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Managerial Implementation of CSR in the Asian Technology Sector: A Case Study on Apple

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ABSTRACT

This thesis provides a comprehensive analysis of the strategic integration of Corporate Social Responsibility (CSR) within the operational and governance frameworks of multinational corporations in the high-tech industry, with a particular focus on Apple Inc. The research explores how Apple has translated its commitment to sustainability into tangible practices, especially across its global supply chain and manufacturing operations concentrated in Asia. Through an examination of corporate documentation, sustainability reports, and institutional practices between 2020 and 2024, the study highlights the interplay between ethical responsibility, stakeholder engagement, and long-term competitive advantage.

Adopting a managerial and institutional perspective, the thesis does not merely describe CSR initiatives but critically evaluates their effectiveness, coherence with corporate strategy, and adaptability to complex geopolitical and regulatory contexts. Particular attention is given to Apple's efforts in achieving carbon neutrality, fostering supplier accountability, promoting the circular economy, and investing in social innovation initiatives aimed at empowering communities and enhancing workforce skills.

The findings suggest that Apple's model represents a paradigmatic case of CSR-driven strategic alignment, where environmental and social objectives are not peripheral but embedded into the company's core value proposition. In doing so, the thesis contributes to a broader understanding of how CSR can evolve from a compliance-oriented tool into a proactive driver of sustainable development and reputational leadership in the global technology sector.

INTRODUCTION

The increasing global relevance of Corporate Social Responsibility (CSR) reflects a profound shift in the expectations placed upon contemporary business actors. Particularly in the high-tech industry, multinational corporations are now compelled to reconcile innovation and market expansion with ethical conduct, environmental stewardship, and stakeholder accountability. Within this context, the present thesis investigates the strategic integration of CSR in Apple Inc., one of the world's most influential and scrutinized technology firms, with a specific focus on its operations and value chain in Asia.

The primary objective of the research is to analyze how Apple has embedded CSR principles into its business model, governance architecture, and supply chain management. By doing so, the study seeks to assess the extent to which CSR has served not only as a mechanism for risk mitigation or regulatory compliance, but as a fundamental component of Apple's competitive differentiation and long-term resilience. A secondary objective is to examine how Apple navigates the diverse institutional landscapes of key Asian countries—namely China, India, and Vietnam—where cultural expectations, legal frameworks, and social challenges vary widely and directly influence the implementation of CSR policies.

Although Apple operates across multiple business lines, this thesis concentrates on its core consumer electronics division, encompassing iconic products such as the iPhone, iPad, and Mac. This segment not only generates the majority of the firm's revenue, but also embodies its most critical ethical and operational challenges, particularly in relation to supply chain governance, resource sustainability, and labor practices.

The structure of the thesis is articulated in progressive stages. The initial chapters provide a theoretical and contextual framework on CSR and its evolution in the Asian technological landscape. Subsequently, the empirical core of the research analyzes Apple's CSR performance from 2020 to 2024, drawing on company reports, academic literature, and stakeholder analyses. The concluding sections offer a critical synthesis of the opportunities and limitations of CSR implementation in Apple's case, thereby contributing to a nuanced understanding of responsible corporate management in the digital age.

1. Conceptual Foundations of Corporate Social Responsibility

Corporate Social Responsibility (CSR) refers to all the actions and attitudes that firms and enterprises carry out to demonstrate an active involvement towards an equitable social environment. CSR is now a fundamental and profoundly important aspect in business strategy of nowadays enterprises. Other than adhering to regulation, which are starting to gain importance in the international legal framework, CSR is conceived as a self-regulatory management model, through which businesses empower themselves in the contemporary business ecosystem. This increasingly important framework poses the challenges to firms to be socially accountable not only to their stakeholders, but to society at large. It allows them to differentiate, while it is becoming a fundamental aspect of firms' strategies in order to survive and maintain a competitive advantage in the market.

The European Commission has given a legal and tangible definition to this apparently so abstract concept of CSR, describing it as "the voluntary integration of social and environmental concerns into business operations and in interactions with stakeholders". (European Commission, n.d).

The general literature on the topic outlines four main pillars around which Corporate Social Responsibility rotate. These aspects help define more in detail its scope and the extent to which CSR is applicable to the day-to-day operations. These four pillars are economic, philanthropic, ethical, and environmental responsibility.

Figure 1: *"Carroll's Pyramid of CSR illustrates the four layers of corporate responsibility: economic (the foundation of profit), legal (compliance with laws), ethical (integrity in practices), and philanthropic (voluntary actions to improve society)."*
Source: https://www.lythouse.com/blog/exploring-carrolls-csr-pyramid-key-principles-modern-applications

All of these represent a different facet that gives life to a comprehensive and assertive approach that businesses should have towards the individuals and environments that surround their operations. In particular, “environmental responsibility” refers to a company’s dedication to environmental preservation. This part of the CSR framework entails for example cutting greenhouse gas emissions, managing waste, using natural resources efficiently, and implementing clean technologies. All these actions, show a conscious and responsive attitude towards the great challenges that the world is facing in the current living era and that can only be faced through the unanimous union of powers. By utilizing renewable energy, encouraging recycling, and lowering pollution, businesses employ "environmental stewardship" (Harvard Business Review, 2021) tactics to lessen their ecological impact and actively contribute to the mitigation of the environmental problem, of which we are all aware.

Passing on to the second pillar, the way businesses treat and regard the human capital that surrounds its operative and non-operative environment is essential in addressing its ethical responsibility. Indeed, the respect for human rights on the workplace, the way workers, suppliers and customers are treated, and the extent to which the firm communicates with transparency, are all fundamental aspects to take into account when evaluating a firm’s goodwill. Instead of engaging in unethical activities like child labor, discrimination or greenwashing, which have been very common practices throughout the last decades, acting with an ethically conscious manner and promoting inclusive and safe working environments (ISO 26000, OECD Guidelines for Multinational Enterprises), can allow businesses to gain a definite advantage over unethical business practices.

The third pillar, which is the less intuitive one, describes "philanthropic responsibility", that is to say the voluntary made contributions to the welfare of society by businesses. Examples of actions referring to this third pillar are charitable contributions, assistance with healthcare, cultural, and educational projects, and in general the promotion of corporate volunteerism and cultural events (Business for Social Responsibility, 2022). Many businesses decide to fund projects that might not generate profits right away but improve relationships with stakeholders and local communities and this represents a great way for them to enhanced their corporate social responsibility.

Economic responsibility is the last of four pillars and refers to “Pursuing corporate profitability while honoring the other three dimensions”. In other words, businesses should strike a balance between the goals of profit and the effects that their operations have in society and the environment that surrounds them. To support long-term sustainable development, this entails

implementing open procedures, anti-corruption initiatives, and prudent financial resource management (World Economic Forum, 2023). This results in what are called “economically responsible management system”, those who efficiently balance social responsibility, without compromising the firm’s ability to make profits, and vice versa.

CSR has changed over the past few decades from being a voluntary practice to a strategic lever essential to business competitiveness, especially in technologically advanced and globalized markets. As already mentioned before, Corporate Social Responsibility has now a legal definition in the European Union, which is increasingly implementing practices to make the framework valuable and tangible in the business environment. This idea has taken on unique characteristics in another part of the globe as well, in Asia. This is the case due to the region's fast economic growth, mounting pressure from global stakeholders, and national cultural and institutional variations.

CSR is increasingly important for business reputation, financial performance, and operational efficiency, especially in the technology sector. Asian multinational corporations, including Samsung, Huawei, Lenovo, and others, have started putting integrated sustainability strategies into practice. They have set goals for social inclusion, supply chain transparency, emissions reduction, and human rights protection, which are aspects well regarded by the four CSR pillars previosly outlined. Asian technology multinationals regularly publish ESG (Environmental, Social, and Governance) reports. 87% of Asian tech companies publish ESG reports, and 68% of these specifically tie their CSR efforts to performance goals related to finances and reputation, according to the KPMG Asia Pacific Sustainability Reporting (2022).

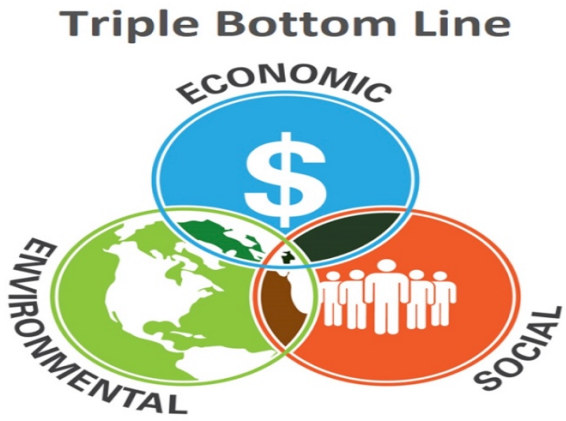

Figure 2: "The Triple Bottom Line model evaluates business performance not only economically, but also socially and environmentally — an integrated approach to sustainability for a fairer, more responsible future." Source: https://dirigentindustria.it/notizie/sviluppo-sostenibile/sondaggio-triple-bottom-line-sulle-prestazioni-economiche-sociali-e-ambientali.html

As a multifaceted instrument to evaluate corporate value, the "triple bottom line" framework, which is based on the three pillars of people, planet, and profit, is being used more and more in Asia (Elkington, 1997). CSR has a direct impact on key indicators like stock value, brand equity, the ability to draw in institutional investors, and talent retention, especially in the tech sector. As the concept of CSR is becoming increasingly tangible and financially material, especially in this geographical region and business sector, many business apply the framework to renovate their strategies.

Today, Asia offers a unique perspective for researching the connection between corporate social responsibility and business performance. In order to encourage the adoption of sustainable practices, economies like China, South Korea, Japan, and Singapore are, on the one hand, pushing for laws and tax breaks. However, international customers and business partners are putting increasing pressure on tech companies doing business in these markets to show that they are committed to sustainability. “74% of investors active in the Asian market say that ESG metrics are important when making decisions” (Asia Sustainable Finance Initiative,2023), according to the Asia Sustainable Finance Initiative report (2023).

This thesis examines the function of corporate social responsibility (CSR) in Asian technology firms, evaluating the impact of CSR on business metrics like market value, profitability, and ESG metrics. In order to comprehend both the Western approach to CSR dynamics in Asia and the endogenous strategies adopted by local corporate giants, two representative case studies èwill be analyzed: Apple (through its Asian supply chains) and Samsung. The goal is to draw attention to the relationships that exist between sustainability, performance, and innovation in a strategic industry within an area that is becoming more and more significant in the global economy.

1.2 CSR vs ESG: Two Strategic Approaches to Corporate Sustainability

To fully understand the meaning of CSR it is important to distinguish it from other concepts that could easily be misunderstood. A first main distinction must be done between CSR and ESG as these are complementary ideas, which will be analyzed and defined in the subsequent section, with an emphasis on management, financial impact, measurability, and new regulatory requirements.

Differentiating between Corporate Social Responsibility (CSR) and ESG (Environmental, Social, and Governance) criteria has become crucial as sustainability has developed into a

strategic lever for corporate management. Although encouraging ethical and sustainable business practices is the goal of both frameworks, their methods, structures and goals differ completely.

Corporate Social Responsibility bases itself on an ethical and cultural understanding of responsibility, which rose to prominence in the second half of the 20th century. Businesses are supposed to do more than just make money; they should also give back to the community and actively promote the welfare of all. This is the ides on which CSR is built upon, and the main focus that businesses should keep when implementing their strategies in order to enhance the social aspect of their operations. In other words, CSR is a qualitative approach to sustainability that is based on self-control and voluntariness.

Philanthropic endeavors, corporate volunteer programs and support for environmental or social causes are all examples of CSR initiatives, that, if implemented can have a beneficial impact on the business' stakeholders. Even though they might not immediately yield tp quantifiable results, these behaviors represent an organization's values and become ingrained in its internal culture.

By contrast, ESG is a relatively new idea that was developed as a systematic approach to assess and evaluate corporate sustainability performance in three main areas: governance (G), social (S), and environment (E). The ESG approach is distinguished by its objective, quantitative, and reportable nature.

Figure 3: The 17 Sustainable Development Goals (SDGs) established by the United Nations aim to address the world's most pressing challenges, including poverty, hunger, health, education, gender equality, clean energy, climate action, and sustainable economic growth. They provide a universal framework to promote peace, prosperity, and environmental sustainability by 2030.
Source: *https://smarttannery.com/what-does-esg-mean/?lang=en*

ESG, as opposed to CSR, makes it possible to compare businesses using uniform metrics, ratings, and performance indicators. ESG rating agencies give businesses scores based on verifiable information, giving investors a tool for evaluation similar to a credit rating. These ratings are carried out by important rating companies, such as Quasianalytic, MSCI or S&P500, which have always been specialized in credit ratings, and are now growing and developing into the ESG sector, to be able to tangibly quantify the firms' impact from all three aspects of the ESG framework through a credible and uniformed assessment metric.

CSR	**ESG**
Qualitative	Semi-quantitative
Culture and values	Measures, standards, criteria
Self-regulated	Regulated by law
Fosters responsibility	Documents/objectifies responsibility

The ESG framework has become more and more important in the European and global, which is characterized by quick changes in the environment, its society, and consequent regulations. Beginning in 2025, an increasing number of businesses will be required to publish ESG reports based on uniform standards (ESRS), which will include information about their supply chains, under the new European Corporate Sustainability Reporting Directive (CSRD), which went into effect in January 2023, and that will certainly be marked by further adjustments and developments. With major effects on information systems and corporate governance, this change turns sustainability from a reputational commitment into a legal requirement, with notable effects on internal control procedures, information systems, and corporate governance. The main distinction between CSR and ESG from a management standpoint is found in the tools and operational scope of each. CSR approached sustainability from a more abstract perspective. Indeed, it refers mainly to the vision and general attitude that a firm adopts towards the individuals and the environment that surrounds its operations. It is mainly value-driven and refers to the cultural approach deriving from corporate strategy. On the other hand, ESG refers more to the collection of systems, processes and indicators that convert the vision and values of a firm into tangible actions that stand for proof of the values portrayed. The ESG framework allows for a quantification of the practices that businesses employ in their strategies and manages to measure the direct impact that the latter have on stakeholder decision-making, corporate risk assessment, and financial strategy.

As a matter of fact, as already mentioned, CSR and ESG are complementary approaches to sustainability; the former establishes the ethical and cultural foundation of the company, while the latter makes measurement, accountability, and transparency possible. A commonly held

view in the literature is that CSR is the value-based forerunner of ESG themes, which broaden and "quantify" CSR, transforming it from an ethical or charitable endeavor into a useful management tool and a factor in financial appeal.

The table below summarizes the main distinction between the two structures.

Aspect	CSR	ESG
Approach	Value-driven, voluntary, cultural	Measurable, regulated, performance-oriented
Focus	Ethics and positive social impact	Risk management, financial attractiveness
Measurability	Qualitative	Quantitative, based on indicators (KPIs)
Target Audience	Internal stakeholders and communities	Investors, analysts, regulators
Managerial Function	Reputation building and shaping of corporate culture	Optimization of transparency, governance, and capital allocation

The relationship between CSR and ESG seems to be especially clear in the Asian technology industry, which is the focus of this thesis' analysis. CSR has long been used by major Asian companies like Samsung, TSMC, Huawei, and Alibaba to improve their human capital and corporate reputation. However, in order to satisfy the demands of international financial markets and reduce supply chain risks, other than developing sustainable strategies these same businesses have recently implemented structured ESG tools. This has also been the case as these business sleeked to ascend global rankings.

An important milestone was reached in January 2020 when BlackRock CEO Larry Fink sent the company's annual letter to investors, formally acknowledging climate change as a financial risk. He claimed in that letter that "climate risk is investment risk" and that every strategic choice must take governance, social, and environmental ramifications into account in order to create long-term value. The questions Fink raised about famine-related inflation, the impact of climate-driven migration, and the decline in productivity in emerging markets as a result of high temperatures are now central to the considerations of any business striving for resilience. This introduced and highlighted the idea of climate risk as a systemic risk for the economies, signifying for a risk that transcends business sectors and affects the entire economy.

