditions and were exploited by the employers in their pursuit towards profit maximization (Wallerstein, 1980). Adam Smith (1776), the father of capitalism in his book *An Inquiry into the Nature and Causes of the Wealth of Nations* highlights the self-interest of the individuals that drives to meet the needs of the society. This self-interest of the individuals help the business grow and provides employment to the people thus contributing to the society. The capitalist economy is guided by *laissez-faire* (Gournay, 1750) - a natural law, that is free of regulations, policies and tariffs and hence doesn't require the intervention of the government. Capitalist economy has resulted in greater disparities between the people as the owners became richer and richer, whereas the labor remained poor due to the low wages offered to them.

Capitalist economy was contradicted by the socialist economic system. The advocates of socialist economy - Karl Marx and David Ricardo holds that labor are the ultimate owners of the production as they are the people, who are engaged in the actual production and thus, the produce belongs to them. Labor theory of Value (Ricardo, 1817) and Class Struggle (Marx, 1884) opined that wealth has to be distributed among the workers as per their contribution to the production. The basic assumption of this theory is that since, the ownership lies on everyone, there would be a sense of belonging, which results in enhanced productivity. They also contend that workers are exploited in the capitalist economy and are not paid as per their contribution and thus, wanted to establish a *classless society* (Marx, 1884) unlike capitalism where property is held in common and not individually. Karl Marx's works *The Communist Manifesto* (1848) and *Das Kapital* (1867–1894) have brought a revolutionary change as far as the dignity of the labor is concerned. It has marked a new beginning, where researchers and scholars have looked labor/people/human resource as value generation that helps organization become sustainable.

### **3.2. The Concept of Human Resources**

Human Resources are critical to every organization as the business environment is dynamic, competitive and ever changing (Ulrich & Lake, 1991). It is only human resources that are adaptable to the situations, sense the environment and provide creative, innovative solutions that make organizations sustain over a period of time and provides competitive advantage to the firms (Barney, 1995; Boudreau & Ramstad, 2007). These human resources play a significant role in the day to day operations of the organization and play a strategic role in times of decision making. Organizations have also realized the importance of human resources and noticed a positive relationship between Human capital and the organizational performance (Delaney & Huselid, 1996). Human Capital is referred as “the knowledge, skills, competencies, and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being” (Organization for Economic Co-Operation and Development, 2001).

The way human resources were treated in the organization has seen a new trend with the emergence of socialist economy as the understanding of human resources has gone a significant change and thus, were treated as assets of the organizations. Industrialization led to a class struggle between the workers and the owners that lead to labor unions, where each skill set had a separate union. The role of these labor unions is to ensure that the workers are treated fairly by the management, provide job security, fair wages and good working conditions (Byars & Rue, 2006). During the course of time, labor unions have become more powerful and strongly advocated the cause of workers. However, with the rise of the service sector, the labor unions have started to decline, which marked the beginning of the Human Resource Department as a function that acted as a liaison between the workers and the management.

#### **3.2.1. Personnel Management**

B.F. Goodrich (1900) and National Cash Register (1902) were considered to be the pioneers, who have first started human resource department in their respective organizations (History of Human Resource Management, 2016 website accessed on 04/02/2016). The department was originally called as Personnel Management that took care of employee wages, record maintenance, welfare, grievances and other administrative tasks (Flippo, 1984). According to Flippo, Personnel management is concerned with “procurement, development, compensation, integration and maintenance of personnel of organization for the purpose of contributing towards the

accomplishment of organizational objectives”. *Scientific Management principles* (Taylor, 1911) and *Hawthorne Studies* (Mayo, 1920) were considered to be revolutionary thoughts and gave the much needed recognition for HR practices. Taylor’s scientific management is characterized by principles that divided the work into components/tasks, where each of the worker is given clear instructions pertaining to task as to what and how to accomplish the given task. The tasks that are allotted to the workers had a stipulated time frame and those workers who completed before time are rewarded more and thus, a differential wage system is followed for the high performers and the others. Similarly, the tasks were allotted as per the skills after which the workers completed them with ease and perfection. Management were involved in training and providing instructions underscoring the collective effort of the workers and the management that would help the managers to deploy their resources effectively as per their skills. Taylor’s Scientific Management principles were implemented in many of the organizations and was considered revolutionary (Clark, 1918). However, the critics of Scientific Management contends that the workers were considered as mere cogs in the wheel and doing the same task over a period of time would lead to monotony and boredom. On the other hand, workers are under stress to deliver the tasks as each of the tasks have a time frame thus resulting in the exploitation of labor (Marshall, 1919 & Caldari, 2007). Further, it does not provide workers any freedom to express their creativity and innovation.

Unlike Taylor, the advocates of human relations school (Mayo, 1920) states that the individual workers should not be treated in isolation rather should be seen as members of a group. Mayo through the Hawthorne studies identified that the periodic rest breaks, working conditions, and noticed that temperature has an effect on the productivity and reduces the fatigue and monotony of the employees. The research concluded that output was increased due to the rest breaks, less working hours, free meals etc. He had also highlighted that the workers have to be treated fairly and be provided with good working conditions and flexibility that allows the workers to enhance the productivity (Kinicki & Williams, 2008). The contribution of Mayo through his experiments were commendable as his studies focused on the need for motivation and group dynamics that revolutionized the theory and practices of management.

Personnel department was seen as an important department in the organization with the implementation of several acts such as Workmen’s Compensation Act (1923), Payment of Wages Act (1936), Minimum Wages Act (1948), Equal Pay Act (1963), Civil rights Act (1964), Occupational Safety and Health Act (1970), Maternity Act (1961) in India. Similarly in the U.S

acts like Equal Pay Act (1963), Civil Right Act (1964), Occupational Safety and Health Act (1970), Disabilities Act (1990) have helped the workers know their rights and liaison with the personnel in the enforcement of these acts. The primary objective of the personnel management was to reduce labor costs and most often faced the dilemma to choose between the management and the labor as management looked at controlling costs, whereas the employee expected competitive wages and welfare measures (Miller, 1989). Lot of resistance was also seen from other departments especially from the finance department, who considered them as unnecessary and the line managers have treated them as interruption to their production, besides the workers also considered them as another form of capitalism (Legge, 1989). Personnel management was more of clerical in nature and lacked the skills required to take both workers and the management alongside and thus could not establish itself as a function (Drucker, 1961).

### **3.2.2. Personnel Management to Human Resource Management**

The term Human Resource Management was first used by Peter F. Drucker to refer to the philosophies, policies, procedures and practices related to management. HRM is concerned with the policies and practices involved in carrying out the “people” or human resource aspects of a management position, including recruiting, screening, training, rewarding, and appraising comprises of HRM (Dessler, 2008). Initially, it is opined that there exist subtle difference between the personnel management and human resource management (Guest, 1987; French, 1986) however as the time passed HRM established itself as a separate function that supported organizational objectives and the core values of the organization through acquisition, motivation and development of the people encompassing a broad vision that contributed to the success of the organization (Armstrong, 1999). Thus, HR can be defined as “The process of analyzing and managing an organization’s human resource needs to ensure satisfaction of its strategic objectives” (Hellriegel et al., 2009).

Line Managers were confronted with Personnel management on their decisions that impacted day to day activities. The devolution brought significant change to the roles of line managers and HR managers (Legge, 1989). Delegation of the power helped the line managers coordinate effectively with the resources that resulted in not only achieving their targets in time but also enabled HR managers reduce the burden of managing day to day activities there by allowing them to concentrate on their core competencies (Storey, 2007). The approach of HRM was more proactive,

looking at the long-run and maximum utilization of human resources unlike personnel management that looked at short term and cost minimization. The scope of HRM was vast in comparison to Personnel Management as HRM focused on the policies practices that benefit the organization like deployment of resources in right place and at right time, human resource planning, organizational development and training.

Global competition also brought a significant change in the HR department. With the rise of technology (Gallie et al., 1998), employees had to adapt to the situations, which required training and development. It was on the part of the HR to assess the training gaps and organize training programs that helped the employees harness their skills. Storey (1992) in his book *Developments in the Management of Human Resources* highlights 27 differences under four dimensions – beliefs and assumptions, strategic aspects, line management and key levers. Management literature evidences several developments in the HRM, the departments has grown rapidly and marked a niche for itself as a professional organization. The department diversified into functions with managers specialized and trained to offer professional experience to the employees. One of the basic aim of HRM is to increase the individual performance through the HR practices without endangering employee satisfaction. Positive attitude and behaviors like commitment, motivation, and satisfaction were also key drivers that helped increase individual performance.

Despite several changes and practices in place, HRM was still seen as an extension of personnel management and thus, continues to be considered as cost center (Lawton & Rose, 1994; Legge, 1995 and Gunnigle & Flood, 1990). Decentralization of authority has also decreased the role of HR managers as the line managers were effective in dealing with their workers and did most of the work which was otherwise managed by the personnel managers. The HR practices implemented in the organizations are not standardized as there was no one best way or practice that can be universal in nature. What is important to note is, not only the individuals are unique in nature, but the organizations were also different from each other in their capacity and growth and hence the need to integrate the HRM practices with the business strategy (Guest, 1987) was significant giving rise to Strategic Human Resource Management (SHRM).

### **3.2.3. Human Resource Management to Strategic Human Resource Management**

The role of HR has undergone a series of changes as strategic partner role, change agent role, employees champion role and administrative role (Ulrich, 1998). The concept of strategic human

resource management was developed alongside HRM and as such difficult to separate HRM and SHRM and thus, the administrative role of HR still continues. Changes in the market conditions, globalization, business environment and international competition brought in demand for new business practices, policies and strategies in achieving competitive advantage highlighting the need for the business partner services that HR could deliver (Lawler et al., 1995).

Growing pressure and competition created a need to look at long term perspective of human resources. Further, the growing need for the HR function to elevate from being employee advocate to a member of the management team is established. Resource based theory (Barney, 1991), Core Competencies (Prahalad and Hamel, 1990), sustained competitive advantage (Storey, 2001) evidenced that the internal resources are rare and unique that helps organization build competitive advantage, which is difficult for other organization to imitate. Strategic human resource management encompasses those decisions and actions which concern the management of employees at all levels in the business and which are directed towards creating and sustaining competitive advantage (Miller, 1989).

The need to align HR practices to the strategic objectives of the firm has become paramount importance. Strategic objectives of the organization are classified in to three levels – Corporate, Business and Functional level. Corporate Strategy is the overall strategy of the firm that provides direction to the various business segments within the organization. Business level strategy deals with the decisions related to each of the business units. The business level strategies are framed in accordance with the corporate strategy thus helping to achieve the mission of the firm. Michael Porter's (1980, 1085) *Cost Leadership, Differentiation and Focus* provided a framework that helped the organization plan their business level strategy. Functional level strategy is designed at major functions within the organization like Finance, Operations, Marketing, Production, Human Resources, which aimed at effective utilization of the resources thus maximizing the productivity.

SHRM literature laid importance on three models – control based, resource based and the integrated model. Control based model (Friedman, 1977; Edwards, 1979; Thompson & McHugh, 2002) focused on monitoring and controlling employee behavior in monitoring employee performance. The advocates of this model believed that the controlled behavior increased the productivity and as such control is not an end in itself but a means that helped effectiveness of the employees in the workplace and thus control was a driving tool for the enhanced production. The

resource based model (Barney, 1991) focused on the rewards and the efforts and considered resources as a key to superior performance. Organization is a collection of resources and capabilities termed as distinctive competence (Penrose, 1959). Organization differ not only in the performance but also on the available resources and capabilities and thus, attention to learning and knowledge is given.

It is argued that the competitive advantage of the firm is not due to the structure or their position in the market rather the skills and competencies that are difficult for the competitors to imitate (Barney, 1991). These organizations focused on recruiting individuals with varied skills and competencies and utilized them to outsmart their competitors, but often resulted in exploitation of the distinctive competencies. The integrated model is a combination of both the control based and resource based models. Bamberger and Meshoulam (2000) proposed two dimensions that involved Acquisition & Development and the Locus of Control, the underlying principle of this model lies in developing the internal human resources as opposed to external recruitment. Organizations invested in human resources to develop the resources internally based on the requirement and the capabilities organization needed, which helped the organizations build competitive advantage against their peers and competitors. The locus of control looked at the compliance and adherence to the process of the organization thus underscoring the quality.

#### **3.2.4. High Performance Work Systems**

The greatest contribution of SHRM to the industry is the High Performance Work Systems (HPWS), which the scholars believed has vast potential to provide competitive advantage of the firm. HPWS is a systematic approach of managing the human resources focused on the alignment of HR functions and achievement of the firm strategy (Becker & Huselid, 2006). Unlike the other models, HPWS doesn't believe in monitoring and controlling employees rather believes in employee involvement, commitment and empowerment. HR practices differ from organization to organization and the HRM literature evidenced that there are no standardized practices as the scholars also differ in the management practices. However, employment security, selective hiring of new personnel, decentralization of authority, compensation based on organizational performance, training, sharing of financial and performance information are prominent (Pfeffer, 1998).

Employees are considered as responsible individuals, knowledgeable, informative and committed who take part actively in the success of the organization (Lawler, 1995). High performance working organizations are very much organized and the process is broken down so that the tasks could be simplified and standardized. Besides, the employees are rewarded with incentives for the extra work thus, incentives acts as an impetus, motivation for the employees. Training, job rotation, teamwork and innovation are few of the practices that helped the employees to perform better. HPWS provides ownership and responsibility to the workers thus reducing the costs in employee disputes and other litigations (Tomer, 2001).

Empirical studies have explored the positive relationship between the HPWS and firm performance (Boudreau, 1991; Schmidt et al., 1979). In fact, HPWS are outcomes of an empirical study conducted by Huselid in 1992. The survey was conducted with the help of 13 HRM practices that were consistent with US department of labor high performance work practices. The survey also evidenced that firm's HRM system had a strategic impact, however the survey conducted again in 1994 proved a positive relationship between HPWS and the firm performance. Both the surveys showed consistent and positive relationship between HPWS and firm performance thus evidencing the reliability of the tool to measure high performance work organizations. Norwest, Men's Wearhouse, ServiceMaster, Southwest Airlines, USAA, Procter and Gamble, Wal-Mart, and Virgin Atlantic Airways are some of the organizations that benefitted from HPWS (Pfeffer, 1998).

Literature suggested that Strategic HRM strongly advocated HPWS and empirically tested that the organizational performance is enhanced by HPWS (Huselid, 1995, Delery & Shaw, 2001). Literature also suggested that both the employer and employee are benefitted through HPWS (Guest, 1997). However, the concept of HPWS has been criticized both for its theoretical base and its practical effects (MacDuffie, 1995; Guest, 1997; Purcell, 1999; Applebaum et al., 2000; Legge, 2001; Guest et al., 2003). Another prominent contention of the scholars is that it is the employer who benefitted most from the HPWS and advocated that it in the name of complete advantage and performance, employees are being exploited (Voorde et al., 2012). Exploitation of the employees through HPWS is explained by the harm of negative side effects (Mariappanadar, 2003), self-induced side and feedback effects (Ehnert, 2009 & 2014, Kramer, 203 & 2014) thus a need for HR practices that improves organizational efficiency by controlling the negative effects

giving rise to a new concept - *Sustainable Human Resource Management*. Literature on Sustainable HRM is linked to the prior literature on HRM – Sustainable Work Systems and Sustainable Resource Management.

### **3.3. Sustainable Work Systems**

Sustainable Work Systems (SWS) is based on the premise of balancing resource consumption and resource development. Advocates of the SWS contend that the short-term oriented approaches of the organizations may be productive in the short run, but will be counterproductive in the long run (Docherty et al. 2002). Organizations have become increasingly work intensive because of the competition, global demands, globalization, and technological advancements. Scope and nature of the job is changing thus the complex jobs require special attention and often needs time to understand and execute the job. It is assumed that work intensity is the cause for the exploitation of resources leading to work related health problems like work related stress, psychosomatic disorders, self-exploitation, eroding trust in employment relations, blurring boundaries between work and private life (Docherty et al., 2002; Moldaschl, 2005; Ehnert, 2006).

Exploitation of the resources that is seen in the form of work intensity, calls for balancing the consumption by fostering skills, knowledge, cooperation, trust, motivation, employability, training etc. (Docherty et al., 2002; Ehnert, 2006). The need to encourage employees to grow, learn and try out innovative and creative solutions in the workplace is being highlighted by SWS. Literature on SWS evidences that it is high performing employees that are often prone to stress and other work related problems due to the innate urge to perform well. This self-determination to compete and perform better over others gives rise to related tensions.

It is the social responsibility of the organizations to reduce the negative effects as life on earth cannot be imagined without the role of people in organizations. Creating a work system that contribute to human, social sustainability is very important for the organizations to survive in the long run. Literature on SWS emphasizes the balance between the resource consumption and development thus underscoring again the importance of work life balance and organizational performance. Balancing of consumption and development provides competitive advantage to the firm as the resources can be put to further use without bringing the negative effects at the same time employees grow stronger due to the skills, knowledge that is fostered (Docherty et al., 2002).

One of the criticism levelled against SWS is instead of focusing on reducing the negative effects or work intensity at the workplace, it concentrated on balancing the resource consumption through regeneration and development of the sources (Ehnert, 2009). It is also criticized that SWS is more subjective, value driven primarily looking at the economic actions. Regeneration and resource development of the employees is taken care by the organizations not because of their care and concern towards the employees, but to balance the consumption and looking at the future needs Moldaschl (2002).

### **3.4. Sustainable Resource Management**

Sustainable Resource Management is a proactive strategy in managing and developing the resources. All corporate resources are scarce, which have not yet been chosen for a certain utilization (Müller-Christ & Remer 1999) and thus the *sources of resources* are pivotal. Human Resources are critical and hence the sources of the resources have to be sustained as one cannot think of an organization without the very existence of human resources. The primary objective is to sustain permanent resource flows between the organizations and the environment because of the interdependence between the organization and the environment. Organizations need to invest in the viability of resources, thus helping the society to reproduce the resources, which are critical for the organizations to survive in the future. Resources are being exploited by the organizations and only the sources of the resources can facilitate in providing sustainable resources to the organization (Muller-Christ 2001; Muller-Christ and Remer 1999).

The sources of resources are labor markets, education systems and families (Ehnert, 2006) and these sources have to be sustained if organizations want to continuously utilize them in the long run. There is a growing need for the skilled resources across the organizations and thus, they should focus on developing these sources not just after being admitted in the respective organizations, but by contributing to the schools, universities, where resources are developed enabling employability to the resources. In Europe, some of the companies invest in universities or work-to-school programs, though it is uncertain as the outcome cannot be measured (Muller-Christ, 2001). It might work in other countries, especially India as most of the organizations look for entry level employees and thus, the concept of campus hiring. However, there is another argument from the scholars, who state that the universities, schools and the labor markets fail in providing skilled labor and the motivation required in excelling at the workplace.

Organizations are mandated to invest in the sources as their survival depends on the later. Organizations are able to survive primarily, because they could strike a balance between opening and closing of the organizational boundaries. Organizations survive because there exists cooperation between the resources and the organizations (Remer, 1993) and finally organizations manage to sustain because of their ability to produce resources (Muller-Christ, 2001). If the organizations want to consume the resources on a long term basis, they have to invest and help sustain the resources. Sustainable Resource Management is of the opinion that the scarcity or dearth of the human resources is because of the failure in functioning of the sources of Human Resources (Remer, 1999).

IT industry is one where the adaption of new technologies takes place very swiftly. In an effort to support various industries and bring smart and easy solutions for the human resources, innovation is on high scale and so is the advent of new technologies. Organizations, which are resourced based should help the universities and institutions in developing the resources that are essential for the organizations. This can happen only when the organizations concern for the human resources even before they are hired thus contributing the future supply and forward thinking.

Sustainable HRM is the integrative approach that addresses the gaps seen in the Sustainable Work Systems and Sustainable Resource Management. SWS focus was to balance the consumption and reproduction, but never looked at the long term resources nor made an effort to reduce the negative effects of the work. Similarly, SRM focused on the sources of resources leaving behind the long term oriented approach and the competitive advantage of the firm. These two theories were too limited in their scope as they could not look at the other dimensions of sustainability.

### **3.5. Sustainable Human Resource Management**

The concept of HRM has witnessed tremendous changes over the years, redefining itself and providing a new focus and purpose for the organization. The concept of HRM which was characterized by scientific management in the early 1920's has moved to Sustainable Human Resource Management, which is the much debated topic today. Sustainable HRM is considered to be a synthesis of Sustainable Work Systems and Sustainable Resource Management. Sustainable HRM helps the organizations enhance profit maximization for the organization with inducing any harm on the employees, families and communities (Mariappanadar, 2003, 2014; Wagner, 2013) there by contributing to develop organizations economically, ecologically, socially and to make

HRM systems itself more sustainable (Cohen et al., 2012, Ehnert & Harry, 2012). Sustainable HRM is different in its focus and purpose from the earlier approaches. Table 3.1 illustrates the focus and purpose of the HRM characteristics:

*Table 3.1. Focus and Purpose of the HRM*

	<b>Scientific Management</b>	<b>Human Relations</b>	<b>Revisionism</b>	<b>Strategic HRM</b>	<b>Sustainable HRM</b>
<b>Period</b>	1918-1945	1945-1965	1965-1980	1980-2010	2010 – till date
<b>Focus</b>	Labor division and close employee monitoring	Personal attention and employees in their social context	Creation of autonomy, challenging jobs and employee involvement, worker participation	Strategic Embeddedness and managerial orientation, aligning HRM to the strategic objectiveness	Searching for the Human in HRM, HRM from the outside and long-term HRM orientation
<b>Purpose</b>	Efficiency	Cooperation	Autonomy	Performance	Sustainability

*Source: Adapted and developed from Boselie (2010)*

As Paauwe (2012) states, the field of HRM is dynamic and thus reflected many trends in developments that contributed to the development of HRM. Strategic HRM contributed both in theory and practice to HRM over the last two decades. Growing consciousness among the employees about the organization, business objective, nature of the job, P-O fit (Kristof, 1996), awareness of ecological, social and economic problems have fueled the development of sustainability as a concept for HRM. Prior studies have established that human resources are key to success in every organization and that managing the human resources to achieve competitive advantage have become pivotal importance (Paauwe, 2004) and thus controlling the negative, side and feedback effects on the employees like work intensity, stress, work life balance have become equally important. 21<sup>st</sup> century witnessed a new thinking that considers sustainability as the key to organizational success (Boudreau, 2003) and thus sustainable HRM is established as a concept for HRM that focuses on ecological, economic and societal dimensions of the sustainability.

The premise that human resources who are critical to the organization are consumed and exploited rather than being developed forms the basis for Sustainable HRM (Kira, 2002; Mariappanadar, 2003, 2012, 2013; Ehnert, 2009, 2014). Sustainable HRM is grounded on the stakeholder approach, which states that organization is answerable to everyone who is associated with the organization directly or indirectly. Literature on sustainable HRM is at a nascent stage. However, Ehnert (2014) states that the research on sustainable HRM is in pioneering stage if not at an emerging phase. At the same time, the concept is diverse and entangled with dualities and contradictions (Kramar, 2014) and hence, the advocates of this theory laid importance in theory building and empirical studies in this direction are exceptional. Sustainable HRM is considered as an extension to Strategic HRM, which is broader in concept (Ehnert, 2011; Kramar, 2014) and goes beyond the traditional approaches of HRM as a new step in HRM evolution ((Freitas et al., 2011).

There is no universally accepted definition for Sustainable HRM due to its diverse nature and thus the literature accepts many definitions. Gladwin et al. (1995) argues that a variety of definitions can be formulated especially when the concept is in emerging phase. Ina Ehnert (2009) made an attempt to provide a more comprehensive definition of Sustainable HRM that draws its base from the Sustainable Development definition given by Brundtland Commission. There were many scholars who have attempted before and after Ehnert. However, the definition of Ina Ehnert is considered for this study. Table 3.2 provides an insight into the attempts being made by the scholars in defining Sustainable HRM.

***Table 3.2. Sustainable HRM Definitions***

<b>Authors</b>	<b>Definitions</b>
Zaugg <i>et al.</i> (2001)	Sustainable HRM as “long term socially and economically efficient recruitment, development, retainment and disemployment of employees.”
Thom & Zaugg (2004), as cited in Ehnert, 2011	Sustainable HRM is “those long-term oriented conceptual approaches and activities aimed at socially responsible and economically appropriate recruitment and selection, development, deployment, and downsizing of employees.”

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Ehnert (2009) *Sustainable HRM is the pattern of planned or emerging human resource strategies and practices intended to enable organizational goal achievement while simultaneously reproducing the HR base over a long-lasting calendar time and controlling for self-induced side and feedback effects of HR systems on the HR base and thus on the company itself.*

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Kramar (2014) “Sustainable HRM could be defined as the pattern of planned or emerging HR strategies and practices intended to enable the achievement of financial, social and ecological goals while simultaneously reproducing the HR base over a long term. It seeks to minimise the negative impacts on the natural environment and on people and communities and acknowledges the critical enabling role of CEOs, middle and line managers, HRM professionals and employees in providing messages which are distinctive, consistent and reflect consensus among decision-makers.”

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*Source: Adapted from Savaneviciene & Stankeviciute, 2014*

HRM scholars still continue to define sustainable HRM as the concept of sustainability is an abstract concept and thus converting it into measurable and actionable outcomes continued to be a difficult task (Salzmann et al., 2005; Kramar, 2014). The definition provided by Ina Ehnert (2009) is considered to be more standard definition for defining Sustainable HRM and thus the definition is taken as operational definition in the study. In defining the concept, Ina Ehnert defines three basic objectives of sustainable HRM:

- 1) Balance the ambiguities and duality of efficiency and Sustainability over long term
- 2) Sustain, develop and reproduce an organization’s human and social resource base
- 3) Evaluate and assess negative effects of HR activities on the HR base and the sources of HR

### **3.5.1. Balancing Efficiency and Sustainability**

Ambiguity refers to uncertainty that has multiple meanings to understand and interpret in more than one way. Sustainable HRM faces the dilemma in balancing the efficiency - effectiveness, exploiting - reproducing, short term – long term etc. It is becoming increasingly difficult for the HR managers to balance between efficiency and sustainability at the same time. Muller-Christ (2001) states that it is impossible to maximize efficiency and sustainability simultaneously.

Literature also suggests that paradoxical demands and tensions always existed in HRM literature (Cameron and Quinn 1988). Paradoxes are philosophical concepts used to find new explanations in unexpected situations. Paradox is a statement which could be true or false, these statements which are proved to be wrong can be true in reality and hence the concept itself is difficult to comprehend and thus considered to be more philosophical.

Ina Ehnert (2009) had developed a framework for Sustainable HRM from a Paradoxical perspective. The framework is explained with the help of three paradoxes: Efficiency – Substance paradox, Performance – Regeneration paradox and short – long term paradox. Efficiency – Substance paradox is seen through exploitation and sustaining the HR base, where exploitation is seen as effectiveness and sustenance is seen as investment in the human resources. It is evident from the research that organizations have undergone tremendous changes in the past few decades. Human wants are unlimited and the means to satisfy these needs are unlimited and thus, it is not easy for the organizations to satisfy the human wants thus, underscoring the importance of organizations being dynamic. Since, the organizational environment is dynamic in nature, it is difficult to predict the skills, competencies and qualifications for the future needs.

The second paradox refers to the ability of the individuals to perform and develop themselves, which is often referred as reproducing or regenerating in the Sustainable HRM literature. The time that is spent in performing cannot be spent on regenerating at the same time as time lost cannot be regained. It is equally important for the individuals to invest time in regenerating as this would help the efficiency and productivity of the organization. The third paradox, which is short-long term paradox is often confronted by the HR managers as they promote optimum utilization of resources, which results in the exploitation of the resources. Thus balancing the short-term interests and long term viability of the organization has always remained a herculean task for the organizations (Ehnert, 2006, 2015).

### **3.5.2. Sustaining, Developing and Reproducing Resources**

The second objective of sustainable HRM refers to developing and reproducing an organization's human and social resource base. Organizational success and its competitive advantages can be measured based on the resource pool availability. Human Capital is the most critical resource upon which organizations depend for their financial returns. Human capital is intangible in nature that include skills, knowledge, competencies and other abilities that employee possess to accomplish

organizational objectives (Youndt & Snell, 1996). Although, the world is moving towards a robotic era, human resources cannot be considered as a mere robot as they experience physical and emotional needs as defined by Abraham Maslow's *Hierarchy of Needs*. The advocates of the resource based view strongly argues that the resources have to be developed and identified human resources potential as a source of competitive advantage (Barney, 1995; Finkelstein & Hambrick, 1996) and thus acquisition and sharing of knowledge within the employees have been a focus area for the organizations.

Modern organizations have been focusing on developing the resources in-house by inducting various training programs in the organization. On the other hand, organizations are being dynamic as the needs of the individuals and the society per se are changing from time to time and thus, the human resources are being exploited to meet the individuals/societal needs. Since, it is the organizations, who get the best out of the individuals, the responsibility to develop, reproduce also lies with them. Muller-Christ (2001) advocates the investment in corporate universities, work-school programs that will create a healthy resource pool and potential employees for the organizations. Organizations who have realized this have started investing in the education by nurturing and mentoring the future talent.

Further, the literature evidences that human resources are scarce like any other resources and hence focusing on the sources of resources like universities, institutions, society, family, labor markets and other educational institutions (Muller-Christ, 2001; Ehnert, 2009). Organizations to be competent not only required resources but also skilled and committed employees (Brewster & Suutari, 2005) as highly skilled people are scarce and have multiple opportunities in the market place (Drumm, 2000) thus, retaining these employees over a period also have become a difficult task for most of the organizations (Stahl et al., 2007).

### **3.5.3. Negative and Self-Induced Effects of Work**

Sustainable HRM denotes the effects as side, feedback, negative and self-induced effects (Brewster & Larsen, 2000; Ehnert, 2006). Negative and self-induced effects are outcomes of the work and these emerge mainly under two circumstances from an organizational context.

- 1) When the employees are exploited and over consumed by the employers (Ehnert, 2006; Mariappanadar, 2003, 2012).

- 2) When the employee self-exploits because of their natural tendencies to contribute more (Kira, 2002, 2003; Thom & Zaugg, 2004).

Organization benefit, when employees perform well and thrive to achieve higher productivity. In the same fashion, organizations go bankrupt, if the employees do not perform well, thus it is important for the organizations to strategize ways that motivates the employees to contribute more to meet the global demands. Quite often, these strategies are translated into over exploitation of the resources leading to health problems, psychosomatic disorders, stress, burnouts, fatigue, eroding trust in employment relations, work-life imbalances (Bordner, 2002; Docherty et al., 2002; Kira, 2003). On the other hand, highly qualified people also confront these health problems due to their innate quality to perform well and the work intensification (Allan, 1998). These people often tend to work longer hours, be more productive and wants to challenge other colleagues in the workplace. To overcome these problems, organizations try to balance out by fostering skills, knowledge, motivation, employability and constructive industrial relations (Docherty et al., 2002). Table 3.3 indicates the side and feedback effects that are observed at an individual level, workforce and at HRM level

***Table 3.3. Analysis of the Side and Feedback Effects***

<b>Level of Analysis</b>	<b>Side and Feedback Effects</b>
Individual Employee	Work-related health problems, stress, burnout, lack of work–life balance, eroding trust, lack of employability, joblessness (i.e. problems of regeneration and qualification)
Workforce	Lack of people being able and/or willing to work for the company
HRM Environment	Lack of ability of corporate environments (labour markets, education systems, etc.) to provide skilled and motivated people

*Source: Adapted from Ehnert (2009)*

Organizations need to use resources sustainably so that the employees contribute better for the organization. Mariappanadar (2014) points out there is enough research that went into the negative

or side and feedback effects, which he calls as *Negative Externalities*. HRM researchers (Kivimaki et al., 2006; Rugulies et al., 2012) have highlighted the harm of work practices using HPWPs, but have failed to see the negative harm that is passed on to the family members, society and the environment.

### **3.6. Developments in Sustainable HRM**

Rompa (2011) explored HR's contribution to sustainability by interviewing a set of HR managers about the importance of sustainability in the organizations, their communication of sustainability to the employees and the role of HR in the involvement of defining sustainable strategies for the organization. The findings of the study were quite interesting that resulted in five outcomes – Employee Development, General Development, Carbon Footprint, Flexibility, and Volunteerism. As such, the study seems to be dominated more by CSR rather than the sustainable HRM.

Kozica & Kaiser (2012) made an attempt to integrate the positive and negative effects of flexible HRM through a framework. Further, they point out the Sustainable HRM overcomes the limitations of the flexible HRM and helps in coping up with the positive and negative effects of flexible HRM. App et al (2012) contends that Sustainable HRM helps employers create an employer brand as there is growing awareness among the youth and the employees about sustainability and have become choosy as far as employment is concerned. Lis (2012) also supports the view that Sustainable HRM practices makes them employer of choice that helps not only in attracting and retaining talent, but helps to maintain a healthy and productive workforce (Ehnert, 2009).

Jerome (2013) studied the impact of Sustainable HRM on organizational performance and highlighted the importance of leadership responsibilities in driving the sustainability as a business issue. Jerome proposed a model of sustainable HRM and organizational performance based on the theoretical support from the literature, which was not empirically tested.

Prins et al. (2014) contends that the literature on Sustainable HRM is inconsistent and attempts to extend the literature through Respect Openness Continuity model (ROC). Through this model, they have incorporated sustainability issues into Strategic HRM, extending the thoughts of Ehnert (2009) and Kramar (2014). Further, this theory was promoted to bridge the gap between the theory and the practice of Sustainable HRM. The three dimensions of sustainability as proposed by John

Elkington (1994) People, Planet and Profit were translated to Respect, Openness and Continuity, thus the theory focused on respect for the internal stakeholders primarily the employees. Respect was characterized by talent, engagement, empowerment, health, well-being, employee participation. Openness is seen in terms of the environmental awareness like diversity, ageing, work-life balance, ecology, stakeholders and labor markets, and the Continuity refers to the long term approaches focusing on the business continuity (Prins et al., 2014). The long term approach is seen in terms of economic and social sustainability leading to employability, careers, succession, learning, workplace innovation etc. thus, the ROC model lays stress on employees and their longevity in providing employability unlike the traditional approaches.

Mariappanadar (2014) developed stakeholder harm index. The study was aimed at the negative effects, which are outcome of the HPWS. The stakeholder harm index provided an important framework that captures the harm raised out of the work intensification. The study also provided the practical implications to capture the harm. The harm index proposed by Mariappanadar has set a new agenda to develop theoretical and empirical foundations for Sustainable HRM.

Kramar (2014) divides the literature on Sustainable HRM into three groups based on the outcomes – *Capability Reproduction, Promoting Social & Environmental Health and Connections*. Capability Reproduction group concentrated on creation of sustainable competitive advantage focusing on internal impacts of HRM policies (Wilkinson et al., 2001; Ehnert 2009; Clarke 2011). Much emphasis was laid on ecological and social outcomes by the second group (Mariappanadar 2003; Orlitzky, Schmidt & Rynes 2003; Collinson et al., 2007). Connections group focused on the interrelationships between management practices including HRM and organizational outcomes. Termed as Sustainable Leadership (Avery, 2005), the connections group lays emphasis on the influence of national context on the practices that explore the relationship between HRM policies and environmental sustainability, thus connecting the internal and external outcomes and HRM practices. Further, environmental and human or social outcomes are interrelated contributing to organizational sustainability as the environmental sustainability is only possible with the creation of HRM practices that creates trust among the employees, management and the society around (Dunphy et al., 2007; Avery 2005; Avery & Bergsteiner 2010; Renwick et al., 2011).

Ehnert et al. (2015) made an attempt to study sustainable reporting and the various aspects of the reporting that reflected the models of the corporate governance. The study provided majorly three

findings – first, the disclosure on HRM-related performance is not lower than that of environmental performance. Second, there was an effort from the organizations to report more on the internal workforce than that of external workforce. Third, the international differences between the liberal market economies and coordinated economies are not as apparent as expected. Thus, it is evident that organizations have shown considerable interest in reporting HRM related performance.

Poskiene (2016) defined characteristics of Sustainable HRM – Continuity, Mutuality, Consistency and Responsible Care. The paper aimed at providing more a personal approach to Sustainable HRM rather than mere implementation of HRM policies on the employees.

Though there were other studies conducted on sustainable HRM, they were not taken into consideration as Sustainability is a buzz word that is used across industries and countries. Much of the sustainability HRM literature was dominated by the CSR literature and thus many scholars warrants a separate distinction Lawler (2013).

