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CORPORATE SOCIAL RESPONSIBILITY OF FDI ENTERPRISES IN PHU THO PROVINCE: INDICATORS, TRENDS, AND LOCAL POLICY IMPLICATIONS

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Abstract

This article analyzes the current state of corporate social responsibility (CSR) implementation among foreign direct investment (FDI) enterprises in Phu Tho province during the 2022–2024 period, based on four stakeholder-oriented pillars: (i) labor, (ii) environment, (iii) community, and (iv) customers/partners. Using standardized provincial-level secondary data and calculating the compound annual growth rate (CAGR) for each indicator, the study reveals that compliance with labor safety, social insurance coverage, and training programs show stable improvement trends; adoption of green technologies and renewable energy is rapidly increasing; community contributions are more focused on education, healthcare, and infrastructure; and business transparency as well as consumer rights protection have been strengthened. The article proposes a set of operable CSR indicators at the provincial level, an annual CSR-FDI ranking mechanism linked to conditional incentives, and a data-sharing framework between enterprises and regulatory agencies. A limitation of the study is its reliance on secondary data and the lack of validation of the CSR-performance relationship at the enterprise level. Future research should include enterprise–employee surveys and in-depth case studies to triangulate the results.

Keywords: CSR; FDI; Phu Tho; sustainable development; stakeholders.

1. Introduction

In the context of deep international integration, the foreign direct investment (FDI) sector remains a key driver of growth, economic restructuring, and technology diffusion across localities in Vietnam (General Statistics Office of Vietnam [GSO], 2023; Ministry of Planning and Investment [MPI], 2023). Alongside economic benefits, pressure surrounding corporate social responsibility (CSR) and sustainable development is mounting, not only from international normative frameworks

(ISO 26000; UN Global Compact), but also from technical market barriers of major export economies (e.g., the EU, United States) and the expectations of local communities (International Organization for Standardization [ISO], 2010; United Nations Global Compact, 2022). With a notable concentration of investment in sectors such as electronics components, textiles and fashion, and new materials, Phu Tho is becoming increasingly embedded in global supply chains, where standards relating to the environment, labor, transparency, and business ethics are increasingly seen as a "passport" to market access. In this context, systematically monitoring and enhancing CSR practices within the FDI sector is not only a compliance requirement but also a prerequisite for enhancing territorial competitiveness and ensuring provincial-level sustainable development.

However, two operational-level challenges emerge at the local level. First, there is a lack of a CSR indicator system that is measurable, comparable over time, and directly supports public governance at the provincial. Second, data granularity remains limited, especially for “softer” components such as worker satisfaction, supplier governance, transparency, and social–environmental outcomes (outputs–outcomes–impacts). This gap results in CSR assessments often stopping at partial descriptions, making it difficult to "close the loop" towards evidence-based policy mechanisms, such as conditional ranking–incentive schemes or public monitoring systems.

To address these challenges, this article approaches CSR through a stakeholder-based framework, referencing international standards (ISO, UNGC, GRI) while adjusting to the availability of provincial-level data. Specifically, the study develops and operationalizes a CSR indicator set for the FDI sector based on four pillars: (i) Labor, (ii) Environment, (iii) Community, and (iv) Customers/Partners; standardizes data from 2022–2024; and quantifies the trajectory of change using compound annual growth rate (CAGR) to mitigate distortion from differing baseline levels. On this basis, the article proposes a feasible Measurement–Reporting–Verification (MRV) mechanism at the provincial level, aiming to establish an annual CSR–FDI ranking system linked to conditional incentives, thereby transforming CSR from a "compliance cost" into a value lever for both businesses and localities (ISO, 2010; United Nations Global Compact, 2022).

Research gaps and contributions of the study include: (i) Developing a provincial-level CSR indicator system for the FDI sector based on four pillars, with clear operational definitions and standardized measurement units; (ii) Presenting 2022–2024 trends using CAGR and derivative indicators (e.g., average environmental protection expenditure per enterprise) to distinguish the “breadth” and “depth” of CSR practices; (iii) Proposing a composite index framework (CSR FDI Index) and an MRV mechanism as the foundation for conditional incentive ranking and public monitoring at the provincial level.

Research Questions:

RQ1: How has CSR in the FDI sector in Phu Tho changed during 2022–2024 across the four pillars and measurable indicators?

RQ2: What legal, market, and governance drivers or institutions explain the key observed trends?

RQ3: What are the implications for designing local governance tools (indices, ranking–incentive mechanisms, MRV data infrastructure) to shift CSR from a compliance activity to a value-creating lever for both enterprises and the province?

2. Theoretical Foundation and Indicator Framework

This article's approach to CSR is grounded in two complementary theoretical pillars. First, Carroll's Pyramid of Responsibilities affirms that CSR is a multi-layered structure, where economic and legal responsibilities form the foundation while ethical and philanthropic responsibilities enable businesses to reach higher social standards (Carroll, 1991). Second, Porter and Kramer's concept of Creating Shared Value (CSV) emphasizes the intersection between business goals and social benefits: enterprises invest in people, the environment, and communities not merely for "compliance" but also to restructure value chains, expand markets, and increase productivity (Porter & Kramer, 2011). These two pillars, when placed within the context of FDI enterprises facing both regulatory pressures (laws, technical standards) and market pressures (global supply chains), form a framework that is both normative and operationalizable through measurable indicators.