In conclusion, integrating CSR and ESG is not only desirable but also essential for managing new risks, addressing global issues, and creating a sustainable business model. This means that managers must develop internal ESG competencies, structure advanced reporting procedures, and change corporate culture to one of responsibility. One of the most important managerial abilities of the future is the capacity to combine an ethical vision with quantifiable performance in the face of mounting regulatory scrutiny, climate change, and financial market pressure.

1.3 CSR as a Lever for Resource and Reputation Management

The Influence of CSR on Human Capital Management

An important aspect that is extensively affected by CSR is the internal management of human capital within a firm. The latter is, indeed, significantly impacted by the implementation of CSR practices. Businesses that incorporate social responsibility into their operations typically focus mainly on drawing talent. As professionals are more interested in companies that show a real commitment to ethics and sustainability, having a solid reputation for social responsibility attracts, in fact, more potential employees. As a consequence, businesses are incentivized to invest in the CSR aspect, in order to create a qualified and professional workplace, which will guide the company towards profitable strategies. CSR enables firms to boost retention and job satisfaction as well. Workers at socially conscious businesses are more likely to be satisfied with their jobs and are less likely to quit. This results in more stability and uninterrupted operations that are beneficial for firms implementing it. Employees can also be motivated by being raised in an ethical and sustainable workplace, which has the potential to increase output and efficiency. This has also the potential to flow into the benefit of encouraging skill development for the workforce. As a matter of fact, training and development programs are frequently a part of CSR initiatives, which help employees advance their careers and improve their skill sets.

The Role of CSR in Strengthening Corporate Reputation

Other than the clear benefits on the human capital that distinguishes a company’s intangible asset, CSR is also essential to the development of a company's reputation, which is an even more important intangible asset. Businesses that practice social responsibility can first of all gain from increased stakeholder trust, a sincere commitment to social and environmental issues are more likely to be trusted by consumers, suppliers, investors, and local communities. This also allows to develop competitive advantage in crowded markets where CSR can represent an incentive for differentiation. This solid reputation can also improve companies’ resilience in times of crisis. This is the case because of increased brand value. Being associated with charitable causes and a dedication to sustainability can increase a brand's perceived worth and have a favorable impact on consumer purchases.

1.4 Managerial Indicators Influenced by CSR: Performance, Engagement, and Risk

CSR has longely been viewed as an abstract concept. In order to make the idea more tangible, several managerial metrics, such as financial and operational performance, employee engagement, and risk mitigation, have been developed. These tools are used to measure the impact of the CSR incorporation into business strategies.

CSR-Related Performance Evaluation Metrics

Businesses use, indeed, a variety of metrics to evaluate how their CSR efforts affect their bottom line. Looking at the financial return on investments made in socially conscious projects help businesses evaluate the real benefits that these projects create. Firms measure it through the return on investment (ROI) for CSR initiatives. Environmental sustainability are also a fundamental indicator to help evaluate the ways in which business practices positively impact the environment. These vary from evaluating waste management, to emissions reeducation and resource efficiency. Moreover, investor decisions are influenced by ESG ratings, that are becoming an increasingly important aspect through which companies are valuated. These offer a comprehensive evaluation of a company's environmental, social, and governance performance.

Effects of CSR on Employee Engagement and Risk Mitigation

Putting into practice a successful CSR strategy can result in many different benefits, that contribute in favoring an efficient strategy implementation. making on society, they are more likely to feel engaged and motivated. Increased productivity and a more peaceful workplace are possible outcomes of this. Also, in nowadays world, the extreme media exposure that businesses face, can represent both an opportunity and a threat, because of the easy access that stakeholders have to the business' activities and practices. An efficient CSR implementation can lower reputational risks as embracing ethical practices shield public image by avoiding scandals and controversies. Moreover, from a financial perspective, CSR enables easier access to capital. A huge market of green-sensitive investors is now growing, and ESG performance is becoming more and more important to individuals who choose to invest their capital. Better credit terms and easier access to financing are two benefits of having a strong CSR reputation.

1.5 CSR in the Technology Sector: Characteristics and Challenges

Because of its innovative and dynamic nature, the technology sector has particular challenges and unique features when it comes to implementing Corporate Social Responsibility. For this reason I decided to focus on this particular sector, in order to understand its particular characteristics and the ways in which CSR is applied.

Distinctive Characteristics of CSR in Tech Companies

Technology companies are frequently at the vanguard of innovation, and as a consequence have the chance to incorporate sustainability into the very beginning of the creation of new products and services. There are many ways in which a firm can apply CSR to the different stages of its supply chain and tech companies, for their innovative nature, have even more space for adaptation. Green computing, for example, is a way to apply CSR to highly technological sectors. This term refers to "designing and using computing systems that are less harmful to the environment".
These businesses can also use technology to address social issues, creating solutions that encourage digital inclusion and raise community standards of living.

Challenges in the implementation of CSR for the Tech Sector

Despite these advantages, there are a number of obstacles to CSR adoption in the technology industry. This explains the reason for many companies to still being underdeveloped from the CSR perspective One of the main obstacles for CSR implementation is supply chain management. With supply chains becoming more globalized, it can be challenging to make sure suppliers follow strict moral guidelines. One important aspect which is hard to detect and supervise in supply chain, is the environmental governance of distributions, which present the highest risk for environmental pollution. With companies shipping all over the world, being able to maintain a fair and rigourous environmental challenge in the distribution process is one of the greatest challenges for businesses implementing CSR.
In addition technological obsolescence is another factor that firms need to take into account when understanding how to manage their social responsibility. More electronic waste may result from the quick speed at which technology is developing. As a result, businesses need to create plans for recycling and properly handling products that are nearing the end of their useful lives, without significantly impacting the environment that surrounds them.

All these practices must also be measured and communicated efficiently to stakeholders. Transparency and clear reporting also represent a challenge because firms don't only have to implement the correct strategic actions, but they also have to develop and understand the best way to properly convey their social engagements. The right tools and metrics are needed to measure and convey the impact of CSR initiatives in an effective manner. The evaluation of progress and the identification of areas for improvement may be impeded by the challenge of quantifying such impacts, which may be hard to clearly state. Greenwashing is another risk that companies run, as projecting a socially conscious image without actually committing to it could have negative impacts on the long term credibility of the brand. Stakeholders need to receive clear signs of social commitment status, in order to trust the company's reputation and be incentivized by the real data.

In order to overcome these obstacles and guarantee a long-lasting beneficial influence on the business and society, CSR must be incorporated into corporate culture and decision-making procedures.

Chapter 2 - Corporate Social Responsibility in the Asian High-Tech Sector

2.1 Evolution of CSR in Asian Countries: General Dynamics and Enabling Factors

Corporate Social Responsibility has started to expand in the Asian continents decades ago, but its real evolution in Asia began in the 1990s, under the influence of global dynamics interacting with local traditions. Many Asian contexts have been historically characterized by a strong community-philanthropic approach, often linked to local cultural values. One example of this has been established in India, where business ethics were influenced by the Parsi community and figures such as Jamshedji Tata, who already since 1895 affirmed principles of stakeholder protection "consider the interests of shareholders as our own and ensure the health and welfare of employees." (Tata, citato in UN Global Compact, n.d.). Similarly, in countries like Japan and China, there has always traditionally been a strong focus on employee welfare. Local communities in these countries were present in implicit forms of CSR, a long time before the concept was formalized However, until the early 2000s, CSR in Asia often remained informal or implicit, manifesting itself in paternalistic practices (such as lifetime employment in Japanese companies) or ad hoc charitable initiatives without a structured strategy or public reporting. The rapid industrialization of many Asian countries in the second half of the twentieth century did not initially happen simoultaneously to an evolution of corporate social responsibilities, but this began to change with increasing integration into the global economy.

Looking at the factors that established the modern and transformative nature of Asian CSR, the first and most important one lies behind the globalization of value chains. Beginning in the 1990s, large western multinationals, which were initially exclusively from the United States, and then became Europe-expanded, started to expand their supply chains into Asian countries and began to apply international codes of conduct and standards to local suppliers. One famous case refers to the textile and electronics industry, where companies such as Nike or Apple faced scandals over working conditions in supplier factories in Asia. These scandals led to the adoption of strict ethical codes and social audits along the supply chain, as stakeholders began to become sensible to this kind of company information. For example, “from the early 2000s

Apple began subjecting its supplier Foxconn's Chinese factories to inspections through the Fair Labor Association, noting violations on working hours and safety", (Fair Labor Association,2012) and pushing for corrective measures such as reducing overtime and improving dormitories company reutters. These external pressures have accelerated the adoption of CSR practices in Asia. Local companies started to have the obligation to comply with international labor, human rights, and environmental standards in order to remain in global value chains and especially in order to remain competitive in the market where they operate. Unexpectedly, many Asian companies have been proactive in taking up these stimuli, showing interest in learning about international CSR organizations and becoming members of them. Evidence of this is the exponential growth in membership in the United Nations Global Compact. This UN initiative aligns corporate strategies with universal principles on human rights, labor, the environment and anti-corruption. "Currently, there are more than 1,200 participating Asian companies, with China being the sixth in rank in terms of number of adhering companies."(United Nations Global Compact,n.d.). In parallel, the past two decades have seen a boom in the publication of *sustainability reports* by Asian companies, a sign of increased transparency and CSR, even for voluntary reporting.

Another crucial factor that enabled the rapid evolution of CSR in Asia has been the emergence of a large middle class in rapidly developing east countries. Increasing affluence and education among large segments of the population has generated new expectations of business behavior. Consumers increasingly started to become more knowledgeable, while citizens started to demand safe products, decent work, and environmental protection. In Asia, the priority of public and corporate policies has traditionally been to improve the standard of living in a high-growth environment.

With the continuous improvement towards the realization of this goal, domestic public opinion is increasingly paying more attention to the social and environmental impacts of economic development. As a matter of fact, in China, the environmental and food safety scandals of the 2000s (such as urban pollution or contaminated milk) sparked popular protests, pushing the government and companies toward greater commitment to sustainability. Also, in India, the rise of the urban middle class has led to more pressure on companies to help solve problems such as extreme poverty and illiteracy in rural communities .Therefore, the rise of a stronger civil society and risk-aware consumers has created a market for CSR. Companies in Asia that characterize themselves as forward-looking have begun to see social responsibility not only as

a cost or moral obligation, but also as a reputational competitiveness factor in the domestic market, which greatly favors its stakeholders as well.

The role of international organizations has also been crucial in this evolutionary process. Organizations such as the United Nations (UN) and the International Labor Organization (ILO) have promoted standards and initiatives adopted progressively in Asia. This international engagement allowed for Asian companies to follow the right path when starting to develop their own CSR. In addition to the already mentioned UN Global Compact, a notice must me made to the ILO's great contribution in disseminating principles on decent work and eliminating abusive practices. An important case to prove this is the 1997 Atlanta Agreement in Pakistan. This accordance between the ILO, UNICEF and the local Chamber of Commerce aimed at eliminating child labor in the production of soccer balls in Sialkot. Through this collaboration, Pakistan became a recognized case of “responsible supply” in the sports sector, while simultaneously in Bangladesh the Grameen Bank was developing pioneering microcredit models for the poor. These initiatives showed how partnerships between international entities and local actors could improve social standards, paving the way for further CSR actions at the supply chain level. The World Bank, OECD, and global NGOs also exerted influence: for example, by disseminating guidelines such as the OECD Guidelines for Multinationals, or by publicly reporting cases of violations (which prompted Asian governments and companies to respond). These initiatives allowed companies to have clear guidelines to follow, making their ideas on CSR tangible. In addition, multi-stakeholder organizations such as the World Business Council for Sustainable Development (WBCSD) have seen increased participation of Asian companies in the global dialogue on sustainability. “ Voluntary international tools such as ISO 26000 (guidance on social responsibility) and the Global Reporting Initiative (GRI)” (ISO, 2010;GRI, 2016” for sustainability reporting have been increasingly adopted in the Asiatic business environment, often adapting them to local realities.

In summary, the evolution of CSR in Asia is the result of a combination of national and international dynamics. On one hand, Asian companies have progressively integrated Western concepts of CSR driven by globalization and international supply chains. On the other hand, they have reworked these concepts in light of their own cultural traditions, which also characterize the functioning of their companies. The main drivers of this process are globalization, supply chain pressures, the growth of the middle class, and the intervention of

international actors. All of these elements have helped shift CSR from a marginal practice to an increasingly strategic component of business management in today's Asian context.

2.2 Cultural, Institutional and Regulatory Influences on CSR Management

Looking closely at CSR development in the different Asian regions, it must be said that the wide diversity of cultural and institutional contexts in Asia has given rise to different CSR models from country to country. This has shaped the priorities and ways in which businesses interpret their responsibilities. Cultural roots and traditional values-from Confucianism to Buddhism to Islam and other local ethics play a crucial role in shaping expectations of business and society.

In many East Asian societies, the legacy of Confucianism has fostered a vision of the firm as "extended family" and harmonious community. In China, for example, Confucian principles of social harmony and benevolent hierarchy are reflected in a sense of corporate social responsibility toward collective well-being, while elements of Daoism (centered on balance with nature) have influenced sensitivity toward environmental responsibility. This cultural heritage helps explain why Chinese companies, although they entered the CSR debate late, have since strongly embraced green and internal welfare initiatives. Unlike western cultures, the Asian cultural background allows companies to link the traditional values of human-nature harmony and paternalistic care of employees to CSR, making it more readily accepted socially. In Japan, corporate culture has long been steeped in Confucian ethics and concepts such as “bushidō” (the "way of the warrior" applied to corporate loyalty) and “Monozukuri” (the spirit of dedication to quality manufacturing). Emblematic is the Japanese term "keiei" (corporate management), whose kanji literally means "governing the world in harmony by improving people's well-being" and "continuous effort." This highlights how in the Japanese tradition the virtuous enterprise is one that pursues continuous development by creating not only economic but also social value for employees and communities, concept that closely resembles the vision behind CSR. Buddhist influences have also left traces. As a matter of fact, in various parts of Asia (such as Thailand, Myanmar or Sri Lanka), the Buddhist precept of compassion has been translated into philanthropic practices (“dāna”) and an emphasis on moderation and ethical behavior, elements that can complement CSR programs focused on aid to the needy, education,

and health care. For example, in Buddhist-majority countries it is common for companies to finance temples, schools, or hospitals as part of their social duty, in line with the idea that accumulating merit through acts of generosity is a worthy goal.

Asia's religious and ethnic diversity means that different value approaches to CSR coexist even within the same country. In South and Southeast Asian societies with a strong Islamic presence (Indonesia, Malaysia, Bangladesh, Pakistan…) the tenets of Islam significantly influence how corporate responsibility is conceived. Values such as social justice and compulsory charity ("zakat") encourage companies to contribute to the welfare of the poor. In these settings, many businesses adopt CSR programs aimed at school construction, free health care or microcredit, considering them almost a modern extension of the principles of zakat and waqf (Islamic charitable funds). At the same time, countries with diverse populations-such as Malaysia-see Islamic, Chinese (Confucian) and Indian (Hindu or Sikh) influences converging in the definition of CSR, creating a complex mosaic. In Malaysia, in fact, CSR reflects both the communitarian orientations of Islamic and Chinese companies and - sometimes - concepts of Christian ethics brought by the Indian minority or colonial legacies. This cultural heterogeneity causes CSR to take on different accents: for example, a greater focus on community and charitable aspects (as found generally in Asia) than the emphasis on the environment and workers' rights typical of the West. Traditional values serve as catalysts that shape local CSR priorities: where culture exalts harmony and family (as in the Far East) there will tend to be an emphasis on internal corporate welfare and mutual loyalty; where social religiosity prevails (South Asia, Islamic Southeast) one will see more philanthropic and social justice initiatives; where there is admixture, CSR becomes the common ground on which different ethics converge for the public good.

In addition to cultural factors, country-specific institutional and regulatory frameworks greatly influence CSR management. There are different approaches in Asia regarding the role of the state and the degree to which sustainability practices are mandatory in companies' operations and disclosure. Some governments have adopted an active regulatory role, others have merely encouraged voluntary approaches, and still others have initially left it to the market and then intervened later.