### **3.7. Sustainable HRM Practices**

HRM practices vary from organization to organization and country to country. What works best for an organization may not provide similar results to other organizations. One of the primary reason is individuals are unique in nature and it is thus difficult for the HRM to implement same practices across the globe. Almond et al. (2005) contends the country of origin will have an impact on the HRM practices of their subsidiaries due to the differences in MNC behavior that are linked to the internal power dynamics among the entities of the MNCs (Edwards & Kuruvilla, 2005). Moreover, these practices that are otherwise termed as *Best Practices* address the current employees and not the potential employees that concentrates on recruitment, development and reward system (Thom & Zaugg, 2004) and thus, the questions regarding Sustainable HR practices always remained unanswered:

- 1) What are those HR practices that balance the ambiguity between the efficiency and sustainability over long run?
- 2) Which are the HR practices that sustain, develop and reproduce human resources?
- 3) How does organizations reduce the negative and side effects at the same time not compromising on the productivity?

- 4) Which HR practices would help to maintain the equilibrium between social, economic and ecological dimensions of sustainability?
- 5) What are those HR practices that are perceived to be sustainable by the HR management?

Roehling et al. (2005) argues that sustainable HR practices are those that can be imitated by other organizations. The concept of Sustainable HRM is difficult to comprehend that for HR managers' sustainable practices or sustainable strategies or Sustainable HRM means Corporate Social Responsibility. HRM Scholars argued that Sustainability is dominated more by CSR literature and thus the People dimension of triple bottom line means society and have completely ignored the human sustainability. It is important for the HR function to take utmost care in designing the functions that will help evolve both the employees and the organization as a whole (Kira et al., 2010). HR function need to identify, address and communicate the critical success factors required to implement sustainable business practices (Ernst & Young, 2013)

The role of HR in integrating sustainability into vision, mission and strategy is very essential. It is equally important to manage the expectation of the organization and the employees. Sustainable HRM is considered to be a human resource strategy intended for the organizational goal achievement and hence, the HR professionals at all levels should have a greater understanding of sustainability and help define what is sustainability for the organization, influence and educate the employees. Quite often organizations fail to implement strategies as they do not have a good understanding of sustainability and its potential for the organization (Society for Human Resource Management, 2010) and thus the practices adopted and implemented by the HR function often lacks consensus.

HR functions need to incorporate practices and build sustainable HR systems and process that has ability to drive sustainable objectives across the organization. Chapter 4 discusses the Sustainable HR practices under a framework that helps organizations achieve Individual, Organizational and Societal Outcomes of the firm. Since, the focus of the study is in IT industry, an attempt is made to highlight the important Sustainable HRM practices by the organizations in the study. Chapter two discussed the various CSR programs that each of the organizations implemented and hence, only those programs aimed at human sustainability are discussed in this chapter.

### **3.8. Sustainable HRM Practices in Information Technology Industry**

Information Technology is one of the most volatile industry. What has started as solving complex mathematical problems into solutions have come a long way. It is one industry, where the entire industries ranging from small to large scale relies for their efficiency. The business requirements of the organizations are changing fast and hence the need to provide solutions to meet these requirement also change. COBOL, a computer programming language, which was considered as the heart of finance and legacy systems is outdate now and hardly there are any organizations that use COBOL for business purpose. The need to assess and understand the future requirements is one important aspect for the organizations to be successful in the marketplace. Having recognized this need, IT organizations are keen on multi-faced employees as the technologies keep advancing and changing at a later point of time. The sustainable practices that each of the IT implements are detailed in this study.

*Infosys* through their campus connect program not only mentors the students but also the faculty, college management and the industry. The flagship program, first of its kind is an Industry-Academia interaction program started in May 2004, aimed at covering the talent shortage and create large business potential, enhance the quality of IT education in the universities and colleges. The management also try to bring pressure on higher education policies in terms of access, infrastructure, relevance of the syllabus, versatility etc. These programs help the students in enhancing their soft skills, general aptitude, industry knowledge and other technical skills by providing them access to the *Infosys* projects, courseware and other case studies. As of September, 2015, there were about 358,014 students and 12,572 faculty members benefitted from the campus connect program. The program is conducted through conclaves, roadshows at institutions, faculty enablement programs, industrial visits for the students and faculty, seminars, workshops, contests, technical events, paper presentations, sponsorships etc. (<https://campusconnect.infosys.com>, website accessed on 23/02/2016).

*Wipro*'s Academy of Software Excellence (WASE) in partnership with BITS Pilani and VIT offers master degree is software engineering. This is a unique program that helps the students to have practical experience at the client location. Moreover, there is no policy nor restriction that these students should join the same organization after having completed their studies. Through their Mission10x program, they seek to improve the quality of engineering education through their

active participation in faculty development and curriculum development. Wipro has been supporting various schools for the improvement of school education in India. Besides they also support schools in Chicago, New Jersey, New York, and Boston in improving science and Maths at school level (<http://www.wipro.com/about-Wipro/sustainability/sustainability-recognitions-2014-15/>, website accessed on 25/02/2016).

*Tata Consultancy Services (TCS)* invests in building relationship with various universities in and outside India to improve the quality of academic training. Their Academic Interface Program (API) helps to build long term relationship with the academic institutions. *Commune*, a professional networking platform designed for the campus recruits helps to connect, share and collaborate before they even join the organization. Their flagship programs like Codevita, ASPIRE and Ignite helps the students know about the company and provides various projects for the students to learn. They also conduct faculty development programs, student workshops, project support, represent various boards of studies and help in the curriculum development. They also sponsor the best students in the engineering college and sponsor various technical and academic events ([http://www.tcs.com/about/corp\\_responsibility/cs-report/Documents/GRI-2014-Sustainability-Report-071015.pdf](http://www.tcs.com/about/corp_responsibility/cs-report/Documents/GRI-2014-Sustainability-Report-071015.pdf), website accessed on 26/02/2016).

*HCL Technologies Limited* through their Shiv Nadar Foundation empowers individuals through education, creativity and art. One of their initiative is VidyaGyan leadership academy that addresses the social imbalances and created leaders, who are considered to be a role model for their families, communities and the society. The foundation has set up universities, engineering colleges and two schools that focuses on the quality of the education. Each of the institutions had already earned a place in the top 20 institutions/colleges/universities. They also focus on eradicating illiteracy through their program-SHIKSHA that works in partnership with government and other agencies. They are engaged in US and UK providing young people the skills and the confidence and the competencies they need to move ahead in their careers (<http://www.shivnadarfoundation.org/Ourphilosophy/what-do-we-do>, website accessed on 26/02/2016).

*Tech Mahindra* foundation primarily supports school education, employability and technical education by partnering with government, non-government, corporate, technical and non-technical bodies. SMART, which is the flagship programme of Tech Mahindra provides vocational training

for the underprivileged youth. The programme that began in the year 2012 has trained more than 1000 youth, who are employed in various organizations. Organization does believe in the principle that educated and skilled people are the country's strength and thus invests in the people that not only enhances their skills, but also provides employability to the younger generations (<http://www.techmahindrafoundation.org/programmes/employability>, website accessed on 26/02/2016).

It is evident that these organizations have realized the importance of human resources, who are critical to the organizations. It is also evident that these organizations have a long term approach in developing, reproducing thereby helping the origin of the sources. Besides, these organizations conduct various in-house programs for the employees and focus on talent acquisition, talent retention, health and wellness, learning and career development. These modern organizations have focused on the two objectives of the Sustainable HRM, however they have ignored the negative and side effects of the work.

### **3.9. Research Gaps**

The study assumes significance in the context of the human resources consumed by the organizations and not reproduced and that sustainable HRM or dealing with people in organizations could be a source of competitive advantage in tight labor markets (Zaugg, 2001). Translating this to the functions of HRM, sustainable HRM refers a long term socially and economically efficient recruitment, development and retention of employees (Zaugg, 2001). A new dimension was added by (Muller & Remer, 1999) when they raised the issue of organisations forced to do certain activities to have access to highly qualified people in future, while others (Gollan, 2005) referred to sustainable HRM in terms of capacity building. Thus, it appears that sustainable HRM is related to a long term corporate success and organizational viability along with a futuristic orientation linking it to strategic HRM (Ehnert, 2009).

The study contributed to a more systematic research linking sustainability and HRM bringing in additional issues of HRM towards sustainability (Clarke, 2011; Guerci, 2011). The most recent interdisciplinary approach to sustainable HRM focused on CSR (Cohen, 2010), Green HRM (Jackson, 2011) etc. Based on the extensive review of literature, the following gaps are identified:

1. All these studies demonstrate the potential of sustainability to be a new focus area for HRM. But there appears to be a lack of theoretical foundation. The literature thus is scattered and also scanty in view of the relative concept that has been applied in the field of HRM.
2. A review of literature highlights that the bulk of the studies examined the concept in isolation and surprisingly the sustainable HR practices on sustainability or sustainable HRM has been notably absent. This provides a considerable research gap and needs for study in this direction.
3. There is a lack of consensus among the scholars on Sustainable HRM and some of the strategic HRM advocates argue that there is hardly any difference between sustainable HRM and strategic HRM. How is Strategic HRM different from Sustainable HRM?
4. Scholars have explored the relationship between HRM and Sustainability and have made efforts in establishing Sustainability as a concept for HRM. However, there were very few empirical studies that focused on sustainable HR practices
5. Proponents of Sustainable HRM argue that the Sustainability was dominated by corporate Social responsibility. While some of the scholars argue that the concept of human sustainability and the employees welfare is included in the triple bottom line definition of the social category, scholars like Lawler (2013) warrants that a separate distinction. Professional firms like Ernst & Young (2013) also contends that unless and until the human resources in the organization embraces the sustainability paradigm, the other dimensions of sustainability – Economic, Ecological and Social cannot be achieved and thus the human sustainability becomes much more important. (Ehnert, 2006, 2009; Jones-Christensen et al., 2007) scholars argue that human resources are to be studied outside the concept of corporate sustainability.

These different views explore the gap that exists in the academic literature, which calls for a need to address these gaps. The current study is an attempt to fill the void and contribute to the existing body of literature.

## **Summary**

Chapter three attempted to scan the literature and established a link between Sustainability and HRM. An effort was made to systematically scan through the literature since the origin of HRM,

the erstwhile Personnel Management. Personnel Management, which was transformed in to HRM and then to Strategic HRM. The question that appears “*Is Sustainable HRM, the next approach*” is envisioned by the organizations. Sustainable HRM objectives and their models and the recent publications on the Sustainable HRM has also been discussed in the study. Chapter three established the need for Sustainable HRM practices that helps the organizations to achieve overall sustainability balancing the three dimensions of sustainability – Economic, Ecological and Societal. Further, the chapter studied the Sustainable HRM practices that some of the large IT companies implement in shaping the future talent thus, underscoring the importance of talent supply. Chapter 4 discusses the framework for Sustainable HRM and the research methodology adopted for the study.

## Chapter – 4

### Research Methodology

The available literature is sufficient proof to establish Sustainability as a concept of HRM. However, the literature on the subject still remained in pioneering stage and most of the studies were conducted in isolation due to the very nature of the concept of Sustainability. The scholars thus focused on the theoretical support to link HRM to sustainability. This calls for empirical studies that characterizes Sustainable HRM. Based on the research gaps, an attempt is made in this chapter to derive a Sustainable HRM framework and the various variables that are connected to the framework.

The chapter is divided into two sections – *Section one* deals with the proposed framework and defines the independent, dependent and moderator variables. Further, it provides theoretical support and operationalizes the variables. It also includes the research questions and the research objectives of the study. Appropriate hypothesis were also inferred based on the conceptual framework.

*Section two* defines the research methodology adopted in the study. This section discusses the research design, sampling unit, sampling method and geographical coverage. Further, it lists the organizations considered for the study and provides justification for choosing the IT industry and the organizations for the study. The inclusion and exclusion criteria, the respondents and the sample size is explained in detail.

Since the studies on Sustainable HRM are still evolving (Ehnert, 2015) there are hardly any empirical studies (Boudreau and Ramstad, 2005). Studies in Indian context were negligible and thus no proven instrument exists, which can be used for the study. The scholars of the Sustainable HRM have concentrated more on linking the concept of Sustainability with Human Resource management and thus, there is more focus on theory building rather than empirical studies (Boudreau and Ramstad, 2005). This chapter elaborates on the instrument development and methods of data collection. A thorough review of literature helped to generate a pool of items and thus the instrument was developed using the scale development procedure given by Nunnally (1978). The instrument reliability was tested using Cronbach-alpha. Based on the examination of factor loadings, content validity and reliability, items not meeting the established criteria are

deleted. Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) were used for the scale refinement.

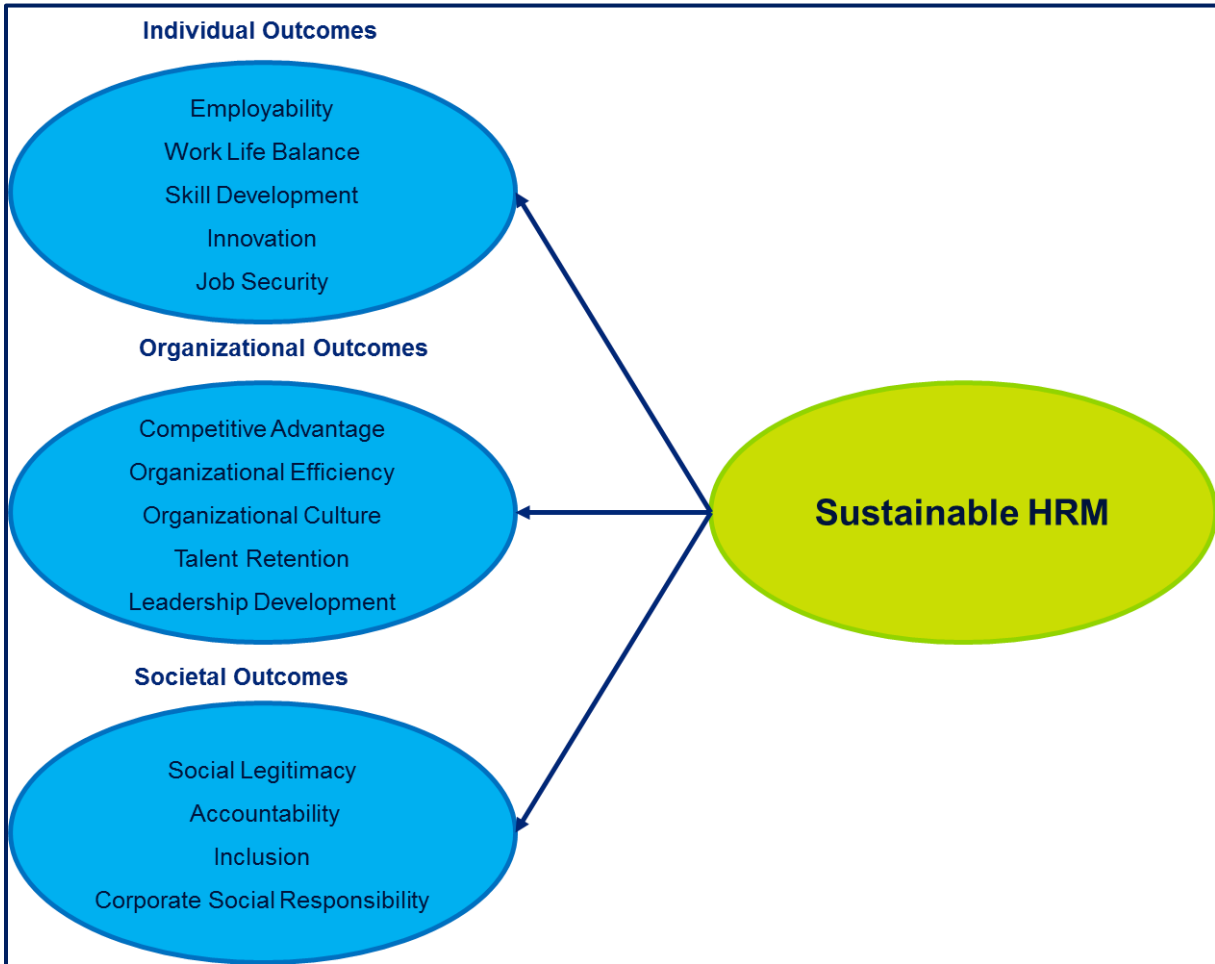
#### **4.1. The Concept**

Individuals do not exist in isolation. Similarly, organization cannot be imagined without individuals. Sustainable HRM aims at developing and reproducing the human resources, which is translated into individual outcomes. Long term sustainability is translated into the organization outcomes and, reducing the negative effects and focus on the source of resources is translated to the societal outcomes. Thus, the three pillars of sustainability (Elkington, 1994) – People, Profit and Planet (Elkington, 1994) are translated into Individual, Organizational and Societal outcomes. Ehnert (2009) have proposed Sustainable HRM Model through which the individual, organizational and societal effects are addressed using paradoxes and thus have laid foundation for empirical evaluation.

As stated earlier, the empirical studies on Sustainable HRM are notably absent. Guerci & Pedrini, (2013) defines 25 HRM practices that help organizations achieve sustainable outcomes, which were adapted from Ehnert (2009). However, there was no attempt made by Guerci & Pedrini (2013) to further validate the practices. Rompa (2013) made an empirical study with two sets of questionnaires – one with 60 items and the other with 92 items, but the study was more based on the CSR practices which included Green HRM practices that looked at more carbon footage. Mariappandar (2013) developed harm index, which focused on the negative externalities and the negative effects of the work, but the study did not include the societal aspects of sustainability. Lack of such measurement instruments could be considered as one of the main reason for the concept not being developed to the full potential. A deliberate effort was made to develop, test and validate a measurement scale has been considered in the study.

14 factors have been identified from the study of Ehnert (2009) that are broadly classified as individual, organizational and societal outcomes. These factors are Employability, Work Life Balance, Skill Development, Innovation, Job Security, Competitive Advantage, Organizational Efficiency, Organizational Culture, Talent Retention, Leadership Development, Social Legitimacy, Accountability, Inclusion and Corporate Social Responsibility. Operation definition and the literature support for 14 factors in given in Table 4.1.

*Figure 4.1. Sustainable HRM Model*



Sustainability does not mean only long term sustenance of the organizations. As evident from figure 3.1, Sustainable HRM constitutes individual, organizational and societal outcomes. These three outcomes are related closely to each other. It is not enough for the organization to achieve organizational outcomes but should also focus on the employee (individual) interest and the societal interests (Ehnert, 2009). Not only has the literature evidenced that these three outcomes are closely related, they are statically tested and all the 14 latent variables identified in the study are part of the three outcomes.

Figure 4.2. Measurement Model – Relationship between three Outcomes

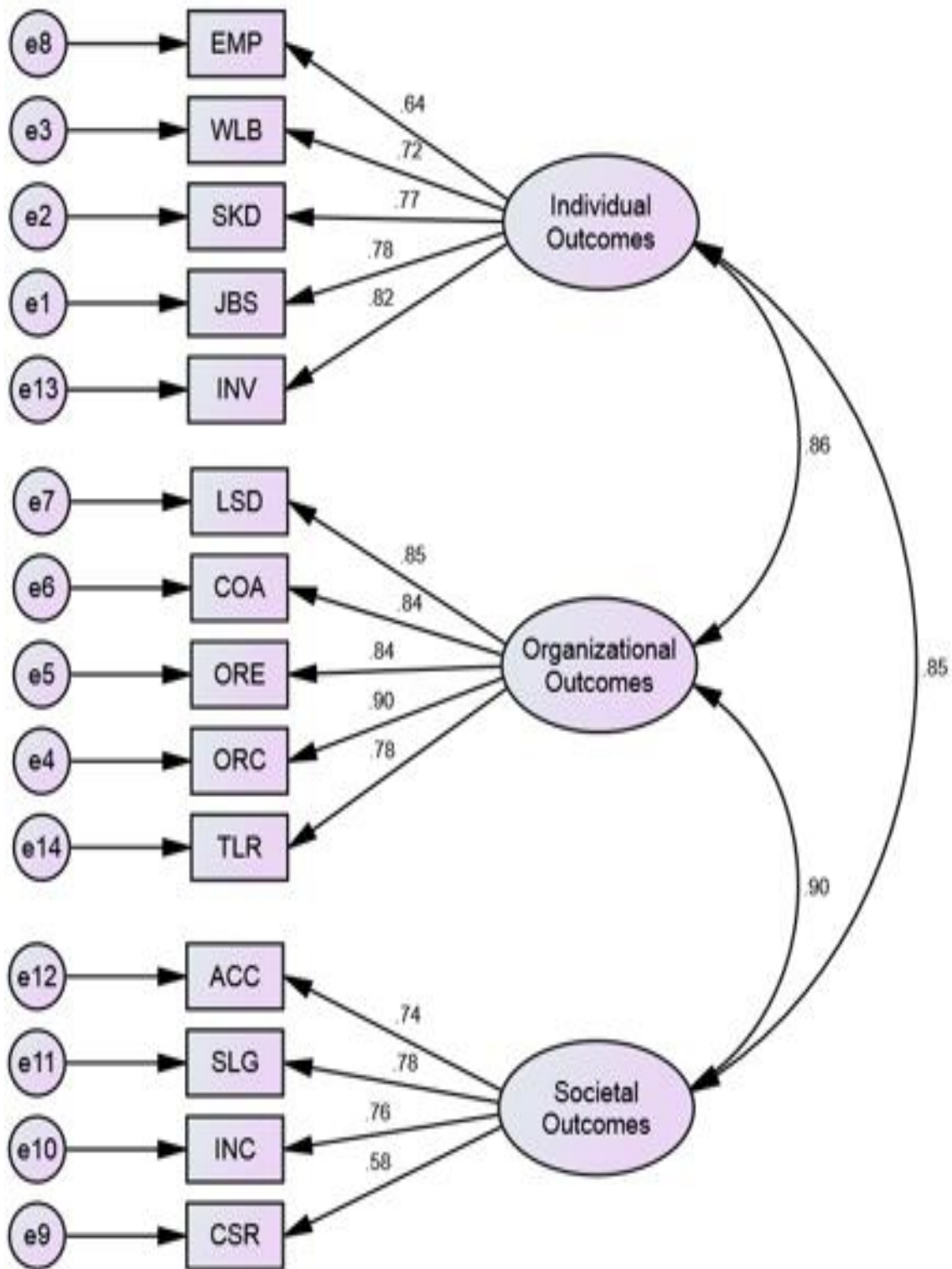


Figure 4.2 indicates that the loadings are relatively high, all the loadings were above 0.50. Correlations among the latent variables seems to be good as all of the loadings were above 0.50. Similarly, Covariance between the individual, organizational is 0.86, organizational and societal outcomes is 0.90 and the covariance between individual and societal outcomes is 0.85. All the loading were above the threshold limit of 0.50. Thus, it can be concluded that the 14 latent variables can be broadly categorized into three outcomes, which are Individual, Organizational and Societal outcomes. Further interdependencies and the relationship between each of the variables is studied in the later chapters.

## **4.2. Research Questions**

The framework helped throw important questions that can possibly be the starting point for the study in view of the scanty literature on the subject. They are:

1. How does Sustainable HRM address the dualities – Long term and Short term, Efficiency – Sustainability?
2. How can Sustainable HRM contribute to attracting, developing and retaining highly qualified human resources over time?
3. Is it possible for the organization to eliminate the negative effects without compromising on the productivity?
4. What are those HR practices that help the organization be sustainable balancing the individual, organizational and societal outcomes?
5. How do HR professionals manage the future supply and link sustainability with the HR issues?
6. What is the role of HR professionals in making organizations sustainable?
7. Does the leadership/shareholders of the organization understand the concept of Sustainable HRM?

## **4.3. Objectives**

The study was conducted with the following objectives. Broadly, it attempts to explore the link between sustainability and human resources management. More specifically the study aims to:

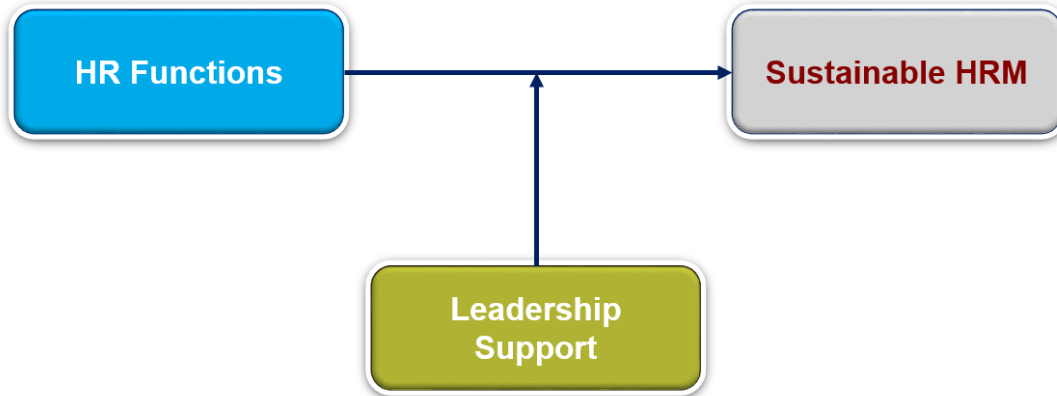
1. Establish the linkages between Sustainability and Human Resource Management

2. Examine the relationship between the individual, Organizational and Societal outcomes
3. Identify the factors that constitute Sustainable Human Resource Management
4. Develop, test and validate a measurement scale for Sustainable HRM
5. Identify the impact of HR functions on Sustainable HRM
6. Examine the moderating effect of Leadership Support on sustainable Human Resource Management

#### **4.4. Conceptual Framework**

Based on the research objectives, a conceptual framework was arrived at figure 4.3. The conceptual framework for the study has been developed based on the review of literature. The framework includes the development of the scale and identify the impact of the HR functions on Sustainable HRM. However, the literature review evidenced a moderating variable in the form of Leadership Support as leadership view sustainability as “*nice to do versus need to do*” (Ernst & Young, 2014). Hair et al (2000) cautions that moderating variables must be chosen with strong theoretical support. It is argued that Sustainable Outcomes can be achieved only through the leadership support. Nadler & Tushman (1997) mentions that top management support can be viewed as fundamental driver to sustainable management. Several other organizations published sustainability reports and contributed to the growing awareness of sustainability also expressed a similar view. Society for Human Resource Management (2010) states that it would be very difficult for the organizations to make advancements in to sustainability without the support from top-leadership. Consulting firm McKinsey published a report Sustainability’s Strategic Worth: McKinsey Global Survey Results identified that the biggest challenge companies’ face in sustainability is getting top-leadership attention (McKinsey, 2014). The view is further supported by Ernst & Young (2014) that organizations fail to implement sustainable business practices due to inadequate integration with business strategy, lack of leadership support and limited understanding. Thus, the literature and the research organizations evidenced the role of leadership support in the implementation and integration of sustainability with the strategy of the firm.

*Figure 4.3. Proposed Conceptual Model*



HR Functions is the independent variable as can be seen in the framework. Independent Variables are those that remain independent of other variables, one that causes change in other variables namely the dependent variable. Sustainable HRM is the dependent variable. Dependent variable is one that is to be predicted or explained by other variables. Leadership Support is the moderating variable considered for the study. Moderator variable is one that affects the direction / strength of the relation between an independent and dependent variable (Hair et al., 2010).

#### **4.5. Hypotheses**

Based on the conceptual framework, the following hypothesis are inferred for the study

Hypothesis # 1: There is a significant difference between Indian and MNC HR Practices with regard to Individual Outcomes

Hypothesis # 2: There is a significant difference between Indian and MNC HR Practices with regard to Organizational Outcomes

Hypothesis # 3: There is a significant difference between Indian and MNC HR Practices with regard to Societal Outcomes

Hypothesis # 4: There is a significant difference between Indian and MNC HR Practices with regard to Sustainable HR Practices

Hypothesis # 5: There is no significant difference in the perception of Sustainable HR practices by Gender

Hypothesis # 6: There is no significant difference in the perception of Sustainable HR practices by employee level

Hypothesis # 7: There is a significant difference in the Sustainable HR Practices among the organizations

Hypothesis # 8: There is no significant difference in Sustainable HR Practices based on the location

Hypothesis # 9: HRM functions have a significant impact on Sustainable HRM

Hypothesis # 10: Leadership Support moderates the effect of HRM functions on Sustainable HRM

#### **4.6. Scope of the Study**

The IT industry in India is fast growing and is concentrated in all the major cities although extending to tier II and tier III cities. The scope of the study is confined to IT industry in India, which constitutes both Indian companies and multi-national companies. The study is aimed to study Sustainable HR practices in the IT organizations. The study focuses on the large Indian IT organizations and multinational organizations that have presence in India. The focus was on large companies as they are considered to be influential in the dissemination of best practices because of their position at the apex of global value chains (Gereffi, 2014).

The IT industry in India faces the two issues that the HRM faces, where the employees are consumed more in wake of tight project schedules and the negative and the side effects that arises due to the over consumption and the long working schedules leading to stress, boredom, burnouts, depression and other psychological effects. Thus, a study of Information Technology industry is imminent and appropriate for an empirical study of Sustainable HRM in an emerging economy like India. Since, the study looks at Sustainable HRM practices, the scope of the study includes the IT professionals with the following criteria:

- Employees who have completed a minimum of two years in their respective organizations
- Employee must have worked at least in one organization prior to joining the current organization

#### **4.7. Geographical Coverage**

The geographical coverage includes all the major IT hubs primarily concentrated in the metro cities and thus, the study involves 6 major hubs as mentioned in *NAASCOM Perspective 2020* that reported industry's long term certainties and opportunities.

- 1) Bangalore
- 2) NCR (includes Delhi, Gurgaon, Noida)
- 3) Hyderabad
- 4) Mumbai (includes Pune)
- 5) Chennai
- 6) Kolkata

#### **4.8. Research Design**

The study is exploratory in nature. Literature evidences that bulk of the studies examined the concept in isolation. The studies were primarily conducted in western context. The concept of Sustainability is picking up pace in India since a decade. The research is designed to provide valuable insights to the IT industry and study the Sustainable HR Practices. The research design thus adopted in the study is exploratory in so far as the choice of independent and dependent variables are concerned and descriptive in so far as the qualitative data that is collected to examine the objectives framed in the study. Descriptive research is used to describe characteristics of population that is being studied. The study used survey method to collect the relevant information through qualitative and quantitative methods. Qualitative data is collected through expert interviews, focused group discussions, in-person discussions to understand the phenomena in the absence of empirical studies.

#### **4.9. Sampling Unit and Sampling Method**

**Target Population:** Target population is defined as population from which the sample will be drawn, thus in this study IT professional in the IT industry is the target population.

**Sampling Unit:** The Individual Respondents are the sampling unit in this study

**Sampling Frame:** All employees who have at least two years of experience in the current organization form the sample frame for the study. Besides the individual should have worked in at least one IT organization prior to joining the current organization.

**Sample Size:** The study involves SEM and as such the sample size is arrived at, based on the number of items in the study in the ratio of 10:1 items, which is considered as most accepted rule in arriving at the sample size (Westland, 2010).

**Sampling Method:** The study adopted Purposive Sampling Method. Purposive sampling is a non-probability technique known as selective or judgmental sampling.

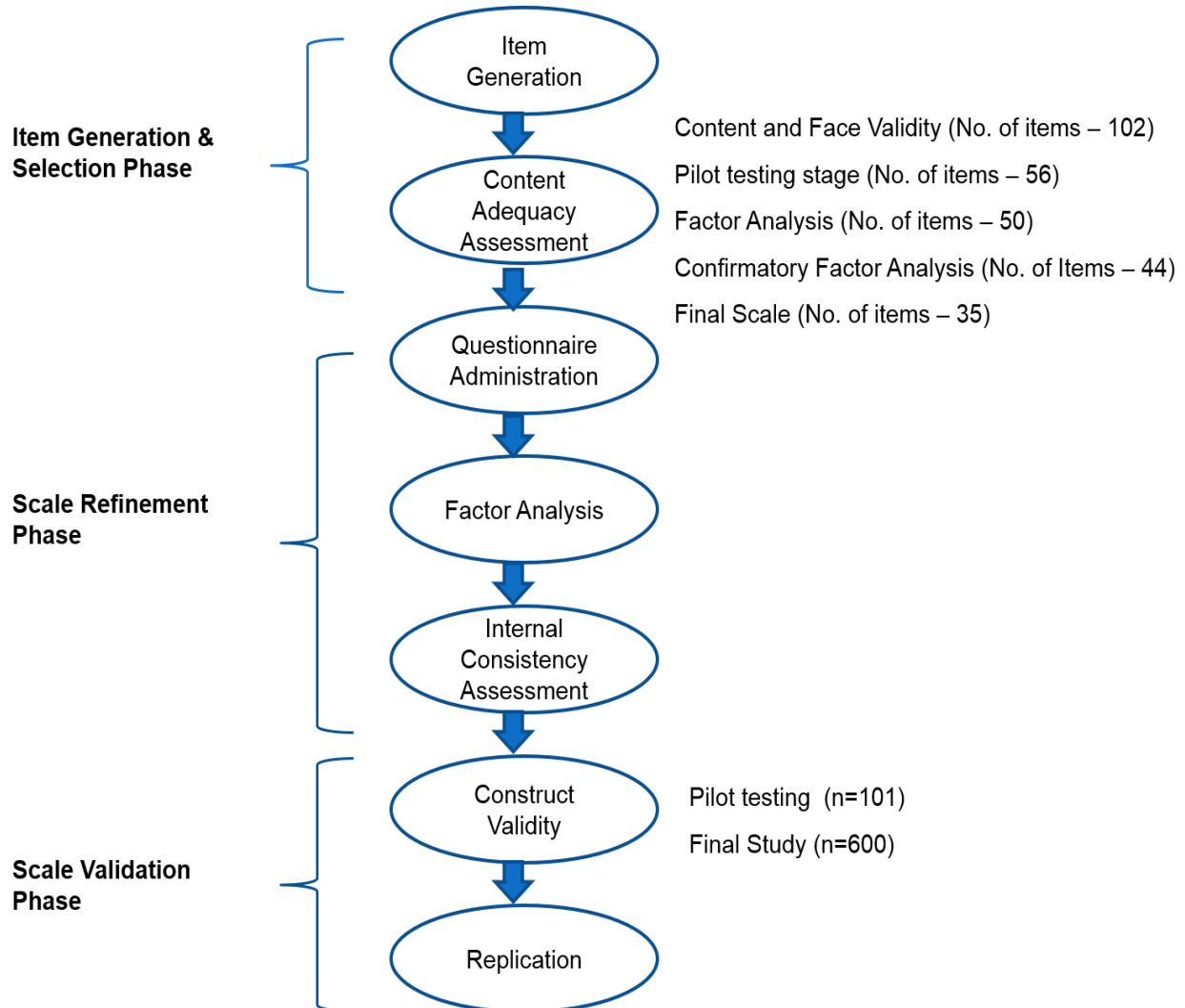
#### **4.10. Scale Development**

One of the objective of the study is to develop, test and validate a measurement scale. The concept of Sustainability and Sustainable HRM are trending topics and there has been significant contribution from the researchers and the academia to the literature. Sustainability in the organizations is measured and reported through the G4 framework. However, in terms of Sustainable HRM, measurement scales are notably absent. Lack of such instruments can be attributed for the concept not growing rapidly. This study attempts to fill the void by developing, testing and validating a measurement scale. As mentioned earlier, there were scales like HPWS that explored the positive relation with performance (Boudreau, 1991; Schmidt et al., 1979), harm index (Mariappanadar, 2013). Similarly, there were studies conducted to measure the impact of HR practices, but there are no studies that measure sustainable HRM practices focusing on the individual, organization and society and thus a need to develop and validate a scale is considered to be significant for the study. It is imperative to develop a scale to measure Sustainable HRM practices in IT industry – an industry that is dominated by work force, process, technology and where client priorities are place ahead of the employees leading to exploitation of resources. The industry, which is volatile, every growing, where newer technologies emerge frequently is met with competing demands, and the urge to grow competitive consumes the resources without much focus on developing and regenerating the resources.

The study adopted the scale development measures defined by Nunnally & Bernstein (1994) and Hinkin (1995). The scale development is done in a stepwise manner that includes item generation,

Content Adequacy Assessment, Questionnaire Administration, Factor Analysis, Internal Consistency Assessment, Construct Validity and Replication (Hinkin et al., 1997).

**Figure 4.4: Scale Development Procedure**



#### 4.10.1 Item Generation

Item Generation is the first step in the scale development. Hinkin et al. (1997) suggests both inductive and deductive approaches for item generation. An extensive review of literature helped to identify variables and generate specific items that are relevant for the current study. The literature search provided as many as many as 102 items. One of the most important thing to be

noted in scale development is that the items are properly constructed and each of the item should address only one single issue.