To translate the concept of CSR into a measurable indicator system, the article adopts the stakeholder perspective, viewing the enterprise as a node interacting with multiple stakeholder groups, each having distinct accountability expectations (Freeman, 1984). Accordingly, four priority responsibility domains are identified, aligning with the characteristics of FDI in the locality: (i) **Labor** – ensuring employment, wages, occupational health and safety, social insurance, and skills development; (ii) **Environment** – pollution prevention, adoption of clean technologies and renewable energy, compliance with standards such as QCVN/ISO 14001; (iii) **Community** – contributions to education, healthcare, infrastructure, and sustainable social development programs; (iv) **Customers/Partners** – product quality, transparency, consumer protection, and supplier responsibility. These four domains closely align with international best practices (ISO 26000; GRI Standards) and are also compatible with data availability at the provincial level, ensuring the indicators are measurable, comparable over time, and relevant for policymaking (ISO, 2010; GRI, 2021; Kotler & Lee, 2005).

Thus, the indicator framework is shaped as a "bridge" between theory and empirical governance: Anchored in scientific measurement principles (clear operational definitions, units of measurement, data sources, and expected trends); Allows for standardization and aggregation by pillar to track trends and make year-over-year comparisons; Maintains openness to gradually incorporate advanced metrics (e.g., emissions intensity, industry-specific safety indices, or compliance with supplier codes of conduct).

This structure enables local authorities not only to monitor the "compliance level" of the FDI sector but also to identify the "value drivers" that stimulate green innovation, boost productivity, and foster social cohesion in the medium to long term.

3. Research Methodology

This study employs a descriptive–comparative time-series design (2022–2024) at the provincial level, focusing on the FDI enterprise sector in Phu Tho. The unit of analysis is the local FDI business sector, while the unit of measurement comprises CSR indicators operationalized under four pillars: (i) Labor, (ii) Environment, (iii) Community, and (iv) Customers/Partners. The methodological objective is to clarify the trajectory of change for each indicator, while also constructing a composite index that is time-comparable and useful for provincial policy formulation.

The study utilizes a secondary dataset at the provincial level for the 2022–2024 period, compiled from four primary source groups: (i) The **2023 Vietnam Statistical Yearbook** published by the General Statistics Office (GSO) – used as a macroeconomic baseline; (ii) The **2023 FDI Report** by the Ministry of Planning and Investment (MPI), referenced for FDI flow dynamics; (iii) **Socioeconomic reports and the 2024 Provincial Planning Document** released by the Phu Tho Provincial People's Committee (PPC) – serving as the local administrative data foundation; (iv) **Specialized datasets on FDI attraction and operation** provided by the Phu Tho DPI in 2024 – forming the core basis for extracting CSR indicators aligned with the four pillars. These sources ensure official status, recent update cycles, and time comparability at the provincial level. After standardization, data from 2022–2024 is operationally defined and analyzed using the CAGR metric. This approach enables consistent observation of CSR trajectories across all four pillars within the FDI sector, while also identifying data gaps to be addressed in future research for enhanced measurement capacity.

4. Research Findings

4.1. CSR Trends of FDI Enterprises in Phu Tho

Provincial-level aggregate data show that the FDI sector in Phu Tho has continued to expand steadily in both the number of enterprises and the scale of registered, implemented capital. The number of FDI enterprises increased from 180 (in 2022) to 205 (in 2024), corresponding to a CAGR of approximately 6.72% per year. Total FDI capital rose from USD 2.7 billion to USD 3.1 billion, with a CAGR of approximately 7.15% (PPC, 2024; DPI, 2024). Year over year, the number of enterprises grew by about 5.56% (2022 - 2023) and 7.89% (2023 - 2024), implying improved investor expansion in the final year of the period. In terms of capital, growth rates of 7.41% (2022 - 2023) and 6.90% (2023 - 2024) suggest that capital inflows remain positive, although there are signs of "stabilization" post-2023. These two movements together reflect a fairly sustainable FDI absorption capacity at the local level, forming a solid foundation for CSR standards to spread further within the existing FDI enterprise community (PPC, 2024; DPI, 2024).

Table 1. Scale of FDI Enterprises in Phu Tho (2022–2024)

Indicator	2022	2023	2024	CAGR 2022–2024 (%)
Number of FDI enterprises	180	190	205	6.72
Total investment capital (million USD)	2,700	2,900	3,100	7.15

Source: PPC (2024); DPI (2024)

A helpful structural indicator is the average capital per FDI enterprise. Calculations show an average of approximately USD 15.0 million/enterprise (2022), USD 15.26 million/enterprise (2023), and USD 15.12 million/enterprise (2024), reflecting a slight overall increase of about 0.81% over the entire period. Structurally, this suggests two possibilities: (i) The 2022 - 2023 period likely saw projects with slightly above-median capital, whereas (ii) In 2024, the number of new enterprises grew faster than net additional capital (hence a slight drop in average capital compared to 2023, but still higher than 2022).

Despite minor fluctuations, the fact that capital is growing faster than the number of enterprises (CAGR 7.15% vs. 6.72%) indicates a trend of "deep accumulation", a favorable signal for investments in technology, governance systems, and CSR practices with high capital/intellectual value (e.g.,

compliant waste treatment technologies, renewable energy, occupational health and safety systems). From a CSR policy perspective, this simultaneous expansion in breadth (number of enterprises) and depth (capital) carries important implications:

Firstly, compliance pressure increases with scale—more enterprises mean more frequent inspections and a greater need to standardize CSR indicators. Without synchronized institutional upgrades, this can become a "bottleneck", reducing the quality of CSR implementation on the ground.

Secondly, steady capital growth raises expectations for CSR investment at the technological level (e.g., ISO 14001, emissions monitoring and reduction, standardized worker safety), a shift from sporadic philanthropic actions to integrated "shared value" strategies at the enterprise and supply chain level.