Figure 4: "The three pillars of ESG—Environmental, Social, and Governance—offer a comprehensive framework for evaluating corporate responsibility and sustainability efforts." Source: https://www.lw.com/en/insights/regulatory-updates-in-asia-esg-december-2023

A case of a strong regulatory approach is the Indian country, where the government has incorporated CSR directly into the legislative framework. With the *Companies Act* of 2013, India became the first nation in the world to make a CSR contribution mandatory by law. This new Indian legislative framework obliges large companies to spend at least 2 percent of their net profit on social responsibility initiatives. This rule (which went into effect in 2014-15) formalized a concept of CSR as a legal duty to society, while leaving flexibility on how and where to spend (education, health, inclusion, etc.). The Indian move has amplified the definition of CSR to include not only discretionary activities, but also a "social compliance" perspective: companies must now either report on their commitment or explain any non-compliance. This framework ensures that a company either complies or explains the reason why there's no reporting. In the Asian landscape, this mandatory approach remains an exception so far, but it signals an interesting direction of "institutionalizing" CSR as a public policy tool. In other contexts, in Asia, however, a voluntary or market incentive-driven approach prevails. As a matter of fact, in other regions governments promote codes and guidelines, but without

mandating specific contributions. For example, in Japan for decades the government has supported CSR indirectly, encouraging social and environmental reporting since the 1990s. Singapore even created a government unit dedicated to CSR within the Ministry of Labor in the early 2000s, a sign of public interest in spreading sustainable practices among businesses, despite the absence legal coercion.

A crucial role is played by economic governance institutions, such as stock exchanges and financial authorities, which are increasingly incorporating ESG criteria into listing and reporting requirements. In several Asian countries, regulations have been introduced that require companies (especially listed ones) to publish sustainability reports. For example, in Vietnam 2016 onwards it has become mandatory for listed companies to provide an annual sustainability report according to guidelines from the Ministry of Finance. This obligation was reinforced by Circular 96/2020, which expanded the scope of ESG information to be disclosed, aligning Vietnamese reporting with international standards (GRI, ISO 26000, SDGs. In South Korea, the Financial Services Commission and the Stock Exchange (KRX) have planned to phase in mandatory ESG disclosure: initially for large KOSPI companies with assets above 2 trillion won by 2025, and then extending it to all listed companies by 2030. These regulatory interventions show how there is a shift in Asia from purely voluntary CSR to forms of soft law or targeted obligations, especially in the area of transparency and governance. Other institutions-industry associations, chambers of commerce-are also issuing sectoral standards: for example, in China the Shanghai Stock Exchange requires listed companies to report on their ESG impacts, while in Malaysia the Securities Commission has promoted environmental-social indices and guidelines for companies and investors responsibilities.

The institutional set-up of each country also influences the nature of CSR initiatives. In contexts where state governance is strong and central (such as China or Vietnam), the government often incorporates CSR into national development plans and uses it as a steering tool. The case of China is, indeed emblematic: here the government has pushed a "harmonious society" model in which corporate CSR is called upon to support national social and economic goals. Chinese local authorities have included CSR as one of the criteria for business awards and have actively promoted it to improve the image of exporting companies in Western market . For example, many Chinese provinces publish CSR guidelines for local companies, and some municipalities reward companies that excel in social responsibility with tax or reputational incentives. This shows a top-down approach in the Chinese business environment. As a matter of fact, CSR

becomes almost an additional public policy, with the party-state encouraging it to mitigate social tensions (such as inequality or pollution) and to align businesses with the government's proclaimed ethical imperatives. In other contexts, with different institutions, the role of the state may be more facilitative than directive. An example of this happens in Thailand, where CSR developed through the initiative of King Bhumibol Adulyadej, who promoted the "Sufficiency Economy", a paradigm of sustainable development while encouraging businesses to adopt its principles. Another example is the one in the Philippines where, despite the absence of stringent obligations, the government collaborates with business associations and NGOs to disseminate CSR practices.

Ultimately, institutional, and regulatory influences on Asian CSR create a varied landscape. Some models range to a more coercive or formalized type, like India and partially China, while others pertain more structured voluntary models such as Japan, Singapore and Korea. Some countries instead present more intermediate situations where incentives, guidelines and indirect pressures are used. Each approach has advantages and limitations. The voluntary one allows flexibility and often stimulates bottom-up *CSR* innovation, in this way companies can choose areas of focus coherent with their mission, but risks heterogeneity and, in the absence of control, *CSR* washing. The mandatory one provides broader coverage, as all large companies must contribute, but can be reduced to bureaucratic compliance if not accompanied by genuine willingness. Many Asian countries are therefore seeking a balance. For instance, legislation in Indonesia provides CSR obligations only for the extractive sector. What clearly emerges is that, everywhere, the cultural context and the institutional context interact in shaping a CSR "tailored" to each Asian country-as will be outlined in detail in the sections on individual country cases.

2.3 China: Accelerated Industrialization and CSR Management in the Technology Supply Chain

China, the protagonist of unprecedented industrialization in terms of speed and scale, is a paradigmatic case of how social and environmental challenges emerge alongside economic growth, and how CSR has been gradually integrated into business management, particularly in the vast export-oriented high-tech and manufacturing sector. Since the start of economic

reforms (1980s) and especially since China's entry into the WTO (2001), the country has become the "factory of the world" for technological and electronic products: Chinese companies and foreign multinationals have built huge supply chains to produce computers, smartphones, and electronic components. This rapid development has created enormous social impacts, that include many newly created jobs, which, however, sometimes delved into harsh working conditions and significant environmental impacts dor the country, such as industrial pollution, high energy consumption. These factors have urgently raised the issue of corporate responsibility.

In the early years of this industrial growth, CSR in China was almost absent or limited to sporadic philanthropic actions. Corporate priorities were to increase productivity and keep costs low, in a still weak labor regulation and environment. However, with the rise of critical cases and international pressure, China has experienced a remarkable evolution in the last two decades. While in the early 2000s "CSR" was barely mentioned, today Chinese companies are among the largest contributors to global initiatives such as the Global Compact and regularly publish sustainability reports. This progress is the result of both external drives (multinational clients, media scandals) and internal directions (government policies, changed social expectations).

One of the toughest challenges faced by China concerns working conditions in the technology supply chain, which have become infamous in international debate. The Foxconn-Apple case is, indeed, emblematic. Foxconn, a Taiwanese giant with mega-establishments in China where iPhones and other devices are assembled, came into the global spotlight after a series of worker suicides in its Shenzhen factories in 2010, attributed to excessive working hours and alienating job stress. The episode sparked global protests and prompted Apple to take decisive action: independent audits were conducted (including through the Fair Labor Association) that revealed serious violations of labor laws. These violations included excessive shifts, unpaid overtime, inadequate dormitory conditions, and many other damaging factors. Under joint pressure from the public and international partners, Foxconn and other Chinese electronics-supplying factories had to implement significant reforms. A reduction of overtime hours within legal limits, gradual wage increases, and enhancement of safety measures and worker support services have been the main tools used to improve the situation that had exploded and repair the damage caused. Apple itself began to publish annual supplier accountability reports and to closely monitor corrective commitments. These actions have led to some concrete

improvements. An instance is the monthly overtime in the factory dropping from 80 to about 48 hours, and thousands of new workers being hired to lighten individual loads. The actions, however, have also exposed paradoxes: many Chinese workers, from poor regions, desire to overtime to earn more money, so the forced reduction in hours has reduced their incomes and caused some discount throughout the population. This illustrates the complexity of CSR management in China. Improving working conditions requires a balance between social protection and the needs of the workers themselves. Despite the difficulties, the Foxconn case has opened a national and international debate on the welfare of migrant workers and prompted many Chinese companies to adhere to international standards of "supply chain responsibility," such as the Responsible Business Alliance (RBA) code of conduct in the electronics industry, and to accept inspections by third-party auditors to maintain Western orders.

Parallel to labor issues, China has had to address the environmental impacts of its high-tech supply chain. The production of electronic components and equipment requires chemical processes and high energy consumption, causing air pollution, water pollution and contributing to CO_2 emissions. For years, environmental concern has been neglected in favor of economic growth. However, in recent times, also aided by global targets and domestic pressures to have a healthier environment, there is a growing push to make the technology supply chain sustainable. For example, Chinese companies such as Huawei, Lenovo, and Foxconn itself have announced programs to reduce their carbon footprint. Implementation of ISO 14001-certified environmental management systems, investment in renewable energy to power factories, recycling of industrial water, and e-waste treatment are only a few of the many sustainable initiatives that are entering in these multinational companies' agendas. A prominent theme is also decarbonization. China still remains heavily dependent on coal for power generation, but tech giants (also urged by international partners) are joining initiatives such as RE100 to power themselves increasingly from renewable sources. Apple, which has declared carbon neutrality for its operations, is pressuring Chinese suppliers to do the same by 2030.

It has been noted that while Apple and other global companies are proclaiming ambitious climate commitments, some of their major Chinese suppliers are still lagging behind. For example, in 2022 Foxconn (Apple's major supplier) was using only 8 percent renewable energy, compared to the goal of 100 percent by 2030 set by Apple. This has opened a close dialogue and initiated international collaborations for sustainability. Chinese companies receive

technical assistance for energy efficiency, participate in global climate tables and, in some cases, co-invest in photovoltaic or wind power plants to power their production sites.

In addition to voluntary efforts by enterprises, the Chinese government has also gradually put CSR on the policy and regulatory agenda. In 2008, the state agency SASAC issued a directive encouraging all Chinese state-owned enterprises to adopt CSR policies and publish annual sustainability reports, integrating social and environmental goals into business plans. The concept of the "Harmonious Society" mentioned earlier implied precisely that enterprises should contribute to social stability. This led, for example, to national campaigns to improve occupational safety (in response to frequent accidents in factories and mines) and to strengthen the rights of migrant workers (Labor Contract Law of 2008). Also on the institutional front, the Shanghai and Shenzhen Stock Exchanges have introduced ESG indexes and awards. Listed Chinese companies are asked to follow social reporting guidelines and those with better CSR performance get awards, while scandals or violations can result in reputational penalties and mass sales of securities by socially responsible investors. Another tool is joint Sino-foreign audits. This refers to the collaborations, in some business sectors like textiles or toys, between Chinese manufacturers' associations and international NGOs to inspect factories and certify ethical supply chains.

It should be noted that China, from being a mere recipient of external standards, is trying to become a major player in the development of CSR standards**.** Recently, leading Chinese tech companies, such as Alibaba or Huawei, have begun to publish ESG reports according to the best global standards and to engage in new topics such as artificial intelligence ethics and data privacy, anticipating pending regulations. In addition, the creation of dedicated sustainability departments and philanthropic foundations can be observed in China's large hi-tech conglomerates. For example, Alibaba has established the Alibaba Foundation to fund social projects (digital education in the countryside, post-earthquake support), Tencent invests in digital welfare initiatives, and Huawei has launched programs to bridge the digital divide in less developed communities. These efforts respond both to heartfelt responsibilities and the need to improve the international image of Chinese companies, which are sometimes perceived with suspicion.

In conclusion, CSR management in China's technology supply chain has gone through three phases. An initial phase of neglect (until the early 2000s) in which priorities were elsewhere, a second phase of reaction (2000-2010 years) characterized by responses to external stimuli like

scandals or demands from Western customers , with the adoption of imported correctives and standards, and finally a more recent phase of strategic proactivity (2010-2020 years) in which Chinese companies and the government integrate CSR into long-term strategies, both for domestic reasons and to establish China as a responsible player on the global stage. Today, China boasts thousands of companies drawing up sustainability budgets and adhering to numerous international partnerships.

2.4 India: Social Responsibility as a Tool for Inclusion and Industrial Development

Taking into consideration the Indian nation, it represents a peculiar case in the Asian landscape, where Corporate Social Responsibility is strongly intertwined with other specific social goals. These include social inclusion and industrial development, which are at the basis of this country's societal development. As India has always been characterized by deep socioeconomic disparities but also by a vibrant business fabric, CSR is conceived by citizens not only as a company's moral obligation to the community, but also as a strategic tool to promote more equitable development. This has occurred through a mix of philanthropic tradition, unique legislative innovations (such as the CSR Act of 2013), and an increasing focus on key areas of social progress.

Historically, India has a deep-rooted tradition of industrial philanthropy. As early as colonial and post-colonial times, large families-ran businesses adopted the philosophy that business success should translate into benefits for society. Around the 50s, many of these companies developed foundations to fund schools, hospitals, and infrastructure in workers' communities. These actions represent the baseline of corporate social responsibility, by showing a clear commitment of companies in actively aiding society. This movement was influenced by both local cultural values and the ideas of leaders such as Gandhi about the ethical responsibility of industrialists to the nation. In this context, CSR in India was initially synonymous with corporate charity: building temples, bestowing gifts for holidays, establishing technical institutes to train skilled labor and other actions that contributed not only to industrializing the nation, but to bring tangible benefit to the society. Despite the positive consequences of Indian business practices, when the economic liberalization of the 1990s took place, India saw a rapid

expansion of the private sector. This also signified for the arrival of multinational corporations in the nation, which, being a complete novelty, brought new challenges to the economic landscape. Global competitiveness led to increasing pressures on labor and the environment, and the evolving landscape prompted greater formalization of CSR practices.

A crucial turning point came with the 2013 legislation. As already mentioned, India has been the first country in the world to make CSR partially mandatory by law. Section 135 of the Companies Act 2013 requires companies over a certain threshold to allocate at least 2 percent of the average profit for the last three financial years to CSR.

This rule, which became effective between 2015 and 2017, was a turning point for the nation and for the adoption of CSR in the Asiatic continent in general. Around 16,000 companies found themselves required by law to invest in CSR, creating a huge flow of resources for social projects. In the first few years of implementation, aggregate CSR spending by Indian companies rose from about $1.43 billion in 2014 to $2.67 billion in 2019, showing an increase of about 85% in the timespan of only 5 years.

The Schedule VII of Indian CSR reflect national priorities for social investments specifically related to inclusion and development. The main goals of the legislation was indeed to improve “education and literacy, health and nutrition, gender equality and women's empowerment, rural development, environmental protection, protection of artistic heritage, and also initiatives for disadvantaged groups”**.** In practice, the Indian legislature wanted to channel business efforts toward bridging social gaps by working alongside the state in providing public services. This approach makes CSR a participatory means of development. In the Indian ideal framework, the company becomes a partner in building schools, sanitation facilities, vocational training programs for youth and other socially beneficial actions. In this way, companies contribute actively in sustaining the new generations’ future. For example, many Indian IT companies have invested part of their 2 percent in digital literacy or coding programs for underserved students, contributing to inclusion in the digital economy. Manufacturing companies such as Tata Steel and Reliance Industries have funded hospitals and mobile clinics in the regions where they operate, improving access to healthcare for thousands of people.

It is important to note that Indian law, while mandating CSR spending, still adopts a "comply or explain" approach. This ensures that if a company does not spend 2 percent as required by law, it must explain the reasons in the budget. This has prompted companies not so much to

avoid spending, but to plan it better to avoid appearing non-compliant. Initially, not all companies were able to spend the full amount, especially in the first two years of implementation, due to organizational difficulties or lack of immediately implementable projects. Over time, however, many created **dedicated in-house CSR teams** or delegated implementation to experienced NGOs, improving their ability to absorb funds. Further regulatory evolution came in 2021, with stricter rules: now unspent funds must be transferred into dedicated or governmental funds the following year to avoid unused accumulation. This regulatory framework has spawned a veritable *CSR ecosystem* in India: consultancy firms, platforms for companies and NGOs to meet, and impact assessment tools have flourished to ensure that money spent has real efficaciousness in a nonprofit quarterly.

Alongside the regulatory dimension, India also has distinctive cultural and governance dynamics that influence CSR. As a matter of fact, there is a strong public expectation that companies help solve chronic social problems. People view companies engaged in social work favorably, this is pulled to the extent that their reputations benefit. Concepts such as "inclusive growth" have entered the common CSR lexicon. Companies often emphasize in their reports how CSR projects help reduce the socio-economic gap, bringing the benefits of development to marginalized groups as well-this responds as much to a perceived duty as to a reputational strategy. On the other hand, India's institutional variety as a federal democracy with a strong nonprofit sector, has created many public-private partnerships. For example, the central and individual state governments collaborate with corporations in campaigns such as “Swachh Bharat”, which aims at cleaning India, by building toilets and improving public cleanliness, or “Skill India”, for youth vocational training. Corporate CSR funding often flows into such national programs, maximizing their impact and aligning public and private efforts. International organizations such as UNDP and UNICEF also actively work in India and serve as implementers of corporate-funded projects.