**Table 4.1. Literature Support for the Variables and Items included in the Study**

<b>Variables</b>	<b>Items</b>	<b>Literature Support</b>	<b>Authors</b>
<b>Employability</b>	Skills, Knowledge, Cooperation, Trust Motivation, Employability, competencies, employability, lifelong learning, employee health, safety, quality of life, work-life balance, justice, ethics, CSR	Human Resources to be fostered include skills, knowledge, cooperation, trust, motivation, employability  Key topics are recruiting and retaining top talent, developing critical competencies, motivation, incentives for exceptional performance, employability, lifelong learning, demographic trends, aging workforces, employee health, safety, quality of life, work-life balance, justice, ethics, and CSR  In spite of having such a young workforce, experts have questioned the employability level of the workforce	Docherty et al., 2002; WBCSD 2002, 2005, 2006; Shrivastava, 2013, Thomas et al., 2013; Thom & Zaugg, 2004
<b>Work Life Balance</b>	Work life Balance, Retention, Attracting employees	Employees expect more from their employers than just offering a good salary – they do for instance expect a support in reaching work-life balance.  For HR executives the challenge lies in deploying employees efficiently today, to provide them enough room for regeneration and work-life balance  Ensuring workplace quality is not only a serious responsibility for any	Stahl et al. 2007, Price Waterhouse Coopers, 2007; Ehnert, 2009; Novo Nordisk, 2007; Google, 2008

		<p>business, but also a key factor in attracting and retaining a highly qualified workforce</p> <p>Consultancies like KPMG who traditionally suffer from a bad reputation when it comes to the work–life balance of their employees address the topic on their websites to convey that they understand and they the company is prepared to offer support for employees to facilitate balancing work and private life</p> <p>The pressure of delivering the best of quality services in a reduced time frame calls for ensuring that employees maintain a work life balance</p>	
<b>Skill Development</b>	Knowledge, Skills, Skill Gap, innovation, Capabilities	<p>Employees expect to increase their knowledge and skills while working for an organization. They believe that employers should provide formal training programs to them to address any skill gaps</p> <p>Critical new skills are scarce—and their uneven distribution around the world is forcing companies to develop innovative new ways to find people, develop capabilities, and share expertise</p>	<p>Ford &amp; Fisher , 1996; Ely &amp; Thomas, 2001; Schultz 1961; Becker 1964; Kilker 1966; Ernst &amp; Young, 2014 Deloitte University Press, 2014</p>
<b>Job Security</b>	Job Security, Employee Retention	<p>The importance of job security derives from the fact that it is an important factor influencing the wellbeing of employee and is positively correlated with employee retention and organizational commitment</p>	<p>Yousef, 1998</p>

<b>Innovation</b>	Value Creation, Performance, Innovation, Motivation	Remuneration plays a key role in retaining, motivating and attracting employees. Remuneration policy and practices are designed to foster outstanding value creation and reinforce a culture of performance and innovation	Hoffmann, 2007
<b>Competitive Advantage</b>		<p>A firm is said to have a competitive advantage when it is implementing a value-creating strategy not simultaneously being implemented by any current or potential competitors</p> <p>The three key drivers for these sustainability activities were contribution to society, competitive financial advantage and environmental considerations.</p> <p>Human Resources are the organization within the meaning of considering them as vital to its existence and to achieve competitive advantage</p>	Porter, 1985; Porter & Kramer, 2006, Barney, 1991; Grant, 1991, 1998; Eliza & Nicoleta, 2013,
<b>Organizational Efficiency</b>	Efficiency, Effectiveness, New Technology, skilled and flexible workforce	<p>Many companies in Europe, as elsewhere, face increasing pressures to ensure efficiency and effectiveness</p> <p>The centrality of human resources is usually accounted for by the fact that nowadays organizations are facing such challenges as a need to increase productivity, expand into global markets, develop new technologies, respond to changes in the highly volatile marketplace, increase revenue and decrease costs, develop</p>	Brewster et al. 2005; Sparrow et al. 2004; Burke, 2005; Ernst & Young, 2014

		skilled and flexible workforce, and introduce changes	
<b>Organizational Culture</b>	Organizational change, cultural change, Values	<p>Sustainability is at its core an issue requiring organizational change and cultural change.</p> <p>Successful companies keep the basic culture of their organizations more or less constant as they represent the core values they run their business</p>	Wirtenberg, Harmon, Russell & Fairfield, 2007; Suryanarayana, 2012
<b>Talent Retention</b>	Employability, lifelong learning, demographic trends, aging workforces, employee health, safety, quality of life, work–life balance, justice, ethics, and CSR, Decrease costs	<p>The second most urgent issue today is retention and engagement—a topic that often has no clear owner within HR or the business</p> <p>Key topics are recruiting and retaining top talent, developing critical competencies, motivation, incentives for exceptional performance, employability, lifelong learning, demographic trends, aging workforces, employee health, safety, quality of life, work–life balance, justice, ethics, and CSR</p> <p>Organizations can leverage sustainability to attract, retain and develop employees</p>	WBCSD 2002, 2005, 2006; Burke, 2005; Deloitte University Press, 2014; Society for Human Resource Management, 2010
<b>Leadership Development</b>	Leadership, Business Strategy, leadership Development, managerial capability	<p>Identifying appropriate successors for key leadership roles to drive the business strategy and the sustainability agenda</p> <p>The need to broaden, deepen, and accelerate leadership development at all levels; build global workforce capabilities; re-energize corporate learning by putting employees in charge; and fix performance management</p>	Ernst & Young, 2014; Deloitte University Press, 2014; Suryanarayana, 2012

		<p>Building managerial capability, which is expected to be ubiquitous, is a high priority for most of the organization today and it shall hold the key to the future as well</p> <p>Key objectives of sustainability deduced are value creation, obtaining legitimacy, strengthen a company's reputation, image, creating accountability and transparency, trust and trustworthiness</p>	
<b>Accountability</b>	Trustworthiness, Employer branding, Accountability	<p>Companies that are active in the sustainability space can position themselves as responsible, progressive and dynamic in the talent market</p> <p>Sustainability is used to create an employer brand of the "socially responsible and trustworthy employer"</p>	Ernst & Young, 2014; Docherty et al., 2002; Zaugg, 2004; Ehnert, 2006
<b>Social Legitimacy</b>	Social Legitimacy, Responsibility	Sustainability as a social responsibility focuses on the objective of providing social legitimacy, accountability, and on the objective of dealing with uncertainty	Suchman, 1995; Klimecki & Remer, 1997; Boxall & Purcell, 2003; Ehnert, 2006
<b>Inclusion</b>	Inclusion, Employee Voice, Human Rights, empowerment, engagement, integrity-driven behavior, Diversity, business transparency, business processes	<p>In designing a sustainable HRM system, HR managers must examine its impact on diversity and inclusion, employee voice and human rights</p> <p>Sustainable organization typically promotes a culture of ethical, respectful and integrity-driven behavior, empowerment and engagement of employees using collaborative networks,</p>	Society for Human Resource Management, 2013

		diversity and inclusion, open and interactive dialog with stakeholders, business transparency, and business processes that include social and environmental considerations	
<b>Corporate Social Responsibility</b>	CSR, Strategy, business Value, safety, quality of life, work–life balance, justice, ethics, and CSR	Organizations successful at managing sustainable development are not only expected to develop quantifiable measures to articulate the business value of CSR activities but must focus on fully integrating CSR into strategy	Bulmash, 2011; WBCSD 2002, 2005, 2006
<b>Leadership Support</b>	<b>Leadership Support</b>	<p>One of the biggest challenges companies face in sustainability is getting top-leadership attention.</p> <p>Placing sustainability as central to business strategy and top management support can be viewed as fundamental drivers to an enduring, successful path to sustainable management.</p> <p>It may be more difficult for organizations to make major advancements into sustainability without support from executive-level employees</p>	Nadler & Tushman, 1997; Society for Human Resource Management, 2010; Ernst & Young, 2014; McKinsey, 2014

#### 4.10.2. Content Adequacy Assessment

Table 4.2 lists the items identified for the developed of the scale. From the literature, the study identified 102 responses. The items were discussed with the industry experts and based on their suggestions, 15 items were dropped as experts felt that few of the items were overlapping. 17 items were removed due to lack of clarity and possibility of misinterpretation. Later, the statements were shown again to the experts and were asked to rate the statements. On their feedback, 14 items were dropped. Later, these items were discussed with the business heads within the HR organization

and based on their suggestions, the questions were reframed and ensured that simple language is used for the benefit of the respondents. Thus, after a careful examination of the literature and the suggestion of the experts, 56 items were taken into consideration for the pilot study. These items were again discussed with the experts, of which no item was deleted and thus a pool of 56 items were considered for the development of the measurement scale

*Table 4.2. Variable and Item Generation*

<b>Variables</b>	<b>No. of items identified</b>
Employability	(09 items)
Work life Balance	(10 items)
Skill Development	(08 items)
Job Security	(07 items)
Innovation	(06 items)
Competitive Advantage	(08 items)
Organizational Efficiency	(07 items)
Organizational Culture	(06 items)
Talent Retention	(08 items)
Leadership Development	(06 items)
Accountability	(08 items)
Social Legitimacy	(06 items)
Inclusion	(07 items)
Corporate Social Responsibility	(06 items)

#### **4.10.3. Pilot Study**

Pilot studies are considered to be a pre-test to the survey (Baker, 1994), which will help the researcher to identify redundancy in the design of the instrument (Cooper and Schindler, 2001). This will enable the researcher to see if there are any ambiguities in understanding the statements and if the statements proposed in the survey instruments makes sense to the respondents (De Vaus, 1993). A Pilot study could be conducted either electronically (online) or personally meeting the respondents. By conducting the pilot study manually, researcher would be in a position to see if

the instruments makes sense to the respondents (Neuman, 1997) and thus the data collection for the pilot study was done manually collecting both the quantitative and qualitative data.

The instrument developed consisted of three sections – the first section captured the demographic profile of the respondents, the second section consisted of the 56 items which were used to develop Sustainable HRM Scale and the third section consisted of 06 items related to Leadership Support and HRM Functions. Thus the total number of items for the Pilot study consisted of 62 items.

Out of the 62 questions in the pilot study, 4 questions were negatively stated, hence the responses were recoded. The pilot study was conducted in consistent with the recommendations of Nunnally (1978) and ensured that the respondents understand the statements.

#### **4.10.3.1. Selection of Organizations**

It is established that studies on the HR practices in organizations are available in good number. However, literature evidences that they were conducted in Isolation. Prior studies have focused on HR practices in Indian IT companies (Agarwal & Ferratt, 1999) and HR practices of foreign firms operating in India (Bjorkman & Budhwar, 2007). However, there were hardly any studies that focused on Indian rooted companies and MNC organizations that have significant presence in the India. The current study fills the void as the study adopted five Indian headquartered organizations and five organizations which are headquartered outside India but have a sizeable operations in India. TCS, Infosys, Wipro, HCL and Tech Mahindra are the largest IT Companies both in terms of revenues and headcount. Microsoft, IBM, Oracle, HP and Cognizant are the multinational companies considered for the study. All the five organizations are headquartered in US and have their offshore development centers in India. The study in particular chose US based multinational organizations as US accounts for 60 percent of IT business in India.

The focus was on large companies as they are considered to be influential in the dissemination of best practices because of their position at the apex of global value chains (Gereffi, 2014). Large organizations have matured processes and systems in place, which makes them more competitive. The need for being competitive makes them look at sustainable practices. On the hand, smaller organizations strive for survival, as only the fittest survives in the competitive environment and thus the focus is on survival and not on sustainability. Those organizations, whose headcount was more than 100,000 employees were considered for the study. As per the NASSCOM (2015), there

were only 5 Indian headquartered organizations that have more 100,000 and hence, the study included five organizations, who are headquartered in U.S with headcount of 100,000 above with significant presence in India. A brief profile of each of the company along with the employee size and revenues are listed below.

<p><b>Tata Consultancy Services</b> is an IT services, consulting and business solutions organization that delivers real results to global business, ensuring a level of certainty no other firm can match. TCS offers a consulting-led, integrated portfolio of IT, BPS, infrastructure, engineering and assurance services. This is delivered through its unique Global Network Delivery Model™, recognized as the benchmark of excellence in software development. A part of the Tata group, India’s largest industrial conglomerate, TCS has over 344,000 of the world’s best-trained consultants in 46 countries. The company generated consolidated revenues of US \$15.5 billion for year ended March 31, 2015 and is listed on the National Stock Exchange and Bombay Stock Exchange in India. (<a href="http://www.tcs.com/about/corp_facts/Pages/default.aspx">http://www.tcs.com/about/corp_facts/Pages/default.aspx</a>, website accessed on 28/03/2016)</p>	
Employees	344,691
Revenue	US \$15.5 billion
Website	<a href="http://www.tcs.com">www.tcs.com</a>

<p><b>Infosys</b> is a global leader in consulting, technology, and outsourcing and next-generation services. They enable clients in more than 50 countries to outperform the competition and stay ahead of the innovation curve. With US\$9.21 bn in LTM Q3 FY16 revenues and 193,000+ employees, They are helping enterprises renew themselves while also creating new avenues to generate value. Infosys provides enterprises with strategic insights on what lies ahead. We help enterprises transform and thrive in a changing world through strategic consulting, operational leadership, and the co-creation of breakthrough solutions, including those in mobility, sustainability, big data, and cloud computing. (<a href="https://www.infosys.com/about/">https://www.infosys.com/about/</a>, website accessed on 28/03/16)</p>	
Employees	1,93,000
Revenue	US\$ 9.2 billion
Website	<a href="http://www.infosys.com">www.infosys.com</a>

**Wipro Ltd** (NYSE:WIT) is a global information technology, consulting and outsourcing company with 170,000+ workforce serving clients in 175+ cities across 6 continents. The company posted revenues of \$7.6 billion for the financial year ended Mar 31, 2015. Wipro helps customers do business better by leveraging our industry-wide experience, deep technology expertise, comprehensive portfolio of services and vertically aligned business model. Our 55+ dedicated emerging technologies ‘Centers of Excellence’ enable us to harness the latest technology for delivering business capability to our clients. (<http://www.wipro.com/about-Wipro/>, website accessed on 28/03/2016)

Employees	170,000
Revenue	US\$ 7.6 billion
Website	<a href="http://www.wipro.com">www.wipro.com</a>

**Tech Mahindra** represents the connected world, offering innovative and customer-centric information technology services and solutions, enabling Enterprises, Associates and the Society to Rise. They are a USD 4.0 billion company with 107,100+ professionals across 90 countries, helping over 800 global customers including Fortune 500 companies. Our innovation platforms and reusable assets connect across a number of technologies to deliver tangible business value to our stakeholders. Tech Mahindra is also amongst the Fab 50 companies in Asia as per the Forbes 2014 List. (<http://www.techmahindra.com/company/default.aspx>, website accessed on 28/03/2016)

Employees	107,100
Revenue	US\$ 4.0 billion
Website	<a href="http://www.techmahindra.com">http://www.techmahindra.com</a>

**HCL Technologies** is a leading global IT services company working with clients in areas that impact and redefine the core of their businesses. Since its emergence on global landscape after its IPO in 1999 and listing in 2000, HCL Technologies, along with its subsidiaries, today operates out of 32 countries and has consolidated revenues of US\$ 6.1 billion, as on 31st December 2015 (on Calendar Year basis). HCL focuses on 'transformational outsourcing',

underlined by innovation and value creation, offering an integrated portfolio of services including Enterprise Digitalization, Internet of Things, Engineering Services Outsourcing and Next Generation IT Outsourcing that focuses on transformation-led infrastructure services, applications services and business services. HCL leverages its extensive global delivery capabilities and integrated innovation labs across the world to provide holistic, multi-service delivery in key industry verticals including Financial Services, Manufacturing, Telecommunications, Media, Publishing & Entertainment, Retail & CPG, Life sciences & Healthcare, Oil & Gas, Energy & Utilities, Travel, Transportation & Logistics and Government (<http://www.hcltech.com/about-us/about-hcl-technologies>, website accessed on 28/03/2016)

Employees	103,696
Revenue	US\$ 6.1 billion
Website	<a href="http://www.hcltech.com">www.hcltech.com</a>

**Microsoft Corporation** is engaged in developing, licensing and supporting a range of software products and services. The Company also designs and sells hardware, and delivers online advertising to the customers. The Company operates in five segments: Devices and Consumer (D&C) Licensing, D&C Hardware, D&C Other, Commercial Licensing, and Commercial Other. The Company's products include operating systems for computing devices, servers, phones, and other intelligent devices; server applications for distributed computing environments; productivity applications; business solution applications; desktop and server management tools; software development tools; video games; and online advertising. It also offers cloud-based solutions that provide customers with software, services and content over the Internet by way of shared computing resources located in centralized data centers. It provides consulting and product and solution support services. (<https://www.google.com/finance?cid=358464>, website accessed on 28/03/2016)

Employees	112,388
Revenue	US\$ 93.5 billion
Website	<a href="http://www.microsoft.com">http://www.microsoft.com</a>

**IBM** is a globally integrated technology and consulting company headquartered in Armonk, New York. With operations in more than 170 countries, IBM attracts and retains some of the world's most talented people to help solve problems and provide an edge for businesses, governments and non-profits. Today, IBM is focused on five growth initiatives - Cloud, Big Data and Analytics, Mobile, Social Business and Security. IBMers are working with customers around the world to apply the company's business consulting, technology and R&D expertise to enable systems of engagement that deliver dynamic insights for businesses and governments worldwide (<http://www-03.ibm.com/press/us/en/background.wss>, website accessed on 28/03/2016)

Employees	377,757
Revenue	US\$ 81.8 billion
Website	<a href="http://www.ibm.com">www.ibm.com</a>

**HP Inc.** creates technology that makes life better for everyone, everywhere. Through our portfolio of printers, PCs, mobile devices, solutions, and services, we engineer experiences that amaze. HP is a leading global provider of products, technologies, software, solutions and services to individual consumers, small- and medium-sized businesses ("SMBs") and large enterprises, including customers in the government, health and education sectors (<http://www8.hp.com/us/en/hp-information/index.html>, website accessed on 28/03/2016)

Employees	287,000
Revenue	US\$ 103.35 billion
Website	<a href="http://www.hp.com">www.hp.com</a>

Headquartered in Teaneck, New Jersey (U.S.), **Cognizant** combines a passion for client satisfaction, technology innovation, deep industry and business process expertise and a global, collaborative workforce that embodies the future of work. With over 50 delivery centers worldwide and approximately 221,700 employees as of December 31, 2015, Cognizant is a member of the NASDAQ-100, the S&P 500, the Forbes Global 2000 and the Fortune 500 and is ranked among the top performing and fastest growing companies in the world. (<https://www1.cognizant.com/company-overview>, website accessed on 28/03/2016)

Employees	221,700
Revenue	US\$ 12.41billion
Website	<a href="http://www.cognizant.com">www.cognizant.com</a>

From data center operations to cloud applications, <b>Oracle</b> not only eliminates the complexity that stifles business innovation, but also engineers in speed, reliability, security, and manageability. Oracle’s industry-leading cloud-based and on-premises solutions give customers complete deployment flexibility and unmatched benefits including application integration, advanced security, high availability, scalability, energy efficiency, powerful performance, and low total cost of ownership ( <a href="http://oracle.com/us/corporate">http://oracle.com/us/corporate</a> , website accessed on 28/03/2016)	
Employees	136,406
Revenue	US\$ 38.23 billion
Website	<a href="http://www.Oracle.com">www.Oracle.com</a>

#### 4.10.3.2. Data Collection

The data was collected through a structured questionnaire and the respondents were asked if the statements were clear for them to answer. Data was primarily collected offline across levels as per the criteria mentioned above. In-person discussions were also conducted to elicit more information about the HR practices not covered in the study. A Seven point Likert scale was used to extract the information from the respondents. A sample of 101 responses were collected and analyzed using SPSS 22. Data was collected from all the 10 companies for the pilot study so that the results would be accurate. 49 responses were collected from US headquartered companies and 52 responses were collected from the Indian companies, accounting to 101 responses.

#### 4.10.3.3. Likert Scale

7 point Likert scale was used to collect responses from the respondents. Likert scale is an ordered scale that helps the respondents choose the best option from the available options where 7 = Strongly Agree, 6 = Agree, 5 = Somewhat Agree, 4 = Not Sure, 3 = Somewhat Disagree, 2 = Agree and 1 = Strongly Agree. The study initially used a 5 point Likert scale that is considered to be a most common scale, however, after initial responses from the respondents, it was evident that most

of the respondents chose middle path, which was neutral and lead the study nowhere. Later, a four point scale was used to obtain responses that ranged from Strongly Agree to Strongly Disagree. Respondents were of the opinion that they were forced to choose among the given options, which was in line with the argument of Worcester and Burns (1975) who stated that a scale without mid-point pushes the respondents towards the positive end of the scale and thus the study looked at implementing a seven point Likert scale. The research suggests that as the number of scale steps increases, the respondents use of mid-point category decreases (Matell & Jacoby, 1972).

#### 4.10.3.4. Reliability of the Instrument

Reliability of the instrument was measured using Cronbach-Alpha Coefficients. Hair et al. (1999) states that no single item is a perfect measure of concept. Hair also points out that the causes of low reliability could be either due to misunderstanding or lack of understanding of the items mentioned in the scale. Cronbach alpha of 0.7 and above is considered to be good although 0.6 can be considered in exploratory research (Hair et al., 1999, 1978). Nunnally (1978) states that 0.7 is the acceptable Coefficient, although some researchers consider less than 0.7 also. Cronbach Alpha in the current study is 0.827, which is higher than 0.7 and thus the instrument is considered reliable. George & Mallery (2003) categorizes the values of the Cronbach Alpha, where  $>.9$  is considered excellent and  $>.7$  is acceptable. Closer, the Cronbach to 1, higher the internal consistency reliability (Green and Mulaik, 1977; Hair, 1999).

For each of the 14 factors, Cronbach-alpha was computed. Item-to-total correlation, whose values was less than 0.40 were dropped and thus 6 items were dropped after the reliability test using Cronbach-alpha. Nunnally (1978) suggests that item to total correlation should be  $<0.35$  with a Cronbach alpha of at least 0.70 although it may decrease to 0.60 in exploratory research (Hair et al., 2010). Cronbach alpha was computed after deleting the 6 items and the Cronbach alpha for each of the factor was above 0.70. Cronbach alpha and the number of items under each of the factor is given in the table 4.3.

**Table 4.3. Reliability Analysis for each of the Factors**

<b>Variables</b>	<b>No. of items</b>	<b>Cronbach Alpha</b>
Employability	(03 items)	0.886
Work life Balance	(04 items)	0.925

Skill Development	(03 items)	0.814
Job Security	(03 items)	0.762
Innovation	(04 items)	0.849
Competitive Advantage	(04 items)	0.893
Organizational Efficiency	(04 items)	0.842
Organizational Culture	(03 items)	0.791
Talent Retention	(04 items)	0.833
Leadership Development	(04 items)	0.744
Accountability	(04 items)	0.826
Social Legitimacy	(03 items)	0.815
Inclusion	(04 items)	0.777
Corporate Social Responsibility	(03 items)	0.882

6 items were removed as their item to total correlation were less than 0.40. Cronbach alpha for the 50 items was 0.827, which is above the threshold acceptable value of 0.70 (George & Mallery, 2003). Each of the factor has at least 3 items which is in confirmation with the studies of MacDonald & Krane, 1979; Rindskopf, 1984).

**Table 4.4. Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.827	.827	50

#### **4.10.3.5. Exploratory Factor Analysis**

The items, which were developed for the study were refined using Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA). Exploratory factor analysis was applied on the 50 items. Factor analysis was conducted to look into the reduction of number of items. Further, factor analysis describes the underlying structure or patterns of the variables as represented by their inter correlations. Hair et al (2010) recommends Factor Analysis and Confirmatory Factor

Analysis as appropriate techniques if the structure of the variables has to be analyzed. The objective of the factor analysis is to condense the information contained in a number of original variables into a smaller set of variables with a minimal loss of variables. Factor analysis is considered to be very objective for creating summated scales as it provides an empirical estimate of the structure of the variables. Criteria followed for the elimination of items is factor loadings <0.50 (Karatepe et al., 2005) and cross loading >0.40 or communalities (Hair et al., 1998). Below table indicates the factor loadings, which were above <0.50 and thus were considered to be good.

*Table 4.5. Pattern Matrix*

	EMP	WLB	SKD	JBS	INV	LSD	COA	ORE	ORC	TLR	ACC	SLG	INC	CSR
EMP2	.699													
EMP3	.515													
EMP4	.657													
WLB1		.845												
WLB2		.949												
WLB3		.647												
SKD2			.672											
SKD3			.710											
SKD4			.717											
JBS1				.607										
JBS2				.692										
JBS4				.620										
INV1					.678									
INV3					.734									
INV4					.706									
LSD1						.794								
LSD2						.685								
LSD3						.801								
LSD4						.884								
COA1							.761							
COA2							.510							

COA3	.718		
COA4	.790		
ORE2	.610		
ORE3	.905		
ORE4	.727		
ORC1	.600		
ORC2	.747		
ORC4	.610		
TLR1		.747	
TLR2		.760	
TLR3		.596	
TLR4		.699	
ACC2			.834
ACC3			.862
SLG1			.593
SLG2			.627
SLG3			.769
INC1			.578
INC2			.733
INC3			.827
CSR1			.885
CSR2			.915
CSR3			.949

#### 4.10.3.6. Sample Size

Statisticians have provided various ways of calculating the sample size required for the study. Statisticians differ in arriving at the adequate sample as few opine that the absolute number (N) is important while others stress the subject to variable ratio. A minimum of 300 sample would be ideal to run Structural Equation Modelling. Hagger (1994) and Hair et al (1998) suggests that the sample size for the study could be five times the number of variables. However, majority of the

researchers opine that there should be at least 10 cases for each item (10:1). The number of items after the pilot study for scale development were 50 and 6 items were included to check the effect of HR functions and the leadership support for sustainable outcomes. For a total number of 56 items, 560 would be the adequate sample. Further, the study involves SEM and for SEM, rule of 10 is justified in many studies (Garson, 2008; Everitt, 1975; Nunnally, 1978).

Responses were obtained through a structure questionnaire. Pilot study was conducted offline, however the final study was conducted through offline and online. A total of 617 responses were collected. 17 of them were discarded due to data incompleteness and hence, the sample size for the study is 600 in total.

Exploratory Factor Analysis (EFA) was conducted to understand the underlying structure among the variables. 50 items after the computation of Cronbach alpha were considered for the factor analysis, which resulted in 14 factors, whose Eigen values are greater than one (Kaiser, 1960) and thus none of the factors were eliminated. 14 factors that are yielded from the factor analysis accounted for 73.817% of variance. Table 4.5 explains the total variance explained by the first factor is 29.530%, which is less than 50% thus indicating free from significant common method bias effects. However, six items were eliminated as they have not met the minimum criteria  $<0.50$  (Karatepe et al., 2005) and thus there were 44 items after the factor analysis. WLB4, INV2, ORE1, ACC1, ACC4, INC4 were the items deleted due to the low and cross loadings.

**Table 4.6. Total Variance Explained**

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	14.166	29.530	29.530	14.494	29.530	29.530
2	4.832	8.253	37.783	2.889	8.253	37.783
3	3.698	4.501	42.284	2.475	4.501	42.284
4	3.118	6.558	48.842	1.957	6.558	48.842
5	2.314	4.130	52.972	1.722	4.130	52.972
6	1.935	3.629	56.602	1.666	3.629	56.602
7	1.771	2.852	59.453	1.568	2.852	59.453
8	1.606	2.577	62.030	1.417	2.577	62.030
9	1.548	2.374	64.404	1.305	2.374	64.404
10	1.498	2.193	66.596	1.261	2.193	66.596
11	1.175	1.962	68.558	1.189	1.962	68.596
12	1.124	1.840	70.398	1.122	1.840	70.398
13	1.099	1.771	72.169	1.029	1.771	72.169
14	1.034	1.648	73.817	1.017	1.648	73.817
15	.975	1.572	75.389			
16	.882	1.483	76.872			
17	.850	1.415	78.287			
18	.825	1.320	79.607			
19	.767	1.245	80.852			
20	.738	1.202	82.054			
21	.724	1.129	83.183			
22	.717	1.133	84.316			
23	.702	1.015	85.331			
24	.667	1.104	86.434			
25	.593	.879	87.313			
26	.574	.854	88.167			
27	.535	.842	89.010			
28	.519	.824	89.834			
29	.506	.801	90.635			
30	.485	.751	91.386			
31	.465	.726	92.112			
32	.463	.712	92.824			
33	.442	.693	93.517			
34	.438	.647	94.164			
35	.420	.634	94.798			
36	.401	.619	95.417			
37	.378	.568	95.985			
38	.354	.524	96.509			
39	.329	.477	96.987			
40	.307	.439	97.426			
41	.296	.418	97.844			
42	.283	.404	98.248			
43	.263	.347	98.596			
44	.243	.323	98.918			
45	.230	.308	99.226			
46	.221	.162	99.388			
47	.213	.217	99.606			
48	.194	.184	99.790			
49	.163	.106	99.896			
50	.158	.104	100.000			

#### 4.10.3.7. KMO and Bartlett's Test

Kaiser-Meyer – Olkin (KMO) and Bartlett’s Test of Sphericity was carried out to check the sampling adequacy. A value close to 1 indicates that the patterns of correlation are relatively compact and so factor analysis should yield distinct and reasonable factors, which resulted in 14 factors. KMO measure - value greater than 0.5 should be acceptable, however for a good factor analysis KMO must be above 0.60 (Tabachnick & Fidell, 1996). According to Hair 0.80 or above is considered meritorious, 0.70 or above is middling, 0.60 or above is mediocre, 0.50 or above is miserable and anything less than 0.50 is unacceptable. Below table indicates that the KMO value is 0.898, which is above 0.60 and is considered meritorious. Similarly, Bartlett's Test of Sphericity should have significant value of less than 0.05. In this case, the significant level is .000 and thus indicates that sufficient correlations exist among the variables. Details of the KMO and Bartlett’s Test can be seen in the table 4.6.

*Table 4.7. KMO and Bartlett's Test*

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.898
	Approx. Chi-Square	20819.776
Bartlett's Test of Sphericity	Df	1485
	Sig.	.000

#### 4.10.3.8. Confirmatory Factor Analysis

Confirmatory Factor Analysis (CFA) was performed on the remaining 44 items. CFA is a structural equation modeling technique that allows separate relationships for each of a set of dependent variables (Hair et al., 2010), which is characterized by two components – Structural Model and the Measurement Model. Structural model is the path model that relates the independent to dependent variable whereas the measurement model enables the use of several variables for a single independent or dependent variable. CFA enables to assess the contribution of each scale item as well as incorporate how well the scale measures the reliability. Structural equation modeling is also known as linear structural relationship model (Joreskog & Sorbom, 2004) or covariance structure (McDonald, 1978). JBS4, IN4, LSD3, COA3, COA4, ORC2, TLR3, SLG1, INC3 had to be eliminated due to their low loadings. Confirmatory Factor Analysis resulted in 35 items whose

loading were between 0.72 and 0.95. Thus, the scale to measure Sustainable HRM consists of 35 items. The final scale – 35 items is given at the end of the thesis (Appendix -2).

#### **4.10.3.9. First Order Model**

The estimation of Sustainable HRM model is carried out in two stages as per the recommendations of Anderson & Gerbin (1988) and Hair et al., (2008). In the first stage, the measurement model is estimated, and in the second the model is fixed in order estimate the structural model. The logic behind this reasoning is that the reliability of the indicators is better represented in two stages, avoiding interaction between the measurement and structural models (Alves & Raposo, 2007). The final results of the CFA of each factor model are connected to develop the overall measurement model. The first order CFA model of 14 factorial structure of Sustainable HRM has 35 items. The first order measurement model was built using the recommendations of Bryne (2010). To test the first order CFA model, one of the basic criteria is to ensure that the 14 factors are correlated. Covariances between variables are explained with the single latent factor in the first order model (figure 4.5).

#### **Model Fit Indices**

Table 4.7 shows that the Value of RMSEA is 0.064, RMSEA scores which are from 0.05 to 0.08 are considered to be good. The value of  $\chi^2$  is 3.506,  $\chi^2$  value less than 2.0 is considered to be very good, however values between 2.0 and 5.0 is acceptable and thus the  $\chi^2$  value is the model is acceptable. Similarly GFI values above 0.9 are considered to be good although some argue that 0.95 is deemed to be a good fit as higher the sample size, higher would be the GFI value. The current model has GFI of 0.934 which is above 0.9 and thus considered to be a good. GFI is an attempt to produce a fit statistic that is less sensitive to the sample size (Hair et al., 2010).