Thirdly, since capital figures are reported in current USD, fluctuations in exchange rates may affect percentage growth rates. Therefore, when comparing over time or across regions, inflation and currency adjustments should be considered to avoid overstating the "heat" of capital flows (PPC, 2024; DPI, 2024).

In summary, the steady and selective growth trend of FDI during 2022 - 2024 provides a quantitative "foundation" for interpreting CSR outcomes across the upcoming pillars (labor, environment, community, customers/partners). Designing a provincial CSR indicator system that aligns with the FDI sector's expansion dynamics, as illustrated in Table 1, is essential for tracking progress over time, detecting disparities across industries or enterprise groups, and aligning incentive–compliance mechanisms toward a measurable shift from "compliance" to "value creation."

4.2. The "Labor" Pillar

The proportion of enterprises complying with occupational health and safety (OHS) regulations increased from 65% to 78%, corresponding to a CAGR of approximately 9.54% per year. Average monthly wages rose similarly from 6.5 million to 7.8 million VND (CAGR ≈ 9.54%/year). Social insurance (SI) coverage increased from 80% to 88% (CAGR ≈ 4.88%/year), while the percentage of enterprises offering training programs jumped significantly from 50% to 68% (CAGR ≈ 16.62%/year). Concurrently, employee satisfaction improved from 70% to 80% (CAGR ≈ 6.90%/year) (Phu Tho PPC, 2024; DPI, 2024).

Year-over-year growth: OHS compliance rose by 10.77% (2022 - 2023) and 8.33% (2023 - 2024); Wages increased by 7.69% and 11.43%; SI coverage rose by 6.25% and then 3.53%; Training programs grew by 20.00% and 13.33%; Satisfaction increased by 7.14% and 6.67%. This combination indicates a solidified foundation of "minimum compliance" (OHS, SI), while "value creation" elements (training, wages, satisfaction) are improving more rapidly. This aligns with the shared value logic, investing in human capital boosts productivity and quality, leading to positive business outcomes (Porter & Kramer, 2011).

Table 2. CSR Indicators for Labor (FDI – Phu Tho, 2022–2024)

Indicator	2022	2023	2024	CAGR 2022–2024 (%)
Enterprises complying with OHS (%)	65	72	78	9.54
Average wage (million VND/month)	6.5	7.0	7.8	9.54
Employees with social insurance (%)	80	85	88	4.88

Enterprises with training programs (%)	50	60	68	16.62
Employee satisfaction (%)	70	75	80	6.90

Source: Phu Tho PPC (2024); DPI (2024)

From a policy mechanism perspective, the parallel increase in wages and OHS (both CAGR ≈ 9.54%) suggests the joint influence of: (i) Regulatory pressures, compliance with laws, specialized inspections, and supply chain standards; and (ii) Labor market dynamics, competition to attract/retain skilled labor in key FDI sectors. The slowing pace of SI expansion (6.25% - 3.53%) implies that "extensive" improvements are plateauing, and attention should shift to the quality of implementation (compliance accuracy, timeliness, debt reduction) rather than just increasing coverage. In contrast, the sharp rise in training (CAGR ≈ 16.62%) reflects a move from a labor-intensive model toward skills upgrading, notably in electronics, textiles, and supporting industries in the province. The improvement in employee satisfaction (CAGR ≈ 6.90%) is likely the result of wage increases, safety improvements, welfare programs, and learning opportunities. However, the reliability of this indicator must be scrutinized (e.g., scale design, response rates, social desirability bias) to avoid overinterpretation based on current data.

Within Carroll's CSR pyramid (1991), OHS and SI indicators represent legal responsibilities; wages span both legal (minimum standards) and economic (productivity – labor market) domains; while training and satisfaction reflect ethical and philanthropic layers in labor relations. When all four elements improve, enterprises are positioned to restructure production toward more efficient, safe, and learning-oriented operations, paving the way for technology and quality upgrades more sustainable than a “minimum cost” approach.

For local policy, this implies: (i) Maintain strict compliance standards (OHS, SI), but shift toward monitoring implementation quality; (ii) Encourage and co-fund on-site training with clear outcome metrics (e.g., percentage of workers completing skill modules or vocational certifications), as this is a rapid, high impact driver of productivity; (iii) Design and publish an annual CSR FDI ranking based on the Labor pillar, to foster healthy competition among enterprises. Finally, emphasis should be placed on standardizing measurement for the two soft indicators: satisfaction and training. For satisfaction, a multi-item scale should be used (covering income, safety, advancement opportunities, labor relations…), with response rates and reliability tested. For training, metrics should include training hours per person per year, training budget as a share of revenue, and completion rates, allowing for cross-sector and year-to-year comparisons. Once enhanced, the "Labor" pillar will become a reliable foundation for both provincial policy monitoring and internal FDI enterprise governance.

4.3. The "Environment" Pillar

Data indicates that the "Environment" pillar of the FDI sector in Phu Tho is progressing toward broader coverage and gradually shifting toward deeper investments. The proportion of enterprises adopting green technologies rose from 40% (2022) to 65% (2024), with a CAGR of approximately 27.48% per year; the share using renewable energy increased from 30% to 50%, corresponding to a CAGR of about 29.10% per year. Year-over-year changes reveal a strong and accelerating trend: green technology adoption grew by +25.0% (2022 - 2023) and +30.0% (2023 - 2024); renewable energy usage grew by +26.67% and +31.58%. These two indicators act as leading indicators because they are

directly linked to decisions around technological innovation and energy structure, factors that typically precede measurable improvements in environmental outcomes (PPC, 2024; DPI, 2024).

