CASE 31

Samsung's Environmental Responsibility: Striking the Right Note for Corporate Survival

Ms. Sushree Das
Amity Research Centers

"When [Samsung's] technologies harmonize, amazing things happen. Advances in components are giving rise to a whole new era of possibility. At Samsung, we are passionate about Mobilizing Possibility. Not just for the privileged few, but possibility for all."[1]
—Dr. Stephen Woo, President of System LSI Business, Device Solutions Division, Samsung Electronics

Samsung Electronics (Samsung) was considered a pioneer in the field of electronics. It was one of the leaders in the global smartphone market because of its innovative products such as the Galaxy S. The Samsung Galaxy S2 was selected as the 'Best Smartphone of the year' in 2012, while the company was conferred with the 'Device Manufacturer of the Year' award at the Mobile World Congress in 2011. In addition, Samsung Electronics received 30 awards for innovation at the Consumer Electronics Show (CES) 2012 and 44 awards at the international iF Design Awards 2012.

In order to fulfill its environmental responsibility, Samsung Electronics introduced the 'Eco-Management 2013' initiative in 2009. As per the initiative, Samsung took up various environmental programs including reduction of greenhouse gas emissions and the development of best quality eco-friendly products. However, reports claimed that Samsung did not follow the guidelines related to environmental norms in many of its production plants. Though Samsung stepped up to compensate for the harm caused to the employees as well as repair the damages caused to the environment, apprehensions still lingered regarding its viability in the long run. The case study would be an attempt to highlight the environmental initiatives taken up by Samsung. It would also analyse the impacts of these initiatives and assess the sustainability of these initiatives.

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This case was written by Sushree Das, Amity Research Centers Headquarters, Bangalore. It is intended to be used as the basis for class discussion rather than to illustrate either effective or ineffective handling of a management situation. The case was compiled from published sources.

CORPORATE ENVIRONMENTAL SUSTAINABILITY: AN INSIGHT

In practice corporate environmental sustainability gained prominence in the business world since the concept of sustainable development grew in popularity during the late 1980s.[2] The mounting pressure for environmental protection forced organisations to implement a number of measures and technologies to minimise and control pollution and improve their ecological effectiveness. Of late researchers and practitioners developed several approaches for achieving corporate environmental sustainability. The approaches included eco-efficiency, triple bottom line, natural step, ecological footprint and carbon footprint, eco-effectiveness, and cradle-to-cradle design.[3] Analysts observed that these frameworks provided guidelines to reduce the ecological damage caused by organisations and offered assessment tools to support decision making by managers.[4] Through corporate sustainability, organisations were expected to generate long-term value for the consumer and the employees by adopting 'green' strategies for environmental protection and by considering the social, cultural, and economic aspects of the company's operations.

From a broader perspective, corporate sustainability described business practices revolving around social and environmental considerations. As per the Brundtland Commission's[5] Report—'Our Common Future', sustainable development was described as, "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."[6] While experts analysed three strategic principles of corporate sustainable development such as transparency, employee development and resource efficiency, they highlighted the triple bottom-line approach as one of the commonly used approaches.[7] According to this approach, business goals were inseparable from the societies and environments in which they operated.[8] Analysts identified a number of organisations which accepted corporate sustainable development as a key strategy. Global companies such as Microsoft Corporation, Intel, Apple Inc, AT&T, and many other leading electronics companies focused on environmental issues in their corporate sustainability programs. (See Exhibit 1).

SAMSUNG'S GREEN INITIATIVES: AN ASSESSMENT

Originating as a small export business in Taegu, Korea, during the 70s, Samsung Electronics (Samsung) went on to become one of the world's pioneering electronics companies.[9] Samsung was a specialist in manufacturing digital appliances and media, semiconductors, memory, and system integration. It had a wide range of businesses that connected speed and creativity and had the efficiency to invent, develop and market the products.[10] Samsung displayed all the qualities expected of a leader. It was a leader in digital technology, had ethical business practices, a wide range of companies and above all displayed global citizenship.[11] The company had a simple philosophy—to make proper utilisation of its talent and technology to create superior quality products and services for the benefit of the society across the globe. Samsung's core values consisted of its people, a passion for excellence, change and innovation, integrity in its operations, and co-prosperity.[12] Samsung's new vision for 2020 read as "Inspire the World, Create the Future", which reflected its commitment to inspire citizens by making efficient use of its strengths namely—new technology, innovative products, and creative solutions and promoting value for the industry, its partners and its employees.[13] To fulfill its vision, Samsung incorporated three strategic approaches in its management: such as creativity, partnership, and talent. Apart from this, Samsung had plans to explore new avenues in health, medicine and biotechnology.[14] As of 2011, while Samsung's total assets amounted to $343.7 billion, the net sales were recorded as $220.1 billion and net income was $21.2 billion.[15] As part of this vision, Samsung aimed to generate revenue of $400 billion and achieve the position among the world's top five brands by 2020.[16]