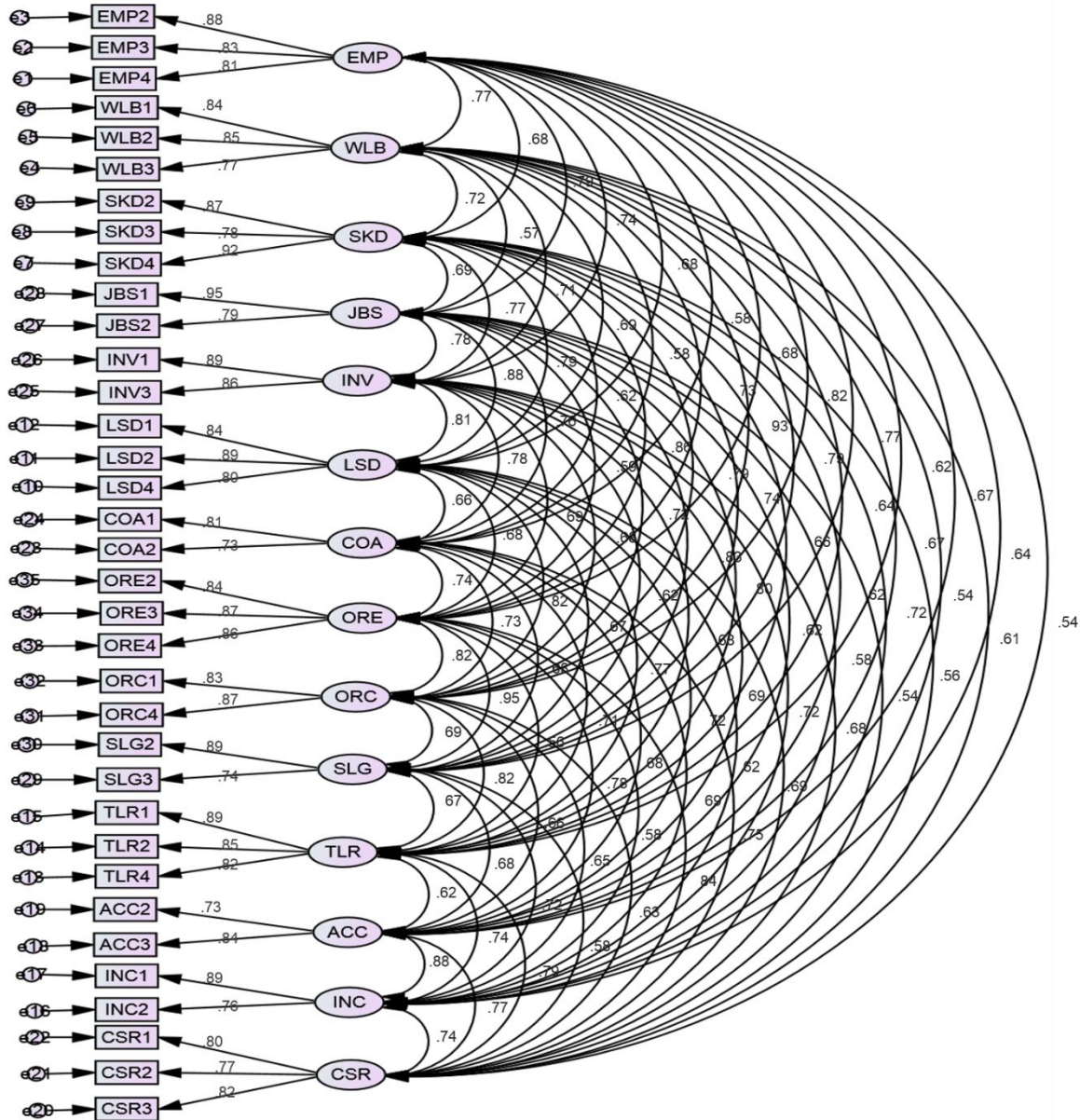
Normal Fit Index (NFI) ranges from 0 to 1, where 1 is a perfect model, the current model has NFI value of 0.950, which is considered to be very good. Comparative Fit Index (CFI) is an improved version of the normal fit index, which also ranges from 0 to 1 and CFI values above 0.90 are usually considered as a good fit and the current model indicates CFI value of 0.952

#### **4.10.3.10. Second Order Model**

The second order measurement model is developed based on the assumption that the first order latent constructs are integrated into one second-order latent construct. Second order measurement

model theory involves two layers of latent constructs. The model explains the second order latent factors that cause multiple first order latent factors, which otherwise cause the measured variables (Hair et al., 2008). The schematic representation of the model is shown in figure

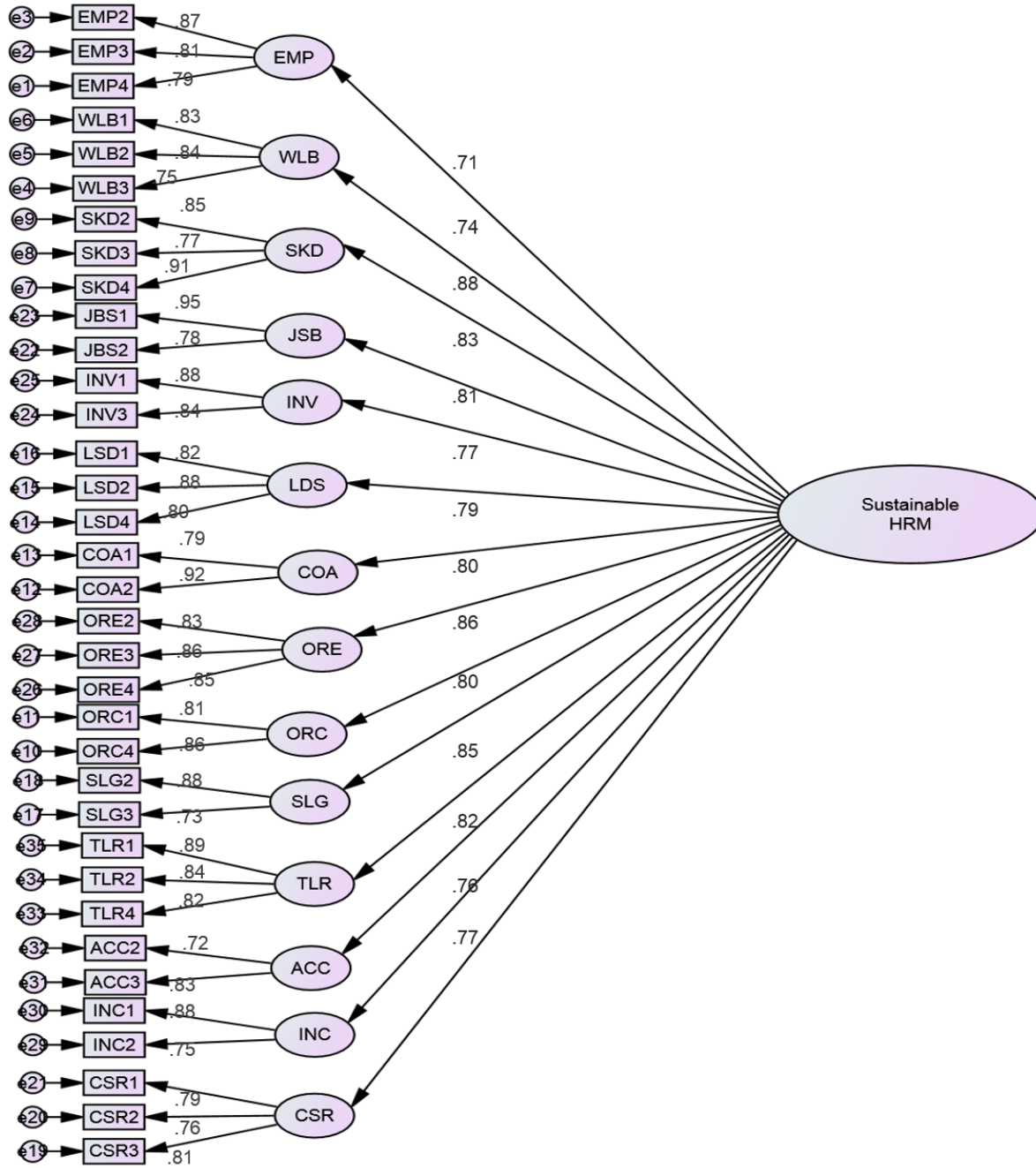
**Figure 4.5. First Order Measurement Model**



**Table 4.8. Model Fit Summary**

CMIN	DF	CMIN/DF	CFI	NFI	PCFI	GFI	AGFI	RMSEA
392.63	112	3.506	0.952	0.950	0.758	0.934	0.898	0.064

Figure 4.6. Second Order Measurement Model



**Table 4.9. Amos Results of Measurement Model**

			Standardized Estimates	C.R#	P	AVE	Square root of AVE	Cronbach Alpha
EMP4	<---	EMP	0.87	**		0.595	0.771	0.886
EMP3	<---	EMP	0.81	18.961	***			
EMP2	<---	EMP	0.79	19.389	***			
WLB3	<---	WLB	0.75	**		0.636	0.797	0.925
WLB2	<---	WLB	0.84	27.738	***			
WLB1	<---	WLB	0.83	27.207	***			
SKD4	<---	SKD	0.91	**		0.621	0.788	0.814
SKD3	<---	SKD	0.77	13.928	***			
SKD2	<---	SKD	0.85	13.422	***			
JBS2	<---	JBS	0.78	**		0.577	0.760	0.762
JBS1	<---	JBS	0.95	18.118	***			
INV3	<---	INV	0.84	**		0.696	0.834	0.849
INV1	<---	INV	0.88	12.272	***			
LSD4	<---	LDS	0.80	**		0.757	0.870	0.893
LSD2	<---	LDS	0.88	12.398	***			
LSD1	<---	LDS	0.82	12.831	***			
ORE4	<---	ORE	0.85	**		0.601	0.775	0.842
ORE3	<---	ORE	0.86	23.752	***			
ORE2	<---	ORE	0.83	23.607	***			
TLR4	<---	TLR	0.82	**		0.668	0.817	0.833
TLR2	<---	TLR	0.84	22.011	***			
TLR1	<---	TLR	0.89	29.183	***			
ORC4	<---	ORC	0.85	**		0.627	0.792	0.791
ORC1	<---	ORC	0.81	24.885	***			
COA2	<---	COA	0.92	**		0.596	0.772	0.893
COA1	<---	COA	0.79	21.987	***			
SLG3	<---	SLG	0.73	**		0.594	0.771	0.815
SLG2	<---	SLG	0.88	18.107	***			
ACC3	<---	ACC	0.83	**		0.712	0.844	0.826
ACC2	<---	ACC	0.72	17.499	***			
INC2	<---	INC	0.75	**		0.784	0.885	0.777
INC1	<---	INC	0.88	17.833	***			
CSR3	<---	CSR	0.81	**		0.662	0.814	0.882
CSR2	<---	CSR	0.76	22.495	***			
CSR1	<---	CSR	0.79	21.534	***			

Note: \*\*\* significant at the 0.001 level (two tailed)

\*\* Critical ratio is not available, because the regression weights are fixed at 1,

CR = Critical Ratio, AVE= Average Variance extracted, CR = Construct Reliability

#### 4.4. Reliability and Validity Tests of the Measurement Model

The assessment of CFA is incomplete if it is based on only fit indices. The valuation of construct validity and reliability is required for additional evidence (Hair et al., 2008). Therefore, the assessment of measurement model was done through construct validity and reliability. The construct validity consists of face validity, convergent validity, discriminant validity, nomological validity and criterion validity (Churchill, 1979). However, the construct validities such face validity, convergent validity, discriminant validity and criterion validity retested at this level.

##### Validity

Validity is a measurement characteristic that is concerned with the extent to which operational measures truly reflect the concept being investigated (Netemeyer et al., 2007). Face validity is examined at the stage of items generations from extensive review of literature. The study has adopted various suggestions by the subject matter and made changes accordingly.

##### Convergent Validity

Convergent validity means that the different measures of the same construct will relate strongly with one another and discriminant validity means that measures of different constructs should relate only modestly with one another. Convergent validity refers to the degree to which two measures of the same concept are correlated. Discriminant validity refers to the degree to which two conceptually similar concepts are distinct (Hair et al., 2010). Convergent and discriminant validity means that the variance in a measure should reflect only the variance contributed by the proposed latent variables and not by the other variables (O'Leary-Kelly & Vokurka, 1998). Thus Convergent and discriminant validity could be tested by the Average Variance Extracted. The Average Variance Extracted (AVE) is calculated as the mean variance extracted for the items loading on a construct and is summary indicator of convergence (Hair et al., 2010). The AVE is calculated manually with the following formula:

$$AVE = \frac{\sum_{i=1}^n L_i^2}{n}$$

Where  $L_i$  is the standard factor loading and  $i$  represents the number of items and thus for  $n$  items, AVE is computed as the total of all squared standardize factor loadings divided by the number of

items. The variance extracted for all the factors exceeded 0.50, which is considered to be a good rule of thumb suggesting adequate convergence. AVE of less than 0.50 indicates that there remains an error in the items.

Convergent validity is also assessed through standardized coefficients (factor loadings) of the 14 latent variables, Average Variance Extracted (AVE) and Construct Reliability (CR) for each latent variable. From the table 4.9, it can be observed that all the indicators are statistically significant at 0.001, which shows that they are significantly related to other respective constructs. Table indicates that all the standard estimates are above 0.50. The loadings are in the range from 0.72 to 0.95 correspondent to a standard estimation of at least 0.50 (Hair et al., 2008). The Average Variance Extracted (AVE) for each of the construct also exceed the minimum threshold level of 0.50. Thus, it can be considered that the measured variables of concern construct shares a high proportion of variance in common (Hair et al., 2008).

### **Discriminant Validity**

Discriminant validity refers to the extent to which a construct is truly distinct from other constructs. Discriminant validity is checked with the comparison of variance extracted estimates for each construct with the squared inter-construct correlations (SIC) associated with that construct. All the extracted variance estimates are greater than squared inter-construct correlations, thus indicating that each construct is unique and captures some experience which other measures do not.

### **Nomological and Face Validity**

Hair et al (2010) states that the constructs should also have face validity and Nomological validity. Face validity has to be established before using CFA. Face validity helps the research to understand if the item's content and meaning makes sense to the respondents. There is a high chance of error in the responses, when the respondents does not understand the statements in the questionnaire and thus face validity is very important especially in scale development. Face validity is checked by discussing the statements with the industry experts and the statements were rewritten in simple English that will convey the intention of the questions. The statements were further refined after the pilot study. Nomological validity is tested by examining if the correlations among the constructs makes sense. The nomological validity has been tested by examining the relationship between the 14 factors in the study.

**Table 4.10. AVE and Squared Inter Construct Correlation (SICP for Discriminant Validity)**

Factor	EMP	WLB	SKD	JBS	INV	LDS	COA	ORE	ORC	TLR	SLG	ACC	INC	CSR	AVE
EMP	*														.595
WLB	.494	*													.636
SKD	.476	.488	*												.621
JBS	.484	.472	.467	*											.577
INV	.464	.464	.452	.461	*										.696
LDS	.432	.425	.398	.435	.452	*									.757
COA	.423	.444	.372	.421	.448	.421	*								.596
ORE	.404	.417	.343	.409	.420	.406	.397	*							.601
ORC	.398	.397	.321	.384	.367	.396	.371	.368	*						.627
TLR	.376	.364	.333	.371	.341	.389	.321	.344	.345	*					.668
SLG	.349	.325	.299	.356	.302	.376	.309	.299	.288	.312	*				.594
ACC	.337	.312	.276	.344	.298	.365	.295	.278	.264	.307	.293	*			.712
INC	.321	.123	.288	.322	.307	.302	.221	.245	.221	.298	.282	.242	*		.784
CSR	.318	.367	.245	.301	.292	.286	.235	.210	.241	.245	.263	.223	.145	1	.662
AVE	0.595	0.636	0.621	0.577	0.696	0.757	0.596	0.601	0.627	0.668	0.594	0.712	0.784	0.662	

**4.5. Correlation among Factors**

**Table 4.11. Correlation among Factors**

Factor	EMP	WLB	SKD	JBS	INV	LDS	COA	ORE	ORC	TLR	SLG	ACC	INC	CSR
EMP	1													
WLB	.643**	1												
SKD	.595**	.585**	1											
JBS	.609**	.562**	.620**	1										
INV	.600*	.544**	.653**	.753**	1									
LDS	.605**	.474**	.671**	.581**	.666**	1								
COA	.653**	.509**	.669**	.592**	.647**	.766**	1							
ORE	.643**	.586**	.620**	.574**	.617**	.740**	.741**	1						
ORC	.668**	.527**	.596**	.569**	.614**	.755**	.717**	.739**	1					
TLR	.570**	.484**	.519**	.538**	.523**	.586**	.616**	.591**	.743**	1				
SLG	.580**	.556**	.505**	.487**	.530**	.553**	.581**	.539**	.741**	.717**	1			
ACC	.634**	.495**	.585**	.532**	.550**	.542**	.568**	.578**	.671**	.562**	.586**	1		
INC	.729**	.496**	.519**	.493**	.493**	.513**	.590**	.530**	.625**	.583**	.541**	.636**	1	
CSR	.537**	.609**	.527**	.424**	.435**	.487**	.505**	.540**	.581**	.498**	.572**	.645**	.531**	1

\*\* Correlation is significant at the 0.001 level (2-tailed)

Correlation among the 14 latent variables was also checked and the table indicates that each of the factor is closely related with other. Correlation among the factors is calculated using factor scores.

The average of the items in the factor are totaled and averaged. This is the most common used method to check the correlation. Since, some of the items are negatively stated, the negative loadings, their values are reversed and thus all the values are positive in each of the factor.

#### 4.6. Goodness of Fit Index

In confirmatory factor analysis, the fit indices establish whether the model is acceptable. In the present study absolute fit indices (relative chi-square, GFI, RMSEA) and incremental fit indices (CFI) are reported (these four indices were selected as they are more reported in studies similar to current study) for assessing measurement model validity. Acceptable models fit is indicated by the index cut-off of relative chi-square range from as high as 5.0 (Schumacher & Lomax, 2004) to as low as 2.0 (Tabachnick & Fidell, 2007), RMSEA below 0.08, GFI values greater than 0.90 and CFI values above 0.90 (Hair et al., 2015).

**Table 4.12. Model Fit Summary of Sustainable HRM Scale (Second Order Model)**

<b>CMIN</b>	<b>DF</b>	<b>CMIN/DF</b>	<b>CFI</b>	<b>NFI</b>	<b>PCFI</b>	<b>GFI</b>	<b>AGFI</b>	<b>RMSEA</b>
232.63	97	2.398	0.963	0.911	0.750	0.912	0.890	0.069

Table 4.12 shows that the Value of RMSEA is 0.069, RMSEA from 0.05 to 0.08 are considered to be good values and the value of  $X^2$  is 2.398.  $X^2$  value less than 2.0 is considered to be very good, however values between 2.0 and 5.0 is acceptable and thus the  $X^2$  value is the model is acceptable. Similarly GFI values above 0.9 are considered to be good although some argue that 0.95 is deemed to be a good fit as higher the sample size, higher would be the GFI value. The current model has GFI of 0.912 which is above 0.9 and thus considered to be a good. GFI is an attempt to produce a fit statistic that is less sensitive to the sample size (Hair et al., 2010).

Normal Fit Index (NFI) ranges from 0 to 1, where 1 is a perfect model, the current model has NFI value of 0.911, which is considered to be very good. Comparative Fit Index (CFI) is an improved version of the normal fit index, which also ranges from 0 to 1 and CFI values above 0.90 are usually considered as a good fit and the current model indicates CFI value of 0.963

14 latent factors were grouped into three outcomes – Individual, Organizational and Societal Outcomes (Ehnert, 2009). It is not enough for the organizations to focus only on individual or

organizational goals. Organizations whose focus is more on the organizational outcomes finds it difficult to sustain in the long run. As a result, employees might do work for the sake of their salaries and other benefits but would not strategize in increasing their efficiencies or performance and often this leads to boredom and other psychological effect.

### **Summary**

Chapter four established a conceptual framework for Sustainable HRM. Based on the variables identified in the literature, an attempt was made to define, develop and validate scale for Sustainable HRM. The scale that was developed was validated through the factor analysis and a confirmatory factory analysis was conducted to confirm the final items. Goodness of fit index also established that the model was acceptable. Further, convergent and discriminant along with the face validity was checked. The instrument was also checked for the reliability using Cronbach alpha and found to be good for the study. Cronbach alpha for each of the factors was also checked and found to be good. Descriptive Statistics and hypothesis testing will be done in chapter five. The final model of HRM function effect on Sustainable HRM and the moderating role of leadership support is explained in the next chapter.

## Chapter - V

### Data Analysis

Chapter four focused on developing a measurement scale for Sustainable HRM. The steps in developing the scale – item generation, content adequacy assessment, questionnaire administration, factor analysis, internal consistency assessment, construct validity, replication as laid out by Hinkin et al (1997). Confirmatory Factor analysis resulted in 14 factors, each of the factor loading above 0.50. The Questionnaire that was developed for the scale development was administered to obtain data from the respondents. The data that was collected was further coded, tabulated and tested empirically using SPSS 22 and AMOS 22 versions. Having developed the scale, this chapter aims at addressing the remaining objectives of study as mentioned in Chapter four. Further, the study also aims to measure the impact of HRM functions and the moderating role of Leadership Support in achieving the Sustainable Outcomes – Individual, Organizational and Societal Outcomes.

The data collected was coded, tabulated and tested empirically for hypothesis testing. The data analysis is presented in chapter five. The analysis is broadly categorized into three sections.

Analysis of the chapter is divided into three sections. *Section 1* outlines the demographic profile of the respondents and the descriptive statistics associated with the data. The demographics have been analyzed in a descriptive way using frequency and, percentages for analyzing factual information. Further, an attempt is made to present the data in graphical representation using pie charts and histograms. Median and Standard Deviation scores for each of the item is presented in cross tabulation.

*Section 2* presents the empirical analysis addressing the objectives mentioned in Chapter 4. The hypothesis were addressed using SPSS 22.0 Version and Structural Equation Modelling (SEM) was used to test the moderating effect as it has the advantage in estimating relationship among the latent constructs (Jose, 2013). Tests like correlation, regression analysis, T-test, ANOVA were used for testing the hypotheses and inferences were drawn accordingly.

*Section 3* tests the conceptual framework through SEM and the final measurement model is depicted using AMOS 22.0 version. Goodness of Fit is measured through Absolute Fit Indices (Chi-square, GFI, RMSEA), and incremental fit indices.

## 5.1. Profile of the Respondents

The survey instrument was divided into three sections of which the first section collected demographic profile of the respondents. Data pertaining to Gender, Organizational Name, Location, Qualification, total work experience and their current title was gathered from the respondents. Table 5.1 shows the profile of the sample in detail.

*Table 5.1. Profile of the Sample*

<b>Gender</b>	<b>Frequency</b>	<b>Percentage</b>
Male	407	67.83%
Female	193	32.17%

<b>Organization</b>	<b>Frequency</b>	<b>Percentage</b>
Tata Consultancy Services	60	10.00%
Infosys	60	10.00%
Wipro	60	10.00%
Tech Mahindra	60	10.00%
HCL	60	10.00%
IBM	60	10.00%
Oracle	60	10.00%
Microsoft	60	10.00%
HP	60	10.00%
Cognizant	60	10.00%

<b>Location</b>	<b>Frequency</b>	<b>Percentage</b>
Bangalore	132	22.00%
NCR (includes Delhi, Gurgaon, Noida)	104	17.33%
Hyderabad	119	19.83%
Mumbai (includes Pune)	81	13.50%
Chennai	98	16.34%
Kolkata	66	11.00%

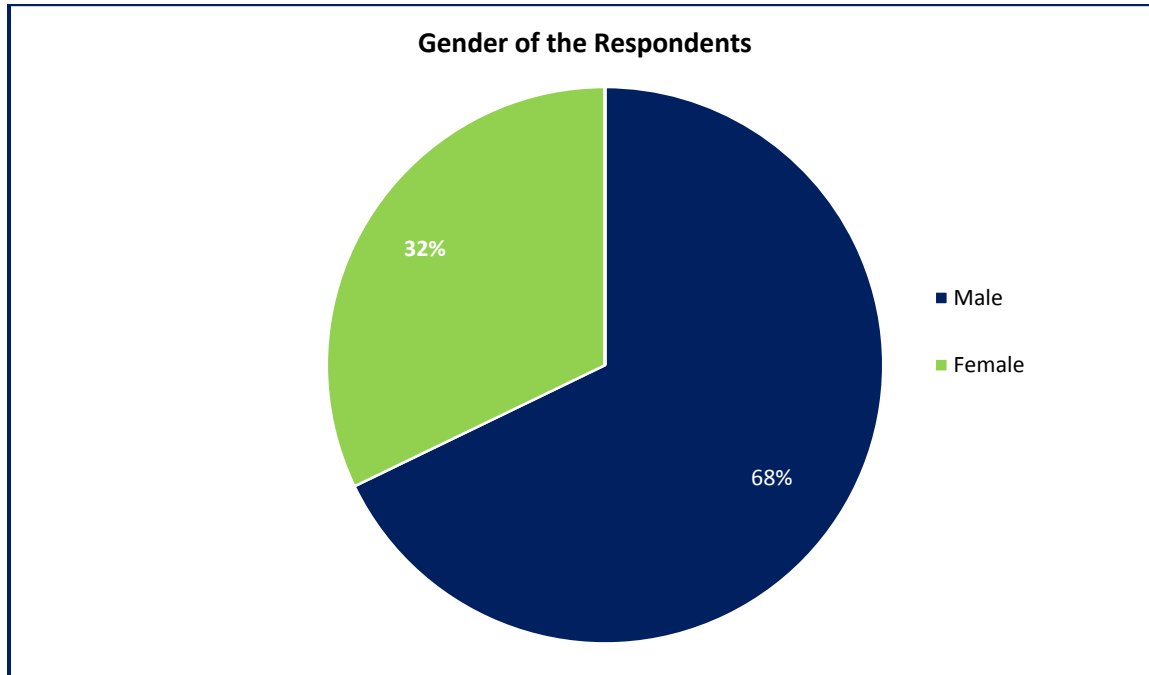
<b>Qualification</b>	<b>Frequency</b>	<b>Percentage</b>
Graduation	421	70.17%

Post-Graduation	176	29.33%
Doctorate	03	0.50%
<b>Organization Type</b>	<b>Frequency</b>	<b>Percentage</b>
Indian Headquartered	300	50.00%
U.S. Headquartered	300	50.00%
<b>Work Experience</b>	<b>Frequency</b>	<b>Percentage</b>
3 – 5 Years	221	36.83%
5 – 10 Years	258	43.00%
Above 10 Years	121	20.17%
<b>Designation</b>	<b>Frequency</b>	<b>Percentage</b>
Software Engineer/Senior Software Engineer/Analyst/Consultant	104	17.33%
Senior Consultant/Team Lead/Project Lead	234	39.00%
Manager/Project Manager	180	30.00%
Senior Manager and Above	82	13.67%

### 5.1.1. Gender

The study covered 407 (67.83%) male respondents, while the female respondents were 193 that accounted for 32.17%. Male to female ratio in India industry is 76:24 in the year 2007 (NASSCOM, 2007). However, with the advent of diversity initiatives in the organizations, there has been a constant effort from the organization side to recruit more female professionals and thus reaching towards 30%. The percentage is almost same in the year that accounts for 29.10% women professionals in the U.S (CNET, 2015) (<http://www.cnet.com/news/women-in-tech-the-numbers-dont-add-up/>, website accessed on 06/04/2016). Female sample considered for the study is appropriate as the percentage is more than the industry averages. The percentage is expected to rise in India due to the campus recruiting, where equal opportunities are given and the ratio of male to female is expected to be 60:40 by 2025 (NASSCOM, 2015).

*Figure 5.1. Gender of the Respondents*



### **5.1.2. Profile of the Organizations**

Chapter four outlined the profile and the criteria for choosing the organizations. The study has chosen 10 organizations primarily – TCS, Infosys, Wipro, HCL, Tech Mahindra, IBM, Oracle, Microsoft, HP and Cognizant. The respondent size was taken proportionally as the study aimed at identifying the HR practices that bring about the sustainable outcomes thus helping the organizations in becoming more sustainable. 60 responses were considered from each of the organizations and thus the total number of respondents are 600.

### **5.1.3. Educational Qualification**

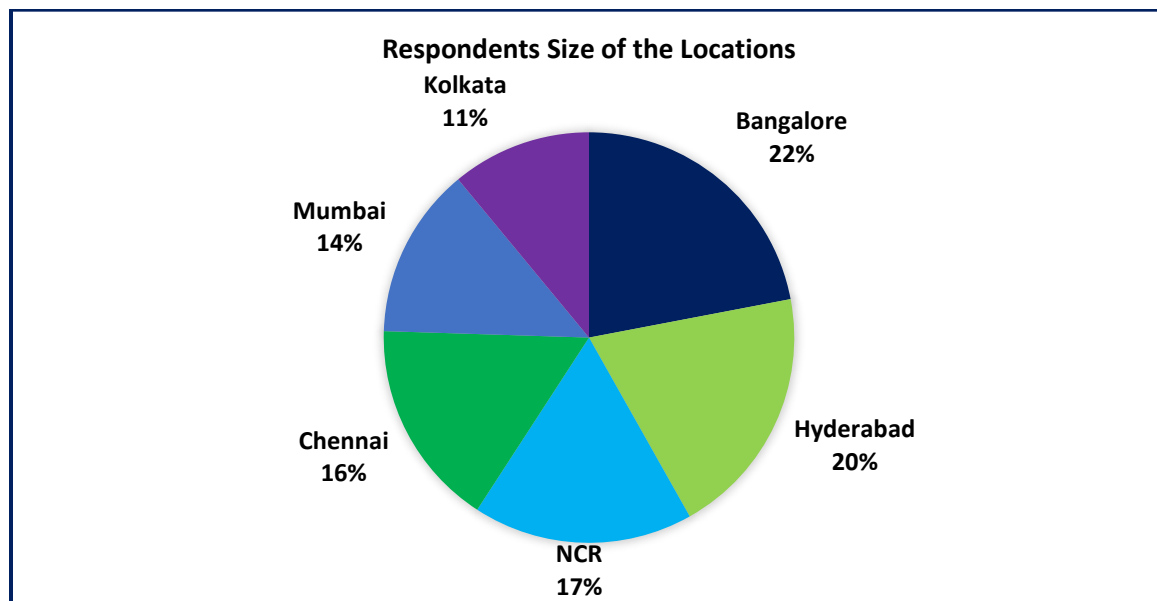
The study indicated that majority of the respondents (421) were graduates. This could be attributed to the fact that majority of these graduates are campus hires. They are absorbed into the organization soon after completing their graduation. The respondents included both engineering and non-engineering graduates. Engineering graduates are mainly involved in techno-functional roles, while the non-engineering graduates are involved in support functions like Operations, Finance, Sales, Marketing and Human Resources. 176 respondents are post graduates while the number of respondents who had a doctorate are only 3. There were also respondents who had more

than one post graduate degree. Organizations also provide an opportunity to pursue higher studies during their employment. However, it was observed in the in-person discussions, that the respondents prefer to complete technical certifications rather than going for higher studies. Technical certifications adds much weightage to the resume and would position well before the client.

#### 5.1.4. Location

The IT industry in India is majorly concentrated in the six major hubs – Bangalore, NCR region, Mumbai, Hyderabad, Chennai and Kolkata (NASSCOM, 2015) and hence the study was conducted in these locations. 132 (22.00%) responses were collected from Bangalore, which is considered to be Silicon Valley of India and 66 (11.00%) responses were collected from Kolkata. HR practices of an organization differ from country to country, however it was observed that the HR practices and policies does not differ within the organization. This has been confirmed with the HR professionals during the in-person discussions and thus the sample size is not equally collected in the locations. What is noteworthy about these HR practices is that the MNC have been trendsetters and continue to create new policies that suit their employee needs. The following pie chart indicates the sample size collected from the six major hubs in percentages.

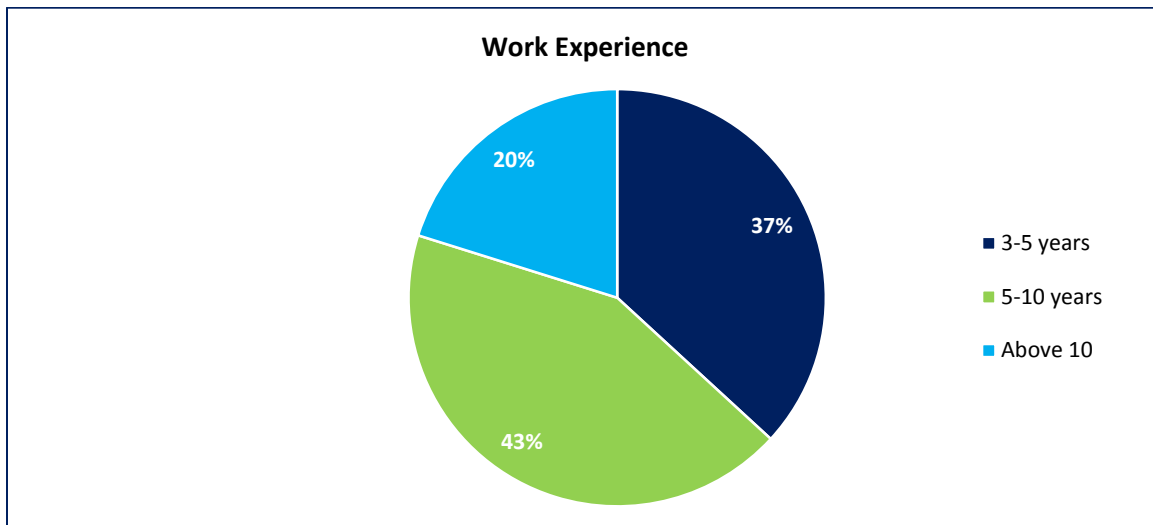
*Figure 5.2: Respondents Size of the Locations*



### 5.1.5. Work Experience

The study covered respondents having work experience between 3 – 10 years. A set criteria was laid for choosing the respondents. The respondents should have minimum two years of experience in the current organization besides having worked for other organization. 43% of the respondents mentioned that they have more than 5 years of experience while 36% of the respondents have 3 – 5 years of experience. 20% of the respondents have more than 10 years of experience.

*Figure 5.3. Work Experience of the Respondents*

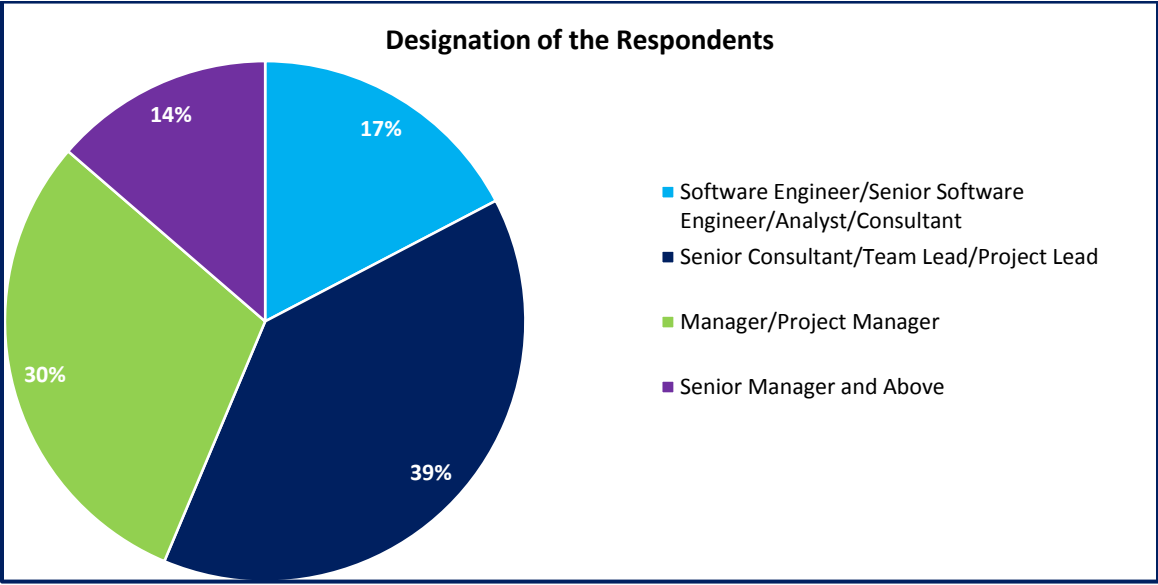


### 5.1.6. Designation of the Respondents

Hierarchy in the IT organizations is complex and so is the case with designations. Unlike other industries, which has a simple hierarchy like top level, middle level and entry level, the IT organizations has many more levels. It is observed in the focus group discussions that the organizations offers various designations. For the ease of understanding the role and the responsibilities, titles of the respondents are grouped into four categories. The entry level software professionals are designated as Trainee/Associate Engineer/Associate Analyst etc. These professionals are typically the campus hires. The study does not include them as they do not meet the minimum criteria laid for selecting the respondents. Professionals who have 3 – 5 years of experience are designated as Software Engineer/Senior Software Engineer/Analyst/Consultant. 104 respondents fall under this group. 234 respondents hold the designation of Senior

Consultant/Team Lead/Project Lead. These professionals lead and guide their immediate level professionals, who typically handles one project at a time. 180 respondents are Manager/Project Manager, who are client facing professionals and handles multiple projects based on their skill set and technology. 82 respondents are Senior Manager and above, who are considered to be the senior management in the organization. They generally lead a business unit or verticals based on the structure of the organization. Below pie charts depicts the designation wise break-up in percentages.

*Figure 5.4. Designation of the Respondents*



**5.2. Descriptive statistics**

The study tried to explore the individual opinion towards each of the statements. Mean score, standard deviation and variances were calculated to check the consistency in their responses and examine the patterns that emerged. Table 5.2 provides the scores for the all the statements that include independent, dependent and the moderating variable. Minimum and Maximum value are also indicated in the table, where 1 is the minimum and 7 is the maximum in the Likert scale.

**Table 5.2. Leadership Support and HRM Functions**

	<b>Statements</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Variance</b>
<b>LDS1</b>	Top Leadership has a clear vision, mission and concrete plan for future development	1	7	4.28	0.751	0.564
<b>LDS2</b>	Top leadership helps the employee in understanding the goals of the organization and provides direction	1	7	4.02	0.732	0.536
<b>LDS3</b>	Top leadership drives and encourages sustainability related activities in the organization	1	7	4.87	0.674	0.454
<b>HR1</b>	HR department is very well structured and organized	1	7	4.99	0.848	0.719
<b>HR2</b>	HR policies and procedures are communicated to employees clearly	1	7	4.92	0.761	0.579
<b>HR3</b>	I know whom to approach when in need	1	7	4.17	0.792	0.627

As seen from the above table 5.2, respondents opined that the HR department is very well structured and organized (4.99), HR policies and procedures are communicated to employees clearly (4.92), however when the employees had a different need other than what is mentioned in the policies and procedures, they find difficult and often face dilemma as to whom they should approach when in need (4.17). Due to the large number of teams within the HR organization, the employees find difficult to figure whom to approach. Besides, the employees work in different shifts, different locations and different business line. The results indicate that the HR has to be more proactive in communicating business line HR SPOC's for each of the HR activities.

In terms of the leadership support, top management are seen engaged in the sustainability activities and hence, top leadership drives and encourages sustainability related activities in the organization (4.87), however the respondents felt that the goals of the organization are not communicated properly and thus, rated low on Top leadership helps the employee in understanding the goals of the organization and provides direction (4.07). In most of the cases, it is HR, who communicate the goals of the organization, it would be good if the top leadership can take out some time to address the employees quite often that will help the employees understand the goals of the organizations as a result of which, they would attempt to achieve the organizational goals. The scores of the standard deviation are also mentioned in the below table. Low standard deviation

scores indicates that the data is clustered around the mean, whereas high standard deviation indicates that the data is widely spread out.