Regarding waste management compliance, the share of enterprises meeting waste control standards rose from 55% to 70% (CAGR ≈ 12.82%/year), showing solid improvement, albeit slower than the two innovation indicators. The 9.09% increase (2022 - 2023) and 16.67% (2023 - 2024) suggest a lag between investment decisions (in green technologies, renewable energy) and observable compliance outcomes under QCVN/ISO 14001 standards. This aligns with the implementation logic: enterprises typically require a full budget cycle to install, calibrate, and stabilize treatment systems before environmental monitoring results reflect the full impact of technological upgrades.

In terms of environmental protection (EP) spending, total investment increased from 120 billion (2022) to 180 billion VND (2024), with a CAGR of about 22.47%. Normalizing by the number of FDI firms, average EP spending per enterprise rose from roughly 0.67 billion (120/180) to 0.88 billion VND (180/205), a 31% increase over the period. This reflects not only more enterprises participating but also higher average investment per firm, an encouraging sign of increased depth. Assuming most of this budget is concentrated among enterprises adopting green technologies (65% of firms in 2024), average spending per green-tech enterprise could reach 1.35 billion VND, pointing to significant investments in areas like gas-wastewater treatment, process improvements, and energy-saving equipment (PPC, 2024; DPI, 2024). While such budget allocations are based on assumptions, the trend strengthens the argument that technology investments are gradually translating into better compliance capabilities.

Overall, the "Environment" pillar appears to be forming a two-speed structure: (i) Leading indicators (green technology, renewable energy) are rising rapidly due to dual pressures—regulatory (standards, inspections, licensing conditions) and market-driven (green supply chain, export market demands); (ii) Outcome/compliance indicators (waste control) are increasing more slowly but steadily, reflecting technical and managerial lags.

Table 3. Environmental CSR (FDI – Phu Tho, 2022–2024)

Indicator	2022	2023	2024	CAGR 2022–2024 (%)
Enterprises using green technologies (%)	40	50	65	27.48
Enterprises meeting waste control standards (%)	55	60	70	12.82
Enterprises using renewable energy (%)	30	38	50	29.10
Environmental protection spending (billion VND)	120	150	180	22.47

Source: PPC (2024); DPI (2024)

To bridge this gap, investments in hard infrastructure (equipment, technology) must be coupled with upgrading environmental management standards (e.g., ISO 14001, data recording–reporting–verification systems), and aligning with GRI standards for transparency and benchmarking (Global Reporting Initiative, 2021; ISO, 2010).

Governance and policy implications include three main points: (i) Continue implementing conditional incentives tied to green criteria (renewable energy rates, ISO 14001 certification, emissions intensity), and co-fund treatment technology upgrade projects—especially for SMEs within supply chains. (ii) Establish third-party verification mechanisms for environmental monitoring data

and EP spending, with regular public disclosure to encourage continuous improvement and reduce information asymmetry. (iii) Promote eco-industrial parks and industrial symbiosis, where one company's waste/by-products become input materials for another, flattening marginal environmental costs and enhancing overall system efficiency.

4.4. The "Community" Pillar

Between 2022 and 2024, the "Community" pillar of the FDI sector in Phu Tho exhibited not only broader engagement but also a clear shift toward more targeted, impact-oriented investments. The proportion of enterprises participating in community activities increased from 50% to 65% (CAGR ≈ 14.02%/year), while total community support funding rose from 100 billion to 150 billion VND (CAGR ≈ 22.47%/year). In the same period, the share of enterprises directly investing in education and healthcare jumped from 40% to 58% (CAGR ≈ 20.42%/year), and the number of infrastructure projects funded by FDI increased from 15 to 22 (CAGR ≈ 21.11%/year) (PPC, 2024; DPI, 2024).

Table 4. Community CSR (FDI – Phu Tho, 2022–2024)

Indicator	2022	2023	2024	CAGR 2022–2024 (%)
Enterprises participating in community activities (%)	50	55	65	14.02
Community support funding (billion VND)	100	120	150	22.47
Enterprises investing in education–healthcare (%)	40	48	58	20.42
Infrastructure projects funded by FDI (projects)	15	18	22	21.11

Source: PPC (2024); DPI (2024)

This growth pattern reflects three key messages: (i) More enterprises are stepping into the role of corporate citizens; (ii) Community resource contributions are increasing faster than the growth in enterprise numbers; (iii) Priorities are clearly shifting toward sectors with long-term social impact, education, healthcare, and infrastructure. Given that the number of FDI enterprises grew from 180 (2022) to 205 (2024), the number of participating enterprises rose from about 90 (50% of 180) to roughly 133–134 (65% of 205). This equates to a ~43–49% increase in participating firms. In terms of intensity, average community spending per participating enterprise remained fairly stable at around VND 1.1–1.2 billion/year. However, the spending structure shifted toward sectors with higher social capital accumulation (education, healthcare, infrastructure).

For infrastructure specifically, if one evenly distributes the budget (for reference only), the average project size slightly increased from 6.7 billion to 6.8 billion VND per project (100/15 vs. 150/22). While this is a rough estimate, given that community budgets cover more than just infrastructure, the trend suggests that expanding project numbers did not dilute per-project value, a positive sign for social investment efficiency.

From a policy dynamics perspective, the "Community" pillar operates on a "two-tiered value" model: Tier one: Breadth of participation – As more firms engage, localities benefit from network effects, such as pooled funding, shared models, and standardized implementation processes at the

commune/ward level. Tier two: Depth of impact – The increase in enterprises investing in education and healthcare from 40% to 58% suggests prioritization of public goods with delayed but long-lasting effects (human capital, health), in sync with infrastructure investments (electricity, water, schools, public spaces).