As a responsible global citizen, Samsung made efforts to generate economic profits and at the same time endeavoured to tackle global issues such as social, economic and environmental issues.[17] The key elements of its sustainability management agenda included the economic, social and environmental aspects of its operations. The organisation laid strong emphasis on shared growth in its business management. As part of its shared growth initiatives, Samsung introduced programmes such as 'Globally

EXHIBIT 1 CER Activities of Selected Leading Companies

Company	Activity/Performance
Intel	• At the end of 2011, Intel reduced their absolute emissions more than 60% below 2007 levels. In the same time frame, its annual revenue increased by 41%. • In 2010 and 2011 new videoconferencing facilities resulted in cost savings of over $114 million and the avoidance of more than 87,500 metric tons of CO2 emissions.
Apple Inc	• Apple's designers and engineers pioneered the development of smaller, thinner, and lighter products in 2011, thereby generating fewer carbon emissions. • In addition to eliminating toxins and designing products with highly recyclable aluminum enclosures, Apple used recycled plastics, recycled paper, biopolymers, and vegetable-based inks in its products. • Apple's global recycling exceeded its 70% goal in 2011. • In 2011, there was a 61% increase in participation in the Commute Alternatives program which offered transit options that reduced traffic, smog, and CO2 emissions associated with the use of single-occupancy vehicles.
Microsoft Corporation	• Saved resources by developing modular data centers that used up to 50% less energy and consumed only 1% of the water of traditional data centers. • Helped reduce its reliance on electricity generated from coal and other traditional energy sources by purchasing more than 1.1 billion kilowatt-hours of green power in FY12. • Eliminated unnecessary components from servers within its data centers, and used higher-efficiency supplies, converters, processors, and platforms.
AT&T	• Earned annualised savings of $86 million from 8,700 energy-saving projects implemented in 2010 and 2011. • Deployed 5,114 alternative-fuel vehicles, including 3,469 CNG vehicles and 1,617 hybrid electric vehicles, as part of its $565 million commitment to deploy approximately 15,000 alternative-fuel vehicles (AFVs) over a 10-year period through 2018. • Kept 50.1 million Pounds of network scrap materials out of landfills through reusing, selling and recycling materials. • Collected approximately 3.0 million cell phones and 1.7 million pounds of batteries and accessories for reuse or recycling.

Source: Compiled by the author from various sources.

Competitive SMEs', a 'Supplier Support Fund' and 'New Technology Development Contest' to facilitate financial assistance.[18] Samsung also took up measures for the benefit of second and third-tier suppliers from its shared growth initiatives. In 2011, Samsung launched a program titled 'Samsung Hope for Children' which dealt with various social contribution activities.[19] The programs included activities such as 'Hope Children's Learning Center' for students coming from low income households and the 'Stepping Stone Scholarship Program' for college students with disabilities. These programmes were organised in different regions of the world with the sole purpose of focusing on health and education of children and youth.[20]

Besides showing its concern towards social issues, Samsung was also aware of its responsibilities towards the environment. It not only practiced environmental leadership at the global level, but also demonstrated environmental leadership and citizenship in its own facilities, operations, and supply chain. The organisation worked to measure, report, and reduce its environmental impacts across all its operations. As per the 18th version of the 'Guide to Greener Electronics' published by Greenpeace International in November 2012, Samsung moved up to the 7th rank, with an overall score of 4.2 points in its performance scorecard[21] (See Exhibit 2). The guide ranked 16 global electronics companies considering their commitment and growth in three environment