**Table 5.3. Individual Outcomes**

	<b>Statements</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Variance</b>
<b>EMP2</b>	I am encouraged to demonstrate my knowledge, skills in my workplace	2	7	4.54	0.745	0.555
<b>EMP3</b>	I am confident of learning the job and executing tasks that are completely new	1	7	4.88	0.546	0.298
<b>EMP4</b>	I am good at understanding the job market and its trends and keep current with the technology	1	7	5.11	0.892	0.796
<b>WLB1</b>	My organization provides an emotionally healthy work place that balances my Mental Health & Well-being	1	7	4.91	0.643	0.413
<b>WLB2</b>	I have control on my work schedule to maintain a fit between my work and personal life	1	7	4.67	0.647	0.419
<b>WLB3</b>	I am happy in this organization, without putting work before my family and personal commitments	1	7	5.01	0.535	0.286
<b>WLB4</b>	My organization provides flexible working hours/staggered shifts.	1	7	4.78	0.121	0.015
<b>SKD2</b>	My department conducts periodic trainings to perform my job more effectively	1	7	4.50	0.976	0.953
<b>SKD3</b>	I am willing to invest time and effort to enhance my current skills and competencies	1	7	4.87	0.834	0.696
<b>SKD4</b>	My Organization encourages continuous learning and skill development	1	7	5.02	0.678	0.460
<b>JBS1</b>	I rarely think about looking for a new job with another company	1	7	4.92	0.832	0.692
<b>JBS2</b>	Emotionally, I feel I am not attached to this organization	1	7	4.97	0.768	0.590
<b>JBS3</b>	Overall, I am happy with the job	1	7	4.05	0.564	0.318
<b>INV1</b>	Employees are recognized and rewarded for sharing ideas and knowledge	1	7	5.00	0.544	0.296
<b>INV2</b>	Organization always look out for process improvements	1	7	4.84	0.239	0.057
<b>INV3</b>	I share my ideas of new projects, changes and procedures	1	7	5.04	0.489	0.239
<b>INV4</b>	I have the liberty to speak up on the ideas I have	1	7	5.00	0.482	0.232

As is seen from the table 5.3, *I am good at understanding the job market and its trends and keep current with the technology* (5.11), *I am happy in this organization, without putting work before my family and personal commitments* (5.01), Employees are recognized and rewarded for sharing ideas and knowledge (5.00), *I share my ideas of new projects, changes and procedures* (5.04), *I have the liberty to speak up on the ideas I have* (5.00) demonstrates that the individuals are motivated as their ideas are being recognized and the organization provides a platform to share and exchange their ideas with the larger community, however when enquired if they are completely happy with the organization’s policy, the score seems to be low (4.05). This could be seen as one area of concern for the organizations. In spite of the best-in class practices that organizations adopt, the satisfactions levels of the employees seems to be low, which could be one of the reason for high attrition rate in the IT industry.

**Table 5.4. Organizational Outcomes**

	<b>Statements</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Variance</b>
<b>LSD1</b>	My organization conducts regular training to develop leadership skills	1	7	4.99	0.478	0.228
<b>LSD2</b>	My leadership has communicated a vision of the future that motivates me.	1	7	4.60	0.567	0.321
<b>LSD3</b>	My immediate supervisor/manager helps me know what is expected of me	1	7	4.81	0.812	0.659
<b>LSD4</b>	My organization provides an opportunity to lead smaller initiatives	1	7	4.90	0.791	0.626
<b>COA1</b>	My organization benchmarks the quality of products/services against its competitors	1	7	4.87	0.821	0.674
<b>COA2</b>	My organization evaluates its plans periodically to have control over the market	1	7	4.94	0.493	0.243
<b>COA3</b>	My organization considers the views of the employees before they introduce any changes	1	7	4.95	0.434	0.188
<b>COA4</b>	My organization often uses knowledge-based innovation	1	7	4.63	0.823	0.677
<b>ORE1</b>	I have learned how to perform my job effectively and efficiently	1	7	4.94	0.743	0.552
<b>ORE2</b>	I am rewarded for the extra efforts that I put in accomplishing the tasks	1	7	4.97	0.659	0.434
<b>ORE3</b>	My goals are set as my per my skills	1	7	4.55	0.720	0.518
<b>ORE4</b>	My organization uses the resources effectively and in an efficient manner	1	7	4.76	0.784	0.615

<b>ORC1</b>	I am proud to be an employee of this organization	1	7	4.97	0.862	0.743
<b>ORC2</b>	My goals/values and that of the organisations are very similar	1	7	5.02	0.869	0.755
<b>ORC4</b>	I do not feel like feel at home at my organization	1	7	4.73	0.923	0.851
<b>TLR1</b>	My organization has a strong career progression plan for all the levels	1	7	4.26	1.237	1.530
<b>TLR2</b>	Process for internal mobility is very well laid	1	7	4.48	0.828	0.686
<b>TLR3</b>	My organization has a well-structured succession planning	1	7	4.83	0.915	0.837
<b>TLR4</b>	My organization always looks for professionals from competitors for higher positions	1	7	4.71	0.837	0.700

From an organizational outcomes perspective, *My goals/values and that of the organisations are very similar* (5.02) scored higher than other statements, while *My organization has a strong career progression plan for all the levels* (4.26) scored lower. In terms of the statements, all of the responses were scored higher the averages scores. Standard Deviation was low as 0.434 for *My organization considers the views of the employees before they introduce any changes*, which means the data is clustered around the mean. Similarly for *My organization has a strong career progression plan for all the levels*, the SD value is 1.237, which means that the data is widely distributed.

**Table 5.5. Societal Outcomes**

	<b>Statements</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Variance</b>
<b>ACC1</b>	My organization provides enough information to the employees and its stakeholders	1	7	4.74	0.432	0.187
<b>ACC2</b>	People love working with my organization due to their shared values, mission and vision	1	7	4.78	0.320	0.102
<b>ACC3</b>	Organizational decisions are discussed with the employees before they are implemented	1	7	4.71	0.493	0.243
<b>ACC4</b>	My organization has a good brand value outside	1	7	4.48	0.346	0.119
<b>SLG1</b>	My Organization does not indulge in unethical practices	1	7	4.86	0.827	0.684

<b>SLG2</b>	My Organization has a value system that is congruent with the larger social system	1	7	4.94	0.674	0.454
<b>SLG3</b>	My organization helps me in becoming an ethical professional	1	7	4.89	0.752	0.566
<b>ICN1</b>	I am treated with respect and dignity in the organization	1	7	4.94	0.459	0.211
<b>ICN2</b>	People are treated as individuals regardless of background or beliefs	1	7	4.90	0.863	0.745
<b>ICN3</b>	I am able to bring my authentic self to work	1	7	4.88	0.646	0.417
<b>ICN4</b>	I am appropriately involved in decisions that affect my work	1	7	4.62	0.734	0.539
<b>CSR1</b>	My organization has a formalized corporate social responsibility function	1	7	4.80	0.764	0.584
<b>CSR2</b>	I voluntarily take part in the activities my organization conducts outside the office work	1	7	4.50	0.843	0.711
<b>CSR3</b>	I adjust my job schedule to get engaged in the community activities	1	7	4.91	0.342	0.117

From the above table, statements like, *My Organization has a value system that is congruent with the larger social system* (4.94), *I am treated with respect and dignity in the organization* (4.94) scored high, which only indicate that the organizations values are explicitly mentioned to the employees. Organizations mission is in tune with the larger social system and hence, the employees of these organizations are also treated with dignity. However, when enquired whether employees are taken into confidence while taking decisions, the scores appear to be low as 4.62. Thus, it calls for organizations to actively involve employees, while taking decisions that affect the individual's performance. The SD score for People love working with my organization due to their shared values, mission and vision scored low (0.320) while the SD score for People are treated as individuals regardless of background or beliefs appeared high (0.863).

### 5.3. Assessment of Normality and Outliers

Normality refers to the data variation of an individual variable. The normality is observed by using kurtosis and Skewness (Field, 2005; Tabachnick & Fidell, 2001; Hair et al., 2008). Checking the missing data is an important step in assessing the normality and thus the data is checked for any missing responses from the filled in questionnaires. Questionnaires, which has some missing data were eliminated from the final set of questionnaires. The remaining data set was examined for

minimum and maximum ranges. For larger samples, a small deviation from normality can also give significant results and thus skewness and kurtosis was checked for the normality of the data set. Z scores were calculated from skewness and kurtosis values. The Kolmogorov-Smirnov and Shapiro-Wilk tests can be conducted in SPSS for testing normality of data. The most commonly used critical values are between +2.58 and -2.58 at .01 significance level (Hair et al., 2010) and between 3.29 to -3.29 is significant at  $P < 0.001$  (Ghasemi & Zahediasl, 2012). The given data set meets the above condition and thus these items are used for further analysis.

**Table 5.6. Normality Test based on Skewness and Kurtosis**

	<b>N</b>	<b>Min</b>	<b>Max</b>	<b>Skewness</b>			<b>Kurtosis</b>		
	Statistic	Statistic	Statistic	Statistic	Std. Error	Z Value	Statistic	Std. Error	Z Value
EMP1	600	1	7	-.224	.095	-2.357	-.446	.195	-2.289
EMP2	600	1	7	-.310	.095	-3.261	-.256	.195	-1.313
EMP3	600	1	7	-.226	.095	-2.374	-.384	.195	-1.971
EMP4	600	1	7	-.151	.095	-1.589	-.495	.195	-2.538
WLB1	600	2	7	-.216	.095	-2.276	-.477	.195	-2.448
WLB2	600	1	7	-.220	.095	-2.311	-.339	.195	-1.739
WLB3	600	1	7	-.165	.095	-1.735	-.325	.195	-1.666
WLB4	600	1	7	-.212	.095	-2.231	-.489	.195	-2.505
SKD1	600	1	7	.101	.095	1.068	-.455	.195	-2.335
SKD2	600	1	7	-.182	.095	-1.913	-.269	.195	-1.377
SKD3	600	1	7	-.240	.095	-2.521	-.071	.195	-.366
SKD4	600	2	7	-.193	.095	-2.036	-.410	.195	-2.101
JBS1	600	1	7	-.206	.095	-2.165	-.294	.195	-1.508
JBS2	600	1	7	-.196	.095	-2.063	-.529	.195	-2.711

JBS3	600	1	7	-.105	.095	-1.109	-.362	.195	-1.859
JBS4	600	1	7	-.230	.095	-2.422	-.474	.195	-2.428
INV1	600	1	7	-.238	.095	-2.506	-.209	.195	-1.072
INV2	600	1	7	-.171	.095	-1.797	-.367	.195	-1.883
INV3	600	1	7	-.131	.095	-1.382	-.489	.195	-2.508
INV4	600	1	7	-.064	.095	-.679	-.441	.195	-2.261
LSD1	600	1	7	-.223	.095	-2.346	.119	.195	.610
LSD2	600	2	7	-.122	.095	-1.285	-.236	.195	-1.213
LSD3	600	1	7	-.209	.095	-2.202	-.490	.195	-2.513
LSD4	600	1	7	-.111	.095	-1.164	-.434	.195	-2.227
COA1	600	1	7	-.115	.095	-1.206	-.333	.195	-1.705
COA2	600	1	7	-.284	.095	-2.984	-.403	.195	-2.066
COA3	600	1	7	-.144	.095	-1.514	-.144	.195	-.740
COA4	600	1	7	-.218	.095	-2.293	-.268	.195	-1.373
ORE1	600	1	7	-.159	.095	-1.671	-.366	.195	-1.875
ORE2	600	1	7	-.144	.095	-1.519	-.629	.195	-3.224
ORE3	600	1	7	-.199	.095	-2.099	-.224	.195	-1.147
ORE4	600	1	7	-.101	.095	-1.059	-.327	.195	-1.679
ORC1	600	1	7	-.150	.095	-1.578	-.140	.195	-.720
ORC2	600	2	7	-.210	.095	-2.208	-.397	.195	-2.038
ORC3	600	1	7	-.154	.095	-1.621	-.439	.195	-2.249
ORC4	600	1	7	-.190	.095	-1.997	-.359	.195	-1.840
TLR1	600	1	7	-.145	.095	-1.525	-.432	.195	-2.215

TLR2	600	1	7	-.156	.095	-1.647	-.383	.195	-1.964
TLR3	600	1	7	-.159	.095	-1.676	-.415	.195	-2.127
TLR4	600	1	7	-.229	.095	-2.410	-.267	.195	-1.371
ACC1	600	2	7	-.162	.095	-1.705	-.319	.195	-1.636
ACC2	600	1	7	-.173	.095	-1.822	-.449	.195	-2.301
ACC3	600	1	7	-.178	.095	-1.872	-.395	.195	-2.028
ACC4	600	1	7	-.080	.095	-.839	.068	.195	.348
SLG1	600	1	7	-.244	.095	-2.567	-.386	.195	-1.981
SLG2	600	1	7	-.183	.095	-1.926	.002	.195	.009
SLG3	600	1	7	-.197	.095	-2.073	-.361	.195	-1.853
SLG4	600	1	7	-.166	.095	-1.742	-.340	.195	-1.744
INC1	600	1	7	-.117	.095	-1.234	-.148	.195	-.757
INC2	600	1	7	-.104	.095	-1.095	-.285	.195	-1.459
INC3	600	2	7	-.097	.095	-1.026	-.202	.195	-1.033
CSR1	600	1	7	-.155	.095	-1.633	-.307	.195	-1.573
CSR2	600	1	7	-.137	.095	-1.439	-.498	.195	-2.556
CSR3	600	1	7	-.159	.095	-1.672	-.316	.195	-1.622
CSR4	600	1	7	-.019	.095	-.198	-.275	.195	-1.411

#### 5.4. Hypothesis Testing

Ten hypothesis were drawn based on the framework and the data collected from the respondents. All the hypothesis were tested using appropriate statistical tests. Results of the hypothesis were presented in the table 5.7.

*Table 5.7. Summary of the Hypotheses*

	<b>Hypotheses</b>	<b>Result</b>
Hypothesis #1	There is a significant difference between Indian and MNC HR Practices with regard to Individual Outcomes	Supported
Hypothesis #2	There is a significant difference between Indian and MNC HR Practices with regard to Organizational Outcomes	Not Supported
Hypothesis #3	There is a significant difference between Indian and MNC HR Practices with regard to Societal Outcomes	Supported
Hypothesis #4	There is a significant difference between Indian and MNC HR Practices with regard to Sustainable HR Practices	Supported
Hypothesis #5	There is no significant difference in the perception of Sustainable HR practices by Gender	Supported
Hypothesis #6	There is no significant difference in the perception of Sustainable HR practices by employee level	Supported
Hypothesis #7	There is a significant difference in the Sustainable HR Practices among the organizations	Supported
Hypothesis #8	There is no significant difference in Sustainable HR Practices based on the location	Supported
Hypothesis #9	HRM functions have a significant impact on Sustainable HRM	Supported
Hypothesis #10	Leadership Support moderates the effect of HRM functions on Sustainable HRM	Supported

**Hypothesis #1: There is a significant difference between Indian and MNC HR Practices with regard to Individual Outcomes**

Levene’s test for equality of variances is conducted to test the variances between the groups. P value is greater than .05 and hence it is concluded that there is equal variances between the Indian and MNC organizations. Independent sample T Test is conducted to test the significant differences in the means between two groups. The P Value of the 2 tailed test is .001 which below 0.5 and is significant and hence, the hypothesis is not rejected (Table 5.8). Thus, it can be concluded that there is a significant difference in the individual outcomes between Indian and MNC HR practices. The results reveal that the way individual outcomes are looked at is different.

The results are in tune with the earlier studies by Mathew & Join (2008), who assessed the flow of HRM practices and the differences in HR practices between Indian and foreign MNCs. Organizations perception towards the individual outcomes is different between the Indian and MNC practices.

<i>Table 5.8. Independent Sample Test – Individual Outcomes</i>										
		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	Upper
IndividualOutcomes	Equal variances assumed	.316	.574	3.316	598	.001	5.59333	1.68664	2.28087	8.90579
	Equal variances not assumed			3.316	596.809	.001	5.59333	1.68664	2.28086	8.90581

**Hypothesis # 2: There is a significant difference between Indian and MNC HR Practices with regard to Organizational Outcomes**

Levene’s test for equality of variances is conducted to test the variances between the groups. P value is greater than .05 and hence it is concluded that there is equal variances between the Indian and MNC organizations. Independent sample T Test is conducted to test the significant differences in the means between two groups. The P Value of the 2 tailed test is .0690 which above 0.5 and is not significant and hence, the hypothesis is rejected (Table 5.9). Thus, it can be concluded that there is no significant difference in the organizational outcomes between Indian and MNC HR practices. Both the MNC’s and the Indian organizations have the same goals to be the leader in the industry and hence, the results showed that there is no significant differences, however the strategy, practices to achieve organizational outcome might differ.

**Table 5.9. Independent Samples Test – Organizational Outcomes**

	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	Upper	
Equal variances assumed	.021	.885	1.060	598	.690	2.00333	1.89017	-1.70884	5.71551	
Equal variances not assumed			1.060	597.948	.690	2.00333	1.89017	-1.70885	5.71551	

It is known from the studies, that the very existence of the private organization is to make money. Social services organizations, NGO's have a different mission and hence their motive is not to make money but to service. Thus, the organizational outcomes, irrespective of its country origin, their main motive is profit maximization and hence, the results indicated no significant difference as both the organization end goals is same. The results are in tune with shareholder value maximization (Lazonick & O'Sullivan, 2000), stakeholder theory (Freeman, 1984), decision making rule approach (Sundaram & Inkpen, 2004). All these studies underscore that the basic objective is to maximize the wealth as they have equated the economic expansion as the success of the organization.

**Hypothesis # 3: There is a significant difference between Indian and MNC HR Practices with regard to Societal Outcomes**

Levene's test for equality of variances is conducted to test the variances between the groups. P value is greater than .05 and hence it is concluded that there is equal variances between the Indian and MNC organizations. Independent sample T Test is conducted to test the significant differences in the means between two groups. The P Value of the 2 tailed test is .002 which below 0.5 and is significant and hence, the hypothesis is accepted (Table 5.10). Thus, it can be concluded that there is a significant difference in the organizational outcomes between Indian and MNC HR practices.

**Table 5.10. Independent Samples Test – Societal Outcomes**

	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	Upper	
Societal outcomes	Equal variances assumed	.063	.802	3.142	598	.002	3.72333	1.18487	1.39633	6.05034
	Equal variances not assumed			3.142	597.873	.002	3.72333	1.18487	1.39633	6.05034

Chapter 3 outlined some of the CSR activities that each of the organizations involved. These CSR activities are primarily driven by the employees. Each of them differ in their focus as some of them focus on the education, others focused on the serving the society. These results are also in tune with the empirical studies by Mathew & Jain (2008). Their studies highlighted the differences in the business culture. Societal outcomes vary from the MNC's to the Indian due to the cultural background. Indian organizations are interested in addressing some of the challenges that the country is facing, while the MNC's may focus on those, which they perceive important to address. In India, private organizations are governed by company's act, which mandates that 2% of the net profits are to be spent on social activities and hence the organizations societal outcomes are aligned towards it.

**Hypothesis # 4: There is a significant difference between Indian and MNC HR Practices with regard to Sustainable HR Practices**

Levene's test for equality of variances is conducted to test the variances between the groups. P value is greater than .05 and hence it is concluded that there is equal variances between the Indian and MNC organizations. Independent sample T Test is conducted to test the significant differences in the means between two groups. The P Value of the 2 tailed test is .010 which below 0.5 and is significant and hence, the hypothesis is accepted (Table 5.11). Thus, it can be concluded that there is a significant difference in the sustainable HR practices between Indian and MNC HR practices.

**Table 5.11. Independent Samples Test – Sustainable HRM**

		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	Upper
Sustainable HRM	Equal variances assumed	.237	.626	2.594	598	.010	11.32000	4.36392	2.74952	19.89048
	Equal variances not assumed			2.594	596.887	.010	11.32000	4.36392	2.74949	19.89051

The focus is more on the societal outcomes and not the sustainability of the resources or the development of the sources of the resources and thus it appears that there is a significant difference in the societal outcomes between Indian and MNC HR practices. MNC organizations focus is more on the sources of the resources, thus looking at generating the resources through universities, families, society and labour markets, while the Indian organizations focus is more on the development of the resources within the organization.

**Hypothesis # 5: There is no significant difference in the perception of Sustainable HR practices by Gender**

Table 5.9 indicates that the results of t-test about the perception of sustainable HR practices by gender. The P value is 0.175, which is above .05 and thus is not significant at 0.01 significance level. Therefore, there is no significant difference in the perception of sustainable HR practices by gender.

The results in table 5.12 indicate that Sustainable HR practices are perceived to the same by both male and female. Both the Indian and multinational IT organizations are equal opportunity employers. Every employee irrespective of the gender has access to all the facilities and such organizations do not show any discrimination towards it employees. These organizations focus on creating an inclusive and supportive work environment, where each employee is treated equally and thus the working hours, the work environment remains to be the same for all the employees. Work load remains to be the same for both male and female and IT Organizations are such that

level of work is also equally given to the employees and thus their perception towards the sustainable HR practices that includes the individual, organizational and societal outcomes remains similar.

**Table 5.12. Independent Samples Test – Sustainable HR Practices by Gender**

	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	Upper	
SustainableHRM	Equal variances assumed	.071	.044	1.359	598	.175	6.38327	4.69653	-2.84044	15.60698
	Equal variances not assumed			1.359	334.744	.175	6.38327	4.91687	-3.28858	16.05512

**Hypothesis # 6: There is no significant difference in the perception of Sustainable HR practices by employee level**

ANOVA compares the four groups to each other and determines if there is a statistical difference somewhere among the three groups. However, it does not determine which group is different from other, hence a Posthoc test is conducted. Since the sample size varies for the designation levels, Scheffe test is conducted.

Levene’s Test is conducted to check the variances among the three groups. Since the alpha level is greater than .05, this meets the criteria of equal variances among the three groups. If the alpha level is less than .05, it is assumed that there is unequal variances. To test the statistical differences among the three groups, Scheffe’s post hoc test is conducted. All the P values are greater than .05 and thus it is concluded that designation does not have any impact on the perception of sustainable HRM Practices (Table 5.13).

**Table 5.13. ANOVA - Perception of Sustainable HR Practices by Employee Level**

**Levene's Test of Equality of Error Variances<sup>a</sup>**

Dependent Variable: SHRM

F	df1	df2	Sig.
2.452	3	596	.062

SHRM

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	12499.729	3	4166.576	1.448	.228
Within Groups	1714952.105	596	2877.436		
Total	1727451.833	599			

**Post Hoc Scheffe - Multiple Comparisons**

Dependent Variable: SHRM

Scheffe

(I) Designation	(J) Designation	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Software Engineer	Team Lead	7.4295	6.32174	.710	-10.2935	25.1524
	Manager	4.1483	6.60707	.941	-14.3746	22.6712
	Senior Manager and above	15.6965	7.92202	.271	-6.5128	37.9058
Team Lead	Software Engineer	-7.4295	6.32174	.710	-25.1524	10.2935
	Manager	-3.2812	5.31813	.944	-18.1905	11.6281
	Senior Manager and above	8.2670	6.88385	.696	-11.0318	27.5659
Manager	Software Engineer	-4.1483	6.60707	.941	-22.6712	14.3746
	Team Lead	3.2812	5.31813	.944	-11.6281	18.1905
	Senior Manager and above	11.5482	7.14678	.456	-8.4877	31.5842
Senior Manager and above	Software Engineer	-15.6965	7.92202	.271	-37.9058	6.5128
	Team Lead	-8.2670	6.88385	.696	-27.5659	11.0318
	Manager	-11.5482	7.14678	.456	-31.5842	8.4877

Irrespective of the level the employees are, their perception towards the sustainable HRM practices is same. This only indicates that each employee of the organization irrespective of their level looks for the development of the self, the organization and society as a whole. Employees are given as per the level and skill and thus the manager may have more responsibilities when compared to their team members. Negative outcomes of the work intensity is seen at all levels thus underlying the importance of the sustainable HR practices by all the levels of employees.

**Hypothesis # 7: There is a significant difference in the Sustainable HR Practices among the organizations**

The study has taken into consideration 10 organizations – five from MNC, which have significant presence in India, but are headquartered in US and the other five are Indian organizations. It is commonly understood that the practices of an organization differ from other although the broad HR functions remain the same. To test if these practices are significantly different from one another, One way ANOVA was used. The results of one way ANOVA are presented in table. One way ANOVA showed that the P-value (0.006) is significant as it less than 0.05. Hence, it is concluded that there exists a significant difference in the Sustainable HR practices of the organizations. Tukey’s post hoc test is also conducted to confirm the significance levels.

**Table 5.14. ANOVA – Sustainable HR Practices among the Organizations**

SHRM

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	46651.567	9	5183.507	1.820	.006
Within Groups	1680800.267	590	2848.814		
Total	1727451.833	599			

**Tukey’s Post hoc Test - Multiple Comparisons**

(I) Organization Name	(J) Organization Name	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
TCS	Infosys	-1.40000	9.74477	.000	-32.3483	29.5483
	Wipro	.78333	9.74477	.000	-30.1650	31.7316
	Tech Mahindra	2.20000	9.74477	.000	-28.7483	33.1483
	HCL	5.86667	9.74477	.000	-25.0816	36.8150

	IBM	-1.75000	9.74477	.000	-32.6983	29.1983
	Oracle	13.41667	9.74477	.004	-17.5316	44.3650
	Microsoft	8.23333	9.74477	.008	-22.7150	39.1816
	HP	25.35000	9.74477	.019	-5.5983	56.2983
	Cognizant	18.80000	9.74477	.129	-12.1483	49.7483
	TCS	1.40000	9.74477	.000	-29.5483	32.3483
	Wipro	2.18333	9.74477	.000	-28.7650	33.1316
	Tech Mahindra	3.60000	9.74477	.000	-27.3483	34.5483
	HCL	7.26667	9.74477	.009	-23.6816	38.2150
Infosys	IBM	-.35000	9.74477	.000	-31.2983	30.5983
	Oracle	14.81667	9.74477	.034	-16.1316	45.7650
	Microsoft	9.63333	9.74477	.033	-21.3150	40.5816
	HP	26.75000	9.74477	.028	-4.1983	57.6983
	Cognizant	20.20000	9.74477	.047	-10.7483	51.1483
	TCS	-.78333	9.74477	.000	-31.7316	30.1650
	Infosys	-2.18333	9.74477	.000	-33.1316	28.7650
	Tech Mahindra	1.41667	9.74477	.000	-29.5316	32.3650
	HCL	5.08333	9.74477	.000	-25.8650	36.0316
Wipro	IBM	-2.53333	9.74477	.000	-33.4816	28.4150
	Oracle	12.63333	9.74477	.054	-18.3150	43.5816
	Microsoft	7.45000	9.74477	.009	-23.4983	38.3983
	HP	24.56667	9.74477	.029	-6.3816	55.5150
	Cognizant	18.01667	9.74477	.004	-12.9316	48.9650
	TCS	-2.20000	9.74477	.000	-33.1483	28.7483
	Infosys	-3.60000	9.74477	.000	-34.5483	27.3483
	Wipro	-1.41667	9.74477	.000	-32.3650	29.5316
	HCL	3.66667	9.74477	.000	-27.2816	34.6150
Tech Mahindra	IBM	-3.95000	9.74477	.000	-34.8983	26.9983
	Oracle	11.21667	9.74477	.079	-19.7316	42.1650
	Microsoft	6.03333	9.74477	.000	-24.9150	36.9816
	HP	23.15000	9.74477	.042	-7.7983	54.0983
	Cognizant	16.60000	9.74477	.013	-14.3483	47.5483

	TCS	-5.86667	9.74477	.000	-36.8150	25.0816
	Infosys	-7.26667	9.74477	.029	-38.2150	23.6816
	Wipro	-5.08333	9.74477	.000	-36.0316	25.8650
	Tech Mahindra	-3.66667	9.74477	.000	-34.6150	27.2816
HCL	IBM	-7.61667	9.74477	.019	-38.5650	23.3316
	Oracle	7.55000	9.74477	.009	-23.3983	38.4983
	Microsoft	2.36667	9.74477	.000	-28.5816	33.3150
	HP	19.48333	9.74477	.006	-11.4650	50.4316
	Cognizant	12.93333	9.74477	.047	-18.0150	43.8816
	TCS	1.75000	9.74477	.000	-29.1983	32.6983
	Infosys	.35000	9.74477	.000	-30.5983	31.2983
	Wipro	2.53333	9.74477	.000	-28.4150	33.4816
	Tech Mahindra	3.95000	9.74477	.000	-26.9983	34.8983
IBM	HCL	7.61667	9.74477	.019	-23.3316	38.5650
	Oracle	15.16667	9.74477	.068	-15.7816	46.1150
	Microsoft	9.98333	9.74477	.011	-20.9650	40.9316
	HP	27.10000	9.74477	.015	-3.8483	58.0483
	Cognizant	20.55000	9.74477	.022	-10.3983	51.4983
	TCS	-13.41667	9.74477	.034	-44.3650	17.5316
	Infosys	-14.81667	9.74477	.084	-45.7650	16.1316
	Wipro	-12.63333	9.74477	.024	-43.5816	18.3150
	Tech Mahindra	-11.21667	9.74477	.029	-42.1650	19.7316
Oracle	HCL	-7.55000	9.74477	.039	-38.4983	23.3983
	IBM	-15.16667	9.74477	.038	-46.1150	15.7816
	Microsoft	-5.18333	9.74477	.000	-36.1316	25.7650
	HP	11.93333	9.74477	.068	-19.0150	42.8816
	Cognizant	5.38333	9.74477	.000	-25.5650	36.3316
	TCS	-8.23333	9.74477	.018	-39.1816	22.7150
	Infosys	-9.63333	9.74477	.023	-40.5816	21.3150
Microsoft	Wipro	-7.45000	9.74477	.019	-38.3983	23.4983
	Tech Mahindra	-6.03333	9.74477	.000	-36.9816	24.9150
	HCL	-2.36667	9.74477	.000	-33.3150	28.5816

	IBM	-9.98333	9.74477	.011	-40.9316	20.9650
	Oracle	5.18333	9.74477	.000	-25.7650	36.1316
	HP	17.11667	9.74477	.062	-13.8316	48.0650
	Cognizant	10.56667	9.74477	.046	-20.3816	41.5150
	TCS	-25.35000	9.74477	.019	-56.2983	5.5983
	Infosys	-26.75000	9.74477	.018	-57.6983	4.1983
	Wipro	-24.56667	9.74477	.029	-55.5150	6.3816
	Tech Mahindra	-23.15000	9.74477	.042	-54.0983	7.7983
HP	HCL	-19.48333	9.74477	.000	-50.4316	11.4650
	IBM	-27.10000	9.74477	.045	-58.0483	3.8483
	Oracle	-11.93333	9.74477	.018	-42.8816	19.0150
	Microsoft	-17.11667	9.74477	.022	-48.0650	13.8316
	Cognizant	-6.55000	9.74477	.000	-37.4983	24.3983
	TCS	-18.80000	9.74477	.019	-49.7483	12.1483
	Infosys	-20.20000	9.74477	.047	-51.1483	10.7483
	Wipro	-18.01667	9.74477	.004	-48.9650	12.9316
	Tech Mahindra	-16.60000	9.74477	.003	-47.5483	14.3483
Cognizant	HCL	-12.93333	9.74477	.017	-43.8816	18.0150
	IBM	-20.55000	9.74477	.022	-51.4983	10.3983
	Oracle	-5.38333	9.74477	.000	-36.3316	25.5650
	Microsoft	-10.56667	9.74477	.016	-41.5150	20.3816
	HP	6.55000	9.74477	.000	-24.3983	37.4983

Tukey's post hoc test was conducted to check if there is significant difference among the HR practices and the results indicated that there exists a significant difference. The results are in tune with the earlier literature as human resource management practices differ from organization to organization and from country to country. Kochan & Dyer (2003) opined that HR practices within American organizations differ and suggests that the organization should focus on the weak HR practices to evolve a best practice model. Similarly, Babu & Eimani (2014) also identified that there exists a significant difference in the HR practices between the Indian organizations. The study does not analyze, which practices are better. Each of the practices are good in their own capacities as organizational culture differs from organization to organization. It is important for

organizations to take into confidence the views of the employees, engage them before implementing certain HR practices. IT industry is very volatile in nature and the absence of such of good HR practices would result in employees disoriented and might result in higher attrition.

**Hypothesis # 8: There is no significant difference in Sustainable HR Practices based on the location**

Bangalore, Mumbai, Delhi, Hyderabad, Chennai and Kolkata are the six major hubs and hence, the data was collected from these locations. However, not all the organizations have presence in all the locations. During the in-person discussions with the managers, it was conveyed that the HR practices remain the same for all the offices in the country and the practices differ from country to country based on the local culture and legislations. ANOVA was used to test if there exists a significant difference. The results were shown in Table, where P Value is 0.112, which is higher than 0.05 and hence, it is considered that location does not play a significant role in Sustainable HR practices.

**Table 5.15. ANOVA – Sustainable HR Practices based on Location**

SHRM

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	46651.567	9	5183.507	1.820	.112
Within Groups	1680800.267	590	2848.814		
Total	1727451.833	599			

**Scheffe's Post hoc Test - Multiple Comparisons**

Dependent Variable: SHRM

Tukey HSD

(I) Location	(J) Location	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Bangalore	NCR	.29312	6.95543	1.000	-19.5928	20.1790
	Hyderabad	10.13394	6.70576	.657	-9.0381	29.3060
	Mumbai	-17.41414	7.48742	.185	-38.8210	3.9927
	Chennai	-7.10915	7.07352	.916	-27.3327	13.1144
	Kolkata	-17.89394	7.99733	.222	-40.7587	4.9708
NCR	Bangalore	-.29312	6.95543	1.000	-20.1790	19.5928
	Hyderabad	9.84082	7.12088	.738	-10.5181	30.1998

	Mumbai	-17.70726	7.86137	.216	-40.1833	4.7688
	Chennai	-7.40228	7.46823	.921	-28.7543	13.9497
	Kolkata	-18.18706	8.34848	.249	-42.0558	5.6816
	Bangalore	-10.13394	6.70576	.657	-29.3060	9.0381
	NCR	-9.84082	7.12088	.738	-30.1998	10.5181
Hyderabad	Mumbai	-27.54809*	7.64136	.005	-49.3951	-5.7011
	Chennai	-17.24310	7.23627	.164	-37.9319	3.4457
	Kolkata	-28.02788*	8.14164	.008	-51.3052	-4.7506
	Bangalore	17.41414	7.48742	.185	-3.9927	38.8210
	NCR	17.70726	7.86137	.216	-4.7688	40.1833
Mumbai	Hyderabad	27.54809*	7.64136	.005	5.7011	49.3951
	Chennai	10.30499	7.96604	.789	-12.4703	33.0803
	Kolkata	-.47980	8.79662	1.000	-25.6297	24.6701
	Bangalore	7.10915	7.07352	.916	-13.1144	27.3327
	NCR	7.40228	7.46823	.921	-13.9497	28.7543
Chennai	Hyderabad	17.24310	7.23627	.164	-3.4457	37.9319
	Mumbai	-10.30499	7.96604	.789	-33.0803	12.4703
	Kolkata	-10.78479	8.44712	.798	-34.9355	13.3659
	Bangalore	17.89394	7.99733	.222	-4.9708	40.7587
	NCR	18.18706	8.34848	.249	-5.6816	42.0558
Kolkata	Hyderabad	28.02788*	8.14164	.008	4.7506	51.3052
	Mumbai	.47980	8.79662	1.000	-24.6701	25.6297
	Chennai	10.78479	8.44712	.798	-13.3659	34.9355

\*. The mean difference is significant at the 0.05 level.