This "breadth + depth" synergy explains how stable per-enterprise spending can still produce growing social returns by focusing funds on high-impact, high-externality initiatives. However, two limitations must be addressed to avoid merely building a "success narrative": (i) Overly broad definitions of community engagement risk conflating short-term sponsorships (gifts, events) with long-term development investments (e.g., scholarship programs linked to employment, health stations, digital school infrastructure). Without disaggregated tracking, rising statistics may obscure actual effectiveness. (ii) Current impact measurement mechanisms are weak—they don't yet capture outputs, outcomes, and impacts. For example, instead of simply recording "% of enterprises investing in education–healthcare," results should include indicators like the number of students supported, retention rates, medical cases treated or insured, or reductions in healthcare service access times.

Policy and governance implications for both local authorities and FDI enterprises include: (i) Standardize and categorize community activities into short-term charity, social investment (education–healthcare), and infrastructure, each with minimum result indicators; (ii) Shift from scattered sponsorships to multi-year programs with MOUs signed with local authorities or beneficiaries, incorporating KPIs and budget timelines; (iii) Set up an annual community CSR disclosure mechanism (e.g., a CSR–FDI "Community" pillar ranking), and encourage third-party evaluations for large infrastructure and education–healthcare projects; (iv) Promote enterprise alliances by industry or zone to co-finance strategic projects (e.g., digital learning centers, satellite health stations, school sanitation), creating scale effects and financial sustainability.

4.5. The "Customers and Partners" Pillar

Data from 2022–2024 shows that the "Customers and Partners" pillar of the FDI sector in Phu Tho has improved consistently across four key dimensions: quality compliance, consumer protection policies, business transparency, and commitment to sustainable product innovation. Enterprises complying with quality standards increased from 60% to 75% (CAGR ≈ 11.80%/year). Those with consumer protection policies rose from 55% to 72% (CAGR ≈ 14.42%/year). Transparency in business went from 50% to 65% (CAGR ≈ 14.02%/year). Sustainable product innovation commitments grew from 45% to 60% (CAGR ≈ 15.47%/year). Year-over-year trends also show consistent improvement: Quality compliance increased by 13.33% (2022 - 2023) and 10.29% (2023 - 2024); Consumer protection policy adoption rose by 14.55% and 14.29%; Transparency increased by 16.00% and 12.07%; Sustainable innovation commitments grew by 15.56% and 15.38%.

Table 5. CSR with Customers/Partners (FDI – Phu Tho, 2022–2024)

Indicator	2022	2023	2024	CAGR 2022–2024 (%)
Enterprises complying with quality standards (%)	60	68	75	11.80
With consumer protection policies (%)	55	63	72	14.42

Business transparency (%)	50	58	65	14.02
Commitment to sustainable product innovation (%)	45	52	60	15.47

Source: PPC (2024); DPI (2024)

This growth structure suggests two parallel drivers: (i) A compliance risk tier (quality, consumer protection, transparency) that helps reduce legal and reputational risks and strengthens market trust; (ii) A value–innovation tier (sustainable products) that provides competitive differentiation in supply chains increasingly demanding high environmental and social standards. Given that FDI enterprises grew from 180 (2022) to 205 (2024), the absolute number of compliant or active firms also increased significantly: Quality-compliant firms: 108 to 154 (+46); With consumer protection policies: 99 to 148 (+49); Practicing transparency: 90 to 133 (+43); Committed to sustainable innovation: 81 to 123 (+42). This notable expansion in the "normative footprint" among FDI firms aligns with rising global demands for traceability, information disclosure, and product/service risk governance. Interestingly, the three elements consumer protection, transparency, and sustainability grew faster (CAGR 14–15.5%) than quality compliance (11.8%), implying that companies are moving beyond technical standards toward proactive customer relationship governance and restructuring their product portfolios for greater environmental and social responsibility.

From a mechanism perspective, quality compliance represents the economic–legal foundation of CSR (per Carroll's pyramid), consumer protection and transparency reflect the ethical tier, while sustainable innovation signals the philanthropic strategic level where firms aim to create shared value via low-emission designs, recycled materials, or longer product life cycles.

The concurrent growth in all four indicators suggests an emerging "enabling ecosystem": When quality systems are standardized, firms can resolve complaints faster and disclose more consistently; When transparency improves, market trust rises, creating room for investment in sustainable innovation without fear of hidden compliance risks. However, if transparency is weak or consumer protection exists only "on paper," sustainability efforts may fail to translate into market value due to a lack of trust. Despite the positive trajectory, measurement gaps remain: (i) For transparency, move beyond binary "yes/no" to include disclosure frequency, content depth (e.g., key ESG/CSR topics), and third-party verification levels. (ii) For consumer protection, monitor resolution rates (e.g., within 7/15 days), refund/exchange ratios, and post-resolution satisfaction. (iii) For quality compliance, record not only certification status but also coverage (percentage of revenue/orders certified), audit frequency, and error/recall rates per 1,000 units. (iv) For sustainable innovation, shift from commitment-based measures to outcome metrics, e.g., revenue share from sustainable products, material intensity per unit, recycled content ratio, product lifespan.

From a local policy perspective, the uniform improvement across this pillar opens up space for conditional incentive mechanisms. First, include transparency and consumer protection criteria in the annual CSR–FDI ranking, and publish results publicly to drive healthy competition. Second, promote the creation and adoption of a Supplier Code of Conduct at the provincial/industrial park level, extending standards to local SMEs and reducing blind spots in lower-tier supply chains. Third, support enterprises in accessing third-party auditing/certification and digital platforms for complaint management and disclosure, reducing compliance costs and enabling inter-provincial benchmarking.