EXHIBIT 2 2012 Ranking of Electronics Companies

Rank	Companies	Points out of 10
1	WIPRO	7.1 (new)
2	HP	5.7 (↓)
3	NOKIA	5.4 (↑)
4	ACER	5.1 (↑)
5	DELL	4.6 (↓)
6	APPLE	4.5 (↓)
7	**SAMSUNG**	4.2 (↑)
8	SONY	4.1 (↑)
9	LENOVO	3.9 (↓)
10	PHILIPS	3.8 (↓)
11	PANASONIC	3.6 (↓)
12	LGE	3.5 (↑)
13	HCL INFOSYSTEMS	3.1 (new)
13	SHARP	3.1(↓)
15	TOSHIBA	2.3 (↓)
16	RIM	2.0 (↓)

Source: Compiled from "Guide to Greener Electronics", http://www.greenpeace.org/international/en/campaigns/climate-change/cool-it/Campaign-analysis/Guide-to-Greener-Electronics/, November 2012.

criteria such as energy and climate, greener products and sustainable operations[22] **(Exhibit 3)**. Samsung performed well on product life cycle criteria, as it provided detailed information on spare parts to extend product lifetime. Besides, Samsung almost scored maximum points on energy efficiency. The energy score increased as it continued to disclose information on its GHG emissions information, including its supply chain data. Samsung also scored major points for sustainable operations due to its relatively good e-waste take-back programme.[23]

Samsung strongly believed that it had the responsibility to run its operations in the most enriching ways. With this belief, Samsung carried out a range of environmental activities around the world **(Exhibit 4)**. In 2009, Samsung established a mid-term environmental plan, Eco-Management 2013 (EM 2013), and accordingly framed strategies to achieve sustainable development.[24] The company manufactured eco-friendly products and was dedicated to products stewardship throughout the entire life cycle of its products.[25] Samsung's operations were guided by its focus on enhancement of a greener environment through greening of not only its products and technologies, but also the workplace and the communities. The company reiterated its concern for the environment through the 'PlanetFirst' approach.[26] It was a basic commitment that Samsung believed was essential for consumers to strike a balance between their aspiration for cutting edge technology and leading a greener way of life. Samsung made regular investments in green management. As of 2011, Samsung witnessed an increase of 86% in green investment compared to 2010.[27]

As part of its Vision 2020, Samsung identified climate change and energy management as one of its important management priorities.[28] The company implemented a number of measures to improve energy efficiency and developed technologies to reduce greenhouse gas (GHG) emissions **(Exhibit 5)**. As per the mid-term environmental plan, Samsung set up a greenhouse gas emission management system to monitor direct as well as indirect sources of emissions related to all its business activities as well as its global partners'.[29] Samsung adopted a number of measures to accomplish its mid-term target of 50% reduction in GHG emissions by 2013 in comparison to 2008.[30] With respect to limiting electricity consumption during use of products, Samsung invested in developing energy efficient products. Moreover, the company participated in a carbon footprint labeling scheme set up by the Ministry of Environment in Korea as well as the one that was established by the Carbon Trust in the U.K.[31] The objective of the scheme was to convince manufacturers to reduce carbon emissions from their products by revealing information regarding GHG emissions through labeling and persuade consumers to purchase low carbon products. In 2011, Samsung Electronics selected around 2,630 models for eco-product labeling.[32] Samsung also took steps to monitor its carbon emissions emanating from transportation of its products, as well as supplier activities and business travel by employees.[33]

Achieving a 100% eco-product along with a 40% enhancement in energy efficiency rate were considered to be the key performance indicators for EM2013.[34] In 2011, the good eco-product and good eco-device rates crossed the specified targets and increased to 97% and 85% respectively.[35] Likewise product energy efficiency also went up by 25.6% in 2011.[36] Further, Samsung implemented the 'Eco-Design process' to address

EXHIBIT 3 Samsung's Performance (as of November 2012)

	SAMSUNG	ZERO	LOW	MEDIUM	HIGH
ENERGY	Disclose and set targets for operational GHG emissions and RE supply				
	Disclose and set targets for supply chain GHG emissions and RE supply				
	Clean Electricity Plan (CEP)				
	Clean Energy Policy Advocacy				
PRODUCTS	Product energy efficiency				
	Avoidance of hazardous substances in products				
	Use of recycled plastic in products				
	Product life cycle				
OPERATIONS	Chemicals management and advocacy				
	Policy and practice on sustainable sourcing of fibres for paper				
	Policy and practice on avoidance of conflict minerals				
	Provides effective voluntary take-back where there are no EPR laws				

Source: "SAMSUNG'S PERFORMANCE IN DETAIL," http://www.greenpeace.org/international/en/Guide-to-Greener-Electronics/18th-Edition/SAMSUNG/, November 2012.