Majority of the IT organizations are based out of the 6 major hubs identified in the study. Though these organizations are expanding to the tier II and tier III cities, the size of the expansion is very limited. Literature does evidence that there is a significant difference in the Indian and MNC HR organizations. At the same time, it was also found that there exists difference among the organizations. However, during the in-person discussions, it was noticed that the HR practices are standardized across the locations. One of the main reasons associated with this the employees' mobility – the nature of the work in IT organizations is such that it requires frequent coordination between the team members and thus sometimes employees are transferred to different locations based on the project requirement. However, there were few differences in the benefits depending on the location, for instance, an employee based out of Hyderabad may be paid less travel conveyance when compared to Mumbai/Delhi due to high travel fares there. So is the case with

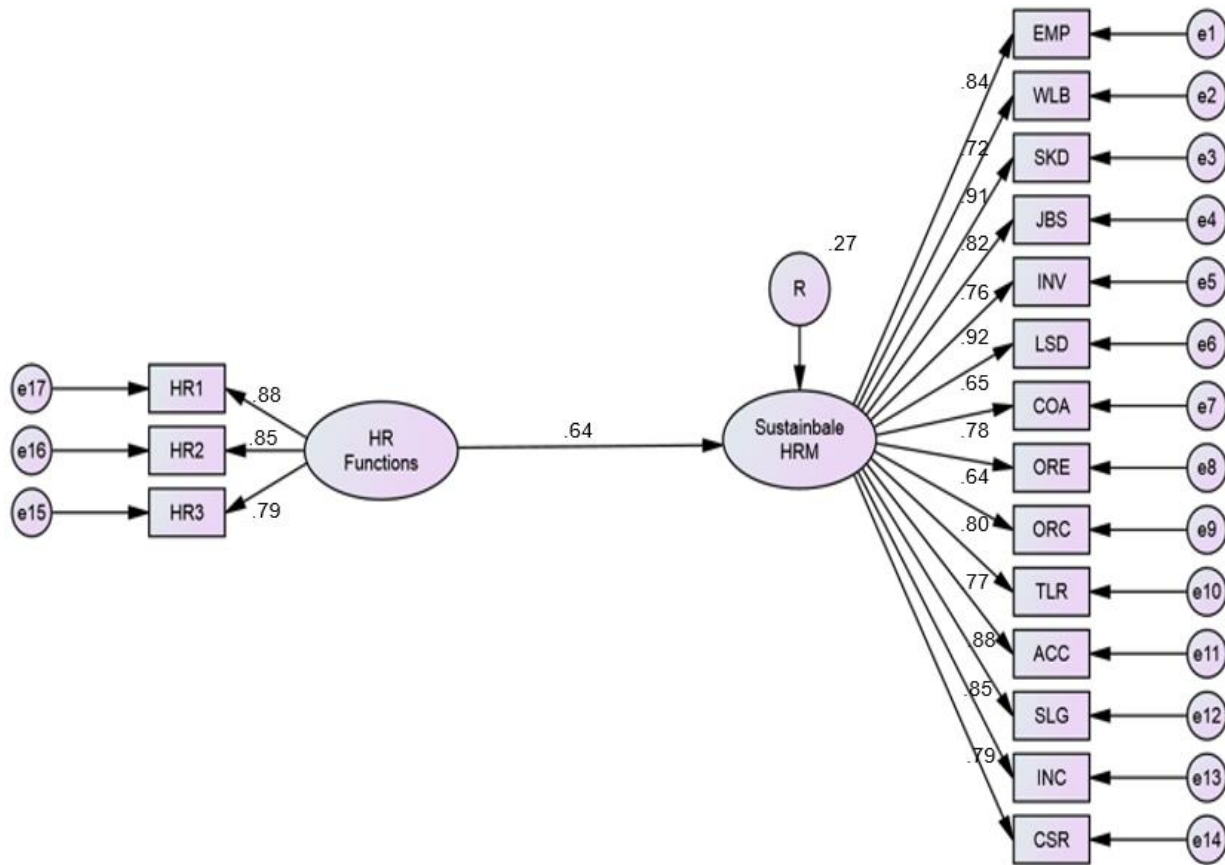
the House Rent Allowance (HRA). As such, there is no significant difference between the HR practices based on cities in India.

### **Hypothesis 9: HRM functions have a significant impact on Sustainable HRM**

For the ease of better functioning, the HR department is broken down into HR Functions – Recruitment, Performance Management, Training, and Compensation & Benefits etc. The HR functions are same in the organizations except that they be known with different names. However, the practices in each of the function might differ. Literature evidenced that it is the HR department through their HR functions play a vital role in achieving the sustainable outcomes. The same is statistically checked using structural equation modelling. In the below figure, HR functions is the independent variable and Sustainable HRM is the dependable variable. The model depicts that HR functions exert a significant impact on the dependent variable Sustainable HRM. Figure 5.5 explains the impact of HR functions on Sustainable HRM. The path coefficient (standard estimate is 0.64) and the p value 0.004. The hypothesized path from HR Functions to Sustainable HRM is significant at the 0.01 level. Hence, it is evident that HR functions play a significant role and the impact is significant and hence, the hypothesis is not rejected.

The role of HR is growing gains legitimacy as HR, which were considered as a liability to the organization have been considered strategic resource to the organization thanks to Strategic HRM that brought in the need for HR to align their strategies with the business strategies of the firm. One of the critical challenge for the HR professionals is to recruit and retain the top talent. But it is also equally important for the HR professionals to involve, engage and partner with the employees in taking the sustainable development to the next level by aligning the HR goals not only with the organizational goals but also with the sustainable outcomes. It is imperative for HR to create an organizational climate that encourages both the employees and the future talent to understand the organizational sustainability initiatives that are considered to be crucial.

**Figure 5.5: Measurement Model: Impact of HR Functions on Sustainable HRM**



**Table 5.16. Results of Hypotheses Testing – Impact of HR functions on Sustainable HRM**

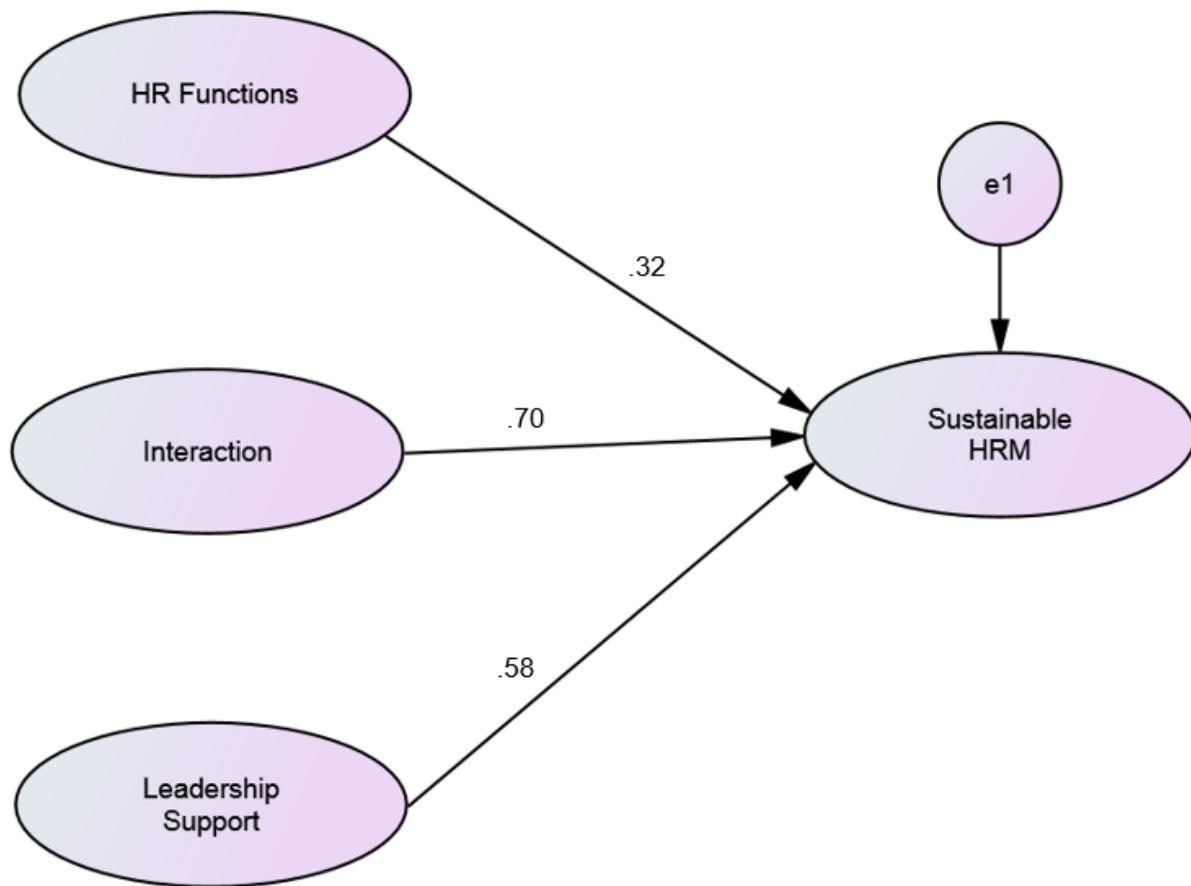
	Standard Estimates	Estimate	S.E.	C.R.	P	Label
SHRM <--- HRFunctions	.636	.738	.029	23.194	0.004	

**Hypothesis # 10: Leadership Support moderates the effect of HRM functions on Sustainable HRM**

Literatures has evidenced that the leadership support is very critical to achieve sustainable outcomes. If the leadership interest lies only with the organizational outcomes, it is not possible to achieve the individual and societal outcomes. Although, HR department tries to focus on the three outcomes, it has to be driven by the leadership to achieve the sustainable performance and hence,

leadership support is considered as a moderating variable. Independent variable is HR functions and the dependent variable is Sustainable HRM. Moderating variable is considered to change the relationship between to related variables. The relationship between the two variables changes significantly based on the moderating variable.

**Figure 5.6. Measurement Model: Moderating Effect of Leadership Support on Sustainable HRM**



**Table 5.17: Results of Hypotheses Testing – Moderating effect on Sustainable HRM**

			Standard Estimate	Estimate	S.E.	C.R.	P	Label
ZSHRM	<---	ZHRFunctions	.317	.438	.029	15.295	***	
ZSHRM	<---	Zinteracation	.703	.930	.029	32.475	***	
ZSHRM	<---	ZLeadership	.584	.868	.029	30.310	***	

Moderating effects are indicated by the interaction of two variables – HRM Functions and Leadership Support. The scores of HRM Function and the Leadership Support are standardized and the scores were multiplied to get the interaction scores. It is evident from the Regression weights table, that all the P values are significant. Standardized estimates for Interaction effect, 0.703 indicates that the HR functions (0.317) and the leadership support (0.584) are very much critical to achieve Sustainable HRM. Higher, the leadership support, higher would be the interaction effect leading to achieve sustainable outcomes. Similarly the variances between HR functions, Leadership support and the interaction effect also seems to be significant. Because the interaction effect plays a vital, it is understood that the leadership moderates the impact of HR functions on Sustainable HRM and hence the hypothesis is not rejected.

**Goodness of Fit Indices**

In confirmatory factor analysis, the fit indices establish whether the model is acceptable. In the present study absolute fit indices (relative chi-square, GFI, RMSEA) and incremental fit indices (CFI) are reported (these four indices were selected as they are more reported in studies similar to current study) for assessing measurement model validity. Acceptable models fit is indicated by the index cut-off of relative chi-square range from as high as 5.0 (Schumacher & Lomax, 2004) to as low as 2.0 (Tabachnick & Fidell, 2007), RMSEA below 0.08, GFI values greater than 0.90 and CFI values above 0.90 (Hair et al., 2015).

*Table 5.18. Model Fit Summary of Sustainable HRM Scale*

<b>CMIN</b>	<b>DF</b>	<b>CMIN/DF</b>	<b>CFI</b>	<b>NFI</b>	<b>PCFI</b>	<b>GFI</b>	<b>AGFI</b>	<b>RMSEA</b>
8.681	3	2.893	0.972	0.923	0.750	0.928	0.890	0.062

The Value of RMSEA is 0.062, and the value of  $X^2$  is 2.893.  $X^2$  value less than 2.0 is considered to be very good, however values between 2.0 and 5.0 is acceptable and thus the  $X^2$  value is the model is acceptable. Similarly GFI values above 0.9 are considered to be good although some argue that 0.95 is deemed to be a good fit as higher the sample size, higher would be the GFI value. The current model has GFI of 0.928 which is above 0.9 and thus considered to be a good. GFI is an attempt to produce a fit statistic that is less sensitive to the sample size (Hair et al., 2010).

Normal Fit Index (NFI) ranges from 0 to 1, where 1 is a perfect model, the current model has NFI value of 0.923, which is considered to be very good. Comparative Fit Index (CFI) is an improved version of the normal fit index, which also ranges from 0 to 1 and CFI values above 0.90 are usually considered as a good fit and the current model indicates CFI value of 0.972.

The results are in tune with the McKinsey, Ernst & Young, and Society for Human Resource Managements recommendation that the leadership support is very crucial in achieving sustainable HRM. Top leadership has to drive sustainable HRM and should provide direction and roadmap to the HR department. It is also equally important for the organization to include all level of employees in the organizations to drive sustainable outcomes. Top leadership has to work with the HR professionals or provide them the necessary tools that will enable the HR professionals to define and lead the sustainable activities.

### **Summary**

Chapter five presented the data analysis. The demographic details captured through the questionnaire were presented in the chapter. 10 hypotheses that were inferred in the study have been statistically tested using appropriate statistical tests. Independent Sample t Test, ANOVA, Structural Equation modeling were used to tests the hypothesis. Chapter four evidenced that the leadership support is very much critical in achieving sustainable HRM thus the impact of HRM on Sustainable is not only measured, but the moderating effect is also tested in the chapter. Measurement models along with the goodness of fit indices is also presented in this chapter. The discussions of these results is elaborated in the following chapter.

## Chapter - VI

### Findings and Conclusion

The study on Sustainable Human Resource Management is very significant in the Indian scenario given that the organizations have moved away from the traditional ways of managing the organizations. Therefore the focus is more on the sustainable profits and sustainability of the organizations rather than mere profits in the organizations. Unfortunately, Sustainability is either misunderstood or not conceived properly as a concept. Few organizations consider Sustainability as Environmental protection, some see it as greening, while other organizations consider it as corporate social responsibility. In the last few years, sustainability was more dominated by the Corporate Social Responsibility (CSR) so much so that it has become synonymous to Sustainability. With the inclusion of new provision – Corporate Social Responsibility in the Companies Act 2013 that came into effect on April 01, 2014, organizations were mandated to spend 2% of the net profit on CSR activities (Companies Act, 2013, <http://www.mca.gov.in/SearchableActs/Section135.htm>, website accessed on 19/05/2016). The CSR activities that were mentioned in Section 135 and Schedule VII of the companies act were in tune with the Millennium Development Goals (MDGs). The activities include, but not limited to promoting education, eradicating poverty, promoting equality, improving health and reducing child mortality, ensuring environmental sustainability etc.

For the past ten years, organizations have been focusing on the CSR activities as mentioned in the Companies Act (2013) not because they have interest towards them, but because of the mandate of the companies act. Similarly, the act does not have a mention about the other two P's in the triple bottom line – Profit and People. Since, the very existence of the organizations is to maximize their profits, the profit dimension has become inherent and thus the only 'P' that is neglected is the people dimension. Thus, the study on people sustainability has become critical importance in the context of industrialized economy especially in India.

Against this background, this study is aimed at examining the sustainable HR practices that would help organization grow multi-fold. 617 responses were collected through in-person discussions and online questionnaire. After the initial screening, 17 responses were discarded so as to accommodate 60 responses for each of the organizations thus, the final sample is 600 (10 \* 60). 600 responses were collected from 6 major IT hubs covering the Tier I cities as mentioned in the

NAASCOM report. This chapter discusses the objective wise findings, contributions and managerial implications. It also presents the summary of the findings discussed in the Chapter four and five. Data analysis was performed as per the objectives of the study and hence objective wise conclusions is presented in the chapter. The limitations of the study along with the recommendations for future research is outlined at the end of the chapter.

### **6.1. Objective wise Findings**

The primary objective of the study is to establish the link between sustainability and Human Resource management. The literature evidenced the conflict of interest between the concepts, which is one of the main reason for research on Sustainable HRM to be at a nascent stage. The study focused on developing a measurement scale as there were no available scales that measures the sustainable HR practices. Based on the extensive review of the literature and the significance of the concept in the current scenario, the following objectives have been studied, as also delineated in chapter IV. They are

1. Establish the linkages between Sustainability and Human Resource Management
2. Examine the relationship between the individual, Organizational and Societal outcomes
3. Identify the factors that constitute Sustainable Human Resource Management
4. Develop, test and validate a measurement scale for Sustainable HRM
5. Identify the impact of HR functions on Sustainable HRM
6. Examine the moderating effect of Leadership Support on sustainable Human Resource Management

#### **Objective 1: Establish the linkages between Sustainability and Human Resource Management**

As a concept, Sustainable HRM has to be grounded in a theory and thus, an attempt was made to do an extensive review of the literature to operationalize Sustainable HRM. Grounded theory is popular in social sciences as it focuses on interpreting the meaning and the interrelationship between meaning in the perception of the subjects and their action (Glaser, 1992). There were several scholars who tried to provide theoretical support to Sustainable HRM. Some of the notable works are - paradox theory (Ehnert, 2009), who developed a model for Sustainable HRM and provided a theoretical support from a paradox perspective, negative externalities (Mariappanadar,

2012; 2013) and stakeholder theory (Guerci, 2011; Guerci & Pedrini, 2014). The paradox theory of Ina Ehnert addressed the dualities such as short term – long term, shareholder – stakeholder, financial growth – corporate responsibility etc. Moreover, paradox theory suggests that it is but natural for organizations to confront such dualities. As a result of these dualities, there exists tension within the organizations. These tensions neither can be avoided nor escaped and hence needs be dealt with care in a way that the organizations success in the long run is not hampered by these tensions. Ina Ehnert applied paradox theory as a lens for theorizing on sustainable HRM and as analytical tool to identify the tensions, conflicts, oppositions, dualities, dilemmas, inconsistencies, which are termed as blind spots. Management scholars using Paradox theory for theory building is not new but the application by HRM theorists' remains to be scarce (Evans et al., 2002) and thus the attempt by Ehnert (2009) to build on paradox theory gained much more significance.

Theory of negative externalities (Mariappanadar, 2003) states that the human resources are very important to every organisations and hence need to be managed sustainably. Externality is defined as a cost that the organizations impose on the third parties or society at large (Biglan, 2009). Third parties are stakeholders, families, communities etc. In an endeavor to increase the profits, organizations plan maximize the efficiency with fewer employees. As a result of the work intensification (Allan, 1998), there exists a negative impact on psychological and social life of the individuals leading to imbalances between work and personal life. (Mariappanadar, 2012). These negative effects are seen in the form of stress, anxiety, depression etc. The negative externalities theory focusses more on the ethical side of the employees and thus, highlights that the HRM practices of the organization should focus on the negative outcomes that arises out of work. *How sustainable are the HRM practices used by organizations to counter negative externalities* remain to be the most frequent question posed by the HR practitioners (Mariappanadar, 2012). HRM practices should facilitate in helping the individuals develop self and contribute to organizational and individual goals but unfortunately, the focus of the HRM practices is more on controlling the individuals rather than helping them develop professionally.

The current study contributes to the stakeholder theory approach as the theory allows conceptualizing organizational performance of HRM beyond the profit maximization leading to triple bottom line (Ehnert, 2015). Further, Sustainable HRM does not support the short term

approaches of profit maximization, which may result in having negative impact on third parties such as families, society and communities. Sustainable HRM supports various stakeholders like the stakeholder theory, which goes beyond the shareholders and hence the current study is based on the stakeholder stream of research.

The study presented three approaches – paradox theory, negative externality and stakeholder theory. The study not only provided theoretical background for Sustainable HRM but also made a deliberate effort to link HRM with sustainability through the hard and soft approaches of HRM.

### **Objective 2: Examine the relationship between the individual, Organizational and Societal Outcomes**

The objective is met by measuring the relationship among the three factors. The three pillars of sustainability – People, Profit and Planet are translated into individual, organizational and societal outcomes in the study. For any organization, it is not only important to earn profits, but making the profits sustainable is much important in the competitive market. Often considered as financial sustainability gives the ability to the firm to maintain financial capacity over a long period (Bowman, 2011). The market is so competitive that the smaller organizations struggle for survival and the larger organizations strive for sustainable returns. The literature evidenced that the human resources and the society at large also plays a pivotal role in the success of the organization and thus the study looked at the individual, organizational and societal outcomes that constitute Sustainable HRM, which in turn helps the organization succeed in the long-run.

The study not only provided literature support for the three outcomes but also statistically tested the relationship between three variables. Chapter four explains the conceptual framework using the three factors. Figure 4.2 explains the relationship between these three outcomes. Further, the relationships are explained using AMOS 22.0 version. The covariance between each of the variables – Individual Outcomes and Organizational Outcomes is 0.86, Organizational Outcomes and Societal Outcomes is 0.90, Individual Outcomes and Societal Outcomes is 0.85. The high covariance loadings between the three factors evidence that there exists a strong relationship between the three variables. Further, the variables identified under each of the factor resulted in high loadings thus underscoring the reliability. The findings are very similar to what exactly the modern organizations are looking for. Service industries, who rely on other industries for their business needs to adjust themselves as per the global economy and thus, needs to prepare for the

future focusing on serving them. Thus, it is binding on the organizations, to not only focus on organizational goals, but also focus on individual goals that would create employability, nurture their skills and help them strike a balance between the personal and professional life. At the same time, organizations also focus on the societal outcomes focusing on developing the sources from outside thus focusing on the source of the resources. The study explored the relationship between the three outcomes. The findings were in line with the studies of the paradox theory (Ehnert, 2009) that there exists a significant relationship between these three outcomes.

### **Objective 3: Identify the factors that constitute Sustainable Human Resource Management**

As discussed in the previous chapters, the literature on Sustainable HRM is at a nascent stage and the last few years have witnessed HRM scholars' growing interest towards the concept. However, bulk of the studies examined the concept in isolation and surprisingly the sustainable HR practices or sustainable HRM has been notably absent. There were hardly any studies prior to Ehnert that focused on the sustainable HR practices as the prior HRM scholars focused on linking the Sustainability with Human Resource Management. The study also reviewed the 25 HR practices that were defined by Guerci & Pedrini, (2013). These 25 HR practices have their roots in the studies done by Ina Ehnert.

The objective of identifying the factors is met by identifying 14 factors. 14 factors were adopted from the study by Ehnert (2009). These factors are Employability, Work Life Balance, Skill Development, Innovation, Job Security, Competitive Advantage, Organizational Efficiency, Organizational Culture, Talent Retention, Leadership Development, Social Legitimacy, Accountability, Inclusion and Corporate Social Responsibility. These 14 factors were discussed with the academia and industry professionals before they could be considered for development of the measurement scale.

The present study involves developing a measurement scale for Sustainable HRM. One of the first step is item generation and hence, specific items that comprise the 14 factors were generated. A thorough review of literature search generated 102 items. These items were thoroughly discussed with the industry experts and a pilot study was conducted to check the reliability of the scale. A factor analysis was conducted to check the loadings of the items.

The results of the factor analysis revealed that Eigen values of all the 14 factors were greater than one, which is in line with the other statistical studies (Kaiser, 1960). Since, all the factors have Eigen value of more than one, none of the factors were eliminated from the study and thus the current study has 14 factors. The appropriateness of the analysis was also checked through Kaiser-Meyer-Olkin (KMO) statistic of sampling adequacy. For a good factor analysis, KMO value must be greater than 0.5 (Tabachnick & Fidell, 1996). KMO value was .898, which is above greater than 0.5 and hence, the sample was adequate.

Thus the identified 14 factors are tested statistically through Exploratory Factor Analysis (EFA) and then Confirmatory Factor Analysis (CFA) was done to purify the items. Both the EFA and the CFA resulted in 14 factors. The findings cannot be compared to any of the previous studies as the literature does not have any mention of the prior empirical studies. Future research can see if the 14 factors would be applicable for other industries other than the service sectors. The studies should see if any of the factors overlap with respect to other industries and see if there could be any other potential factors that define the measurement scale.

#### **Objective 4: Develop, test and validate a measurement scale for Sustainable HRM**

Sustainable reporting has measurement instruments in the form of G4 framework. G4 reporting guidelines are the most accepted way of reporting sustainability across the globe. However, in terms of measuring Sustainable HRM, there are no such instruments. Chapter four discussed the HPWS and Mariappanadar's Harm index. Each of the scales in HRM context either focused on the individual high performance or organizational performance and thus, this study attempts to fill the void by developing a measurement scale.

The objective is investigated through qualitative and quantitative research. Qualitative research is conducted through review of literature, selection of factors and item generation. The review of literature provided insights into the research gaps, and helped generate a pool of items to measure the sustainable HR practices of the organizations. The investigation also included the in-person interviews to refine the statements to check if the statements are understood correctly by the respondents.

Quantitative research refers to the empirical investigation through statistical methods. The current study involved appropriate statistical techniques to measure the observed phenomena.

Development of measurement scale involved primarily two stages – pilot study and the final study. 56 items were identified for the pilot study through which 101 responses were collected. Pilot study responses were analyzed after which 6 items were eliminated due to their low loadings (<0.40). Further, Exploratory Factor Analysis was conducted to identify the critical factors, which measure Sustainable HRM practices of the organization. The process of EFA included sampling adequacy, factor extraction, factor rotation and factor interpretation. 6 more items were discarded after the EFA and the final number of items after the factor analysis were 44.

Final study consisted of 44 items, through which 617 responses were collected. Responses were collected in person and through online questionnaire administration. After a careful observation, 17 responses were discarded due to incomplete data and thus the number of responses for the final study is 600. Confirmatory Factor Analysis (CFA) was conducted on the 44 items. Finally, 14 factors with 35 items Sustainable HRM scale emerged out of the analysis. The results of the model revealed a good fit ( $X^2 = 2.398$ , CFI = 0.963, NFI = 0.911, PCFI = 0.750, GFI = 0.912, AGFI = 0.890, RMSEA = 0.069).

The final stage in the scale development is validation. Three items for HRM Function and three items of Leadership Support were added to the final instrument. As is seen in the current context, organizations are still looking out for leaders to manage the organization in the competitive context. Further, organizations are also focusing on instilling leadership skills to the employees at all levels through training. Similarly, the HRM function has attained strategic importance and has gone beyond to look at the sustainability of the HR function. In view of this, the quantitative results also supported the ground reality of organizations. The final model is arrived at checking the impact of HR functions on Sustainable HRM and the moderating effect of leadership support.

#### **Objective 5: Identify the impact of HR functions on Sustainable HRM**

This objective is measured through hypothesis 9. Figure 5.5 explains the hypothesis through the structural equation model using AMOS. Structural Equation modelling was used to measure the impact of HR functions on Sustainable HRM. The P value for the path coefficient is 0.004, which is lesser than 0.5 at significance level of 0.01. The results evidence that there is a significant impact of HR functions on Sustainable HRM.

The HR department in an organization is characterized by various HR activities that are considered to be essential for the success of the organization (Wright et al., 2005). HR department coordinates with various departments within the organization and provides the organization the ability to meet not only the current needs but also the future needs by managing the critical and complex resources termed as human resources/employees/people. As the department grew bigger, the department was broken down into various functions based on the importance of the activity and its strategic relevance. The activities of the HR departments include Recruitment, Performance Appraisal, Compensation & Benefits, Training and Development, Career Planning, Employee Welfare and Industrial Relations. It is not possible for HR professionals to be competent in all these development areas because of the strategic importance and hence the HR professionals are placed in respective activities based on their skills.

No activity is superior over the other as all of them together form the HR department. Each of them have a specific focus without losing the unified vision. The modern organizations consider the HR department as greatest asset to the organization, however, this asset is being challenged by intense competition and business pressures, where survival has become the critical importance for the organizations (Society for Human Resource Management, 2008).

The perception of HR functions by the employees depend on several factors – organization size, employment sector etc. HR department is gaining significance by aligning their policies and strategies to the organizational strategies and priorities thus, expanding the role of HR to not only the manpower planning, recruitment and selection but to contribute to the business priorities of the organization. There is a growing need for the HR professionals to be aware of various ways that they can assist the organization in meeting their goals. Sustainability is one such mantra that every organizations wanted to meet. With a focus on sustainability, the HR departments not only tries to achieve the organizational goals through the production and efficiency but also focus on the individuals goals through learning and development of the individuals that will not only enhance their skillsets but provides employability outside the organizations as well.

Organizational development, change management, culture development are part of the HR activities and hence, it is HR that needs to bring in change and drive sustainability across the organization. HR functions has the potential to transform the business and move towards greater sustainability as these HRM processes brought into play to support sustainable strategies in all its

activities such as recruitment and selection, employee training, development and compensation, managerial support and communication, and organizational climate creation. With the availability of various HR tools, it is all the more easy for the HR managers to embed sustainability strategies in the HR practices as *Sustainable HRM creates the required skills, motivation, values and trust to achieve the triple bottom line*. (Society for Human Resource Foundation, 2008).

This is not only true in theory, but the empirical results of this study also proved that HR functions has a positive impact on Sustainable HRM leading to individual, organizational and societal outcomes. Thus, it could be concluded that HRM functions has a positive impact on Sustainable HRM.

### **Objective 6: Examine the moderating effect of Leadership Support on sustainable Human Resource Management**

The objective is met by introducing the moderating effect of Leadership Support on Sustainable HRM. Figure 5.6 explains the moderating effect through structural equation modeling. The hypothesis was tested using the interaction effect as the moderating variable affects the relationship between the dependent and independent variables. The results indicate that there is a significant impact of HRM functions on Sustainable HRM (0.32). Similarly, the results also shown that there is a significant impact of Leadership Support on Sustainable HRM (0.58). The combined effect, also known as the interaction effect evidenced a strong path coefficient (0.70), which is greater than the individual effects, thus indicating that the HRM functions along with the leadership support have a significant impact. Hypothesis 10 proved that the leadership support acts as a moderating variable. Thus, it can be concluded that the interaction between HRM functions and the Leadership Support affects the Sustainable HRM. These findings provide evidence that in spite of the HR's active role in contributing to Sustainability, it is Leadership Support that makes organizations more sustainable.

The results of the study are directly in line with the literature discussed in the chapter four. Growing emphasis on sustainability help organizations to think about the business strategies, ways to reduce costs, save energy and more importantly engage employees in sustainability related activities. Top leadership of the organization may not be in a position to engage in saving energy or reducing costs, but definitely can drive the organizations actions through their mission statements. Similarly,

the leadership can engage human resources department to coordinate and manage the sustainability initiatives in an organization. They should not only involve HR managers but make them accountable for Sustainable HR practices (Society for Human Resource Management, 2014).

In the words of Kingfisher CEO, Ian Cheshire, “*Leadership must be about creating real change in two directions: inside an organization and in the wider systems which affect the ways we live and operate*”. Further, he argues that it is the business leaders, who should drive and stand up for sustainability in the organizations (<http://sustainablebizconsulting.com/management-support-for-sustainability/>, Website accessed on 08/06/16). Thus, it is the responsibility of the leadership to imbibe the sustainable culture across the organization through their actions and deeds and position sustainability as their business priority. However, the business leaders still have not embraced the concept of sustainability in its full potential and thus their approach towards sustainability is more a “nice to do” rather than a “need to do” approach (Ernst & Young, 2014). McKinsey, a global consulting firm reaffirms that the biggest challenge companies’ face in sustainability is getting top-leadership attention (McKinsey, 2014). The same opinion is further expressed by organizations like Society for Human Resource Management, Sustainable Business Consulting, International Institute for Sustainable Development (ISSD).

Modern organizations are characterized by youth especially service sectors like Information Technology and Information Technology enabled services. Youth are aware and are conscious about the sustainability activities that each of the organization are involved and thus they are choosy in terms of employment unlike past. Thus, it is more binding on the leadership to embed sustainable strategies in the vision, mission statement and *walk the talk* as such actions by the leadership are easily noticeable, which could be emulated by the youth.

The top management, whose motive is centered on profits would only look at the organizations goals and leaves out the individual development and the societal interests. Thus it is imperative for the organizations to get leadership support in achieving the sustainable outcomes. As the analysis revealed the interaction effect is much when compared to only HR support or leadership support. Thus, it can be concluded that an effective HR department with the required leadership creates Sustainable HRM, which aims to achieve sustainable performance by the balancing act of triple bottom line. This triggers for future research as to what kind of leadership support is required? Are the organizations in need of financial support, Commitment from the leadership, active

involvement etc.? Organizations need to identify the need and HR should take a lead to communicate the same to the leadership.

## 6.2. Contribution of the Study

The present study contributed to the existing literature in several important ways:

- First, the study attempted to review the concept of Sustainability, etymology and definitions. The Triple Bottom Line (TBL) approach of John Elkington is considered as the base for the Sustainability balancing the three spheres – Profit, People and Planet. The G4 framework, which is generally accepted reporting framework for sustainability developed the reporting guidelines based on the triple bottom line thus, highlighting the importance of measuring and reporting sustainable performance in the organizations. The study responds to the need for measurement framework and hence an attempt is made to develop a measurement scale for Sustainable HRM.
- The study reviewed the literature both from a global and Indian perspective. Further approaches to sustainability were detailed out systematically and the present study contributes to the stakeholder approach. Further, an attempt was made to link Sustainability with Human Resource management using the *soft and hard* approaches of HRM (Storey, 1989).
- The three dimensions of sustainability – People, Profit and Planet and translated into Individual, Organizational and Societal outcomes. The study provides empirical evidence on the relationship between the three outcomes through the structural equation modelling.
- The study identified 14 factors that are grouped under the three outcomes. Each of the variable – Employability, Work life balance, Skill Development, Job Security, Innovation, Leadership Development, Competitive Advantage, Organizational Efficiency, Organizational Culture, Talent Retention, Social Legitimacy, Accountability, Inclusion and Corporate Social Responsibility are studied in detail. Further, the relationship between each of the variables is established using structural equation modeling. The results of the factor analysis explained in the fourth chapter provided 14 factors with Eigen values more than 1. These variables confirm and expand the existing knowledge of Sustainable HRM.
- The literature evidenced that there are hardly any proven instruments for measuring the sustainable HR practices. The study contributed to the academic theory through the

development of a measurement scale. Further, the relationship between the variables was measured through both first and order and second order measurement models.

- The conceptual framework of the study suggests that there is a significant impact of HRM functions and the leadership support in establishing sustainable HR practices for the organizations. The moderating effect of leadership support is a specific contribution to the study as prior studies have not identified or studied the role of leadership support. The interaction effect of leadership support and the HR functions proved to have a significant positive impact on the Sustainable HRM.
- The concept of Sustainable HRM is more popular in the Europe in and the HRM scholars have slowly started adopting the concept. Thus, there are hardly any studies that focused in the Indian Context. The study not only focused on the Indian IT organizations but also studied the multinational organizations that have strong presence in India. The study will open new avenues of research in Indian context and provides an opportunity to measure the developed instrument in other industries.
- The study provided new insights into the study of Human Resource Management. The question that arises from the study “*Is Sustainable Human Resource Management the next approach for managing the resources and the organizational as a whole?*” The role of HR has increased drastically thanks to the strategic human resource management that aligns the HR strategies with the organization goals.

### **6.3. Managerial Implications**

The literature on Sustainable HRM does indicate some implications for HR managers as Sustainable HRM provided new insights into managing people.

- First, the study found that it is important for organizations to maintain equilibrium among the organizational, individual and societal outcomes to survive in the long run and thus, the HR needs to focus on contributing to the three outcomes as mentioned in the study. The policies/strategies that are developed by the HR should be framed in tune with the three outcomes.
- Second, HR should focus on the negative effects that arise out of the work intensity. It is very important for the HR to address the negative effects such as work related stress, work-

family conflicts, psychosomatic disorders, burnouts, absenteeism from the organization that would have adverse impacts on the performance of the organization.

- Third, it is imperative for the organizations to focus on developing the resources not only from within but from outside the organization as well. Development of the resources is based on the assumption that they would become more skilled, competent and contribute for the development of the organization. HR should not only focus on developing the resources internally, but also should focus on the sources of the resources such as universities, families and society has to be nurtured and mentored so that the generation of the resources would be a continuous process. For instance, the IT industry is one, where in the entry level jobs are filled mostly through campus hires. Instead of giving training to them after having joined the organization, the organizations should focus on providing organizing faculty development programs, imparting technical and necessary skills required by some of the organizations best people.
- Fourth, the role of leadership support studied in the study evidenced the required support from the leadership to embrace the concept of sustainability in the organizations. HR managers should make a deliberate effort to involve the top management in the best possible way and lead the sustainable activities from the front.
- Fifth, HR managers can adopt the Sustainable HRM to measure the sustainable HR practices in the organization. Further, they can look in to each of the factor and design practices in such a way that each of the factor is addressed. Managers should develop and design trainings programs that would focus on attaining the individual outcomes without losing focus on the organizational and societal outcomes.
- Finally, HR managers has to be determined to bring in the sustainable culture across the organizations. It is the responsibility of the HR managers to engage employees in the sustainability activities as literature evidences that active employee engagement has a significant impact on the organization and individuals (Schaufeli & Bakker, 2010).