Certain industries in India have taken a leadership role in CSR, partly out of vocation, partly out of necessity. The technology and IT services sector, which the thesis will furtherly dig into, is refered as the flagship of modern India and is one of the most socially active. Companies such as Infosys and Wipro have for years devoted significant resources to education and social innovation, such as technology platforms for telemedicine in rural areas. The energy and resources sector (refering to oil or mining) is also heavily involved. As activities have environmental and community impacts, companies such as ONGC, Coal India or Tata Steel

have long invested in community infrastructure, alternative livelihood programs for tribal people, reforestation, and environmental protection around mining sites. Not surprisingly, the Indian government has provided for sectoral provisions since before the general obligation. For example, as early as 2010, guidelines for public enterprises encouraged them to spend between 1 percent and 3 percent of profit on CSR, with a particular focus on local development. The pharmaceutical and health sectors also contributed with mobile clinics and health campaigns, and the financial sector with financial inclusion initiatives. These dynamisms included ideas such as microcredit programs or free bank account openings for the poor, often co-founded as CSR and in line with the government's push for financial inclusion.

An interesting element is how in India CSR is also seen as a means of fostering the inclusion of disadvantaged groups in the industrial process itself. For example, many companies promote local entrepreneurship through incubators and courses. These types of initiatives are often dedicated to women or youth from disadvantaged castes, creating employment or supply opportunities in their supply chains. In this sense CSR becomes shared value creation. A citable case in point refers to the Tata Group's "Tata Strive" project which offers free vocational training to tens of thousands of unemployed youths, increasing their chances of employment in industries, while at the same time providing more skilled labor to companies. This shows how corporate social responsibility can be a proper investment for companies that won’t only loose resources but will take advantage of the resources employed in the process and will see fruitful results.

Despite progress, India still faces significant challenges in its CSR agenda. One relates to the quality and measurability of impacts. The rush to spend 2 percent runs the risk of resulting in dispersion of funds over many micro-projects, not all of which are effective. In recent years there has been much emphasis on impact assessment and transparency. Companies are required to report in detail on the projects they fund, and some independent observers have pointed out the need to prevent CSR from becoming just a compliance exercise. This would damage CSR’s objective of brining benefit to society and would merely bring costs to the companies and to their environment. Then there is the issue of SME involvement. The law applies only to large companies, but the huge galaxy of small and medium-sized enterprises in India often lacks the resources and knowledge to do CSR. There is a debate about whether to extend minor obligations to smaller companies as well or to incentivize consortia of SMEs for joint projects. Another challenge is to take CSR from the philanthropic to the strategic level. As a matter of

fact, so far much Indian CSR is checking writing (disbursement of funds to NGOs or governments), while integration of sustainability within corporate operations is less widespread. However, with the emergence of global issues such as climate change, even Indian high-tech companies are beginning to consider sustainability environmental and ESG as part of their mandate-for example, several companies have joined the UN SDGs, and the annual reports of many blue-chips now include detailed ESG sections.

In conclusion, CSR in India emerges as an interesting laboratory where social responsibility is actively used as a lever for development. The groundbreaking 2013 legislation has secured fresh resources for social improvement, and the Indian approach strongly emphasizes the inclusion dimension. The Indian population and economic framework focuses on bridging literacy gaps, giving basic services, and integrating the marginalized into the production circuit. This distinguishes it from other contexts where CSR is more focused on environment or compliance. In India, indeed, it is primarily a nation-building tool. Of course, an ongoing effort remains essential to ensure that these resources are well spent and produce tangible changes, such poverty reduction or increased schooling. So far, the signs are encouraging studies report improvements in various social indicators in regions where companies with strong CSR programs operate. This suggests that the Indian model, no matter how perfectible, is contributing to more inclusive growth. The next challenge will be to move from mere mandatory spending to innovative CSR strategies that combine profit and social impact, consolidating that vision whereby, as one Indian academic put it, "doing good for society can also be good for the company's bottom line."

2.5 Vietnam: New Technology Chains and Sustainability Challenges

Vietnam has emerged in the past decade as one of the new production platforms for the global technology industry. In the wake of the "China plus one" strategy adopted by many multinational companies-that is, diversifying production beyond China-Vietnam has attracted massive foreign investment in sectors such as consumer electronic and computer component. This expansion of the high-tech sector has brought considerable economic benefits, such as increased exports, fast-growing manufacturing, and employment, but also new sustainability

challenges, both social and environmental, to which the country is responding through a strengthened regulatory framework and nascent CSR initiatives.

In the 1980s, after “Đổi Mới's reforms”, Vietnam's economy was based on agriculture and light manufacturing. Today, Vietnam has repositioned itself as a major player in global electronic value chains. One emblematic indicator has been being, in 2019, the fourth largest exporter of electronic goods to the United States. Currently, about 40 percent of Vietnam's exports come from electronics and technologic products. This leap has been driven by investments by giants such as Samsung, which has invested more than $17 billion since 2008 by building large factories for smartphones and components in the country. Samsung is now the largest foreign investor in Vietnam and alone generates more than 25 percent of the country's total exports. Thanks to Samsung and other players, Vietnam has become the world's second-largest smartphone manufacturer and a key node in the globalized electronics supply chain. This new tech supply chain has created millions of jobs (often for young, rural women employed on assembly lines) and fostered the growth of a myriad of local supplier SMEs.

However, the arrival of these production-intensive supply chains has put pressure on the social and environmental fabric. On the social front, the challenges are partly reminiscent of those faced in China years ago. Indeed, ensuring decent working conditions, fair wages, and protection of rights for the new industrial working class has been at the center of the focus for Vietnamese companies. Vietnam, thanks in part to its socialist tradition, has relatively advanced labor legislation for the region, but enforcement is an open question. As factories have grown, cases of excessive overtime, precarious housing for internal migrant workers, and incidents of spontaneous strikes to protest low wages or unfair treatment have emerged. In recent years, the Vietnamese government, which has also been spurred by international agreements, has undertaken reforms to improve protections. A new Labor Code was passed in 2019 maximum annual overtime hours have been reduced, contractual rights have been strengthened, and legislation opened the possibility of forming independent company unions. This was driven in part by the EVFTA (EU-Vietnam Free Trade Agreement, 2020) that includes binding chapters on labor and sustainable development, obliging Vietnam to raise labor and human rights standards. These institutional reforms improve the environment for CSR, as they provide a clearer framework within which companies must operate. High-tech multinationals in the country, for example, adapted by formally reducing weekly hours and introducing codes of conduct for local suppliers. However, the local corporate culture is still being formed. Many

Vietnamese early-stage SMEs are new to CSR practices and find themselves learning the demands of foreign partners on working conditions, safety and social audits. International projects such as ILO-EU's Responsible Supply Chains in Asia (RSCA) program (also active in Vietnam) provide technical assistance to companies to meet decent work and environmental standards in globalized chains . In parallel, some leading Vietnamese companies are beginning to voluntarily adopt social initiatives. For instance, Viettel, which operates in telecommunications, funds STEM training programs for students and social innovation competitions, seeing this as an investment in the country's future human capital.

Environmentally, rapid high-tech industrialization has posed problems of pollution and intensive use of resources. Electronic industrial zones have experienced episodes of water pollution from untreated sewage and increased industrial waste, including e-waste. In addition, increased energy demand from factories, many of which are operating 24 hours a day, has exacerbated reliance on coal, contradicting climate efforts. However, the Vietnamese government has shown a strong environmental commitment in recent years. The latter has ratified the Paris Climate Agreement and set a goal of zero net emissions by 2050. To follow up on these commitments, the new 2020 Law on Environmental Protection was passed, which tightens regulations for businesses. It mandates stricter environmental impact assessments, forces companies to adopt the best available technologies for pollution control, and introduces extended liability systems for waste (polluter pays principle).

In addition, the Law on Investment 2020 stipulates that licenses cannot be renewed for projects that use obsolete technologies with serious environmental impact. These measures are pushing high-tech companies toward cleaner practices. Some industrial zones are, indeed, installing centralized water and waste treatment plants, and there is a growing interest in renewable energy, aided in part by the opening of the energy market to private capital. Samsung, for example, has announced that one of its complexes in Vietnam will integrate solar panels to cover part of its energy needs, and many aim to obtain ISO 14001 environmental certifications. Also at the outreach level, emerging Vietnamese NGOs (such as GreenID) are working with local communities and businesses to promote environmental protection.

One area where Vietnam is making remarkable progress is in sustainability transparency and reporting by companies. In 2013, only a few companies were publishing CSR reports, but from 2015, authorities began to encourage these practices. In particular, the Ho Chi Minh Stock Exchange (HOSE) introduced sustainability reporting guidelines and a sustainability index

(VNSI). Since 2016, all listed companies in Vietnam have been required to include a CSR/ESG chapter in their annual reports, and through the Circular 96/2020 made annual sustainability reporting mandatory for listed companies, adhering in this way to international standards. This regulatory requirement has led dozens of Vietnamese companies to familiarize themselves with ESG concepts and measure their performance. According to a 2023 PwC report, most large Vietnamese companies now follow GRI or ISO standards for their reports. This not only improves transparency to stakeholders, but also creates a measurement culture that can facilitate continuous improvement. As a matter of fact, what is measured and disclosed tends to be managed more carefully.

Despite the still short history of CSR in the narrow sense in Vietnam, some noteworthy trends and initiatives can be highlighted. In the field of digital education and inclusion, foreign tech companies such as Intel have launched ICT training programs for Vietnamese students and teachers, in partnership with the government, to prepare skilled workforce and reduce the digital divide. On the women's empowerment front, several companies, partly under pressure from Western clients linked to ethical certifications, are promoting better conditions for female workers. An instance happens in factories of the electronics sector which have established equal opportunity committees, improved maternity leave beyond the legal standard, and offered life skills courses to young female workers (as part of HER finance and HERhealth projects brought in by international NGOs). In the environmental sphere, Vietnam is trying to combine industrial growth and ecological protection by developing concepts of sustainable industrial zones. Some pilot provinces, such as Binh Duong, Da Nang are implementing eco-industrial parks with inter-firm by-product exchange, water recycling, and integrated public greening, with support from UNIDO. The government push toward the green economy is also reflected in incentives. Tax exemptions for companies investing in clean technologies and priority in land to those developing low-impact production are all examples of how the government is acting towards a more environmentally sustainable future. An important signal is Vietnam's participation in modern trade agreements that commit the country to higher sustainability standards: this external anchor acts as a catalyst for domestic reforms and greater CSR focus.

However, Vietnam's sustainability journey is in full swing and not without obstacles. Challenges that the country faces include the risk of trade-offs between attracting investment and imposing high standards. Vietnam, indeed, competes with other low-cost countries, so it must balance worker/environmental protection with remaining attractive to businesses by

avoiding excessively high costs. In addition, capacity and resources are needed to enforce laws. For example, inspecting all factories for discharges or safety conditions is costly, cooperating with international buyers and NGOs can help to solve the issue, but this requires coordination. Another critical point is local awareness. CSR is a new concept for many domestic entrepreneurs, so a culture must be fostered in which Vietnamese companies do not adopt sustainability just to please foreign partners, but understand its intrinsic value (risk reduction, brand value, long-term). To this end, local associations, and networks on CSR/ESG are emerging that disseminate best practices and reward virtuous companies.

Ultimately, Vietnam is rapidly adapting to the sustainability challenges that accompany its technology boom. While starting late compared to more mature economies, the country is showing a willingness to learn and improv. Updated environmental regulations, reporting obligations and ratification of international standards on labor, all indicate a growing commitment. If maintained, this momentum can make Vietnam not only a "new tech factory" but also an example of how late industrial development can incorporate elements of social and environmental responsibility from the outset, avoiding (or at least reducing) some of the mistakes already experienced elsewhere.

2.6 Taiwan: Innovation, SMEs and CSR Strategies in the Electronics Sector

Taiwan is recognized as one of the world's major electronics and semiconductor hubs, with a distinctive industrial structure composed of both large global companies and a vast fabric of highly specialized small and medium-sized enterprises (SMEs). In this context, Corporate Social Responsibility has evolved as an integral part of the industry's innovation and sustainability strategies, with its own characteristics. These include strong technological orientation, proactive involvement of SMEs, and focus on quality and reputation along the supply chain. Indeed, SMEs form the backbone of the Taiwanese economy, as they account for more than 98 percent of firms and employ about 80 percent of the workforce. SMEs are also often key suppliers in global electronics supply chains-think manufacturers of computer components, cables, printed circuit boards and other technical elements. This industrial ubiquity has significant implications for CSR. As a matter of fact, to spread responsible practices

requires the involvement of thousands of small- to medium-sized players who are nonetheless dynamic and integrated into global markets.

Traditionally, large Taiwanese companies, such as TSMC (Taiwan Semiconductor Manufacturing Company), Acer and ASUS, have adopted CSR on the Western example, preparing annual reports and adhering to international standards, driven also by their presence in foreign markets and the interest of global investors. For example, TSMC has been publishing detailed Sustainability Reports for years and has engaged in initiatives such as RE100 to use 100 percent renewable energy Foxconn, while notorious for critical issues in Chinese factories, in Taiwan has had to respond to financial markets' expectations of transparency and has begun to implement social responsibility measures. These applications include training and welfare programs for local employees, and community investment on education and health care. However, what is special about Taiwan is how these practices are extending to SMEs and becoming an element of competitive strategy. In recent years, many small and medium-sized Taiwanese suppliers have obtained voluntary corporate social certifications. This enables them to qualify as reliable partners in high-tech supply chains, where principals such as Apple, Dell or German cars demand compliance with codes of conduct. An example of this is Compal Electronics, a large Taiwanese original design manufacturer of notebooks, has been publishing an annual CSR report since 2010 and requires its subcontractors to adhere to the Responsible Business Alliance code of conduct focused on labor, ethics, and the environment responsibility. This ripple effect means that hundreds of Taiwanese SMEs have introduced CSR policies on a voluntary basis to remain competitive and up-to-date with global standards.

The Taiwanese government has actively supported these trends by pursuing a strategy of gradual institutionalization of CSR. As early as 2014, the Financial Supervisory Authority issued guidelines encouraging listed companies to publish sustainability reports. Subsequently, legislation was introduced making it mandatory for certain companies to prepare an annual CSR report, also subject to third-party verification for the most relevant items. This requirement has been extended in phases to an increasing number of companies, and in parallel the government has launched action plans for corporate sustainability. For instance, in 2023 the Financial Supervisory Commission published a Sustainable Development Action Plan for listed companies, which among other things calls for the establishment of ESG committees at board level and the adoption of climate risk management systems Already, almost all of Taiwan's top 100 companies have committees dedicated to sustainability or risk management, anticipating

public guidelines. This institutional push is also reflected in Taiwan's Corporate Governance Evaluation System, which gives higher scores to companies with better ESG practices, thereby incentivizing them to make progress in attracting investors.

A hallmark of Taiwanese CSR strategies is the emphasis on sustainable innovation and quality of work, consistent with the local industrial culture strongly oriented toward the pursuit of perfection (Kaizen). Many Taiwanese companies see CSR as an extension of their vocation to continuously improve processes and products. For example, the concept of ″strategic CSR″ is widespread: integrating environmental and social considerations into innovation processes. Wistron, a major Taiwanese electronics manufacturing services, has adopted circular economy programs, meaning the action of recycling of electronic materials in its factories, not only for compliance, but as a new technological frontier to be developed and potential competitive advantage. “O'Right”, a "green" cosmetics SME known for eco-friendly products, invests in environmental documentaries and awareness campaigns both to push environmental awareness and as positive brand marketing.