EXHIBIT 4 Samsung's Green Management Policies

Global Green Management System	Establish a top-class global green management system, ensure full compliance of all environment safety and health regulations in all our operation sites and enforce strict internal standards.
Life Cycle Responsibility for Products and Services	Take full responsibility for ensuring minimum environmental impact and the highest safety in all stages of the product life cycle including purchasing of parts/raw materials, development, manufacturing, transfer, product use and end-of-life.
Green Manufacturing Process	Establish manufacturing processes that minimize the release of greenhouse gas emissions and pollutants by employing best available clean manufacturing technologies that enable efficient resource and energy management.
Zero-Accident Green Operation Sites	Create recycling-centric production facilities and safe workplaces where wastes are recycled and accident prevention measures are implemented to ensure the health and safety of all employees.
Preservation of the Global Environment	Take actions to tackle climate change and protect local communities as well as the global environment. Disclose green management policies and achievements to both internal and external stakeholders.

Source: "Global Harmony with people, society & environment," http://www.samsung.com/us/aboutsamsung/sustainability/sustainabilityreports/download/2012/2012_sustainability_rpt.pdf, 2012.

EXHIBIT 5 Climate Change and Energy Management Activities in Samsung

- Installed F-gas treatment equipment to reduce SF6 and PFCs gases from the LCD and semiconductor manufacturing process which was equivalent to a reduction of one million and thirty thousand tons of CO2.
- Various energy efficiency improvement measures, including replacement with energy-efficient equipment system, installation of high efficiency transformers, and waste heat recovery facilities, were implemented which led to a reduction of 370 thousand tons of CO2. As a result, the company achieved its annual reduction targets since 2009 and achieved a 40% reduction in CO2 emissions intensity in 2011 compared to 2008.
- The estimated CO2 emission associated with use of Samsung products reduced by 17.63 million tons of CO2 in 2011 compared to 2008, with an estimated accumulated reduction of 32.92 million tons of CO2 during 2009–11.
- Optimised operation of manufacturing and utility facilities, introduced high energy efficient facilities, and waste heat recycling facilities to achieve the goal of a 2.5% reduction per year.
- Samsung Electronics first participated in the Korean scheme in 2009 and received the first carbon footprint reduction label for a LED TV, a Note PC and a memory chip product. Galaxy SII smartphone and Galaxy Note also became the first product in their category to receive a Carbon Footprint label issued by the Carbon Trust.
- Eliminated Polyvinyl Chloride (PVC) and brominated flame retardants (BFRs) in all mobile phones and MP3 players sold from April, 2010. For notebook PCs, it launched the first PVC-free and BFRs-free in October 2010, and eliminated PVC and BFRs in all 15 notebook PC models released in 2011.
- Reduced business travel-related emissions through measures including the encouragement of the use of mass transport and video-conferencing systems.
- Samsung received ISO 50001 certification in 2011 for Gumi, Giheung, Hwasung, Onyang and Tangjung plants in Korea. Also received 'Carbon Trust Standard' certification in April 2012 for significant GHG reductions achieved by all eight production plants in Korea.

Source: Compiled by the author from "Global Harmony with people, society & environment", **http://www.samsung.com/us/aboutsamsung/sustainability/sustainabilityreports/download/2012/2012_sustainability_rpt.pdf**, 2012.

energy efficiency and standby power of its products.[37] This was followed by its take back and global recycling programs. The company managed to increase the use of recycled plastic by 2.26%.[38] It continued to reduce its energy consumption from its operations and products to respond to the challenges thrown by climate change. In addition, to facilitate on-site energy management, Samsung adopted energy cost rate (%) to assess the financial benefits of reduction in energy consumption.[39] Furthermore, Samsung launched an Environmental Health & Safety (EHS) Certification management programme in its operation sites and earned ISO 14001 and OHSAS 18001 certifications.[40] Samsung planned to receive ISO 50001 certification in its units by 2015 with the objective of setting up a systematic energy management structure.[41]