5. Discussion

Framing the findings within Carroll's Pyramid of CSR reveals a fairly consistent process of "foundation upgrading" across the **economic–legal layers**, with increasing engagement in the **ethical–philanthropic layers** (Carroll, 1991).

At the **economic–legal level**, indicators such as average wage, social insurance (SI) coverage, occupational health and safety (OHS) compliance, and product quality standards all showed steady growth: Wages and OHS compliance both achieved a CAGR of approximately 9.54%/year; SI coverage grew by 8 percentage points in two years; Enterprises complying with quality standards increased by 15 points. These form the **baseline conditions** for a well-functioning CSR system. They reflect both the effectiveness of local legal frameworks and inspection regimes, as well as the pressure from global supply chains where quality certifications, traceability, and consumer accountability are becoming **market entry standards** (ISO, 2010; UN Global Compact, 2022).

At the **ethical–philanthropic levels**, faster growth in training (CAGR ≈ 16.62%) and worker satisfaction (CAGR ≈ 6.90%) indicates that FDI firms are shifting from a **compliance mindset** to **investing in people** for long-term productivity and quality, supporting the shared value thesis of Porter & Kramer (2011) that worker welfare improvements can simultaneously enhance business outcomes.

The **Environment pillar** clearly displays a **two-speed mechanism**: **Leading indicators** related to investment decisions, green technology adoption (+25% then +30% year-over-year), and renewable energy use (+26.67% then +31.58%), increased rapidly (CAGRs of 27.48% and 29.10% respectively).

Meanwhile, the **compliance/result indicator** (waste control compliance) rose more slowly (CAGR ≈ 12.82%). This lag is technically expected: installing, operating, and calibrating treatment systems, as well as completing compliance assessments under QCVN or ISO 14001, typically takes 1 to 2 budget cycles before stable monitoring data is reflected (ISO, 2010). Additionally, a 31% increase in average environmental spending per enterprise during 2022–2024 signals a shift toward **deep investment**, laying the groundwork for improved long-term compliance. This trend is common in emerging industrial provinces, where **technology investment (inputs)** precedes observable environmental improvements (outputs/outcomes) (GRI, 2021).

The **Community pillar** shows maturity in both **breadth and depth**: The proportion of enterprises engaging in community activities rose from 50% to 65% (90 - 133 firms); Community funding grew faster than enterprise count (CAGR ≈ 22.47%/year); Investments in **education, healthcare,** and **infrastructure** rose significantly (CAGR ≈ 20.42% and 21.11%, respectively). This indicates a move away from scattered philanthropy toward **public goods with high social externalities and long-term cumulative impact**. In the **CSV framework**, firms are not just "giving" in a traditional sense. They're investing in **local human and infrastructure capital**, strengthening local ecosystems, talent pools, and reputational assets (Porter & Kramer, 2011). To ensure this "social investment" truly creates value, **output–outcome–impact metrics** must be standardized (e.g., number of beneficiaries, school retention rates, healthcare access improvements) (GRI, 2021).

In the **Customers–Partners pillar**, all four indicators improved in tandem: Quality compliance (+15 percentage points); Consumer protection policies (+17); Transparency (+15); Sustainable product innovation (+15). Notably, **non-technical elements** (consumer protection,

transparency, sustainability) grew faster (CAGR 14–15.5%) than quality compliance (11.8%), suggesting that once **technical standards are institutionalized**, firms shift toward **customer-facing governance** (disclosure systems, grievance handling, sustainable design) to **build trust and expand market reach** a typical trajectory in supply chains that demand traceability, third-party certification, and sustainable innovation (ISO, 2010; GRI, 2021).

Despite this positive picture, **two bottlenecks** require policy and governance attention: **Waste control compliance** lags behind green investment indicators. Without independent verification and standardized environmental data disclosure, there's a risk of **box-ticking compliance**. Requiring **GRI-aligned environmental reports** with third-party audits would reduce information asymmetry and improve execution quality (GRI, 2021). **SI coverage** shows signs of plateauing (from 80% to 88%). The next step is to shift from "breadth" to **implementation depth**: timely, complete coverage, reduced arrears, and expanded supplementary benefits (voluntary schemes, flexible welfare), factors directly tied to satisfaction and productivity but often **invisible in binary indicators** (Kotler & Lee, 2005).

In supply chains, **Tier 2–3 suppliers** remain a common "blind spot." Even if lead firms meet standards, downstream non-compliance can **boomerang reputational risks**. A **provincial or industrial park-level Supplier Code of Conduct**, with **co-funded SME upgrading programs**, is essential for cascading standards across the value chain.

In conclusion, quantitative evidence from 2022–2024 reveals a **rational CSR development path**: **Laying the compliance foundation** (economic–legal); Then investing in **people and green innovation** (ethical–philanthropic/CSV) as growth drivers. For the next stage, effective policy mechanisms must "close the loop" across **three pathways**: **Standardize indicators and data** (operational definitions, units, third-party validation); **Publicize CSR–FDI rankings** with **conditional incentives** (green conditionality) to reward or sanction based on performance; **Pull the value chain forward** via codes of conduct and shared consulting–certification services. If these are executed in sync, CSR will no longer be just a **compliance requirement**, but a **territorial competitive capability**, enabling Phu Tho to attract high-quality FDI while ensuring sustainable provincial development (GSO, 2023; MPI, 2023; ISO, 2010; GRI, 2021; UN Global Compact, 2022).

