The SDGs and Value Chains: customized solutions for an inclusive global value chain governance

Luca Osvaldo Uccello, CSR and Sustainable Finance Manager, UN Global Compact France.
Ludovica Chiappini, Legal Affairs, Compliance and CSR Officer, Private Sector (Corresponding author)
Ludovicachiappini.lc@gmail.com

Introduction

Today production is increasingly organized within the global value chains (GVCs) where the different stages of the process are located across different countries. GVCs link firms, workers and consumers around the world and play a crucial role in providing a comprehensive view of global industries[1]. GVCs boost incomes, create better jobs and reduce poverty[2]. They could be the key means to achieve sustainable development goals (SDGs). Indeed, participation in GVCs can bring considerable benefits to domestic firms. They can learn from multinational corporations (MNCs) through investments and partnerships while contributing to the social and economic development of their country. Nonetheless, GVCs could also be the key threats to SDGs if not correctly framed. Nowadays, the gains from GVCs participation are not equally shared across and within countries. Large corporations that outsource parts and tasks to developing countries have seen rising markups and profits. Meanwhile, markups for producers in developing countries are declining. This leads to the belief that the share of costs' reductions from GVC participation are not being covered by the consumers. Although foreign firms can stimulate productivity spillovers and sustainable standards to domestic firms, the latters need to constantly adapt their operations and strengthen their capabilities to better suit global production networks, eventually being overly burden and lacking resources to improve on their human rights conditions and environmental protection practices[3].

The issue at stake is not whether to participate in the global economy for a firm or to reduce the role of GVCs, but how the participation can be gainful for all and aligned with SDGs. In fact, the sustainable development discourse is a doctrine that believes in the promotion of economic growth in ways that are both environmentally benign and socially just[4]. MNCs are increasingly embracing their role in the achievement of the SDGs and their efforts include their GVCs. However, given the aforementioned results of The World Bank report, the imposition of sustainability standards by MNCs to govern their GVCs, has proven to be mostly inadequate to address these concerns.

The purpose of the paper is to explore how MNCs with the mission to achieve SDGs, can give all parts of their global value chain (GVC) a say and encourage an inclusive governance. It intends to overcome the dark side of an imbalance of power that can overwhelm the parts of the GVC that are in most need of progress on SDGs.

Taking the cue from the GVC literature, which identified and analyzed five types of governance structures, the paper states that the ways to reach an inclusive governance within a chain depends on its existing structure. It shows how strategic decisions are made through a game theory and it proposes customized solutions that are viable in terms of execution.

The first section examines the global value chain structure focusing on the governance dimension. It explores the five types of governance structures identified by the GVC literature highlighting the spectrum of existing relationships in each of them. This analysis represents the starting point to frame an efficient approach apt to create an inclusive governance that is SDGs oriented. Hereinafter, the second section uses the game theory to solve interactive decision-making problems in each global value chain governance structure. The game is built on the reactions of GVCs players according to their cultural propensions to SDGs and economic viability. Finally, the third section identifies applicable solutions to each governance structure. Each solution shows how MNCs can foster an inclusive governance, identified as the winning approach for all the actors, to reach SDGs in their GVCs. The paper is able to provide a management tool for transformational governance. Indeed, transformational governance is a "*principles-based philosophy that calls on business to*

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[1] Gary Gereffi and Karina Fernandez-Stark, "Global Value Chain Analysis: a Primer ," Second Edition (Durham, NC 27705: Center on Globalization, Governance & Competitiveness, Duke University, July 2016), pp. 1-34.

[2] "Trading for Development in the Age of Global Value Chains" (Washington, DC: World Bank, 2020), pp. 1-10.

[3] Ibid., 1-10.

[4] John S. Dryzek, in *The Politics of the Earth: Environmental Discourses* (Oxford: Oxford University Press, 2005), pp. 145-161.

be more accountable, ethical, inclusive and transparent to drive responsible business conduct, improve ESG performance and strengthen public institutions, laws and systems"[5]. It is an inclusive governance that is SDGs oriented.

I. Global Value Chain Structure and Analysis

Scholars identified six dimensions composing the global value chain structure[6]. Among them, the paper decides to focus on the governance dimension analysis as the crucial tool to explore how the recognized lead firms interact with their suppliers and what is their source of influence and power over them. Indeed, governance was defined by Gereffi as *"authority and power relationships that determine how financial, material and human resources are allocated and flow within a chain".* Therefore, governance analysis illustrates how a chain is controlled, coordinated and where it is headed[7].

The GVC literature has identified five types of governance structures: market, modular, relational, captive and hierarchy. Researchers analyzed them with the lens of three variables: the *complexity of transactions* (information and knowledge transfer required to sustain a particular transaction with respect to product and process specification); *codifiability of information* (the extent to which this information and knowledge can be codified and, therefore, transmitted efficiently and without transaction-specific investment between the parties to the transaction); and, *capability of the suppliers* (in relation to the requirement of the transactions)[8]. The combination of these variables leads to determine the degree of the asymmetry of power among the actors, the cost of switching with new ones, their level of coordination and durability of their relations.