These examples show how Taiwanese companies often exceed minimum regulatory requirements, aiming for higher standards on their own initiative. Research conducted on companies awarded for sustainability in Taiwan shows that they tend not only to comply with regulations, but to set new industry standards themselves in areas such as employee welfare and environmental footprint reduction. For example, it was found that among Taiwanese companies honored with CSR awards, as early as 2023, 46 percent had internal ESG committees, anticipating public guidelines, and almost all offered employee benefits above and beyond legal obligations, such as extended parental leave or hourly flexibility to balance work-family. This indicates a corporate culture in which social responsibility is seen as integral to competitiveness and reputation. Evidence of this is the growing popularity of national rankings and awards: magazines such as Commonwealth Magazine publish rankings of the most sustainable companies, prompting companies to compete virtuously on these fronts. Multi-actor partnerships are also widespread: many companies collaborate with universities to develop green technologies or with local NGOs on social projects.

International collaborations then play an important role for Taiwan, given the sensitive geopolitical scenario. In order to maintain access to global markets, Taiwanese companies enthusiastically adhere to global standard initiatives. In addition to the already mentioned GRI, Taiwan was among the first in Asia to promote the UN Sustainable Development Goals (SDGs)

at home as a framework for the private sector. Although Taiwan is not a UN member, many companies (primarily technology companies) have incorporated the SDGs into their CSR strategies. As an instance, to Goal number 13 (climate action) they have linked their emission reduction targets, to Goal number 5 (gender equality) women's mentoring programs, and so on. This "internalization" of global trends helps Taiwanese companies speak the universally recognized language of sustainability, while also facilitating access to international ESG investments.

Another noteworthy element is Taiwan's approach to domestic supply chain involvement. Large players such as TSMC, Delta Electronics, and Foxconn promote CSR among their local suppliers, offering training and sharing best practices. TSMC organizes an annual Supply Chain Management Forum where the topic of sustainability is central and the most environmentally or socially virtuous suppliers are rewarded. Similar initiatives push SME subcontractors to comply in order not to lose contracts, creating a virtuous circle. An estimated 190,000 Taiwanese SMEs-especially those linked to global supply chains-have been involved in CSR improvement/support programs by the government or large corporate leaders.

However, there is no shortage of challenges and room for improvement. Environment and climate remain critical areas. Taiwan is still dependent on fossil fuels, and its energy-intensive industries (semiconductors first and foremost) have significant footprints. The push toward climate neutrality will require joint public-private efforts. On the domestic social front, Taiwan stands out positively in terms of treatment of employees, as it presents medium-high wages and an extensive corporate welfare but is characterized by challenges in diversity. Female representation in top roles in tech sectors is, indeed, still low, and an aging workforce raises the question of how companies will adapt CSR policies. However, encouraging signs can be seen there has been an increase of women on the boards and CSR committees of large companies in recent years, also aided by the attention of foreign investors on these issues.

In summary, Taiwan offers a CSR model in the electronics sector in which technological innovation and sustainability go hand in hand. The dominant presence of SMEs has not prevented, indeed in some cases facilitated, the flexible adoption of widespread CSR practices along the supply chain. Taiwanese companies are showing increasing maturity: they are not just meeting requirements, but often exceeding minimum obligations by setting higher benchmarks voluntarily. This commitment, also supported by a favorable institutional environment and the need to remain globally competitive, positions Taiwan among Asia's leaders in terms of

integrating corporate strategy and social responsibility. The result is an established reputation for reliability and quality not only in technological products "Made in Taiwan," but also in the processes by which they are manufactured-a factor that is becoming increasingly relevant in the decisions of sustainability-conscious international business partners and investors.

2.7 South Korea: Advanced Managerial Models and CSR in Technology Conglomerates.

Looking instead at South Korea, this country is often cited as an example of rapid economic development accompanied by advanced management practices. In the context of CSR, Korea offers a scenario dominated by large family conglomerates, the chaebols (such as Samsung, LG, Hyundai, SK), which have progressively incorporated social responsibility into their business and governance strategies. In parallel, the South Korean government has created an incentive environment for sustainability and social innovation within a highly organized model of capitalism. CSR in South Korea is thus characterized by structured chaebol engagement, a focus on CSR innovation, related to the creation of social value. In other words, Korean family conglomerates, historically powerful and sometimes opaque, have recognized the need for a renewed social contract with citizenship: this has translated into substantial philanthropic programs, investments in sustainability, and governance reforms.

An example of CSR innovation in Korea is offered by *SK* Group, a pioneer in adopting the concept of ″social value." In 2018, SK Chairman Chey Tae-won launched the vision of a double bottom line. The company established that in addition to profits, it would measure and maximize social value creation. This led to the introduction of unprecedented metrics to quantify the social and environmental impact of business activities, and the transparent publication of both positive contributions, such as employment generated and taxes paid and negative impacts, like emissions. In 2021 SK announced that its companies had created a total of 18.4 trillion won in net social value in the previous year, calculating indicators such as jobs, emission reductions, and community projects. This initiative, unique for a conglomerate of this size, exemplifies the recent Korean approach, which mentioned CSR as an integral part of advanced business management, with quasi-scientific tools to align social and business goals. Other chaebols have also undertaken similar efforts. An example is Samsung that has been

publishing a Value Creation Report attached to its financial statements since 2010, and Hyundai that has launched social enterprise programs to promote social purpose startups connected to its ecosystem. It should be noted that historically chaebols were perceived as entities focused on family shareholder value. Today, however, they invest in corporate foundations, public-private partnerships, such as Hyundai's sustainable urban mobility program with the Seoul government, and global public good campaigns, like Samsung for digital education, LG for health in developing countries, etc., gaining image enhancement and reputational risk mitigation in return.

In parallel, the South Korean government has created public policies and incentives to support CSR and ESG. As early as the 2000s, national guidelines on ethical management were issued, and in 2007 South Korea adopted the Social Enterprise Promotion Act, a law that incentivizes the establishment of social enterprises by providing tax breaks and procurement preferences. Many chaebols have seized this opportunity by establishing their own social "arms". SK supports social enterprises in energy and education, while Samsung has supported welfare cooperatives for elderly care. On the ESG reporting side, Korea is among the most active APAC countries: the Korea Exchange (KRX) has been requiring listed companies to publish ESG information on a voluntary basis for several years now and has launched a plan to make it mandatory in a phased manner. In addition, there is a KRX ESG stock index, and the government through the Financial Services Commission monitors companies' alignment with the standards of the Task Force on Climate-related Financial Disclosures (TCFD) and other global frameworks. In short, the institutional push is strong. This has elevated the sensitivity of Korean companies on adapting to international standards, even to remain attractive to ESG-conscious foreign investors.

Culturally, Korean CSR is influenced by values such as "Jeong" (community bonding) and traditional corporate paternalism. In the past, chaebols provided extensive welfare to employees in exchange for loyalty-a form of implicit internal CSR. With the 1997 financial crisis and subsequent reforms, many of these practices had eroded, but today we are seeing their rediscovery in new forms. For example, there is a strong momentum toward employee involvement in corporate volunteering and welfare activities. Indeed, many Korean companies offer employees paid volunteer leave and reimbursements for those who participate in social initiatives. This not only benefits the community but also increases corporate pride and internal cohesion. In addition, concepts such as chaebols' "noblesse oblige", that is, the idea that with

great economic power comes great responsibility, have become part of the public discourse. Academic studies show that chaebols with greater disparity of control (typically family members) tend to make more donations and CSR to mitigate tensions and improve perceptions public

However, there is no shortage of criticism and challenges. Some observers point out that for some chaebols CSR risks being a way to divert attention from governance issues or anti-competitive practices, labeling it as possible greenwashing or *CSR* washing. For example, one study found that chaebols often prefer philanthropy, easily seen and appreciated, rather than more substantive governance or transparency reforms. Indeed, scandals such as Samsung in 2016 (a corruption case linked to former President Park) have shown the ethical limitations of some conglomerates despite robust CSR programs on paper. To address this, Korea is pursuing corporate governance reforms. The 2016 Governance Code and subsequent updates push for more independent directors, internal audit committees, and whistleblowing channels. The idea is that better governance automatically leads to more transparency and accountability, and indeed better governed Korean companies tend to be more transparent with shareholders and stakeholders.

Another area of evolution is social innovation. South Korea, with its technological vocation, is trying to connect CSR to innovation for people and the planet. For example, there is talk of CSV (Creating Shared Value) in business models. Many Korean ICT companies develop products that address social needs by combining profit and public benefit. The government has launched the "Creative Economy" program that encourages social-impact technology startups, often funded or incubated by chaebols themselves. These trends show an orientation toward CSR no longer confined to philanthropy, but hybridized with innovation strategy, in line with the competitive and technologically advanced nature of the South Korean economy.

In summary, CSR in Korean tech conglomerates is now a pillar of their advanced management models, although born in part as a response to external pressures and scandals. The chaebols have institutionalized CSR functions, created dedicated committees, and some-such as SK-are experimenting with cutting-edge metrics to measure social value. The state for its part is encouraging this path with regulations and incentives, such as mandatory ESG standards and promotion of social enterprises. South Korea is thus trying to move beyond the old "profit maximization at any cost" paradigm toward a model in which economic growth and social responsibility walk together. As SK's chairman notes, the companies that can create value for

society as well as for shareholders will be the ones "most respected and loved in the future, a view that now seems to be shared by much of the South Korean business community.

2.8 Japan: Traditional CSR, Business Ethics and Transparency in High-Tech Sectors

Japan has a long tradition of corporate responsibility, often in forms implicitly embedded in corporate culture rather than externally communicated as formal "CSR." In Japan's high-tech sectors-from electronics to advanced automotive-CSR has developed by combining ancient ethical principles, distinctive management practices (such as Kaizen and Monozukuri), and adaptations to global pressures for greater transparency and sustainability. The result is an approach to CSR that could be described as hybrid: on the one hand traditionalist and internal stakeholder-oriented, and on the other increasingly focused on external communication, ethics, and international compliance.

Traditionally, Japanese companies have adopted an implicit CSR model rooted in cultural concepts such as kyōsei (symbiotic coexistence). The concept of kaizen, continuous improvement, was not only aimed at production efficiency, but also implied improvement in worker welfare and quality for the customer. Similarly, monozukuri, refering to devotion to quality production and "doing things right", reflected an almost artisanal responsibility toward the product, which implicitly means respect for the consumer and the society that will use that productjapanupclos. Until the 1990s, Japanese CSR was thus primarily *internal*: lifetime employment policies, generous corporate benefits, training and care for employees and their families, and high product quality and safety. Companies were seen as responsible corporate citizens by virtue of their contribution to social stability (guaranteed employment, technical innovation, taxes paid). This paternalistic, communitarian approach differed from Western approaches geared toward external philanthropy or human rights: in Japan, harmony with employees, business partners, and the local community (often through keiretsu, networks of suppliers and distributors.

A case in point is Toyota, whose ″Toyota Way″ philosophy emphasizes respect and improvement-the company, as early as the 1980s, implemented practices such as worker

involvement in decision-making and social projects in the communities where it operated, though without labeling them as CSR.

However, since the 1990s and 2000s, Japan has faced new challenges that have necessitated more explicit and transparent CSR. The economic crisis of the 1990s and early 2000s (the so-called "lost decade") and a number of corporate scandals-such as cases of falsification of quality data or unethical behavior by executives- undermined the traditional *implicit trust* in corporations. Moreover, with financial globalization, foreign investors demanded clearer governance standards and ESG disclosures comparable to those in the West. A transformation ensued: Japan introduced a Corporate Governance Code and Stewardship Code in 2015 to improve transparency and alignment with stakeholders. This has prompted companies to adopt practices such as appointing independent directors and publishing sustainability reports. In fact, today most large Japanese high- tech companies-from Sony to Panasonic, Hitachi to NEC-publish detailed annual CSR/ESG reports in English and Japanese, aligned with GRI standards and often linked to the UN SDGs. This is a remarkable change for an environment where previously the dominant idea was "do good and don't talk too much about it." Today, Japanese companies recognize the value of *CSR communication*: improving their global reputation and meeting criteria of socially responsible investors. This emphasis on *transparency* became especially pressing after scandals such as Toshiba (which revealed accounting irregularities in 2015) or Kobe Steel (falsified data on materials, which emerged in 2017): such episodes highlighted that Japanese business ethics, while strong, were not immune to breakdowns, and that only through controls, independent governance, and public disclosure could market trust be restored. Companies therefore strengthened their internal codes of ethics and compliance systems. For example, many groups have adopted zero-tolerance policies for corruption and cartels, in line with OECD standards, and actively promoted diversity internally (an area in which Japan has historically been weak, just think of the low percentage of women managers: contemporary Japanese CSR also points to this, considering gender inclusion part of corporate social responsibility toward change).

Traditional Japanese business philosophy, however, continues to permeate local CSR. A key concept is the "Sanpō Yoshi" ("three benefits"-for the seller, the buyer, and society) from the Ōmi mercantile ethic of the Edo period, often cited in Japan as a precursor to responsible business: many companies refer to it to emphasize that profit must go hand in hand with customer and community benefit. In practice, this is reflected in CSRs focused on product

quality and safety as a form of respect for society. For example, Japanese high-tech companies spend considerable resources on product stewardship: programs to safely recycle products at the end of their lives (think of Panasonic or NEC's battery and electronics recycling plans), continuous safety improvement (automakers such as Toyota and Honda are leading the way on environmentally friendly vehicles and active safety systems), and extensive after-sales support (seeing it not just as customer service but as a responsibility to those who chose the product). This customer-centric orientation is part of Japanese DNA and is framed today within the Sustainable Development Goals: for example Goal 12 (responsible consumption and production) or Goal 3 (health and well-being) are answered in established practices of quality-oriented Japanese companies.

Japanese business ethics is also influenced by philosophical currents such as Buddhism and Confucianism: values of modesty, honesty, and respect for others and nature. This has led many companies to promote an ethical corporate culture from within, through moral training, incentives for upstanding conduct, and a collectivistic and participatory management style. For example, it is common in Japanese factories for workers to have a chorei(morning meeting) each morning where, in addition to production goals, business principles and value reflections are shared, reaffirming a common commitment. This may seem ritualistic, but it cements a sense of shared ethical mission. Thus, even when CSR becomes formalized in policies and reports, it retains a character of sincerity and personal commitment typical of the Japanese culture of *honor*. A Japanese executive is likely to think of CSR not as a separate department but as part of the ″corporate creed″ concept that the company has had for decades (many Japanese companies have "corporate philosophies" written since the 1950s that include concepts of social contribution, even before the term CSR was born).

Speaking of challenges and prospects for Japanese high-tech CSR, there are at least a couple of prominent ones. First, Japan faces stringent environmental sustainability issues: while being home to clean technologies (hybrid cars, solar panels, etc.), the country is still a large consumer of resources (fossil fuel imports, heavy industry). High-tech companies are being called upon to lead the domestic green transition: many have announced decarbonization goals (e.g., Sony aims for zero emissions by 2040 across the chain, joining the RE100 initiative for renewable electricity) and are investing in green innovations (hydrogen, circular economy). Japan's CSR is thus increasingly aligned with global parameters of climate change and environmental protection, going beyond the traditional focus on efficiency and quality. Second, there is the

issue of transparency and accountability: although much has improved, Japanese governance remains peculiar (strong presence of internal management, limited shareholder activism) and sometimes resistant to full transparency. International organizations and investors are pressing for Japanese companies to communicate more clearly about risks (e.g., exposure to risky supply chains, as in the case of raw materials from conflict zones) and social aspects (diversity, human rights in foreign supply chains). The relationship with external stakeholders must therefore be continually strengthened: many companies are intensifying their dialogue with NGOs, participating in global multi-stakeholder initiatives (e.g., Global Compact, Responsible Minerals Initiative, etc.), and adopting due diligence standards on human rights (in line with the UN Guiding Principles)-an area on which Japan was slower in the past than Europe. For example, companies such as Hitachi and NEC have developed guidelines for suppliers that include respect for workers' rights wherever they operate, also responding to incidents such as cases of subcontractors in Southeast Asia with less-than-ideal conditions (criticism by NGOs of certain electronics supply chains).