Moreover, sustainable water management became an important global environmental issue for all electronic companies. Analysts observed that, the semiconductor industry consumed 7,500 to 15,000 tons of ultra pure water on a daily basis, which was sufficient to sustain a city with 50,000 residents per day.[42] Being a leading manufacturer of semiconductors, Samsung took up the responsibility to be an effective contributor to water resources management (**Exhibit 6**). For this the company incorporated water management policies in its agenda, and specified the reduction targets and strategies for preservation of sustainable water resources. With the goal of maximising water efficiency, Samsung Electronics established a 3% water usage reduction target per production unit by 2015.[43] After collecting the necessary data on water usage, Samsung identified plants where use of water was maximum, set up a monitoring structure, planned various reduction measures, and then implemented the most cost effective measures to curtail business risks related to water use and its environmental impacts. Samsung adopted new technologies to reduce discharge of water pollutants. In 2011 the company achieved a 30% reduction in water pollution by improving the efficiency of waste water processing facilities.[44]

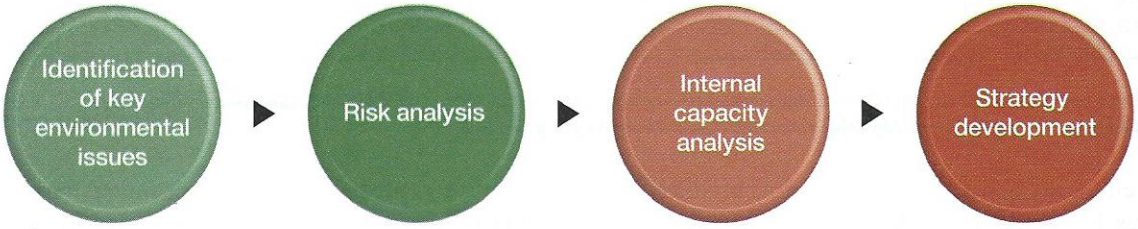
In addition to water management, Samsung also had in place a waste management policy. It focused on enhancement of waste recycling and reduction of waste generation. In 2011, the company started recycling and utilising waste glass, waste plastics, and organic sludge which used to be either burnt

EXHIBIT 6 Water Management Activities in Samsung

- Analysed water resource risk and developed alternative water supplies as well as an emergency response system to avoid any negative impact upon business.
- Established a comprehensive water management system which reduced the cost and pressure on water resources.
- Achieved reduction in water use by collecting ultra pure water used for the semiconductor and LCD production process and reusing it. The ultra pure water recycling rate at semiconductor and LCD production plants in 2011 decreased to 51% as compared to 2010 levels.
- Established on-site non-industrial waste water treatment and recycling facilities to reduce water use and sewage discharge.
- Samsung Electronics plant in India installed a rainwater collection system and used the collected rainwater for gardening and cleaning.
- Increasing waste water recycling rate by installing organic waste treatment and water recycling facilities to reduce discharge of water pollutants.

Source: Compiled by the author from "Global Harmony with people, society & environment", http://www.samsung.com/us/aboutsamsung/sustainability/sustainabilityreports/download/2012/2012_sustainability_rpt.pdf, 2012.

EXHIBIT 7 Process of Strategy Development at Samsung



Source: "Global Harmony with people, society & environment", http://www.samsung.com/us/aboutsamsung/sustainability/sustainabilityreports/download/2012/2012_sustainability_rpt.pdf, 2012.

or landfilled earlier. As per EM2013, Samsung aimed to achieve a waste recycling rate of 95% and a recycling-oriented waste management system to minimise waste generation. Its objective was to set a waste reduction target of 10% annually till 2015.[45] Besides, Samsung also strived to control handling of hazardous materials in its production units in compliance with Restriction of Hazardous Substances (RoHS)[46] regulation.[47] Regular inspection of storage facilities was carried out and adequate training was provided to workers handling the materials to prevent accidental leakage of hazardous materials. Samsung also continued to minimise the use of ozone depleting substances which were used as refrigerants and fire extinguishing agents in freezers and fire control systems respectively.[48]

Apart from these initiatives, Samsung also had a green communication system through which information and ideas on environmental affairs was exchanged. Employees were encouraged to live a greener life-style. Environmental education classes for children of employees were conducted and campaigns consisting of students, non-governmental organisations and green activists were flagged off. Samsung formulated green management strategies by assessing the impact on the environment and the management risks associated with the impacts (**Exhibit 7**).