6. Policy Implications for Phu Tho

The 2022–2024 results show that the CSR trajectory of the FDI sector in Phu Tho is shifting from "minimum compliance" to "value creation" across all four pillars. To transform this trend into a territorial competitive advantage, the province needs a consistent, measurable, and accountable policy package. The following key implications are designed according to modern public governance logic (indicators–incentives–data–supply chain), with reference to international standards (ISO 14001/26000; GRI 302/305/403/413; UN Global Compact) and the province's available data conditions (ISO, 2010; GRI, 2021; United Nations Global Compact, 2022; PPC, 2024; DPI, 2024).

6.1. Developing a Provincial CSR–FDI Index and Publishing Annual Rankings

The objective is to standardize measurement, enhance comparability, and create motivation through "public benchmarking." The proposed index framework follows the four analyzed pillars, each including groups of "input/process" indicators (e.g., ISO 14001 certification, training programs, consumer protection mechanisms) and "output/result" indicators (e.g., occupational accident rate, on-time complaint resolution rate, compliant waste control rate, etc.). Data should be normalized using

the min–max (0–1) method for each indicator, with pillar scores calculated as the arithmetic mean (or using a weighted scheme of 30% Labor, 30% Environment, 25% Customers/Partners, 15% Community), and then aggregated into the CSR–FDI Index.

To ensure reliability, the MRV principle (Measurement–Reporting–Verification) should be applied: Enterprises self-report using forms mapped to GRI items (302 Energy; 305 Emissions; 403 Occupational Health and Safety; 413 Community). Specialized agencies conduct formal reviews. Third-party verification is carried out using a risk-based sampling model (minimum 5–10% of enterprises per year, prioritizing those with large score fluctuations).

Results are publicly disclosed under four categories: A (≥80), B (65–79), C (50–64), and D (<50), accompanied by "good practice profiles" for peer learning (GRI, 2021; ISO, 2010). This approach is consistent with the current data infrastructure of the province (PPC, 2024; DPI, 2024) and allows for progressive improvements over subsequent cycles.

6.2. Designing Conditional Incentives ("Green Conditionality") Directly Linked to the Index

Traditional investment incentives (land/tax, fees/fast procedures) should be tied to clear CSR conditions so that rewards or penalties are based on outcomes, avoiding "averageism." A three-tier mechanism is proposed: Tier A: 20–30% land rent reduction for 3 years; "fast track" procedures (processing time T ≤ 10 days with complete documents); support for up to 50% of the cost of ISO 14001/ISO 45001 certification or third-party verification of environmental safety data. Tier B: 10–15% land rent reduction; free consulting on GRI reporting and occupational health & safety (OHS). Tier C/D: no new incentives; a mandatory remediation roadmap with time milestones and quarterly reviews; in case of repeated violations, apply clawback (recover incentives) and add to a heightened monitoring list.

Minimum conditions for incentive eligibility include: no serious environmental violations, no social insurance debt over 60 days, no unresolved serious labor accidents, and a customer complaint resolution rate on time ≥ 90%. This incentive structure sends a strong price signal for enterprises to invest in green technologies and governance systems (ISO, 2010; United Nations Global Compact, 2022).

6.3. From Scattershot Sponsorship to Multi-Year, Results-Oriented Community Programs

The 2022–2024 results show that enterprise participation in community activities increased (50% - 65%) and funding rose faster than enterprise numbers (CAGR ≈ 22.47%), especially concentrated in education, health, and infrastructure. To increase marginal impact, the province needs to transition from "event gifts" into a portfolio of 3–5 year programs with clear results frameworks (outputs–outcomes–impacts): (i) Education: number of students benefiting, retention rate, digital capacity of schools (equipment, connectivity, digital skills). (ii) Healthcare: number of supported health/medical cases, reduced waiting/access times, proportion of vulnerable groups with health insurance coverage. (iii) Infrastructure: number of projects handed over meeting standards, operation–maintenance cost, share of population accessing the service. Each program should sign a tripartite MOU (enterprise, beneficiary unit, local People's Committee) with measurable KPIs, a budget schedule, community oversight mechanisms, and annual third-party evaluation. This approach reduces

the risk of superficial "window dressing" and produces cumulative social value over time.

6.4. Building a Shared CSR Data Ecosystem and MRV Infrastructure

To turn the index and incentives into operational tools, the province needs an integrated CSR data portal that links with relevant departments/agencies. Mapping data formats to GRI enables comparison over time and across enterprises. Use APIs for enterprises to submit electronic reports, minimizing manual data entry. Minimize compliance burden by leveraging existing administrative data (insurance, environmental inspections, product quality) and only requiring enterprises to submit additional reports for variables not already available. Design a public dashboard displaying overall scores, pillar scores, certifications, and remediation status. Conduct random audits of 5–10% of enterprises per year, plus targeted auditing for firms with large score fluctuations; audit results determine eligibility for ranking recognition and incentives (ISO, 2010; GRI, 2021). Data principles: transparency, security, and protection of trade secrets.

6.5. Raising Supply Chain Standards via a Supplier Code of Conduct and "Green SME" Program

Compliance risks often emerge among Tier 2–3 suppliers. The province should promote a unified **Supplier Code of Conduct** for industrial zones covering topics: labor (social insurance, working hours), environment (waste treatment, energy, emissions), business ethics, and transparency. Leading FDI firms commit to designating or encouraging suppliers to sign the code and allow periodic evaluation. Concurrently, roll out a **"Green SME" program**: quick audits, 12–18 month improvement roadmaps, co-funded consulting/certification support (30–50%), and connection to green financing. Key performance indicators include: percentage of suppliers with approved remediation plans, percentage achieving minimum standards after 12 months, and number of suppliers obtaining relevant certifications (ISO 14001/9001). This mechanism helps elevate standards "bottom up," reducing reputation blind spots for FDI firms and the province (ISO, 2010; United Nations Global Compact, 2022).