Ultimately, the Japanese model of CSR in high-tech sectors today appears to be an original synthesis: on the one hand, it continues to be based on an intrinsic business ethic-the idea that doing business means caring for employees, customers, and communities in a logic of harmony (大和魂, *yamato-damashii*, the Japanese "spirit"-on the other hand, it has incorporated modern tools of accountability and global communication. Japanese high-tech companies, already known for technical excellence, now aim to be recognized for excellence in sustainability as well. The *balance* between tradition and innovation in CSR is delicate but, if well managed, uniquely positions Japan: it can draw on the social **trust built** over decades of implicit responsible behavior and at the same time meet the explicit demands of a world that demands high standards on environment, rights, and ethical. With a rapidly aging population and growing global challenges, CSR will be a key tool for Japanese companies to continue to serve as model citizens, contributing not only to the economy but also to the social and value fabric, in Japan and beyond.

Chapter 3 Apple: Strategic Analysis and Supply Chain in Asia

3.1 Apple Inc: company profile and global strategy

Apple Inc. founded in 1976 by Steve Jobs and co. is now one of the world's most innovative and profitable technology companies. It is known for its flagship products - iPhone, iPad, Mac - that combine distinctive design, advanced functionality and hardware/software integration. Apple's global strategy is based on high-profile differentiation: it continuously invests in research and development, patents, and branding to maintain a competitive edge in the consumer technology market. Its key assets include strong globally recognized brand (brand) capital, a large intellectual property portfolio, and an integrated ecosystem of devices and services (such as the App Store and iCloud). With these distinct competencies, Apple is able to impose rigorous standards on its suppliers and distribute premium products, giving it a sustainable competitive advantage over the long term.

Apple distributes its products in about 50 countries, directly controlling a network of Apple Stores and working with numerous retail partners and mobile operators. Its business model is global: products are **"designed in California and assembled by people all over the world."**

Apple says it understands business as "a force that should do good" by promoting values such as sustainable innovation and responsibility. In fact, the Group pays close attention to ethical and environmental practices throughout the entire value chain: for example, its Supplier Code of Conduct sets strict requirements for human rights, health and safety, the environment, and business ethics. Apple uses its organizational and financial expertise to enforce these standards, conducting regular inspections (including surprise visits) and requiring suppliers to correct any violations immediately.

3.2 Apple's expansion and strategic adaptation in Asia (China)

Asia, and particularly China, has long been central both as an outlet market and as Apple's manufacturing base. China has historically been the **most important single market** after the United States: about one-fifth of Apple's sales are attributable to the Chinese area. In addition,

much of the manufacturing takes place in Asia. In countries such as China, India, Vietnam, and others, Apple has built a dense network of suppliers and assembly lines (e.g., Foxconn, Pegatron, Wistron). Today, Apple works with three Taiwanese suppliers-Foxconn, Pegatron, and Wistron-who employ **hundreds of thousands of workers** in their Chinese factories (e.g., in Zhengzhou's "iPhone City," where millions of iPhones are produced). This concentration offers Apple economies of scale that are hard to match, thanks to a skilled workforce and advanced manufacturing infrastructure.

However, the heavy reliance on China exposes Apple to geopolitical and management risks. For this reason, the company has embarked on **regional diversification** of production. In recent years, Apple has gradually shifted some of its assembly to India and Vietnam. In India, for example, the government's "Make in India" initiative has fostered arrangements to assemble iPhones locally; in Vietnam, on the other hand, Apple manufactures components and small devices such as AirPods. These moves mitigate the impact of potential tariffs and trade instabilities (e.g., U.S.-China tensions) and reduce the risk of disruptions in the event of lockdowns or natural disasters in China.

At the same time, Apple must adapt to the specifics of Asian markets. In China, for example, the company has adapted services and content to local regulations (cloud storage on Chinese servers, regional versions of apps, collaboration with state agencies). In other countries in Asia, Apple has developed partnerships with local distributors and diversified offerings for emerging consumers. On the CSR front, Asian expansion has meant expanding Apple's social commitments, as evidenced by training programs for supplier workers in China, Vietnam, and India.

For example, the Apple Supplier Employee Development Fund ($50 million initiative) provides job training and labor rights for millions of supply chain employees. These strategic adjustments aim not only to strengthen Apple's presence in Asia, but also to integrate principles of sustainability and responsibility into its regional operations.

3.3.1 PESTEL analysis focused on Asia:

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Figure 5: "PESTEL Analysis is a strategic tool used to identify and evaluate the external macro-environmental factors—Political, Economic, Social, Technological, Environmental, and Legal—that can impact an organization's performance and decision-making."
Source: **https://www.business-to-you.com/scanning-the-environment-pestel-analysis/**

Politic (P) - Trade policies and international relations between countries strongly influence Apple in Asia. Tensions between the United States and China (trade wars, threat of tariffs) are a major threat.

Chinese authorities also exert regulatory pressure on issues such as data protection and digital censorship, forcing Apple to comply to maintain market access. At the same time, some Asian governments are offering incentives ("Make in..." policies in India) that present an opportunity for expansion. Domestic political stability in major Asian markets, however, tends to be good, which is conducive to medium- to long-term investment.

Economic (E) - The Asian economy is characterized by strong income growth and large consumer markets. Countries such as China and India are experiencing an expanding middle class, offering themselves as sales opportunities for Apple. However, wage and operating

costs in Asia, while still below U.S. standards, are rising, partly eroding cost advantages. Currency volatility and global economic fluctuations may affect export prices. In addition, the COVID-19 pandemic has demonstrated the vulnerability of international chains and in Asia, and subsequent production disruptions have impacted industry plans. Apple responded by trying to diversify sourcing in other Asian economies.

Sociocultural (S) - In Asia, the perception of the Apple brand varies by country. In China and Japan Apple is often a symbol of status and quality, while in other emerging countries it competes with cheaper brands. On a social level, there is growing sensitivity among Asian consumers to the ethical practices of multinational corporations, partly due to the spread of digital media: labor or environmental scandals can quickly damage corporate image. On the one hand, the Asian workforce is generally skilled and large, but the work culture (e.g., long hours, discipline) may differ from Western standards. Asian civil society groups and NGOs (such as the IPE Association in China) are also turning more attention to the sustainability of global chains, putting pressure on Apple to improve transparency and social equity in its suppliers.

Technological (T) - Continued technological advances in Asia (e.g., 5G deployment, advanced semiconductor manufacturing) present both opportunities and challenges. Apple invests in local innovation (e.g., R&D centers in India) and benefits from the Asian technology chain. At the same time, rapid technological obsolescence and local competition (cheap high-tech smartphones) force Apple to constantly innovate. From a CSR perspective, emerging technologies such as clean energy (high-efficiency solar panels, smart manufacturing) are vectors of environmental improvement in Asian operations.

Environmental (E) - The ecological challenges in Asia are critical: air pollution, water scarcity and climate change are putting local communities in dire straits. China and other Asian countries are imposing stricter regulations on emissions and natural resources. This rewards companies like Apple that focus on renewable energy and recycling. Apple in 2030 has committed to making its entire value chain carbon neutral, including manufacturing in Asia, and in China has activated funds to finance wind and solar farms. These initiatives also stem from growing Asian consumer demand for "green" products and the desire of **Legal (L)**-In the Asian context, Apple is required to comply with a wide range of local and international regulations, ranging from labor law

to environmental safety and consumer protection. A relevant example is the **People's Republic of China's** *Data Security Law* (数据安全法), which was enacted in **June 2021** and went into effect on **September 1, 2021**. This regulation imposes strict constraints on the processing and export of data considered "important" or "critical" abroad, directly affecting Apple's online and cloud services in China, and forcing the company to work with local partners for data storage, such as in the case of *Guizhou-Cloud Big Data*.

Legal (L) - In the Asian context, Apple must comply with labor, environmental safety, and consumer protection laws. For example, China's new data security law imposes restrictions on exported data, affecting Apple's online services. Labor regulations mandate minimum hours, fair wages, and safety at factories-Apple has had to respond by documenting compliance with these regulations with its suppliers (e.g., promoting the right to paid hours and banning child labor. Internationally, agreements such as the International Labor Organization (ILO) and NGO standards influence Apple's CSR control chain.

In the labor sphere, Apple must comply with regulations mandating maximum working hours, minimum wages, safety standards in production facilities, and the prohibition of child labor. Faced with violations found at suppliers such as **Pegatron**, Apple has responded by tightening controls and promoting respect for basic rights, including the right to a wage for all hours worked and the protection of young workers.

At the international level, the company states that it adheres to the principles established by the **International Labor Organization (ILO)** and standards proposed by NGOs active in the field of human rights and corporate social responsibility. These references are an integral part of Apple's CSR monitoring system and the guidelines of its *Supplier Code of* Conduct, which the company uses to assess the ethical behavior of its supply chain.

3.3.2 CSR-oriented SWOT analysis in Asia

Strengths: Apple has a strong **global reputation** that allows it to invest in CSR without compromising the brand. Strong financial capital allows it to finance social and environmental programs (e.g., clean energy investments without affecting competitiveness. Technical and managerial expertise in managing a large international supply chain is an advantage: for example, its codified Supplier Control System (Supplier Code of Conduct) is applied uniformly worldwide. Such skills (in terms of auditing and compliance) are

distinctive intangible assets of Apple's model. In addition, Apple's strong market positioning (high-end products) allows it to attract ethical-conscious consumers as well, amplifying the positive impact of its CSR initiatives.

Weaknesses (Weaknesses): Heavy reliance on Asian manufacturing is a vulnerable side: any problem in the supply chain (strikes, environmental disasters, or social scandals) risks reflecting on the entire company. Apple often finds itself under fire for supplier working conditions in Asia (e.g., Foxconn assembly line) and lack of transparency. These negative perceptions can erode brand image, representing a potential Achilles' heel. In addition, the complexity of ensuring compliance with high standards across all production links is an ongoing burden: poor monitoring or reporting of sustainability data (as reported by independent organizations) can be seen as a weakness.

Opportunities (Opportunities): The Asian market offers ample growth in sales and social innovation. Apple can strengthen its competitive advantage through innovative CSR initiatives: for example, driving the transition to renewable energy in China and India can enhance reputation and create technological synergies. Involvement in educational and training programs in developing countries (e.g., digital literacy, technical courses in factories) allows Apple to build social capital and new local skills. In addition, adhering to emerging international standards (ESG reports, sustainability indices) can increase investor and consumer confidence.

Threats: On the external front, growing local competition and political pressure can threaten both sales and the ability to apply the CSR model. Asian brands (Huawei, Xiaomi) compete on price and sometimes do not even express comparable commitments on CSR, putting pressure on Apple's margins. Vigilance activities by international NGOs and media (e.g., BBC, Greenpeace) can quickly turn a supply chain incident into a major global case, damaging trust in the brand. In addition, new regulations (e.g., stricter environmental laws or punitive tariffs) can increase operating costs and limit Apple's strategic choices in Asia.

Finally, natural events (floods or droughts) in manufacturing regions could temporarily disrupt production, making it more difficult to manage responsible supply chains.

The SWOT analysis shows that Apple's robust financial and innovation capacity support it in promoting CSR, but the complexity of the Asian environment requires continued vigilance

and investment to turn challenges into opportunities. For that matter, several observers already praise Apple's efforts in transparency: in 2016, Greenpeace praised Apple's policy of publishing annual reports as an example of openness in addressing social responsibility in its supply chain.

3.3.3 Porter's Five Forces in the context of CSR.

Analyzing the consumer technology sector in Asia through Porter's five forces model reveals elements related to CSR:

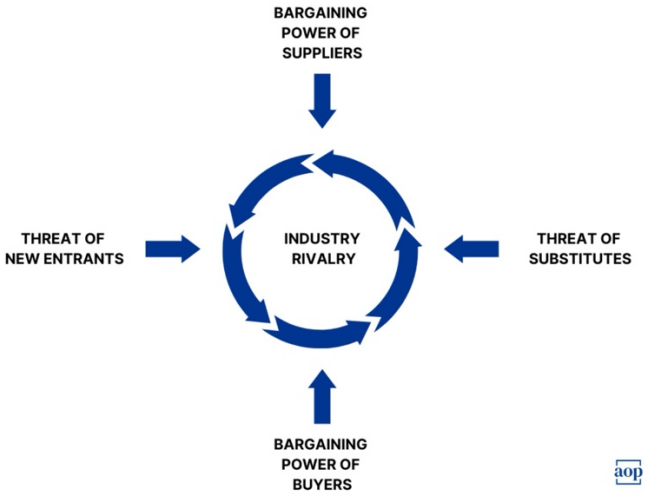

Figure 6: ***"Porter's Five Forces framework helps procurement professionals assess market dynamics by analyzing competitive rivalry, supplier power, buyer power, threat of new entrants, and threat of substitutes — enabling more strategic sourcing decisions."***
Source: ***https://artofprocurement.com/blog/learn-porters-five-forces-in-procurement***

Business Competition (Rivalry): The smartphone and computer market is highly competitive. **In the global smartphone market alone, the Herfindahl-Hirschman Index (HHI) is about 2074**, which indicates **moderate concentration** and confirms the high competitive pressure among major manufacturers such as Samsung, Apple, Xiaomi and Huawei. The struggle over traditional factors such as price and innovation is intense (Samsung, Huawei, etc.), so social responsibility may become a differentiator. Apple seeks to position itself as an "ethical" brand, believing that Asian consumers value respect for human rights and the environment. In this area, a CSR incident (e.g., reporting on child labor) could quickly erode market share, prompting Apple to maintain high standards to protect reputation.

Bargaining power of suppliers: Although Apple depends on a few large Asian suppliers (Foxconn, Pegatron, etc.), its high volume of purchases gives it strong bargaining power. However, these suppliers are powerful companies in the EMS (Electronic Manufacturing Services) industry and may resist if Apple imposes excessively stringent conditions without support. Apple responds to this dynamic by integrating suppliers into its CSR initiatives (e.g., promoting clean energy projects with them, seeking to transform supplier relationships into strategic alliances based on common values.

Customer bargaining power: Asian consumers, especially in the upper-middle segments, value the Apple brand but are also informed and sensitive to ethical issues (especially in markets such as Japan, Korea, urban China). This gives them indirect power: a bad CSR reputation can push customers to move to more "virtuous" alternatives. Apple, therefore, also incentivizes loyalty through sustainability (e.g., recycling old devices through the Apple GiveBack program) as a value-added element for customers.

Threat of new entrants: In the relocated technology market in Asia, entry of new large players is complex due to the presence of **structural barriers to entry.** Prominent among these are **economies of scale**, which is a major source of advantage for established companies such as Apple: producing at high volumes lowers the average cost per unit and makes it difficult for new entrants to compete on price without incurring very high upfront losses. This is compounded by the **high initial investment** required for manufacturing, research and development (R&D), and building a reliable and certified supply chain.

Another relevant element among structural barriers is **protection through patents and intellectual property**, which limits the ability of new entrants to imitate Apple products or access similar technologies. In addition, Apple benefits from **strong brand recognition** and a closed ecosystem that builds consumer loyalty and further raises the cost of switching to a competing brand (switching costs).

On the side of **strategic barriers**, Apple adopts active policies to discourage the entry of new players, including **exclusive agreements with suppliers**, **strong control over distribution**, and continuous product innovation. These moves strengthen dominance and further reduce the room for potential competitors to maneuver.

However, the **threat of new entrants is not absent**, especially in the CSR segment. Here, the risk stems from the emergence **of start-ups or local companies** that propose business models strongly oriented toward sustainability, for example through the use of short supply chains, recycled materials, or production with low environmental impact. These businesses, while unable to compete in scale, could attract a part of the market that is more sensitive to ethical and environmental values.

Threat of substitute products: In the consumer tech sector, substitutes can come from different directions: Android devices, "open source" solutions, or less high-tech but consumer-appropriate products. Value-added CSR is a way for Apple to differentiate itself even in the face of cheap substitutes. By maintaining a responsible supply chain, Apple hopes to retain "premium" customers by making its product not only technologically superior but also ethically more appealing than generic competitors.

3.3.4 Apple Value Chain and CSR

Apple's value chain highlights how primary and support activities are geographically distributed and how CSR is woven into the process. On the primary side, **inbound logistics and manufacturing** largely take place in Asia: components (chips, displays, memories) arrive from global suppliers (Japan, Korea, U.S.) and are assembled in Chinese or Indian factories of companies such as Foxconn and Pegatron. Quality control and management of these factory activities are critical CSR points because this is where the risks of worker rights violations and environmental impacts are concentrated. Apple acts by including clauses in the supply contract: for example, its **Supplier Code of Conduct** imposes standards on assemblers on working hours, adherence to minimum wages, and zero tolerance for child and forced labor.