EXHIBIT 8 Climate Change Response—Risks and Opportunity Analysis

Category	Type of Risks	Opportunities	Risk Management Activities
Regulatory Risks	• Emission trading scheme • Emission reporting obligations • Product efficiency regulations and standards • Product labeling regulations and standards • Uncertainty on new regulations	• GHG Emissions trading scheme • Product efficiency regulations and standards • Voluntary agreements	• Developing CDM project within semiconductor manufacturing process • Improving transparency on GHG emissions data through third party verification • Increasing R&D on energy efficiency improvement on products and receiving energy marks • Increasing number of eco-label certified products • Monitoring on global environmental regulations
Physical Risks	• Change in precipitation and drought	• Extreme weather events • Air and water pollution	• Identification of risks and response manuals on site facilities through regular/special review and 3rd party audit
Other Risks	• Reputation • Change in consumer behavior	• Increased consumer demand on low carbon products • Increase of brand value as a low carbon and energy efficient product provider • Reduction in operation cost by improving energy efficiency of equipments	• Strategic response to Eco-Product exhibition and evaluations • Developing products using insight from consumer research

Source: "Global Harmony with people, society & environment," http://www.samsung.com/us/aboutsamsung/sustainability/sustainabilityreports/download/2012/2012_sustainability_rpt.pdf, 2012.

Samsung took up measures to reduce the negative impacts of its operations on the environment by analysing the opportunities and the risks associated with it. The risks included physical risks, regulatory risks, indirect and socio-cultural risks and were analysed with respect to all the green management activities.[49] Identification of risks associated with green management strategies led to the creation of the Green Management Committee whose objective was to approve the green management policies, review performance and take decisions on the establishment of new measures.[50] Samsung set up a Climate Change Response Committee to look into issues related to GHG emissions and energy management, as well as an Eco Council to look into issues concerning eco-product development and green operations at the production units.[51] With respect to climate change response strategies, Samsung identified the opportunities associated with climate change and the risks associated with its impacts[52] **(Exhibit 8)**.

Samsung adopted cost effective measures to minimise business risks associated with water use and environmental impact. While identifying the risk, the company turned the surplus water supply into an emergency response system to avoid any negative impact on its business. They expanded monitoring efforts to collect data from the production units and other facilities to verify the reliability of efficient water consumption. Additionally, Samsung

monitored waste processing companies by visiting the site and checking their waste processing methods to stop illegal processing and illegal shipping of waste. Likewise, recognising the risks of waste water discharge and its impact on the environment, Samsung promoted ecosystem restoration projects and water conservation activities in its domestic as well as overseas operation sites. Further, Samsung implemented the 'Eco-Design Assessment process' through which environmental impact assessment at the product development stage became a mandatory requirement. Likewise the 'Eco-Design System (EDS)' enabled the execution of an 'Eco-Product Rating Program' for assessing the green attributes of each development project.

THE ROAD AHEAD

In recognition of Samsung's green management practices, four of Samsung's products received Eco Design awards at the Consumer Electronics Show (CES) 2012.[53] Samsung received the Energy Star Partner of the Year award by the U.S. Environmental Protection Agency (EPA).[54] Moreover, the China Europe International Business School (CEBIS) identified Samsung as one of the 100 green foreign companies operating in China.[55] In spite of all its achievements, Samsung's practices were criticised by some organisations. Reports revealed that Samsung had violated labour rights and health rights of employees and was involved in environmental violations. In some of its production units, Samsung was said to have neglected unsafe working conditions, employed children as labourers, and illegally dumped hazardous waste.[56]

Moreover, in its sustainability report of 2011, Samsung mentioned that it had removed all brominated flame retardants (BFRs) and polyvinyl chloride (PVCs) from its mobile phones and several other products. However, Public Eye, which was a Switzerland based whistle-blower organisation and was organised by Greenpeace, emphasised that they had found certain cancer-causing solvents in some random samples and that Samsung had not disclosed information regarding 10 of 83 chemicals.[57] Further, Public Eye, whose objective was to criticise global businesses that operated with a profit motive and neglected their social responsibilities, claimed that Samsung "uses banned and highly-toxic substances in its factories, without informing and/or protecting its workers . . . Samsung has a history of over 50 years of environmental pollution, trade union repression, corruption and tax flight."[58] Furthermore, while Public Eye accused Samsung of around 140 cases of cancer as well as 50 deaths due to unsafe working conditions, it argued that its no-union policy covered the truth and obstructed investigation of the cases.[59]