#### **6.4. Limitations**

The study provided new insights and opened avenues for the researchers to contribute to the existing body of knowledge. The study also laid platform for the researchers to empirically test some of relationships between variables. However, the study has its own limitations, which the

future research can address. The findings, implications and conclusions presented in the study has to be read in conjunction with the following limitations:

- The research analysis is based on the information/data collected from the respondents. The respondents are from the Information Technology industry and thus does not represent the population from other industries. Further research may replicate the study in other industries, which will help in increasing the generalizability of the results.
- The research is confined to the six major hubs as per the NASSCOM report. Tier II and Tier III cities are picking up fast, which has substantial portion of IT companies like Kochi, Bhubaneswar, Vishakhapatnam, Trivandrum, Ahmedabad, Coimbatore, Chandigarh (NASSCOM Report, 2015). Further studies made in the Tier II and Tier III cities would enhance and strengthen the insights gained in the present study.
- The findings of the study should be interpreted with caution as the current study involves only one industry. There are other growing industries especially the service sector, which faces similar problems like the IT industry thus calls for a need to extend this study to other sectors too.
- The measurement scale developed in the study employed 14 factors primarily adopted from the study of Enhert (2009). Although, other sustainable HRM scholars advocated some of these factors, there were no empirical studies confirming these factors. Similarly, some of these factors were discussed by the advocates of strategic human resource management.
- The model suggested in the study need to be understood from the service sector stand point of view. Manufacturing industries are governed by the state and national laws with regards to environment, emission and waste management. Therefore, the concept of sustainability is very much critical and thus the sustainability is top driven in these organizations. More than the HR department, it is the production and the quality assurance that takes care of the sustainability activities that includes even the welfare of the workforce.

### **6.5. Scope for Future Research**

The study has evidenced that Sustainable HRM is at a pioneering stage and has a greater potential to establish as a concept. Sustainable HRM Scholars have focused on linking Sustainable with HRM and have addressed the theoretical foundation, which paved away for the researchers to

conduct empirical research. Future research should can focus on the development of the human resources, more importantly the sources of the resources has to be developed.

Sustainable HRM is conceptualized differently and means differently to each one. The practices that are considered strategic and sustainable today could be irrelevant in the future as the values, attitudes and behaviors of the employees change over a period of time and hence the HR should adopt those strategies that will attract not only skilled but also motivated workforce. There is a wide difference between the skilled and the motivated employees and hence the future studies could study on engaging the employees in contributing to the organization's success.

Paradox theory, theory of negative externalities and the stakeholder theory are used in this study for theory building. Future studies can look into other theories for developing the concept. Ina Ehnert (2009) discusses about time and reflexivity theory, linking the concept of time and how the concept of time. Wright and Haggerty (2005) also argues that time is a neglected variable in the SHRM research. Sustainable HRM argues that the resources in an organization are over consumed, due to which the side and negative effects are unleashed in the resources and these negative effects could influence the organization ability for success. The role of HR is not confined to address the negative effects but also on reproducing the resources, which is a time taking process and hence, time can be studied as a factor influencing Sustainable HRM.

The study focused on Information Technology industry and thus, future empirical research can focus on other industries or test the measurement scale in other areas. The cultural dimension is not included in the study. Future studies can focus on cultural context as the culture differs from country to country. Multinational organization has diversified global workforces and often requires to travel for work. More over the employees in one country needs to collaborate with the workforce operating from other part of the world. India that comprises of 29 states varies drastically in terms of culture, dialectics and language, so is the case with the rest of the world and hence the future research could look at the cultural dimension and concentrate on making the Sustainable HRM acceptable cutting across the culture and regions.

The present study made an attempt to study the various factors that contributed to Sustainable HRM. These factors are empirically tested and thus a measurement scale is developed for the Sustainable HRM. Future studies can study the role of other variables that directly or indirectly contribute for Sustainable HRM. Similarly, the future research can study if there are any mediating

or moderating variables that would impact the Sustainable HRM in the organizations. Investment in the sources of the resources or development of the resources is very important as far as future supply of the resources. Empirical studies could explore if the investment within or outside the organization would help in developing the resource. Further, the impact of Sustainable HRM on the performance of the organization could be one potential area that can be studied in the future.

## **6.6. Conclusion**

The present study highlighted the importance of Sustainable HRM for the success of the organizations. It presented an alternative way of managing people that goes beyond the strategic human resource management. The role of HR as a strategic/business partner is gaining more importance as their focus is not only on the organizational goals, but also includes the individual and societal outcomes. The study identified 14 factors that contributed to the development of measurement scale for Sustainable HRM. Further, the association between the three outcomes – Individual, Organizational and Societal outcomes is established in the study. Sustainable HRM, a scale for measuring Sustainable HRM practices has been developed based on the 14 factors and three outcomes identified in the study. The study is first of its kind that attempted to empirically test the factors that contributed for Sustainable HRM. Prior researchers focused on establishing the link between Sustainability and the HRM due to the dualities, ambiguities that exists in linking these two concepts. The study established a positive relationship between the HRM functions and the Sustainable HRM. Further, it was found from the study that the leadership support plays a critical role in establishing sustainable HR practices. The study presented the interaction effects of both the HRM functions and the leadership support that contributes for the Sustainable HRM in the organizations. Sustainable HRM is an emerging topic in the field of HRM and thus will continue to develop as a sustainable concept of HRM in the future too. Sustainable HRM provides many opportunities for the researchers to focus on those factors that will aid organizational success from a 360 degree perspective covering all its stakeholders.

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# **Annexures**

## Survey Questionnaire

Sir/Madam,

My name is Bharat Kumar Chillakuri and I am a research scholar pursuing Ph.D from School of Management Studies, University of Hyderabad. I am doing research of HR practices that would help organizations sustain in the long run. Hence, I request you to kindly give your valuable inputs/suggestions by filling this questionnaire.

All the responses collected would be kept confidential and the data would be used purely for academic purpose. Please answer all of the questions by either putting a '✓' mark or fill in the boxes appropriately by entering the information.

### Section A

1. Name (Optional):
2. Sex: Male Female
3. Organizations Name (Optional):
4. Location:
5. Qualification: Graduate Post Graduate Others
6. Type of Organization: Indian Headquartered US Headquartered
7. Total Work Experience: > 3years >5years >10years
8. Current Designation: Software Engineer/Senior Software Engineer/Analyst/Consultant  
Team Lead/Project Lead/Senior Consultant  
Manager  
Manager and above

### Section B (Leadership & HR Functions)

		Never True	Rarely True	Unusually True	Neutral	Sometimes True	Usually True	Always True
<b>MV1</b>	Top Leadership has a clear vision, mission and concrete plan for future development							
<b>MV2</b>	Top leadership helps the employee in understanding the goals of the organization and provides direction							
<b>MV3</b>	Top leadership drives and encourages sustainability related activities in the organization							
<b>DV1</b>	HR department is very well structured and organized							
<b>DV2</b>	HR policies and procedures are communicated to employees clearly							
<b>DV3</b>	I know whom to approach when in need							

**Section C – Individual Outcomes**

			Never True	Rarely True	Unusually True	Neutral	Sometimes True	Usually True	Always True
<b>Employability</b>	<b>EMP2</b>	I am encouraged to demonstrate my knowledge, skills in my workplace							
	<b>EMP3</b>	I am confident of learning the job and executing tasks that are completely new							
	<b>EMP4</b>	I am good at understanding the job market and its trends and keep current with the technology							
<b>Work Life Balance</b>	<b>WLB1</b>	My organization provides an emotionally healthy work place that balances my Mental Health & Well-being							
	<b>WLB2</b>	I have control on my work schedule to maintain a fit between my work and personal life							
	<b>WLB3</b>	I am happy in this organization, without putting work before my family and personal commitments							
	<b>WLB4</b>	My organization provides flexible working hours/staggered shifts.							
<b>Skill Development</b>	<b>SKD1</b>	My department conducts periodic training to do my job more effectively							
	<b>SKD2</b>	I am willing to invest time and effort to enhance my current skills and competencies							
	<b>SKD3</b>	My Organization encourages continuous learning and skill development							
<b>Job Security</b>	<b>JBS1</b>	I rarely think about looking for a new job with another company							
	<b>JBS2</b>	Overall, I am very happy with this job							
<b>Innovation</b>	<b>INV1</b>	Employees are recognized and rewarded for sharing ideas and knowledge							
	<b>INV2</b>	Organization always look out for process improvements							
	<b>INV3</b>	I share my ideas of new projects, changes and procedures							
	<b>INV4</b>	I have the liberty to speak up on the ideas I have							

### Section D – Organizational Outcomes

			Never True	Rarely True	Unusually True	Neutral	Sometimes True	Usually True	Always True
<b>Leadership Development</b>	<b>LSD1</b>	My organization conducts regular training to develop leadership skills							
	<b>LSD2</b>	My leadership has communicated a vision of the future that motivates me.							
	<b>LSD3</b>	My immediate supervisor/manager helps me know what is expected of me							
	<b>LSD4</b>	My organization provides an opportunity to lead smaller initiatives							
<b>Competitive Advantage</b>	<b>COA1</b>	My organization benchmarks the quality of products/services against its competitors							
	<b>COA2</b>	My organization evaluates its plans periodically to have control over the industry							
	<b>COA3</b>	My organization considers the views of the employees before they introduce any changes							
	<b>COA4</b>	My organization often uses knowledge-based innovation							
<b>Organizational Efficiency</b>	<b>ORE1</b>	I have learned how to perform my job effectively and efficiently							
	<b>ORE2</b>	I am rewarded for the extra efforts that I put in accomplishing the tasks							
	<b>ORE3</b>	My goals are set as my per my skills							
	<b>ORE4</b>	My organization uses the resources effectively and in an efficient manner							
<b>Organizational Culture</b>	<b>ORC1</b>	I am proud to be an employee of this organization							
	<b>ORC2</b>	My goals/values and that of the organisations are very similar							
	<b>ORC3</b>	I believe I am a right fit within my organization							
	<b>ORC4</b>	I do not feel like feel at home at my organization							
<b>Talent Retention</b>	<b>TLR1</b>	My organization has a strong career progression plan for all the levels							
	<b>TLR2</b>	Process for internal mobility is very well laid							
	<b>TLR3</b>	My organization has a well-structured succession planning							
	<b>TLR4</b>	My organization always looks for professionals from competitors for higher positions							

### Section E – Societal Outcomes

			Never True	Rarely True	Unusually True	Neutral	Sometimes True	Usually True	Always True
<b>Accountability</b>	<b>ACC1</b>	My organization has a good brand value outside							
	<b>ACC2</b>	People love working with my organization if given a chance							
	<b>ACC3</b>	My organization is a dream company for many of the job seekers							
	<b>ACC4</b>	My organization provides enough information to the employees and its stakeholders							
<b>Social Legitimacy</b>	<b>SLG1</b>	I would be a good example who represents my organization							
	<b>SLG2</b>	I show pride when representing my organization in public							
	<b>SLG3</b>	My organization helps me in becoming an ethical professional							
<b>Inclusion</b>	<b>INC1</b>	I am treated with respect and dignity in the organization							
	<b>INC2</b>	People are treated as individuals regardless of background or beliefs							
	<b>INC3</b>	I am able to bring my authentic self to work							
	<b>ICN4</b>	I am appropriately involved in decisions that affect my work							
<b>Corporate Social Responsibility</b>	<b>CSR1</b>	My organization has a formalized corporate social responsibility function							
	<b>CSR2</b>	I voluntarily take part in the activities my organization conducts outside the office work							
	<b>CSR3</b>	I adjust my job schedule to get engaged in the community activities							
	<b>CSR4</b>	My company does a good job of contributing to the communities in which we live and work							

## Final Instrument

Sl. No	35 Item Sustainable HRM Scale
1	I am encouraged to demonstrate my knowledge, skills in my workplace
2	I am confident of learning the job and executing tasks that are completely new
3	I am good at understanding the job market and its trends and keep current with the technology
4	My organization provides an emotionally healthy work place that balances my Mental Health & Well-being
5	I have control on my work schedule to maintain a fit between my work and personal life
6	I am happy in this organization, without putting work before my family and personal commitments
7	My department conducts periodic training to do my job more effectively
8	I am willing to invest time and effort to enhance my current skills and competencies
9	My Organization encourages continuous learning and skill development
10	I rarely think about looking for a new job with another company
11	Overall, I am very happy with this job
12	Employees are recognized and rewarded for sharing ideas and knowledge
13	I share my ideas of new projects, changes and procedures
14	My organization conducts regular training to develop leadership skills
15	My leadership has communicated a vision of the future that motivates me.
16	My immediate supervisor/manager helps me know what is expected of me
17	My organization benchmarks the quality of products/services against its competitors
18	My organization evaluates its plans periodically to have control over the industry
19	I am rewarded for the extra efforts that I put in accomplishing the tasks
20	My goals are set as per my skills

<b>21</b>	My organization uses the resources effectively and in an efficient manner
<b>22</b>	I am proud to be an employee of this organization
<b>23</b>	My goals/values and that of the organisations are very similar
<b>24</b>	My organization has a strong career progression plan for all the levels
<b>25</b>	Process for internal mobility is very well laid
<b>26</b>	My organization always looks for professionals from competitors for higher positions
<b>27</b>	People love working with my organization if given a chance
<b>28</b>	My organization provides enough information to the employees and its stakeholders
<b>29</b>	I would be a good example who represents my organization
<b>30</b>	My organization helps me in becoming an ethical professional
<b>31</b>	I am treated with respect and dignity in the organization
<b>32</b>	People are treated as individuals regardless of background or beliefs
<b>33</b>	My organization has a formalized corporate social responsibility function
<b>34</b>	I voluntarily take part in the activities my organization conducts outside the office work
<b>35</b>	I adjust my job schedule to get engaged in the community activities

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*Sustainable Human Resource Management as a Strategy –  
A Study in Indian IT Context*

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Thesis submitted to the University of Hyderabad in partial fulfillment of the  
requirement for the award of the degree of

**DOCTOR OF PHILOSOPHY  
IN MANAGEMENT**

by

**BHARAT KUMAR CHILLAKURI**

**(Regd No. 13MBPH03)**

Under the Supervision of

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**JULY 2016**

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# SUSTAINABLE HUMAN RESOURCE MANAGEMENT AS A STRATEGY – A STUDY IN INDIAN IT CONTEXT

## SYNOPSIS

### 1. Introduction

The very existence of traditional organizations was wealth creation and hence, they were primarily driven by profit motive, with the basic objective of maximizing their wealth (Friedman, 1970; Wallerstein, 1980; Tome, 2011). The economic expansion of the company was often seen or equated with the success of the organization. These organizations predominantly operated in the local markets with few players competing for the same space. Moreover, these traditional organizations were more hierarchical, disciplined and are characterized by centralized decision making (Mullins, 2007; Bloisi et al 2003). The decision making process in these organizations was slow and hence, there exists little room for innovation as the traditional organizations were not prepared to try anything different other than operating in their own local markets. However, the past two decades have witnessed a paradigm shift in the way the organizations operate due to the intense competition within and outside the countries, which made the organizations to think beyond the traditional way of conducting operations (Porter & Kramer, 2006; Gmur & Klimecki 2001), thus bringing the sustainability concept into the center stage of organizational survival and growth. Given this background, this chapter introduces the concept of sustainability, the three dimensions of sustainability that are often termed as the *triple bottom line*.

Until 20<sup>th</sup> century, sustainability is more seen as an environmental issue. However, there is a paradigm shift after the Millennium Summit of the United Nations in 2000. Millennium Development Goals (MDGs) are outcomes of the United Nations Millennium declaration and was attended by 189 United Nations members. The declaration provided 8 goals and 21 targets that are of pivotal importance to each of the nations with a time frame from 2000 – 2015.

The sustainable development goals are framed for the welfare of the human beings (People) – present and future. Similarly, it is People, who have to ensure that there is a balance between the consumption and the production. Although, the 3P's are equally important for the sustainable development, the role of **People** assumes much more significance in striking the balance between 3 P's and thus awareness of sustainable development for mankind is extremely important. Leah

Filho (2000) points out that it is very important to understand the meaning of sustainability as one's attitude towards sustainability depend on the understanding and acceptance of the same.

## **2. Review of Literature**

Swiss researchers were the first to link sustainability to HRM, focussing on the economic and social dimensions leaving out the ecological dimension (Zaugg, 2001 & 2009). Australian approach focused on human dimensions of the sustainability, but more from a high involvement work systems (Gollan, 2001, 2005). However, Van De Voorde et al. (2012) highlights the negative effects of HPWS although there is an increase in the organizational performance. The German approach was more based on the Sustainable resource management. Several authors have tried to systematically link Sustainability with Human Resource management – impact of downsizing activities (Mariappandar, 2003, 2012), Human Sustainability (Pfeffer, 2010; Schulz & Muller, 2010; Osranek & Zink, 2008), Stakeholder approach (Guerci, 2014). The underlying point of all these scholars is that the human sustainability is neglected. The People dimension in the triple bottom is dominated by CSR and Societal activities like greening (Pfeffer, 2010). The CSR teams in the organization were focused more on ecological and societal dimensions, ignoring the human sustainability, thus exhibits the need to study human sustainability.

Literature suggested that Strategic HRM strongly advocated HPWS and empirically tested that the organizational performance is enhanced by HPWS (Huselid, 1995, Delery & Shaw, 2001). Literature also suggested that both the employer and employee are benefitted through HPWS (Guest, 1997). However, the concept of HPWS has been criticized both for its theoretical base and its practical effects (MacDuffie, 1995; Guest, 1997; Purcell, 1999; Applebaum et al., 2000; Legge, 2001; Guest et al, 2003). Another prominent contention of the scholars is that it is the employer who benefitted most from the HPWS and advocated that it in the name of complete advantage and performance, employees are being exploited (Voorde et al, 2012). Exploitation of the employees through HPWS is explained by the harm of negative side effects (Mariappanadar, 2003), self-induced side and feedback effects (Ehnert, 2009 & 2014, Kramer, 203 & 2014) thus a need for HR practices that improves organizational efficiency by controlling the negative effects giving rise to a new concept - *Sustainable Human Resource Management*. Literature on Sustainable HRM is linked to the prior literature on HRM – Sustainable Work Systems and Sustainable Resource Management.

HRM scholars still continue to define sustainable HRM as the concept of sustainability is an abstract concept and thus converting it into measurable and actionable outcomes continued to be a difficult task (Salzmann et al., 2005; Kramar, 2014). The definition provided by Ina Ehnert (2009) is considered to be more standard definition for defining Sustainable HRM and thus the definition is taken as operational definition in the study. In defining the concept, Ina Ehnert defines three basic objectives of sustainable HRM:

- 1) Balance the ambiguities and duality of efficiency and Sustainability over long term
- 2) Sustain, develop and reproduce an organization's human and social resource base
- 3) Evaluate and assess negative effects of HR activities on the HR base and the sources of HR

Rompa (2011) explored HR's contribution to sustainability by interviewing a set of HR managers about the importance of sustainability in the organizations, their communication of sustainability to the employees and the role of HR in the involvement of defining sustainable strategies for the organization. The findings of the study were quite interesting that resulted in five outcomes – Employee Development, General Development, Carbon Footprint, Flexibility, and Volunteerism. As such, the study seems to be dominated more by CSR rather than the sustainable HRM.

Kozica & Kaiser (2012) made an attempt to integrate the positive and negative effects of flexible HRM through a framework. Further, they point out the Sustainable HRM overcomes the limitations of the flexible HRM and helps in coping with the positive and negative effects of flexible HRM. App et al (2012) contends that Sustainable HRM helps employers create an employer brand as there is growing awareness among the youth and the employees about sustainability and have become choosy as far as employment is concerned. Lis (2012) also supports the view that Sustainable HRM practices makes them employer of choice that helps not only in attracting and retaining talent, but helps to maintain a healthy and productive workforce (Ehnert, 2009).

Jerome (2013) studied the impact of Sustainable HRM on organizational performance and highlighted the importance of leadership responsibilities in driving the sustainability as a business

issue. Jerome proposed a model of sustainable HRM and organizational performance based on the theoretical support from the literature, which was not empirically tested.

Prins et al. (2014) contends that the literature on Sustainable HRM is inconsistent and attempts to extend the literature through Respect Openness Continuity model (ROC). Through this model, they have incorporated sustainability issues into Strategic HRM, extending the thoughts of Ehnert (2009), Kramar (2014). Further, this theory was promoted to bridge the gap between the theory and the practice of Sustainable HRM. The three dimensions of sustainability as proposed by John Elkington (1994) People, Planet and Profit were translated to Respect, Openness and Continuity, thus the theory focused on respect for the internal stakeholders primarily the employees. Respect was characterized by talent, engagement, empowerment, health, well-being, employee participation. Openness is seen in terms of the environmental awareness like diversity, ageing, work-life balance, ecology, stakeholders and labor markets, and the Continuity refers to the long term approaches focusing on the business continuity (Prins et al., 2014). The long term approach is seen in terms of economic and social sustainability leading to employability, careers, succession, learning, workplace innovation etc. thus, the ROC model lays stress on employees and their longevity in providing employability unlike the traditional approaches.

Mariappanadar (2014) developed stakeholder harm index. The study was aimed at the negative effects, which are outcome of the HPWS. The stakeholder harm index provided an important framework that captures the harm raised out of the work intensification. The study also provided the practical implications to capture the harm. The harm index proposed by Mariappanadar has set a new agenda to develop theoretical and empirical foundations for Sustainable HRM.

Kramar (2014) divides the literature on Sustainable HRM into three groups based on the outcomes – Capability Reproduction, Promoting Social & Environmental Health and Connections. Capability Reproduction group concentrated on creation of sustainable competitive advantage focusing on internal impacts of HRM policies (Wilkinson et al. 2001; Ehnert 2009; Clarke 2011). Much emphasis was laid on ecological and social outcomes by the second group (Mariappanadar 2003; Orlitzky, Schmidt and Rynes 2003; Collinson, Cobb, Power and Stevenson 2007). Connections group focused on the interrelationships between management practices including HRM and organizational outcomes. Termed as Sustainable Leadership (Avery, 2005), the connections group lays emphasis on the influence of national context on the practices that explore

the relationship between HRM policies and environmental sustainability, thus connecting the internal and external outcomes and HRM practices. Further, environmental and human or social outcomes are interrelated contributing to organizational sustainability as the environmental sustainability is only possible with the creation of HRM practices that creates trust among the employees, management and the society around (Dunphy et al., 2007; Avery 2005; Avery & Bergsteiner 2010; Renwick et al., 2011).

Ehnert et al. (2015) made an attempt to study sustainable reporting and the various aspects of the reporting that reflected the models of the corporate governance. The study provided majorly three findings – first, the disclosure on HRM-related performance is not lower than that of environmental performance. Second, there was an effort from the organizations to report more on the internal workforce than that of external workforce. Third, the international differences between the liberal market economies and coordinated economies are not as apparent as expected. Thus, it is evident that organizations have shown considerable interest in reporting HRM related performance.

Poskiene (2016) defined characteristics of Sustainable HRM – Continuity, Mutuality, Consistency and Responsible Care. The paper aimed at providing more a personal approach to Sustainable HRM rather than mere implementation of HRM policies on the employees.

Though there were other studies conducted on sustainable HRM, they were not taken into consideration as Sustainability is a buzz word that is used across industries and countries. Much of the sustainability HRM literature was dominated by the CSR literature and thus many scholars warrants a separate distinction Lawler (2013).

### **3. Research Gaps**

The study assumes significance in the context of the human resources consumed by the organizations and not reproduced and that sustainable HRM or dealing with people in organizations could be a source of competitive advantage in tight labor markets (Zaugg, 2001). Translating this to the functions of HRM, sustainable HRM refers a long term socially and economically efficient recruitment, development, retention and disemployment of employees (Zaugg, 2001). A new dimension was added by (Muller & Remer, 1999) when they raised the issue of organisations forced to do certain activities to have access to highly qualified people in future, while others (Gollan, 2005) referred to sustainable HRM in terms of capacity building.

Thus, it appears that sustainable HRM is related to a long term corporate success and organizational viability along with a futuristic orientation linking it to strategic HRM (Ehnert, 2009).

The study contributed to a more systematic research linking sustainability and HRM bringing in additional issues of HRM towards sustainability (Clarke, 2011, Guerci, 2011). The most recent interdisciplinary approach to sustainable HRM focused on CSR (Cohen, 2010), Green HRM (Jackson, 2011) etc. Based on the extensive review of literature, the following gaps are identified:

1. All these studies demonstrate the potential of sustainability to be a new focus area for HRM. But there appears to be a lack of theoretical foundation. The literature thus is scattered and also scanty in view of the relative concept that has been applied in the field of HRM.
2. A review of literature highlights that the bulk of the studies examined the concept in isolation and surprisingly the sustainable HR practices on sustainability or sustainable HRM has been notably absent. This provides a considerable research gap and needs for study in this direction.
3. There is a lack of consensus among the scholars on Sustainable HRM and some of the strategic HRM advocates argue that there is hardly any difference between sustainable HRM and strategic HRM. How is Strategic HRM different from Sustainable HRM?
4. Scholars have explored the relationship between HRM and Sustainability and have made efforts in establishing Sustainability as a concept for HRM. However, there were very few empirical studies that focused on sustainable HR practices
5. Proponents of Sustainable HRM argue that the Sustainability was dominated by corporate Social responsibility. While some of the scholars argue that the concept of human sustainability and the employees welfare is included in the triple bottom line definition of the social category, scholars like Lawler (2013) warrants that a separate distinction. Professional firms like Ernst & Young (2013) also contends that unless and until the human resources in the organization embraces the sustainability paradigm, the other dimensions of sustainability – Economic, Ecological and Social cannot be achieved and thus the human sustainability becomes much are important. (Ehnert, 2006 & 2009; Jones-Christensen et

al. 2007) scholars argue that human resources are to be studied outside the concept of corporate sustainability.

6. Prior studies have not explored the role of leadership in the sustainability. If the top leadership in the organization does not show interest towards sustainable activities, it would be difficult for the HR to drive sustainability across the organization.

#### **4. The Concept**

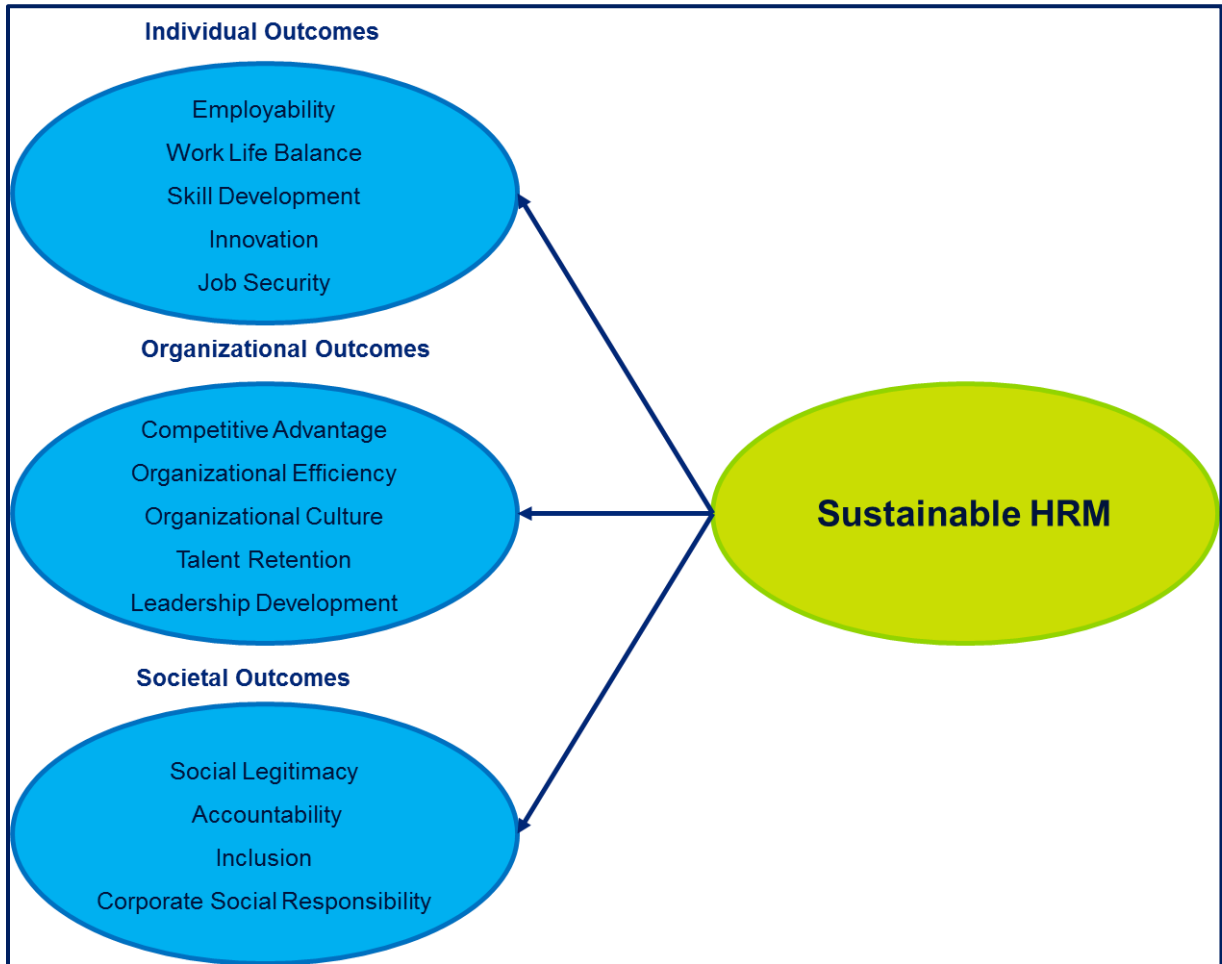
Individuals do not exist in isolation. Similarly, organization cannot be imagined without individuals. Sustainable HRM aims at developing and reproducing the human resources, which is translated into individual outcomes. Long term sustainability is translated into the organization outcomes and, reducing the negative effects and focus on the source of resources is translated to the societal outcomes. Thus, the three pillars of sustainability (Elkington, 1994) – People, Profit and Planet (Elkington, 1994) are translated into Individual, Organizational and Societal outcomes. Ehnert (2009) have proposed Sustainable HRM Model through which the individual, organizational and societal effects are addressed using paradoxes and thus have laid foundation for empirical evaluation.

As stated earlier, the empirical studies on Sustainable HRM are notably absent. Guerci & Pedrini, (2013) defines 25 HRM practices that help organizations achieve sustainable outcomes, which were adapted from Ehnert (2009). However, there was no attempt made by Guerci & Pedrini (2013) to further validate the practices. Rompa (2013) made an empirical study with two sets of questionnaires – one with 60 items and the other with 92 items, but the study was more based on the CSR practices which included Green HRM practices that looked at more carbon footage. Mariappandar (2013) developed harm index, which focused on the negative externalities and the negative effects of the work, but the study did not include the societal aspects of sustainability. Lack of such measurement instruments could be considered as one of the main reason for the concept not being developed to the full potential. A deliberate effort was made to develop, test and validate a measurement scale has been considered in the study.

14 factors have been identified from the study of Ehnert (2009) that are broadly classified as individual, organizational and societal outcomes. These factors are Employability, Work Life Balance, Skill Development, Innovation, Job Security, Competitive Advantage, Organizational

Efficiency, Organizational Culture, Talent Retention, Leadership Development, Social Legitimacy, Accountability, Inclusion and Corporate Social Responsibility.

*Sustainable HRM Model*



Sustainability does not mean only long term sustenance of the organizations. As evident from figure 3.1, Sustainable HRM constitutes individual, organizational and societal outcomes. These three outcomes are related closely to each other. It is not enough for the organization to achieve organizational outcomes but should also focus on the employee (individual) interest and the societal interests (Ehnert, 2009). Not only has the literature evidenced that these three outcomes are closely related, they are statically tested and all the 14 latent variables identified in the study are part of the three outcomes.

## **5. Research Questions**

The framework helped throw important questions that can possibly be the starting point for the study in view of the scanty literature on the subject. They are:

1. How does Sustainable HRM address the dualities – Long term and Short term, Efficiency – Sustainability?
2. How can Sustainable HRM contribute to attracting, developing and retaining highly qualified human resources over time?
3. Is it possible for the organization to eliminate the negative effects without compromising on the productivity?
4. What are those HR practices that help the organization be sustainable balancing the individual, organizational and societal outcomes?
5. How do HR professionals manage the future supply and link sustainability with the HR issues?
6. What is the role of HR professionals in making organizations sustainable?
7. Does the leadership/shareholders of the organization understand the concept of Sustainable HRM?

## **6. Objectives**

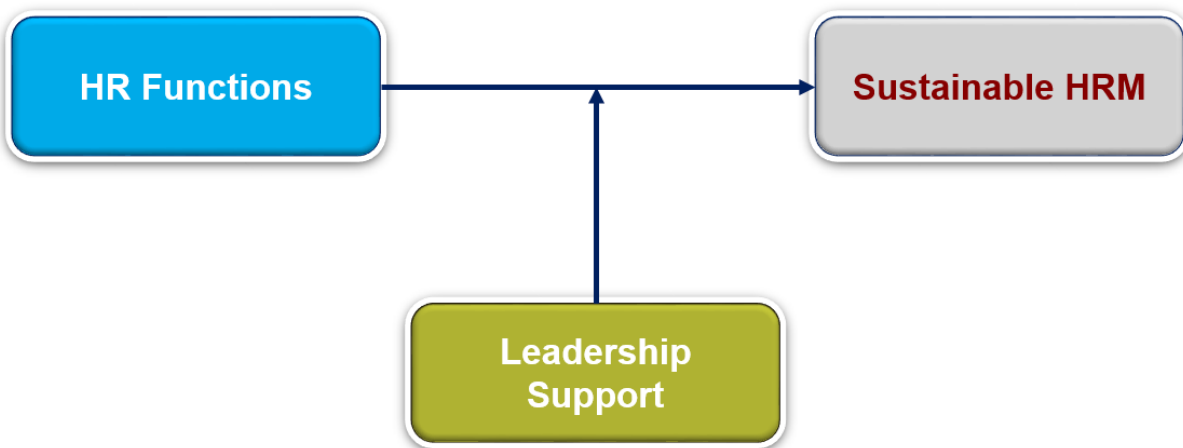
The study was conducted with the following objectives. Broadly, it attempts to explore the link between sustainability and human resources management. More specifically the study aims to:

1. Establish the linkages between Sustainability and Human Resource Management
2. Examine the relationship between the individual, Organizational and Societal outcomes
3. Identify the factors that constitute Sustainable Human Resource Management
4. Develop, test and validate a measurement scale for Sustainable HRM
5. Identify the impact of HR functions on Sustainable HRM
6. Examine the moderating effect of Leadership Support on sustainable Human Resource Management

## 7. Conceptual Framework

Based on the research objectives, a conceptual framework was arrived at figure 4.3. The conceptual framework for the study has been developed based on the review of literature. The framework includes the development of the scale and identify the impact of the HR functions on Sustainable HRM. However, the literature review evidenced a moderating variable in the form of Leadership Support as leadership view sustainability as “*nice to do versus need to do*” (Ernst & Young, 2014). Hair et al (2000) cautions that moderating variables must be chosen with strong theoretical support. It is argued that Sustainable Outcomes can be achieved only through the leadership support. Nadler & Tushman (1997) mentions that top management support can be viewed as fundamental driver to sustainable management. Several other organizations published sustainability reports and contributed to the growing awareness of sustainability also expressed a similar view. Society for Human Resource Management (2010) states that it would be very difficult for the organizations to make advancements in to sustainability without the support from top-leadership. Consulting firm McKinsey published a report Sustainability’s Strategic Worth: McKinsey Global Survey Results identified that the biggest challenge companies’ face in sustainability is getting top-leadership attention (McKinsey, 2014). The view is further supported by Ernst & Young (2014) that organizations fail to implement sustainable business practices due to inadequate integration with business strategy, lack of leadership support and limited understanding. Thus, the literature and the research organizations evidenced the role of leadership support in the implementation and integration of sustainability with the strategy of the firm.

### *Conceptual Framework*



HR Functions is the independent variable as can be seen in the framework. Independent Variables are those that remain independent of other variables, one that causes change in other variables namely the dependent variable. Sustainable HRM is the dependent variable. Dependent variable is one that is to be predicted or explained by other variables. Leadership Support is the moderating variable considered for the study. Moderator variable is one that affects the direction / strength of the relation between an independent and dependent variable (Hair et al, 2010).