Apple's supply chain strategy in Asia is based on **strict control and transparency**: through binding codes of conduct, systematic audits, and public reporting, the company seeks to ensure high social and environmental standards throughout its production chain.

However, the complexity of such a large network requires constant monitoring for effective compliance with its policies.

Apple's **outbound logistics** is not only a strategic component of its value chain, but also a relevant area for the practical application of **Corporate Social Responsibility (CSR).** Apple manages the distribution of its products through a highly efficient network of **regional logistics** hubs-particularly in China, India, and Singapore-that allow for the rapid release of finished devices to market.

On the sustainability front, Apple has taken targeted actions to reduce the environmental impact of the distribution phase. These initiatives include **optimizing transport loads** to decrease the number of shipments, using **recycled and biodegradable packaging materials**, and working to **decarbonize logistics activities** by partnering with operators who use electric or renewable-powered vehicles. In addition, in Asia Apple has expanded the use of **warehouses powered by renewable energy**, helping to limit indirect emissions (Scope 3).

These choices not only strengthen the company's ethical positioning in the eyes of environmentally sensitive consumers, but also provide a **defensive competitive advantage** over new entrants who, while offering more sustainable models, do not possess the same logistical scale and investment capacity. As a result, **Apple's outbound logistics in Asia is an integral part of its CSR strategy**, combining operational efficiency with a clear commitment to environmental sustainability and compliance with regional transportation and environmental impact regulations.

After-sales support and services (support, software upgrades, repairs) complete the chain and extend the life of products, reducing the overall environmental impact. These activities are also monitored from a CSR perspective: for example, the Apple Renew recycling program follows environmental criteria.

Among supporting activities, **human resource management** and R&D facilities, although mainly concentrated in the US, indirectly influence CSR in Asia. Global compliance teams regularly brief Asian partners and develop guidelines for decent working conditions. Apple also leverages technological know-how (e.g., in less energy-intensive chip design) to improve the environmental efficiency of products. Finally, Apple's global **business infrastructure** (management centers, information systems) supports CSR reporting and transparency: internal software collects data on Asian suppliers, enabling audits to be managed and detailed reports to be published.

The figure below summarizes these interactions (e.g., the image of an assembly line illustrates the participation of workers in China in Apple's production). In summary, every step in Apple's value chain is permeated by accountability requirements: from sourcing components that meet environmental standards to safely assembling products.

3.3.5 Resources and skills (RBV) in CSR perspective

According to resource and competency theory (RBV), Apple's competitive advantage derives from its unique resources and distinctive capabilities. Among **intangible** resources, the strong brand and global trust in Apple's products are extraordinary assets. This reputational capital enables Apple to impose ethical practices on its partners and promote its image as a responsible company. Apple's **extensive organizational** capabilities-such as global supply chain management-are another distinctive asset: Apple coordinates thousands of suppliers by leveraging its purchasing power and advanced information systems to monitor social and environmental performance in the supply chain. For example, Apple requires each new supplier to be previously assessed for human and environmental risks thus demonstrating the organizational ability to integrate CSR from the selection stage.

Tangible resources include financial and technological investments: by having large resources, Apple can fund ambitious CSR projects (e.g., worker training programs) without sacrificing price competitiveness. In addition, control of intellectual property and production technologies (from A* chip processors to the use of renewable energy) is a strategic competency that enables Apple to reduce the ecological impact of products at every stage. The RBV approach translates into CSR policies: Apple leverages established resources (brand, capital, engineering expertise) to implement and enforce social and ecological criteria throughout the entire value chain.

3.4 Supply chain management in Asia: social responsibility and environment

Apple's supply chain in Asia is large and complex, but it is receiving increasing attention in terms of CSR. Crucial here is the interaction with key suppliers such as **Foxconn** and **Pegatron**, whose management will largely determine Apple's social and environmental impact in the region.

3.4.1 Key suppliers: Foxconn and Pegatron

Foxconn and Pegatron, both Taiwanese giants, are Apple's main partners for product assembly in China. Foxconn is famous for its megastructures (e.g., the Zhengzhou plant, nicknamed "iPhone City"), which employ tens of thousands of workers in tight shifts. Pegatron, based in Taiwan but with plants in Shanghai and Kunshan, is also a large assembler for iPhones and other devices. These suppliers have provided Apple with the manufacturing capacity needed for its growth, but they have also exposed Apple to significant **reputational risks**.

The most striking case is the incidents in 2010: following a series of suicides among young workers at Foxconn in Shenzhen (14 confirmed by that year), a serious international alarm was triggered about working conditions at fabricago.unl.edu. In the face of these tragedies, Apple - urged on by the media and NGOs - collaborated with outside organizations. In 2012, Apple invited the Fair Labor Association (FLA) to conduct independent audits at the largest assembly factories (including Foxconn Shenzhen and Chengdu). Tim Cook stated that it was "incredibly important" to allow extraordinary inspections and make the results public. On that occasion, the FLA inspected production departments, dormitories, and interviewed thousands of employees on issues of safety, wages, and work duration. This collaboration allowed Apple to claim that it had eliminated some child labor abuses and planted the foundation for better communication channels between workers and management. Despite Apple's claims subsequent research (e.g., a 2014 UNL study) noted that these initial measures did not eliminate "dignity" problems rooted in the total structure of Foxconngo.unl.edu factories, suggesting that the challenge is still open.

Similarly, Apple has faced violations in the Pegatron chain. In 2016, an ILO investigation reported cases of temporary labor abuse and employment of students in Pegatron without proper protections. In response, Apple placed Pegatron on a list of "under surveillance" suppliers and enforced the termination of irregularities. A recent incident involves the year 2020: Apple discovered that Pegatron was **asking student workers to work overtime and night shifts** in violation of its own code. Following this, Apple announced that it was putting Pegatron "in probation," suspending new contracts until corrective actions were completed. In that same statement, Apple clarified that it had not detected forced or child labor during the investigation, and Pegatron had to remove those responsible for the student program. These

cases illustrate how Apple responds to violations by requiring concrete repairs from suppliers: for example, in the case of the paid minors (15 years old) found in 2016, the company obligated the supplier to pay the salary and provide training for the youth.

3.4.2 Environmental impact and sustainability

The environmental profile of Apple's production chain in Asia is another key aspect of CSR. Apple has taken on global decarbonization goals (100 percent carbon neutrality by 2030) and actively promotes energy projects in the countries where it operates. In 2019, for example, Apple and ten of its Chinese suppliers launched the China Clean Energy Fund, collectively investing about $300 million to bring more than 1 gigawatt of renewable energy to localiapple.com grids. Through this fund, three wind farms in China (total nameplate 134 MW) have been financed to provide clean energy to the state. In parallel, Apple is promoting green purchasing agreements worldwide: as of 2024, more than 320 suppliers (covering 95 percent of direct manufacturing spend) have installed 16.5 GW of renewable energy in their facilities. In Asia, participation is high: in 2023 alone, fourteen Chinese supply chain companies have pledged to switch to clean energy by 2030.

Solar and wind power are a key resource: to date, Apple and suppliers support about 18 GW of renewables worldwide, more than triple the 2020 target. The concrete results are clear: in 2023 alone, the supply chain's renewable energy production avoided about 18.5 million tons of CO_2 equivalent. In addition, Apple addresses water consumption: in 2022, suppliers saved more than 12 billion liters of fresh water, with a total of 76 billion since the program (Supplier Clean Water Program) began in 2013. These figures indicate that Apple's environmental stewardship in Asia is not just a formal commitment but involves impressive investments: Apple itself reports devoting resources and expertise to the design of low-emission manufacturing facilities∑ (e.g., factories built with renewable energy) and the use of recycled materials in products.

Also noteworthy is the independent assessment of the **Institute of Public & Environmental Affairs (IPE)** in China, which has been monitoring the environmental transparency of Apple suppliers for the past several years. In 2019, IPE awarded Apple as a "Master" (first place) among more than 400 companies with chains in China for the quality of its green practices. Apple has traditionally been at the top of IPE's indices on "Green Supply Chain" and has publicly won awards for measuring emissions. Apple's own code of conduct requires

suppliers to annually report greenhouse gas emissions associated with the production of Apple products. However, independent analysts note that disclosure has declined in recent years, highlighting how transparency remains an ongoing challenge. Nevertheless, Apple's environmental strategy in Asia-combining direct investments and renewable partnerships-is evidence of a consistent path toward a more sustainable supply chain.

3.4.3 Transparency, auditing, and supplier accountability

Apple also pursues the social responsibility of its supply chain through control and transparency mechanisms. Annually, the company publishes **a Supplier Responsibility Report** that details the activities carried out and the improvements achieved. Apple said it has conducted a significant number of inspections: for example, by 2012 it had conducted more than 500 audits of factories in its network over the previous five years. This figure has since grown according to the most recent data, by 2024 Apple had conducted 893 inspections of supplier sites (with more than 22 percent surprise visits) and evaluated 125 new factories before welcoming them into the supply chain.

These audits are entrusted to independent inspectors who examine every aspect of the factory (working conditions, safety, waste management, etc.) through interviews with workers and on-site checks.

In parallel, Apple has made public the full list of its direct suppliers. In its reports, the company lists the factories involved in the production of iPhones and other devices, thus promoting transparency. In addition, Apple encourages supplier workers to provide anonymous workplace feedback: these are more than tens of thousands of confidential interviews per year, through which employees themselves can report violations and serious problems so that Apple and the supplier can take prompt action.

These accountability measures are crucial to CSR management. For example, Apple's "Checks before work starts" include prior assessment of human and environmental risks before any production begins. If critical issues emerge (such as child labor, non-payment of overtime, pollution), Apple imposes quick correction plans and updates its standards against the supplier.

The result is that Apple in Asia presents itself as a vigilant actor: it has committed to ousting suppliers who refuse to comply and to publishing the results of audits. For example, in the case of the underage workers discovered, Apple required the supplier to guarantee education and wages until they reach the legal age.

Chapter 4 - Apple's CSR and ESG Performance in Asia (2020-2024)

4.1 Overview of Apple's CSR strategy in Asian markets

Apple’s application of CSR strategy in Asian markets takes an integrated approach that links environmental sustainability to business goals. Globally, the company states that "business can and should be a force for good" by supporting people and communities along the entire value chain. This principle applies in Asia, where manufacturing is central. Apple requires rigorous labor and environmental standards from its suppliers, as set out in its *Supplier Code of Conduct*, and supports them through training and investment. The Asian supply chain is thus involved in the "Apple 2030" climate neutrality program. This program sets upstream emission reduction targets (Scope 1, 2, 3) and promotes the adoption of renewable energy and recycled materials. The strategy responds to the expectations of local stakeholders and is inspired by classical theoretical models, such as porter's value chain and stakeholder theory. For example, stakeholder theory suggests that meeting the demands of all stakeholders (including customers and suppliers) enhances reputation and corporate financial performance, a principle that Apple also applies in the Asian context. Under the 5Rs, the company aims to reduce the use of virgin resources and plastics (already decreased by 75 percent since 2015), promote the recycling of critical components and develop environmentally friendly design solutions, such as the fiber-based packaging’s already introduced. Overall, the CSR strategy in Asia is conceived as part of a systemic vision linking sustainability, innovation, and stakeholder value. This vision is consistent with previous chapters that have illustrated Apple's global responsibility and the relevance of the Asian market.

4.2 Net revenue and EBITA: effects of CSR on operating performance

Apple's financials positively reflect the integration of CSR into operations. Recent studies report a positive correlation between ESG performance and the company's financial results. Research from 2024 shows that Apple's CSR and environmental initiatives have had "a favorable impact on its financial results," improving customer loyalty, brand reputation, and operating efficiency. These effects translate indirectly to net revenues and EBITA. As a matter

of fact, a brand perceived as sustainable and socially responsible can justify premium positioning, sustain sales volumes, and build customer loyalty. For example, Apple regularly promotes collection and recycling programs with customers. This element helps in enhancing loyalty and retention, while investing in service and long-lasting designs to extend product life cycles, which also benefit the company from the financial perspective. ESG as a competitive lever is also confirmed in Apple's report. According to company reports there has been a consistent elevation in customer satisfaction indicators. This suggests that commitment to quality and sustainability contributes to user loyalty. Looking specifically at the Asian region, where brand value and product perception are critical factors, these effects are significant. The government has played a fundamental role in this region as its support concerning supply chain couped with the growing demand for clean technology by Asian consumers, has contributed to a much more stable revenue growth for the company. While there is a lack of separate data for Asia, it is reasonable to assume that Apple's focus on sustainability has mitigated the impact of various risks while maintaining robust profitability. Consistent with the literature, the relationship between CSR and financial performance is observed in Apple's higher operating margins compared to less "green" competitors. As one analysis states, "commitment to social and environmental responsibility has translated into financial success" for Apple.

4.3 Expenditure on innovation and sustainable technologies

Apple has always carried out many investment operations in innovation, with, throughout the last years, an increasing share dedicated to sustainability. Globally, the company's R&D exceeds $20 billion annually. A significant portion of this capital is directed towards clean technologies by the company. In Asian markets, Apple “funds joint research labs with suppliers to develop manufacturing processes with lower environmental impact”. One tangible example of this activity carried out by the firm is the effort in the circular economy. As a matter of fact, Apple introduced “Daisy”. This new technology can be described as a robot that specializes in disassembling devices. Apple also developed “Taz”, which is an experimental machine that improves the recovery of valuable materials from electronic products, that had been previously produced by Apple. This shows the commitment in reintegrating the products into the economy by minimizing waste in the economy. It is remarkable that Apple in 2021 marked a record in materials conversion, using “56 percent recycled cobalt and 24 percent certified recycled

lithium in batteries". These achievements vary from R&D applied to manufacturing and recycling processes, as well as product design, showing the commitment throughout the entire supply chain. Spending on clean infrastructure is also part of sustainable innovation. As a matter of fact, Apple has issued $4.7 billion in Green Bonds, allocating the proceeds to global energy efficiency and carbon removal projects. In Asia, Apple invests directly in solar and wind technology to reduce emissions at eastern manufacturing sites. In general, Apple's dedicated capital for innovation is not only aimed at new products, but incorporates a strong focus on sustainable technologies, a result of Apple's global 2030 strategy and growing Asian regulatory and market goals.

4.4 Scope 1, 2 and 3 emissions: progress in decarbonization

Between 2015 and 2024, Apple has achieved substantial reductions in its greenhouse gas emissions. The company's annual reports, indeed, show an overall decrease of more than 55% updated figure as of April 2024, while an April 2025 report even mentions more than 60% on a global basis) compared to 2015. These results are an expression of Apple's 2030 strategy to cut 75% of product emissions by the end of the decade (before balancing the remainder with offsets). In Asia, much of the indirect emissions (scope 3 upstream) come from industrial production; Apple has therefore focused strongly on switching to renewable sources for suppliers and logistics efficiency (reducing 20% of transportation emissions from 2022 to 2024). The remaining potential, related to product use, will be offset as per company policy. It must be, however, noted that these important achievements should also be evaluated in light of market growth. Apple reports that it has "reduced emissions by more than 55 percent since 2015 while serving more users than ever before". This statement shows a clear sign of the factthat decarbonization is proceeding despite expanding sales. Despite all these positive notes, challenges remain in the implementation strategy of the company. In fact, the same report points out that more than 75 percent of current emissions come from the use of electricity for manufacturing (Scope 3), so the real breakthrough depends on the decarbonization of Asian power grids. However, the company believes it has "marked important progress toward the goal of neutrality by 2030", thanks to product innovations, recycled materials, and carbon removal programs.