Meanwhile, there were accusations that toxics were found in the cleaning rooms in Samsung facilities.[60] Worker groups in South Korea reported many cases of brain cancer and other serious diseases such as leukemia and lymphoma. Employees working at Samsung's semiconductor units and other chemically-intensive manufacturing units became victims of such diseases.[61] The occurrence of cancer among Samsung's employees was tracked by Dr. Jeong-ok Kong (Kong), an occupational health physician who worked for the Korea Institute of Labor Safety and Health (KILSH) and other non-profit organisations. Kong reported that most of the employees who were afflicted with serious diseases worked in Samsung's semiconductor plants.[62] These findings were reiterated by Supporters of Health and Rights of People in the Semiconductor Industry[63] (SHARPS).[64] However the accusations and the findings of the reports were rejected by Samsung officials. Reuben Staines (Staines), member of Samsung's corporate communications team in Seoul, was quoted as saying, "Samsung maintains a world-class environment, health, and safety infrastructure, and we continually make improvements and enhancements to ensure that it is state-of-the-art. We make these ongoing investments in the normal course of business, which includes careful review and implementation of recommendations that are presented to us through credible research."[65]

In addition, analysts raised concerns regarding the disclosure of used chemicals in products. Democratic Party Lawmaker Lee Mi-kyung (Lee) clarified this by saying that disclosure regarding used chemicals in the US was mandatory.[66] While the American branch of Samsung in USA followed this, its South Korean branch did not. Lee stressed that the company was expected to be more transparent in its operations.[67] While a news daily reported in 2011 that, Samsung was willing to bear the treatment costs of the cancer patients employed at its semiconductor and LCD plants, it also said that the eligibility conditions to avail this

compensation package were so severe that many employees could not receive the treatment.[68] Reacting to this statement, Staines clarified that Samsung "has strengthened its support programs for employees who have developed serious illnesses" and that "the company is committed to providing support for hospital expenses and living expenses."[69] Likewise, members belonging to the Samsung Accountability Campaign alleged that the company operated "with impunity" and called it "one of the most corrupt operations on the planet."[70]

While many global electronics companies were successful in eliminating toxic chemicals from the products manufactured by them, their manufacturing and supply chains still relied on energy sources which contributed to climate change.[71] At the same time many of these companies lagged behind in effectively managing their e-waste. With the rapid growth of such companies, analysts were of the opinion that only corporate environmental leadership could prevent a rise in e-waste and ensure that the industry shifted its focus on using clean energy to manufacture necessary products.[72] They also observed that since electronics companies gained political power in several countries, their support for clean energy had the potential to impact government policy.[73] Analysts were apprehensive that even if Samsung initiated measures to reduce its environmental footprint, they were uncertain about the viability of these initiatives in the long run. They raised questions regarding Samsung's ability to strike the right note for corporate survival. Nevertheless, Greenpeace International IT analyst Casey Harrell expressed some amount of optimism in Samsung's efforts by saying, "Given the massive energy crisis around the world including caused by depleting & polluting fossil fuel, the next big environmental challenge for consumer electronics companies is to reduce their carbon pollution."[74] He further added, "Companies should work with their suppliers to implement more efficient manufacturing processes and to power the supply chain with renewable energy, not fossil fuels, just as they have successfully done to reduce the toxic materials in electronics."[75]

ENDNOTES

[1] "Components As Driver for Mobile Innovations: Samsung CES Keynote", http://www.samsungvillage.com/blog/2013/01/samsungblog-components-as-driver-for-mobile-innovations-samsung-ces-keynote.html#more, January 10th 2013
[2] Pogutz Stefano, et al., "Corporate Environmental Sustainability Beyond Organizational Boundaries: Market Growth, Ecosystems Complexity and Supply Chain Structure as Co-Determinants of Environmental Impact", http://www.environmentalmanager.org/wp-content/uploads/2011/09/Article4Winn2.pdf, 2011
[3] ibid.
[4] ibid.
[5] Formally known as the World Commission on Environment and Development (WCED), the Brundtland Commission's mission is to unite countries to pursue sustainable development together.
[6] "Report of the World Commission on Environment and Development: Our Common Future", http://www.un-documents.net/wced-ocf.htm
[7] "Corporate Environmental Sustainability Beyond Organizational Boundaries: Market Growth, Ecosystems Complexity and Supply Chain Structure as Co-Determinants of Environmental Impact", op.cit.
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[37] ibid.
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[39] "Global Harmony with people, society & environment", op.cit.
[40] ibid.
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