## **8. Hypotheses**

Based on the conceptual framework, the following hypothesis are inferred for the study

Hypothesis # 1: There is a significant difference between Indian and MNC HR Practices with regard to Individual Outcomes

Hypothesis # 2: There is a significant difference between Indian and MNC HR Practices with regard to Organizational Outcomes

Hypothesis # 3: There is a significant difference between Indian and MNC HR Practices with regard to Societal Outcomes

Hypothesis # 4: There is a significant difference between Indian and MNC HR Practices with regard to Sustainable HR Practices

Hypothesis # 5: There is no significant difference in the perception of Sustainable HR practices by Gender

Hypothesis # 6: There is no significant difference in the perception of Sustainable HR practices by employee level

Hypothesis # 7: There is a significant difference in the Sustainable HR Practices among the organizations

Hypothesis # 8: There is no significant difference in Sustainable HR Practices based on the location

Hypothesis # 9: HRM functions have a significant impact on Sustainable HRM

Hypothesis # 10: Leadership Support moderates the effect of HRM functions on Sustainable HRM

## **9. Scope of the Study**

The IT industry in India is fast growing and is concentrated in all the major cities although extending to tier II and tier III cities. The scope of the study is confined to IT industry in India, which constitutes both Indian companies and multi-national companies. The study is aimed to study Sustainable HR practices in the IT organizations. The study focuses on the large Indian IT organizations and multinational organizations that have presence in India. The focus was on large companies as they are considered to be influential in the dissemination of best practices because of their position at the apex of global value chains (Gereffi, 2014). Those organizations, whose headcount is more than 100,000 employees were considered for the study. As per the NASSCOM (2015), there were only 5 Indian headquartered organizations that have more 100,000 and hence, the study included five organizations, who are headquartered in U.S with headcount of 100,000 above with significant presence in India.

The IT industry in India faces the two issues that the HRM faces, where the employees are consumed more in wake of tight project schedules and the negative and the side effects that arises due to the over consumption and the long working schedules leading to stress, boredom, burnouts, depression and other psychological effects. Thus, a study of Information Technology industry is imminent and appropriate for an empirical study of Sustainable HRM in an emerging economy like India. Since, the study looks at Sustainable HRM practices, the scope of the study includes the IT professionals with the following criteria:

- Employees who have completed a minimum of two years in their respective organizations
- Employee must have worked at least in one organization prior to joining the current organization

## **10. Research Design**

The study is exploratory in nature. Literature evidences that bulk of the studies examined the concept in isolation. The studies were primarily conducted in western context. The concept of Sustainability is picking up pace in India since a decade. The research is designed to provide valuable insights to the IT industry and study the Sustainable HR Practices. The research design thus adopted in the study is exploratory in so far as the choice of independent and dependent variables are concerned and descriptive in so far as the qualitative data that is collected to examine

the objectives framed in the study. Descriptive research is used to describe characteristics of population that is being studied. The study used survey method to collect the relevant information through qualitative and quantitative methods. Qualitative data is collected through expert interviews, focused group discussions, in-person discussions to understand the phenomena in the absence of empirical studies.

## **11. Data Collection**

The data was collected through a structured questionnaire and the respondents were asked if the statements were clear for them to answer. Data was primarily collected offline across levels as per the criteria mentioned above. In-person discussions were also conducted to elicit more information about the HR practices not covered in the study. A Seven point Likert scale was used to extract the information from the respondents. A sample of 101 responses were collected and analyzed using SPSS 22. Data was collected from all the 10 companies for the pilot study so that the results would be accurate. 49 responses were collected from US headquartered companies and 52 responses were collected from the Indian companies, accounting to 101 responses.

## **12. Pilot Study**

Pilot studies are considered to be a pre-test to the survey (Baker, 1994), which will help the researcher to identify redundancy in the design of the instrument (Cooper and Schindler, 2001). This will enable the researcher to see if there are any ambiguities in understanding the statements and if the statements proposed in the survey instruments makes sense to the respondents (De Vaus, 1993). A Pilot study could be conducted either electronically (online) or personally meeting the respondents. By conducting the pilot study manually, researcher would be in a position to see if the instruments makes sense to the respondents (Neuman, 1997) and thus the data collection for the pilot study was done manually collecting both the quantitative and qualitative data.

The instrument developed consisted of three sections – the first section captured the demographic profile of the respondents, the second section consisted of the 56 items which were used to develop Sustainable HRM Scale and the third section consisted of 06 items related to Leadership Support and HRM Functions. Thus the total number of items for the Pilot study consisted of 62 items.

Out of the 62 questions in the pilot study, 4 questions were negatively stated, hence the responses were recoded. The pilot study was conducted in consistent with the recommendations of Nunnally (1978) and ensured that the respondents understand the statements.

### **13. Sampling Unit and Sampling Method**

**Target Population:** Target population is defined as population from which the sample will be drawn, thus in this study IT professional in the IT industry is the target population.

**Sampling Unit:** The Individual Respondents are the sampling unit in this study

**Sampling Frame:** All employees who have at least two years of experience in the current organization form the sample frame for the study. Besides the individual should have worked in at least one IT organization prior to joining the current organization.

**Sample Size:** The study involves SEM and as such the sample size is arrived at, based on the number of items in the study in the ratio of 10:1 items, which is considered as most accepted rule in arriving at the sample size (Westland, 2010). A total of 617 responses were collected out of which 17 responses were discarded due to missing data and thus, the final responses were 600.

**Sampling Method:** The study adopted Purposive Sampling Method. Purposive sampling is a non-probability technique known as selective or judgmental sampling.

### **14. Scale Development**

One of the objective of the study is to develop, test and validate a measurement scale. The concept of Sustainability and Sustainable HRM are trending topics and there has been significant contribution from the researchers and the academia to the literature. Sustainability in the organizations is measured and reported through the G4 framework. However, in terms of Sustainable HRM, measurement scales are notably absent. Lack of such instruments can be attributed for the concept not growing rapidly. This study attempts to fill the void by developing, testing and validating a measurement scale. As mentioned earlier, there were scales like HPWS that explored the positive relation with performance (Boudreau, 1991; Schmidt et al, 1979), harm index (Mariappanadar, 2013). Similarly, there were studies conducted to measure the impact of HR practices, but there are no studies that measure sustainable HRM practices focusing on the individual, organization and society and thus a need to develop and validate a scale is considered

to be significant for the study. It is imperative to develop a scale to measure Sustainable HRM practices in IT industry – an industry that is dominated by work force, process, technology and where client priorities are place ahead of the employees leading to exploitation of resources. The industry, which is volatile, every growing, where newer technologies emerge frequently is met with competing demands, and the urge to grow competitive consumes the resources without much focus on developing and regenerating the resources.

The study adopted the scale development measures defined by Nunnally and Bernstein (1994) and Hinkin (1995). The scale development is done in a stepwise manner that includes item generation, Content Adequacy Assessment, Questionnaire Administration, Factor Analysis, Internal Consistency Assessment, Construct Validity and Replication (Hinkin et al., 1997).

### **15. Reliability of the Instrument**

Reliability of the instrument was measured using Cronbach-Alpha Coefficients. Hair et al. (1999) states that no single item is a perfect measure of concept. Hair also points out that the causes of low reliability could be either due to misunderstanding or lack of understanding of the items mentioned in the scale. Cronbach alpha of 0.7 and above is considered to be good although 0.6 can be considered in exploratory research (Hair et al., 1999, 1978). Nunnally (1978) states that 0.7 is the acceptable Coefficient, although some researchers consider less than 0.7 also. Cronbach Alpha in the current study is 0.827, which is higher than 0.7 and thus the instrument is considered reliable. George and Mallery (2003) categorizes the values of the Cronbach Alpha, where  $>.90$  is considered excellent and  $>.70$  is acceptable. Closer, the Cronbach to 1, higher the internal consistency reliability (Green and Mulaik, 1977; Hair, 1999).

For each of the 14 factors, Cronbach-alpha was computed. Item-to-total correlation, whose values was less than 0.40 were dropped and thus 6 items were dropped after the reliability test using Cronbach-alpha. Nunnally (1978) suggests that item to total correlation should be  $<0.35$  with a Cronbach alpha of at least 0.70 although it may decrease to 0.60 in exploratory research (Hair et al., 2010). Cronbach alpha was computed after deleting the 6 items and the Cronbach alpha for each of the factor was above 0.70.

***Reliability Statistics***

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.827	.827	50

**KMO and Bartlett's Test**

Kaiser-Meyer – Olkin (KMO) and Bartlett’s Test of Sphericity was carried out to check the sampling adequacy. A value close to 1 indicates that the patterns of correlation are relatively compact and so factor analysis should yield distinct and reasonable factors, which resulted in 14 factors. KMO measure - value greater than 0.5 should be acceptable, however for a good factor analysis KMO must be above 0.60 (Tabachnick and Fidell, 1996). According to Hair 0.80 or above is considered meritorious, 0.70 or above is middling, 0.60 or above is mediocre, 0.50 or above is miserable and anything less than 0.50 is unacceptable. Below table indicates that the KMO value is 0.898, which is above 0.60 and is considered meritorious. Similarly, Bartlett's Test of Sphericity should have significant value of less than 0.05. In this case, the significant level is .000 and thus indicates that sufficient correlations exists among the variables.

***KMO and Bartlett's Test***

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.898
Approx. Chi-Square	20819.776
Bartlett's Test of Sphericity	1485
Df	1485
Sig.	.000

**16. Exploratory Factor Analysis**

The items, which were developed for the study were refined using Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA). Exploratory factor analysis was applied on the 50 items. Factor analysis was conducted to look into the reduction of number of items. Further, factor analysis describes the underlying structure or patterns of the variables as represented by their inter correlations. Hair et al (2010) recommends Factor Analysis and Confirmatory Factor Analysis as appropriate techniques if the structure of the variables has to be analyzed. The

objective of the factor analysis is to condense the information contained in a number of original variables into a smaller set of variables with a minimal loss of variables. Factor analysis is considered to be very objective for creating summated scales as it provides an empirical estimate of the structure of the variables. Criteria followed for the elimination of items is factor loadings  $<0.50$  (Karatepe et al., 2005) and cross loading  $>0.40$  or communalities (Hair et al, 1998).

## **17. Confirmatory Factor Analysis**

Confirmatory Factor Analysis (CFA) was performed on the remaining 44 items. CFA is a structural equation modeling technique that allows separate relationships for each of a set of dependent variables (Hair et al., 2010), which is characterized by two components – Structural Model and the Measurement Model. Structural model is the path model that relates the independent to dependent variable whereas the measurement model enables the use of several variables for a single independent or dependent variable. CFA enables to assess the contribution of each scale item as well as incorporate how well the scale measures the reliability. Structural equation modeling is also known as linear structural relationship model (Joreskog & Sorbom, 2004) or covariance structure (McDonald, 1978). JBS4, IN4, LSD3, COA3, COA4, ORC2, TLR3, SLG1, INC3 had to be eliminated due to their low loadings. Confirmatory Factor Analysis resulted in 35 items whose loading were between 0.72 and 0.95. Thus, the scale to measure Sustainable HRM consists of 35 items.

## **18. Findings and Conclusion**

The study attempted to contribute to current knowledge by linking Sustainability with Human Resource Management. Further, the study attempted to develop a scale to measure Sustainable HR practices. The findings and conclusions thus arrived at, based on the survey, are given below.

### **Objective 1: Establish the linkages between Sustainability and Human Resource Management**

As a concept, Sustainable HRM has to be grounded in a theory and thus, an attempt was made to do an extensive review of the literature to operationalize Sustainable HRM. Grounded theory is popular in social sciences as it focuses on interpreting the meaning and the interrelationship between meaning in the perception of the subjects and their action (Glaser, 1992). There were several scholars who tried to provide theoretical support to Sustainable HRM. Some of the notable

works are - paradox theory (Ehnert, 2009), who developed a model for Sustainable HRM and provided a theoretical support from a paradox perspective, negative externalities (Mariappanadar, 2012; 2013) and stakeholder theory (Guerci, 2011; Guerci & Pedrini, 2014). The paradox theory of Ina Ehnert addressed the dualities such as short term – long term, shareholder – stakeholder, financial growth – corporate responsibility etc. Moreover, paradox theory suggests that it is but natural for organizations to confront such dualities. As a result of these dualities, there exists tension within the organizations. These tensions neither can be avoided nor escaped and hence needs be dealt with care in a way that the organizations success in the long run is not hampered by these tensions. Ina Ehnert applied paradox theory as a lens for theorizing on sustainable HRM and as analytical tool to identify the tensions, conflicts, oppositions, dualities, dilemmas, inconsistencies, which are termed as blind spots. Management scholars using Paradox theory for theory building is not new but the application by HRM theorists' remains to be scarce (Evans at al., 2002) and thus the attempt by Ehnert (2009) to build on paradox theory gained much more significance.

Theory of negative externalities (Mariappanadar, 2003) states that the human resources are very important to every organisations and hence need to be managed sustainably. Externality is defined as a cost that the organizations impose on the third parties or society at large (Biglan, 2009). Third parties are stakeholders, families, communities etc. In an endeavor to increase the profits, organizations plan maximize the efficiency with fewer employees. As a result of the work intensification (Allan, 1998), there exists a negative impact on psychological and social life of the individuals leading to imbalances between work and personal life. (Mariappanadar, 2012). These negative effects are seen in the form of stress, anxiety, depression etc. The negative externalities theory focusses more on the ethical side of the employees and thus, highlights that the HRM practices of the organization should focus on the negative outcomes that arises out of work. *How sustainable are the HRM practices used by organizations to counter negative externalities* remain to be the most frequent question posed by the HR practitioners (Mariappanadar, 2012). HRM practices should facilitate in helping the individuals develop self and contribute to organizational and individual goals but unfortunately, the focus of the HRM practices is more on controlling the individuals rather than helping them develop professionally.

The current study contributes to the stakeholder theory approach as the theory allows conceptualizing organizational performance of HRM beyond the profit maximization leading to triple bottom line (Ehnert, 2015). Further, Sustainable HRM does not support the short term approaches of profit maximization, which may result in having negative impact on third parties such as families, society and communities. Sustainable HRM supports various stakeholders like the stakeholder theory, which goes beyond the shareholders and hence the current study is based on the stakeholder stream of research.

The study presented three approaches – paradox theory, negative externality and stakeholder theory. The study not only provided theoretical background for Sustainable HRM but also made a deliberate effort to link HRM with sustainability through the hard and soft approaches of HRM.

### **Objective 2: Examine the relationship between the individual, Organizational and Societal Outcomes**

The objective is met by measuring the relationship among the three factors. The three pillars of sustainability – People, Profit and Planet are translated into individual, organizational and societal outcomes in the study. For any organization, it is not only important to earn profits, but making the profits sustainable is much important in the competitive market. Often considered as financial sustainability gives the ability to the firm to maintain financial capacity over a long period (Bowman, 2011). The market is so competitive that the smaller organizations struggle for survival and the larger organizations strive for sustainable returns. The literature evidenced that the human resources and the society at large also plays a pivotal role in the success of the organization and thus the study looked at the individual, organizational and societal outcomes that constitute Sustainable HRM, which in turn helps the organization succeed in the long-run.

The study not only provided literature support for the three outcomes but also statistically tested the relationship between three variables. Chapter four explains the conceptual framework using the three factors. Figure 4.2 explains the relationship between these three outcomes. Further, the relationships are explained using AMOS 22.0 version. The covariance between each of the variables – Individual Outcomes and Organizational Outcomes is 0.86, Organizational Outcomes and Societal Outcomes is 0.90, Individual Outcomes and Societal Outcomes is 0.85. The high covariance loadings between the three factors evidence that there exists a strong relationship between the three variables. Further, the variables identified under each of the factor resulted in

high loadings thus underscoring the reliability. The findings are very similar to what exactly the modern organizations are looking for. Service industries, who rely on other industries for their business needs to adjust themselves as per the global economy and thus, needs to prepare for the future focusing on serving them. Thus, it is binding on the organizations, to not only focus on organizational goals, but also focus on individual goals that would create employability, nurture their skills and help them strike a balance between the personal and professional life. At the same time, organizations also focus on the societal outcomes focusing on developing the sources from outside thus focusing on the source of the resources. The study explored the relationship between the three outcomes. The findings were in line with the studies of the paradox theory (Ehnert, 2009) that there exists a significant relationship between these three outcomes.

### **Objective 3: Identify the factors that constitute Sustainable Human Resource Management**

As discussed in the previous chapters, the literature on Sustainable HRM is at a nascent stage and the last few years have witnessed HRM scholars' growing interest towards the concept. However, bulk of the studies examined the concept in isolation and surprisingly the sustainable HR practices or sustainable HRM has been notably absent. There were hardly any studies prior to Ehnert that focused on the sustainable HR practices as the prior HRM scholars focused on linking the Sustainability with Human Resource Management. The study also reviewed the 25 HR practices that were defined by Guerci & Pedrini, (2013). These 25 HR practices have their roots in the studies done by Ina Ehnert.

The objective of identifying the factors is met by identifying 14 factors. 14 factors were adopted from the study by Ehnert (2009). These factors are Employability, Work Life Balance, Skill Development, Innovation, Job Security, Competitive Advantage, Organizational Efficiency, Organizational Culture, Talent Retention, Leadership Development, Social Legitimacy, Accountability, Inclusion and Corporate Social Responsibility. These 14 factors were discussed with the academia and industry professionals before they could be considered for development of the measurement scale.

The present study involves developing a measurement scale for Sustainable HRM. One of the first step is item generation and hence, specific items that comprise the 14 factors were generated. A thorough review of literature search generated 102 items. These items were thoroughly discussed

with the industry experts and a pilot study was conducted to check the reliability of the scale. A factor analysis was conducted to check the loadings of the items.

The results of the factor analysis revealed that eigen values of all the 14 factors were greater than one, which is in line with the other statistical studies (Kaiser, 1960). Since, all the factors have eigen value of more than one, none of the factors were eliminated from the study and thus the current study has 14 factors. The appropriateness of the analysis was also checked through Kaiser-Meyer-Olkin (KMO) statistic of sampling adequacy. For a good factor analysis, KMO value must be greater than 0.5 (Tabachnick and Fidell, 1996). KMO value was .898, which is above greater than 0.5 and hence, the sample was adequate.

Thus the identified 14 factors are tested statistically through Exploratory Factor Analysis (EFA) and then Confirmatory Factor Analysis (CFA) was done to purify the items. Both the EFA and the CFA resulted in 14 factors. The findings cannot be compared to any of the previous studies as the literature does not have any mention of the prior empirical studies. Future research can see if the 14 factors would be applicable for other industries other than the service sectors. The studies should see if any of the factors overlap with respect to other industries and see if there could be any other potential factors that define the measurement scale.

#### **Objective 4: Develop, test and validate a measurement scale for Sustainable HRM**

Sustainable reporting has measurement instruments in the form of G4 framework. G4 reporting guidelines are the most accepted way of reporting sustainability across the globe. However, in terms of measuring Sustainable HRM, there are no such instruments. Chapter four discussed the HPWS and Mariappanadar's Harm index. Each of the scales in HRM context either focused on the individual high performance or organizational performance and thus, this study attempts to fill the void by developing a measurement scale.

The objective is investigated through qualitative and quantitative research. Qualitative research is conducted through review of literature, selection of factors and item generation. The review of literature provided insights into the research gaps, and helped generate a pool of items to measure the sustainable HR practices of the organizations. The investigation also included the in-person interviews to refine the statements to check if the statements are understood correctly by the respondents.

Quantitative research refers to the empirical investigation through statistical methods. The current study involved appropriate statistical techniques to measure the observed phenomena. Development of measurement scale involved primarily two stages – pilot study and the final study. 56 items were identified for the pilot study through which 101 responses were collected. Pilot study responses were analyzed after which 6 items were eliminated due to their low loadings (<0.40). Further, Exploratory Factor Analysis was conducted to identify the critical factors, which measure Sustainable HRM practices of the organization. The process of EFA included sampling adequacy, factor extraction, factor rotation and factor interpretation. 6 more items were discarded after the EFA and the final number of items after the factor analysis were 44.

Final study consisted of 44 items, through which 617 responses were collected. Responses were collected in person and through online questionnaire administration. After a careful observation, 17 responses were discarded due to incomplete data and thus the number of responses for the final study is 600. Confirmatory Factor Analysis (CFA) was conducted on the 44 items. Finally, 14 factors with 35 items Sustainable HRM scale emerged out of the analysis. The results of the model revealed a good fit ( $X^2 = 2.398$ , CFI = 0.963, NFI = 0.911, PCFI = 0.750, GFI = 0.912, AGFI = 0.890, RMSEA = 0.069).

The final stage in the scale development is validation. Three items for HRM Function and three items of Leadership Support were added to the final instrument. As is seen in the current context, organizations are still looking out for leaders to manage the organization in the competitive context. Further, organizations are also focusing on instilling leadership skills to the employees at all levels through training. Similarly, the HRM function has attained strategic importance and has gone beyond to look at the sustainability of the HR function. In view of this, the quantitative results also supported the ground reality of organizations. The final model is arrived at checking the impact of HR functions on Sustainable HRM and the moderating effect of leadership support.

### **Objective 5: Identify the impact of HR functions on Sustainable HRM**

This objective is measured through hypothesis 9. Figure 5.5 explains the hypothesis through the structural equation model using AMOS. Structural Equation modelling was used to measure the impact of HR functions on Sustainable HRM. The P value for the path coefficient is 0.004, which is lesser than 0.5 at significance level of 0.01. The results evidence that there is a significant impact of HR functions on Sustainable HRM.

The HR department in an organization is characterized by various HR activities that are considered to be essential for the success of the organization (Wright et al., 2005). HR department coordinates with various departments within the organization and provides the organization the ability to meet not only the current needs but also the future needs by managing the critical and complex resources termed as human resources/employees/people. As the department grew bigger, the department was broken down into various functions based on the importance of the activity and its strategic relevance. The activities of the HR departments include Recruitment, Performance Appraisal, Compensation & Benefits, Training and Development, Career Planning, Employee Welfare and Industrial Relations. It is not possible for HR professionals to be competent in all these development areas because of the strategic importance and hence the HR professionals are placed in respective activities based on their skills.

No activity is superior over the other as all of them together form the HR department. Each of them have a specific focus without losing the unified vision. The modern organizations consider the HR department as greatest asset to the organization, however, this asset is being challenged by intense competition and business pressures, where survival has become the critical importance for the organizations (Society for Human Resource Management, 2008).

The perception of HR functions by the employees depend on several factors – organization size, employment sector etc. HR department is gaining significance by aligning their policies and strategies to the organizational strategies and priorities thus, expanding the role of HR to not only the manpower planning, recruitment and selection but to contribute to the business priorities of the organization. There is a growing need for the HR professionals to be aware of various ways that they can assist the organization in meeting their goals. Sustainability is one such mantra that every organizations wanted to meet. With a focus on sustainability, the HR departments not only tries to achieve the organizational goals through the production and efficiency but also focus on the individuals goals through learning and development of the individuals that will not only enhance their skillsets but provides employability outside the organizations as well.

Organizational development, change management, culture development are part of the HR activities and hence, it is HR that needs to bring in change and drive sustainability across the organization. HR functions has the potential to transform the business and move towards greater sustainability as these HRM processes brought into play to support sustainable strategies in all its

activities such as recruitment and selection, employee training, development and compensation, managerial support and communication, and organizational climate creation. With the availability of various HR tools, it is all the more easy for the HR managers to embed sustainability strategies in the HR practices as *Sustainable HRM creates the required skills, motivation, values and trust to achieve the triple bottom line*. (Society for Human Resource Foundation, 2008).

This is not only true in theory, but the empirical results of this study also proved that HR functions has a positive impact on Sustainable HRM leading to individual, organizational and societal outcomes. Thus, it could be concluded that HRM functions has a positive impact on Sustainable HRM.

### **Objective 6: Examine the moderating effect of Leadership Support on sustainable Human Resource Management**

The objective is met by introducing the moderating effect of Leadership Support on Sustainable HRM. Figure 5.6 explains the moderating effect through structural equation modeling. The hypothesis was tested using the interaction effect as the moderating variable affects the relationship between the dependent and independent variables. The results indicate that there is a significant impact of HRM functions on Sustainable HRM (0.32). Similarly, the results also shown that there is a significant impact of Leadership Support on Sustainable HRM (0.58). The combined effect, also known as the interaction effect evidenced a strong path coefficient (0.70), which is greater than the individual effects, thus indicating that the HRM functions along with the leadership support have a significant impact. Hypothesis 10 proved that the leadership support acts as a moderating variable. Thus, it can be concluded that the interaction between HRM functions and the Leadership Support affects the Sustainable HRM. These findings provide evidence that in spite of the HR's active role in contributing to Sustainability, it is Leadership Support that makes organizations more sustainable.

The results of the study are directly in line with the literature discussed in the chapter four. Growing emphasis on sustainability help organizations to think about the business strategies, ways to reduce costs, save energy and more importantly engage employees in sustainability related activities. Top leadership of the organization may not be in a position to engage in saving energy or reducing costs, but definitely can drive the organizations actions through their mission statements. Similarly,

the leadership can engage human resources department to coordinate and manage the sustainability initiatives in an organization. They should not only involve HR managers but make them accountable for Sustainable HR practices (Society for Human Resource Management, 2014).

It is the responsibility of the leadership to imbibe the sustainable culture across the organization through their actions and deeds and position sustainability as their business priority. However, the business leaders still have not embraced the concept of sustainability in its full potential and thus their approach towards sustainability is more a “nice to do” rather than a “need to do” approach (Ernst & Young, 2014). McKinsey, a global consulting firm reaffirms that the biggest challenge companies’ face in sustainability is getting top-leadership attention (McKinsey, 2014). The same opinion is further expressed by organizations like Society for Human Resource Management, Sustainable Business Consulting, International Institute for Sustainable Development (ISSD).

The top management, whose motive is centered on profits would only look at the organizations goals and leaves out the individual development and the societal interests. Thus it is imperative for the organizations to get leadership support in achieving the sustainable outcomes. As the analysis revealed the interaction effect is much when compared to only HR support or leadership support. Thus, it can be concluded that an effective HR department with the required leadership creates Sustainable HRM, which aims to achieve sustainable performance by the balancing act of triple bottom line. This triggers for future research as to what kind of leadership support is required? Are the organizations in need of financial support, Commitment from the leadership, active involvement etc.? Organizations need to identify the need and HR should take a lead to communicate the same to the leadership.

## **19. Contribution of the Study**

The present study contributed to the existing literature in several important ways:

- First, the study attempted to review the concept of Sustainability, etymology and definitions. The Triple Bottom Line (TBL) approach of John Elkington is considered as the base for the Sustainability balancing the three spheres – Profit, People and Planet. The G4 framework, which is generally accepted reporting framework for sustainability developed the reporting guidelines based on the triple bottom line thus, highlighting the importance of measuring and reporting sustainable performance in the organizations. The

study responds to the need for measurement framework and hence an attempt is made to develop a measurement scale for Sustainable HRM.

- The study reviewed the literature both from a global and Indian perspective. Further approaches to sustainability were detailed out systematically and the present study contributes to the stakeholder approach. Further, an attempt was made to link Sustainability with Human Resource management using the *soft and hard* approaches of HRM (Storey, 1989).
- The three dimensions of sustainability – People, Profit and Planet and translated into Individual, Organizational and Societal outcomes. The study provides empirical evidence on the relationship between the three outcomes through the structural equation modelling.
- The study identified 14 factors that are grouped under the three outcomes. Each of the variable – Employability, Work life balance, Skill Development, Job Security, Innovation, Leadership Development, Competitive Advantage, Organizational Efficiency, Organizational Culture, Talent Retention, Social Legitimacy, Accountability, Inclusion and Corporate Social Responsibility are studied in detail. Further, the relationship between each of the variables is established using structural equation modeling. The results of the factor analysis explained in the fourth chapter provided 14 factors with eigen values more than 1. These variables confirm and expand the existing knowledge of Sustainable HRM.
- The literature evidenced that there are hardly any proven instruments for measuring the sustainable HR practices. The study contributed to the academic theory through the development of a measurement scale. Further, the relationship between the variables was measured through both first and order and second order measurement models.
- The conceptual framework of the study suggests that there is a significant impact of HRM functions and the leadership support in establishing sustainable HR practices for the organizations. The moderating effect of leadership support is a specific contribution to the study as prior studies have not identified or studied the role of leadership support. The interaction effect of leadership support and the HR functions proved to have a significant positive impact on the Sustainable HRM.
- The concept of Sustainable HRM is more popular in the Europe in and the HRM scholars have slowly started adopting the concept. Thus, there are hardly any studies that focused in the Indian Context. The study not only focused on the Indian IT organizations but also

studied the multinational organizations that have strong presence in India. The study will open new avenues of research in Indian context and provides an opportunity to measure the developed instrument in other industries.

- The study provided new insights into the study of Human Resource Management. The question that arises from the study “*Is Sustainable Human Resource Management the next approach for managing the resources and the organizational as a whole?*” The role of HR has increased drastically thanks to the strategic human resource management that aligns the HR strategies with the organization goals.

## **20. Managerial Implications**

The literature on Sustainable HRM does indicate some implications for HR managers as Sustainable HRM provided new insights into managing people.

- First, the study found that it is important for organizations to maintain equilibrium among the organizational, individual and societal outcomes to survive in the long run and thus, the HR needs to focus on contributing to the three outcomes as mentioned in the study. The policies/strategies that are developed by the HR should be framed in tune with the three outcomes.
- Second, HR should focus on the negative effects that arise out of the work intensity. It is very important for the HR to address the negative effects such as work related stress, work-family conflicts, psychosomatic disorders, burnouts, absenteeism from the organization that would have adverse impacts on the performance of the organization.
- Third, it is imperative for the organizations to focus on developing the resources not only from within but from outside the organization as well. Development of the resources is based on the assumption that they would become more skilled, competent and contribute for the development of the organization. HR should not only focus on developing the resources internally, but also should focus on the sources of the resources such as universities, families and society has to be nurtured and mentored so that the generation of the resources would be a continuous process. For instance, the IT industry is one, where in the entry level jobs are filled mostly through campus hires. Instead of giving training to them after having joined the organization, the organizations should focus on providing

organizing faculty development programs, imparting technical and necessary skills required by some of the organizations best people.

- Fourth, the role of leadership support studied in the study evidenced the required support from the leadership to embrace the concept of sustainability in the organizations. HR managers should make a deliberate effort to involve the top management in the best possible way and lead the sustainable activities from the front.
- Fifth, HR managers can adopt the Sustainable HRM to measure the sustainable HR practices in the organization. Further, they can look in to each of the factor and design practices in such a way that each of the factor is addressed. Managers should develop and design trainings programs that would focus on attaining the individual outcomes without losing focus on the organizational and societal outcomes.
- Finally, HR managers has to be determined to bring in the sustainable culture across the organizations. It is the responsibility of the HR managers to engage employees in the sustainability activities as literature evidences that active employee engagement has a significant impact on the organization and individuals (Schaufeli & Bakker, 2010).

## **21. Limitations**

The study provided new insights and opened avenues for the researchers to contribute to the existing body of knowledge. The study also laid platform for the researchers to empirically test some of relationships between variables. However, the study has its own limitations, which the future research can address. The findings, implications and conclusions presented in the study has to be read in conjunction with the following limitations:

- The research analysis is based on the information/data collected from the respondents. The respondents are from the Information Technology industry and thus does not represent the population from other industries. Further research may replicate the study in other industries, which will help in increasing the generalizability of the results.
- The research is confined to the six major hubs as per the NASSCOM report. Tier II and Tier III cities are picking up fast, which has substantial portion of IT companies like Kochi, Bhubaneswar, Vishakhapatnam, Trivandrum, Ahmedabad, Coimbatore, Chandigarh (NASSCOM Report, 2015). Further studies made in the Tier II and Tier III cities would enhance and strengthen the insights gained in the present study.

- The findings of the study should be interpreted with caution as the current study involves only one industry. There are other growing industries especially the service sector, which faces similar problems like the IT industry thus calls for a need to extend this study to other sectors too.
- The measurement scale developed in the study employed 14 factors primarily adopted from the study of Enhert (2009). Although, other sustainable HRM scholars advocated some of these factors, there were no empirical studies confirming these factors. Similarly, some of these factors were discussed by the advocates of strategic human resource management.
- The model suggested in the study need to be understood from the service sector stand point of view. Manufacturing industries are governed by the state and national laws with regards to environment, emission and waste management. Therefore, the concept of sustainability is very much critical and thus the sustainability is top driven in these organizations. More than the HR department, it is the production and the quality assurance that takes care of the sustainability activities that includes even the welfare of the workforce.

## **22. Scope for Future Research**

The study has evidenced that Sustainable HRM is at a pioneering stage and has a greater potential to establish as a concept. Sustainable HRM Scholars have focused on linking Sustainable with HRM and have addressed the theoretical foundation, which paved away for the researchers to conduct empirical research. Future research should can focus on the development of the human resources, more importantly the sources of the resources has to be developed.

Sustainable HRM is conceptualized differently and means differently to each one. The practices that are considered strategic and sustainable today could be irrelevant in the future as the values, attitudes and behaviors of the employees change over a period of time and hence the HR should adopt those strategies that will attract not only skilled but also motivated workforce. There is a wide difference between the skilled and the motivated employees and hence the future studies could study on engaging the employees in contributing to the organization's success.

Paradox theory, theory of negative externalities and the stakeholder theory are used in this study for theory building. Future studies can look into other theories for developing the concept. Ina Ehnert (2009) discusses about time and reflexivity theory, linking the concept of time and how the

concept of time. Wright and Haggerty (2005) also argues that time is a neglected variable in the SHRM research. Sustainable HRM argues that the resources in an organization are over consumed, due to which the side and negative effects are unleashed in the resources and these negative effects could influence the organization ability for success. The role of HR is not confined to address the negative effects but also on reproducing the resources, which is a time taking process and hence, time can be studied as a factor influencing Sustainable HRM.

The study focused on Information Technology industry and thus, future empirical research can focus on other industries or test the measurement scale in other areas. The cultural dimension is not included in the study. Future studies can focus on cultural context as the culture differs from country to country. Multinational organization has diversified global workforces and often requires to travel for work. More over the employees in one country needs to collaborate with the workforce operating from other part of the world. India that comprises of 29 states varies drastically in terms of culture, dialectics and language, so is the case with the rest of the world and hence the future research could look at the cultural dimension and concentrate on making the Sustainable HRM acceptable cutting across the culture and regions.

The present study made an attempt to study the various factors that contributed to Sustainable HRM. These factors are empirically tested and thus a measurement scale is developed for the Sustainable HRM. Future studies can study the role of other variables that directly or indirectly contribute for Sustainable HRM. Similarly, the future research can study if there are any mediating or moderating variables that would impact the Sustainable HRM in the organizations. Investment in the sources of the resources or development of the resources is very important as far as future supply of the resources. Empirical studies could explore if the investment within or outside the organization would help in developing the resource. Further, the impact of Sustainable HRM on the performance of the organization could be one potential area that can be studied in the future.

### **23. Conclusion**

The present study highlighted the importance of Sustainable HRM for the success of the organizations. It presented an alternative way of managing people that goes beyond the strategic human resource management. The role of HR as a strategic/business partner is gaining more importance as their focus is not only on the organizational goals, but also includes the individual

and societal outcomes. The study identified 14 factors that contributed to the development of measurement scale for Sustainable HRM. Further, the association between the three outcomes – Individual, Organizational and Societal outcomes is established in the study. Sustainable HRM, a scale for measuring Sustainable HRM practices has been developed based on the 14 factors and three outcomes identified in the study. The study is first of its kind that attempted to empirically test the factors that contributed for Sustainable HRM. Prior researchers focused on establishing the link between Sustainability and the HRM due to the dualities, ambiguities that exists in linking these two concepts. The study established a positive relationship between the HRM functions and the Sustainable HRM. Further, it was found from the study that the leadership support plays a critical role in establishing sustainable HR practices. The study presented the interaction effects of both the HRM functions and the leadership support that contributes for the Sustainable HRM in the organizations. Sustainable HRM is an emerging topic in the field of HRM and thus will continue to develop as a sustainable concept of HRM in the future too. Sustainable HRM provides many opportunities for the researchers to focus on those factors that will aid organizational success from a 360 degree perspective covering all its stakeholders.

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# Sustainable Human Resource Management as a Strategy: A Study in Indian IT Context

*by* Bharat Kumar Chillakuri

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- Chillakuri, BK., & Vanka, S. (2016). Sustainable performance management: An effective tool in managing performance. *GE-International Journal of Management Research*, 4 (5), 137 – 147.
- Chillakuri, BK., & Vanka, S. (2015). Sustainability: An evolutionary perspective from household to human resource management. *International Journal of Management Research & Review*, 55 (7), 546 – 553.

## **Paper Presentations**

- Sustainable Human Resource Management – A Study on Indian IT Industry, 7<sup>th</sup> German – Brazilian Symposium, October 04 – October 10, 2015, University of Heidelberg, Germany.
- Sustainable Human Resource for Strategic Success, Santander Doctoral Summer School, September 26 – October 04, 2015, University of Heidelberg, Germany.
- Sustainability: An Evolutionary Perspective – From Household to Human Resource Management, 8<sup>th</sup> Doctoral Thesis Conference, March 23, 2015, IBS Hyderabad, India.

## **Awards**

- Santander Doctoral Scholarship, University of Heidelberg, Germany
- Doctoral Fellowship, Indian Council of Social Science Research