4.5 Renewable energy in the supply chain

Apple's supply chain in Asia is at the center of a strong clean energy commitment. Globally, more than 250 suppliers in 28 countries (including China, India, Vietnam, Japan) have committed to achieving 100 percent renewable electricity in Apple-related processes by 2030, covering 85 percent of direct spending on manufacturing. From 2019 to 2022, the operational renewable capacity throughout Apple's supply chain has increased drastically. In just a few years the renewable capacity has, indeed exceeded 13.7 GW overall. In practical terms, this avoided 17.4 millions tons of CO_2 to be released into the atmosphere. In Asia, Apple promotes training and advisory programs, such as the Clean Energy Academy, to help suppliers adopt green solutions. In recent years, more than 40 Asian partners have joined the clean electricity initiative. In addition, Apple invests directly in renewable energy facilities for its Asian supply chain. The company has financed about 500 MW of solar and wind farms in China and Japan, helping to reduce reliance on coal and stabilize the grid. For domestic operations Apple directly employs 1.5 GW of renewables in 44 nations. In summary, Apple's entire Asian manufacturing system is rapidly converting to renewables, thanks to a shared commitment with suppliers: this element not only lowers emissions but also provides a competitive advantage in regions where pressure for clean energy is very high.

4.6 Occupational safety: LTIR rate at Asian sites.

Health and safety protection at production sites (especially in China, India, Vietnam) are a pillar of Apple's CSR. The company requires all suppliers to meet strict standards according to its code of conduct, which covers labor rights, safety, and health. Apple plans surprise inspections and independent audits at Asian production sites, and works with international institutions to train workers on their rights and injury prevention. While it does not have specific published data on the Lost-Time Incident Rate (LTIR) for Asian sites, the latest company reporting indicates a general reduction in accidents due to training and continuous monitoring. For instance, the Supplier Employee Development Fund ($50 M launched in 2022) provides vocational training courses that include workplace safety. In quantitative terms, Apple audits usually show that most sites achieve high compliance (often over 90 percent) on injury parameters, reflecting an increasing focus on the issue. In general, the LTIR rate in Apple

factories is below the national average in many Asian countries, a sign that controls and investments in prevention (safe water mains, ergonomic assembly lines, training) are paying off. There remain occasional critical issues, such as the intense work rhytms, that Apple seeks to correct with joint action plans, demonstrating responsible management of safety-related operational risks.

4.7 Diversity and inclusion: % women in managerial positions

Gender diversity is a strategic element in Apple's HR policies. Globally (including Asia), the most recent company data show that about 35 percent of Apple's workforce is female. While a specific breakdown for Asia is not available, one can assume similar percentages in regional operations as well. Throughout the past decade, Apple has showed a commitment to raising awareness on the issue of women remaining underrepresented in technical and managerial roles. The company has also made increasing female participation (and diversity more generally) a strategic goal. For example, in the UK 57% of open management roles were filled by female candidates in 2023, marking significant progress. All the efforts that Apple has made in the rest of the world, have also been extended in the Asian continent. Here, Apple promotes inclusion initiatives, such as mentoring programs, scholarships for girls in STEM and employee networks, and makes its gender composition trends transparent. The presence of women in management positions is considered not only an indicator of social equity but also a driver of innovation. According to stakeholder theory and diversity analyses, more diverse teams tend to perform better and better understand a diverse global market. Therefore, Apple monitors the performance of this indicator and initiates targeted recruitment and career development campaigns. The stated goal is to increase the share of women in leadership in the coming years, aligning with international best practices and contributing to the brand's positive reputation in Asia and around the world.

4.8 Recyclable packaging and circular economy

Apple's product packaging has also been thoroughly rethought under the banner of circular economy. The company has set a goal to completely eliminate plastics from primary and secondary packaging by 2025, replacing them with renewable fiber-based materials. As reported by external studies, by 2021 plastics made up only 4 percent of Apple packaging, an incredible 75 percent reduction from 2015. Back 2023, Apple introduced an "all fiber" type of packaging for the first time. With this launch the company aimed at passing the message that virtually all new packaging is now fiber. Optimizing package sizes and making them more compact has also allowed up to 25 percent more units to be packaged per shipment, reducing transport emissions. In terms of recyclability, Apple ensures that almost all packaging materials are recoverable. For instance, the cardboard used in products is FSC-certified, and 100 percent of Apple's packaging for sale in Europe is recyclable through regular paper supply chains. The "5Rs" strategy is also expressed in this activity. Apple reduces used material, reuses some of its packaging, recycles production waste, replaces non-renewable sources (plastic) with sustainably sourced fibers, and is committed to "Responsibility" by informing consumers about the results. The company constantly releases environmental reports including data on recycled materials. Therefore, Apple's packaging reflects an advanced circular model: as sources confirm, 97 percent of Apple's 2023 packaging is already made of fiber and the company is "on track" to eliminate plastic, solidifying its image as an environmentally conscious company.

4.9 Sold products and sustainable brand perception

From the point of view of communication, Apple's product assortment and brand communications increasingly emphasize sustainability, influencing the perception of Asian consumers. Apple actively promotes recycling and product lifecycle assessment initiatives. Specifically, for customers in Asian countries, there are "trade-in" and reconditioning programs that incentivize the return of old devices, fueling the virtuous cycle of recycling and again reconnecting to the idea of circular economy. These policies are often accompanied by dedicated regional environmental reports. For example, Apple publishes region-specific APAC reports on its local sites, which highlight how much of the materials come from recycled sources. According to journalistic sources, Apple uses the recycling mechanism as a key

communication tool: each device swap “declares” the environmental benefits (recovered materials) to the customer and thus reinforces the brand image as “green”. Apple's marketing strategy is also about the inclusion of products defined through a carbon neutral certification. One example of this is the most recent Apple Watch Line presented back in 2023, which boasts more than 75 percent lower emissions than before and packaging made of fully recycled fiber. These innovations create perceptions of a responsible brand. As a matter of fact, evidence from the professional world indicates that Apple users are sensitive to sustainability, increasing loyalty when the brand is transparent about its progress. In sum, "sustainable" product offerings and communicated environmental vision strengthen Apple's reputation in Asia and sustain sales results in the long run.

4.10 Customer care and ESG loyalty

Apple's customer care incorporates ESG elements that contribute to loyalty. As stated in Apple's ESG report, the brand's Net Promoter Score (loyalty indicator) is "consistently high and industry-leading”. This score is often attributed to both product quality and a commitment to transparency and sustainability. Apple guarantees customers after-sales services focused on product longevity (extended software upgrades, repairability) and certified service channels, thus supporting expectations of reliability and sustainability. The Trade-In program and refurbishment centers encourage customers to return used devices to extend their lifecycle, a practice Apple itself emphasizes as part of the customer experience. On the ethical front, Apple reinforces perceived loyalty by offering dedicated support lines, transparency on product issues, and strict privacy policies, elements in line with CSR. In Asia, where technology competition is high, these factors create added consumer value. As a matter of fact, Asian clients recognize the Apple brand as premium and engaged, a fact that often results in higher-than-average retention rates. Similarly, the developer and partner community also values Apple's sustainable choices, as these improve product acceptability in environmentally sensitive markets. Ultimately, Apple's emphasis on service, security, and sustainability in the customer ecosystem contributes to ESG-oriented customer care and fuels retention throughout the customer lifecycle (loyalty).

4.11 Energy efficiency of devices (EcoLine)

Apple has introduced the concept of energy efficiency as part of the design of its new devices. A case in point is the iPhone 16. According to industry sources and standards, the new models are designed to consume 54 percent less energy than the previous generation technology. This is made possible by more efficient electronic components, intelligent power management, and a reduced design (device volume is 6 percent less), which not only reduces energy requirements but also reduces transportation emissions. Apple promotes this performance as an "Eco" attribute of its devices, part of a line (referred to in some sources as the "EcoLine") that meets high standards of reduced consumption. In addition, all Apple products destined for Europe are subject to energy labeling (Energy Star, EU regulations) and typically record best-in-class values. Efficiency is seen as a key element of sustainability as well. Indeed, lower consumption reduces the impact during device use, lowering the overall carbon footprint. In this way, Apple incorporates the 5R "Reduce" principle into the final product: reducing resource consumption during daily use. Despite growing power (e.g., on-device artificial intelligence) that will increase future energy requirements, Apple maintains commitments to keep efficiency high (100 percent of its data centers and cloud services are already powered by renewable energy). As a result, the EcoLine and energy efficiency efforts reinforce Apple's image as a provider of advanced yet thrifty devices, further enhancing the perception of sustainability among Asian consumers.

4.12 ROI of CSR initiatives by country.

Measuring exactly the return on investment (ROI) of CSR initiatives is complex, but some examples illustrate the economic and noneconomic benefits. In India, multinational corporations are required by law to spend at least 2 percent of annual net profit on CSR programs. Apple India spent INR 167 million (about USD 2.0 million) in FY 2019-20, slightly in excess of the obligation, funding education and infrastructure projects. This mandatory investment enhances Apple's local reputation and facilitates relations with the government ("social license"), indirectly helping to facilitate business operations in India (e.g., expansion of domestic production). In China, Apple uses dedicated clean energy funds, it, indeed, launched its second China Clean Energy Fund in 2025 with a commitment of USD99.3 million

carbon credits to finance solar and wind projects. The first fund (2018) brought over 1 GW of renewables to 14 provinces, accelerating the local energy transition. These investments generate future savings on suppliers' energy costs and increase the earning potential on green bonds. In fact, Apple has already issued $4.7 billion dollars in green bonds. Such instruments, dedicated to sustainable projects, usually carry lower interest rates due to demand from ESG investors, reducing the cost of corporate debt. At the aggregate level, Apple's CSR approach in Asia improves access to "clean" capital and strengthens financial ratings: Apple's S&P credit has been confirmed at the very high AA+ level (positively influenced by strong ESG governance), and Apple attracts institutional funds dedicated to sustainable securities. In summary, although tangible benefits (in terms of direct ROI) are difficult to quantify by geographic segments, CSR initiatives in India, China, and other Asian countries have already produced tangible benefits in terms of goodwill, operational efficiency, and favorable financial conditions for Apple.

4.13 ESG Rating: local assessments and strategic impacts

Looking at Rating Agency’s classifications in terms of ESG, Apple is considered to be generally very well positioned. For example, Sustainalytics gives Apple an ESG Risk Rating of 19 ("Low Risk"), with a favorable sector ranking. MSCI and S&P Global also assign Apple high sustainability scores (in the excellence zone), reflecting the robustness of its environmental and social commitment. These ratings, although global in nature, also resonate in Asia. In countries such as Japan and South Korea, Apple is often included in sustainable stock indices and local ESG funds due to its leadership profile in carbon neutrality. Conversely, the absence of serious CSR-related scandals (unlike other brands) reinforces the credibility of the rating. At the strategic level, a high ESG rating translates into competitive advantages in Asia, such as in obtaining government contracts or joint venture agreements that favor sustainable partners. In addition, a good sustainability rating improves Apple's reputation among Asian institutional investors, some of whom are intensifying ESG criteria (e.g., Japanese or German pension funds investing in Asia). Local ESG assessments, integrated into decision-making processes, prompt Apple to maintain standards in Asia that are consistent with global standards and respond promptly to any critical issues (supply chain, privacy, etc.), mitigating reputational risks and strengthening its competitive position.

4.14 Employee involvement: training and volunteering

From the point of view of employees and the way in which Apple includes them in their CSR strategy, there are many aspects to take into account. As a matter of fact, the company actively promotes employee involvement in social and environmental issues. In the supply chain sector, the company has earmarked a $50 million fund for the professional development of supplier workers, aimed at continuing education programs, digital skills, and knowledge of union rights. Since its activation, this program has already delivered millions of training sessions. In total, Apple counts having offered more than 5.7 million courses and educational activities, reaching more than 8 million people since 2008. These initiatives, launched in Asia, and more specifically in China, Vietnam and India, and around the world, aim to build local human capital and increase worker motivation. In fact, improved training creates a safer and more competent work environment. In parallel, Apple encourages volunteerism by its employees in each region. The global Employee Giving program (active since 2011) allows workers to donate volunteer hours or money, which Apple doubles. Looking at 2022, 76,000 Apple employees donated time for more than 2.1 million volunteer hours and raised a total of more than $880 million for nonprofit organizations. In Asia, Apple teams also participate in local initiatives often linked to the company's regional campuses. Apple also promotes internal networks and fundraising competitions. The impact of these activities goes beyond directly benefiting communities: it strengthens internal engagement, aligning corporate culture with ESG values and increasing the loyalty of employees themselves, who feel a greater sense of belonging and purpose in their daily work.

4.15 Reputational and operational risk management

To reduce reputational and operational risk in Asia, Apple leverages transparency and control. Reputational risk, such as the risk of being critized for child labor or harsh conditions, is managed with systematic audits and improvement plans. Apple's code of conduct requires each supplier plant to ensure safe and decent working conditions, and the company says it conducts planned cross-checks and unannounced “spot checks”. In case of violations, Apple imposes corrective actions and, in severe cases, considers removing the supplier from its network. At the strategic level, Apple also considers geopolitical and market factors to mitigate operational

risks. For example, high dependence on China has prompted Tim Cook to initiate diplomatic relations with Chinese state authorities to prevent tensions over trade, as reported by analysts. At the same time, Apple diversifies production to India and Vietnam to reduce the risk of individual geopolitical overexposure. Ultimately, the integration of CSR and risk management is a key element of corporate governance: ESG activities are constantly monitored for signs of crisis (e.g., audits of working conditions), and the company regularly publishes updates on its progress, seeking to maintain high stakeholder confidence. The proactive approach (prevention and continuous engagement) means that Apple can minimize negative impacts on the brand and operations in Asian markets, confirming the consistency between CSR strategy and risk management.

4.16 Access to capital and financial benefits related to CSR

Apple's robust CSR/ESG strategy is reflected in easier access to capital and concrete financial benefits. For example, the company issued $4.7 billion in Green Bonds, capturing the interest of sustainable investors at generally more advantageous rates. This capital has been deployed in global environmental projects (such as wind and solar power plants) that generate returns in terms of reduced energy costs and improved efficiency. In addition, Apple enjoys a high credit rating (AA+ S&P Global), in part due to ESG transparency: this translates into a lower cost of borrowing money in international markets. In Asian markets, these conditions are perceived positively by local institutional investors, who tend to favor companies with strong ESG profiles. Apple, for example, is often found to be eligible for regional environmental or social criteria funds and indexes. Finally, Apple's voluntary adherence to sustainability standards (GRI reporting, SBTi targets, etc.) improves the confidence of financial stakeholders: industry analyses show that strong ESG performance corresponds to lower equity beta in emerging markets and greater investor propensity to include the stock in sustainable portfolios. In sum, CSR initiatives make Apple more attractive in Asian and global financial markets, allowing it to raise capital on favorable terms compared to less "green" competitors and thus supporting future growth.

Conclusion

The analysis in the previous chapters shows that, in the Asian technology sector, CSR now operates on multiple interconnected dimensions. On the strategic front, Apple, in particular, has demonstrated that integrating sustainability policies into the business model can enhance brand reputation and attractiveness. From a cultural perspective, the results of the empirical analysis indicate that in Asian realities CSR must reconcile with local norms and social expectations. For instance, many companies integrate traditional philanthropic components into their sustainability projects, while directing attention to global issues such as climate and workers'. In the regulatory arena, a heterogeneous mosaic has been observed: some advanced Asian governments are codifying CSR, for example by reporting laws or tax breaks, while the voluntary approach maintains its dominance in many countries.

These findings imply critical reflection on the nexus between CSR and corporate performance. On the one hand, as highlighted in the literature and case studies, a credible CSR commitment can translate into tangible economic benefits. As a matter of fact, applying CSR to a company’s operations can enhance customer trust and loyalty, attract talents and especially mitigate reputational risks. On the other hand, this relationship is not automatic and shows obvious limitations. The effectiveness of CSR policies depends on their genuineness and strategic integration. Often current initiatives are reactive, and hence are related to dealing with previous crises or scandals, rather than proactive, by focusing on individual projects. There is also a lack of uniform measurement metrics, especially in Asia, and sometimes there is insufficient transparency in corporate behavior. Finally, the strong focus on financial performance in some Asian markets may conflict with long-term environmental and social goals, creating tensions not always resolved by current CSR policies.

In conclusion, CSR in the tech sector in Asia shows ample potential but also significant challenges. The findings of this thesis underscore the importance of a holistic approach: an effective CSR strategy is one that integrates global expectations and local sensitivities, aligning them with the company's long-term vision. The guidelines indicated, if implemented consistently, could guide companies toward a more responsible and competitive growth model in an area of the world increasingly central to global technological innovation.

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