6.6. 24-Month Implementation Roadmap and Execution Governance

To ensure feasibility, a three-phase schedule is recommended: **Phase 1 (0–6 months):** enact the provincial decision on the CSR–FDI Index and ranking; establish a CSR Coordination Taskforce led by the Provincial People's Committee; finalize GRI mapping templates; build a minimally viable data portal; pilot with 50 enterprises in two industrial zones. **Phase 2 (7–15 months):** scale to all FDI firms; carry out the first verification round; publish the first ranking and activate conditional incentives; launch 2–3 pilot multi-year community programs; establish the Supplier Code and the first Green SME group. **Phase 3 (16–24 months):** conduct the first independent evaluation; adjust weights/indicators; expand the public dashboard; increase verification rate to 10%; prepare to integrate CSR criteria into public procurement and investment administrative procedures.

Implementation resources can be reallocated from investment promotion and sectoral inspection budgets, combined with socialization (contributions from Tier A/B companies to a verification, certification fund), so as not to significantly raise recurring public expenditures. The above **"indicator–incentive–data–supply chain"** solutions allow a closed policy loop: reliable measurement, public ranking, performance-based incentives, system-wide standard uplift. When operated in synchrony, CSR becomes more than compliance, it becomes a **territorial competitive**

capability for Phu Tho in attracting and screening **high-quality FDI**, in line with international norms and local sustainable development expectations (PPC, 2024; DPI, 2024; ISO, 2010; GRI, 2021; United Nations Global Compact, 2022).

7. Limitations and Directions for Future Research

This study relies on provincial-level secondary data; some qualitative indicators (e.g. worker satisfaction, supplier practices) do not yet form a complete chain. In the future, the following are needed: (i) surveys of firms and employees (using Likert scales, reliability and validity testing); (ii) in-depth case studies of 5–7 enterprises to assess implementation quality; and (iii) modeling the relationship between CSR and performance outcomes (productivity, export revenue, compliance costs).

8. Conclusion

The 2022–2024 period demonstrates that the CSR trajectory of FDI enterprises in Phu Tho improved in a synchronized manner across all four pillars, with two prominent layers of movement. At the "foundation" economic–legal layer, compliance indicators increased steadily, thereby strengthening market discipline and reducing legal risk. At the "value" ethical philanthropic layer, the innovation impetus is evident in workforce training and "greening" processes, which in turn drive significant increases in average environmental protection investment per enterprise. On the community and customer/partner pillars, enterprise participation, social resource mobilization, transparency levels, consumer protection, and commitments to sustainable innovation all expanded, shifting focus from scattered sponsorship to interventions that generate cumulative social value.

From this picture, policy priorities are not merely to "do more" but to "do better and measurably": (i) institutionalize the provincial CSR, FDI indicator set and annual rankings tied to conditional incentives; (ii) build a data ecosystem and third-party verification to lock in execution quality; (iii) roll out multi-year, results-oriented community programs; and (iv) elevate the supply chain together through a Supplier Code of Conduct and a "Green SME" support package. When these components operate in concert, CSR will shift from a compliance obligation to a territorial competitive capability, helping Phu Tho both screen and attract high-quality FDI, while upgrading growth quality under the 3E logic (effectiveness – efficiency – sustainability), and ensuring inclusive development goals in the medium and long term.

References

1. Carroll, A. B. (1991). The pyramid of corporate social responsibility: Toward the moral management of organizational stakeholders. Business Horizons, 34(4), 39–48.
2. Freeman, R. E. (1984). Strategic management: A stakeholder approach. Pitman.
3. General Statistics Office of Vietnam. (2023). Vietnam Statistical Yearbook 2023. Statistical Publishing House, Ha Noi
4. Global Reporting Initiative. (2016). GRI 302: Energy 2016. GRI.
5. Global Reporting Initiative. (2016). GRI 305: Emissions 2016. GRI.
6. Global Reporting Initiative. (2016). GRI 413: Local communities 2016. GRI.
7. Global Reporting Initiative. (2018). GRI 403: Occupational health and safety 2018. GRI.
8. Global Reporting Initiative. (2021). GRI standards 2021: Universal standards. GRI.

9. International Organization for Standardization. (2010). ISO 26000: Guidance on social responsibility. ISO.
10. International Organization for Standardization. (2015). ISO 14001:2015 environmental management systems—Requirements with guidance for use. ISO.
11. International Organization for Standardization. (2018). ISO 45001:2018 occupational health and safety management systems—Requirements with guidance for use. ISO.
12. Kotler, P., & Lee, N. (2005). Corporate social responsibility: Doing the most good for your company and your cause. Wiley.
13. Ministry of Planning and Investment. (2023). Report on foreign direct investment (FDI) 2023, Ha Noi
14. Phu Tho Provincial Department of Planning and Investment. (2024). FDI attraction and operation situation in Phu Tho province, Phu Tho
15. Phu Tho Provincial People's Committee. (2024a). Socio-economic report for the first six months of 2024. Phu Tho
16. Phu Tho Provincial People's Committee. (2024b). Phu Tho provincial planning for the period 2021–2030, vision to 2050. Phu Tho
17. Porter, M. E., & Kramer, M. R. (2011). Creating shared value. Harvard Business Review, 89(1–2), 62–77.
18. United Nations Global Compact (2022). Communication on Progress Guidance.
19. United Nations Global Compact. (2022). Corporate sustainability and the Sustainable Development Goals (SDGs). UN Global Compact.