The present research integrates to the governance analysis, the concept of inclusive governance that is SDGs oriented and shows how it could be reached in each governance structure. Inclusive governance in a SDGs oriented GVC means the management of environmental, social and economic impacts through collaborative decisions in the chain.

a. Market Governance

Market governance is characterized by a low complexity of transaction. Buyers and suppliers can easily communicate product specifications. Suppliers' ability to codify transactions and to make products is really high. That means that there is no need for coordination among the actors in this value chain. There is a low level of asymmetry of power and the costs of switching to new partners are low for both. Their relationship is transactional rather than durable. There is no lead firm in the market governance structure. The reference is the price. Therefore, the buyer tends to buy from producers that have the lowest price. If the buyer is SDGs oriented, he will purchase the product from those who respect the SDGs and have lower prices. The supplier tends to maximize the profit. To conclude, inclusive governance, as defined before, is not applicable in this kind of structure. There is no governance by the actors. The rule of the price is the form of government.

b. Modular Governance

Modular governance occurs when the complexity of transactions is high, but easy to codify for the suppliers. Thanks to flexible assets, they also have high capabilities in making products according to a buyer's specification and take full responsibility for the process. That means there is no need for coordination among the actors. There is a low level of asymmetry of power. The costs of switching to new partners are low for both. Nonetheless, in this case, there is a lead firm that gives product specifications to suppliers. Therefore, the supplier needs to slightly adapt to the demands of the buyer. To conclude, inclusive governance is hard to apply since the level of coordination and the switching costs are low. However, it is not impossible. There is a moderate asymmetry of power in favor of the lead firm that could choose inclusive governance and influence the value chain.

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[5] António Guterres and Sanda Ojiambo, "SDG 16 Business Framework: Inspiring Transformational Governance," UN Global Compact - SDG 16 Business Framework, accessed July 26, 2022, https://sdg16.unglobalcompact.org/.

[6]Gereffi "Global Value Chain Analysis, pp. 7-14.

[7] ibid., pp 10.

[8]Gary Gereffi, John Humphrey, and Timothy Sturgeon, "The Governance of Global Value Chains," *Review of International Political Economy* 12, no. 1 (2005): pp. 85, https://doi.org/10.1080/09692290500049805.

c. Relational Governance

In these chains, buyers and suppliers rely on complex information not easy to codify. Still, the capability of the supplier to respond to the requirements of the transaction is high. That is translated into mutual reliance and dependence. The switching costs to new partners are medium-high for both. Nonetheless, there is a lead firm which has the ability to exert some level of control over the suppliers. Therefore, the buyer can impose some product specifications. The supplier is able to provide differentiated products based on shared interactions and knowledge with the buyer. The actors are naturally incentivized to cooperate and have a long-term relationship. To conclude, inclusive governance is almost a natural solution here. The degree of coordination and switching costs are high. There is a slight asymmetry of power in favor of the lead firm interested in the survival of its suppliers. Indeed, the relational linkage is the lead value.

d. Captive Governance

Captive governance describes chains with a high complexity of transaction. Buyers and suppliers can easily transmit to each other product specifications. However, the supplier's production capability is low. That means there is a high level of power asymmetry in favor of the lead firm and its suppliers are strongly locked-in by its specific conditions. This leads to a high level of coordination and high switching costs. Therefore, the buyer has a great deal of power and control over the suppliers. The supplier is highly dependent on the buyer. However, the customized production for the buyer is valuable since the high complexity of transactions. This creates a degree of interdependence. To conclude, inclusive governance is feasible. Although, it will not be the natural path. The lead firm, with a great deal of power, can just impose its standards.

e. Hierarchy Governance

Finally, hierarchy governance occurs when the lead firm develops and manufactures products in-house. In other words, the complexity of the transaction is so high that the suppliers do not have the ability to codify and they are not competent. Therefore, the buyer and the supplier are integrated. To conclude, it is more appropriate to deal with inclusive internal corporate governance.

To sum up, inclusive governance is hard to apply when there is a low level of explicit coordination, low pressure for durable relationships and the switching costs for new partners are low. It is, also, difficult when the asymmetry of power is extremely high. The solution of imposing standards could be an easier and less costly option in the short term for the lead firm. Through the game theory, the following section attempts to analyze whether inclusive governance is the most effective choice or not for all the actors involved according to the type of value chain governance structures.

II. Inclusive vs non-Inclusive GVC Governance: Game Theory

1. The issue at stake

A sustainable value chain[9] can lead to many benefits: ensuring compliance with standards; reducing supplier's operational and financial risks; decreasing costs from all types of economies of scale; creating a stable business environment; improving parties reputation; accessing innovation, expertise, and local knowledge; etc…

Even though these benefits may seem clear, some actors may not find them so. In that case the parties will negotiate and assess benefits and costs for their business. When engaging in negotiation in each type of governance, the results may vary depending on the distribution of power, information and coordination among the parties.

The paper will deep dive into the business negotiations and break them down in two elementary levels of decision making: the cultural propension and the economic viability. The negotiations will be represented by a game theory. The cultural propension is defined as sensitivity or non-sensitivity to the SDGs which for the lead firm is translated into "imposing its own standards" (non-inclusive governance), or "building the standards with the suppliers" (inclusive governance). For the supplier, it is translated into being "cooperative" or "not

[9] A sustainable value chain is an inclusive governance value chain that is SDGs oriented.

cooperative" towards SDGs standards. While, the economic viability identifies the outputs of the game, according to the players' costs and benefits.

The game theory is applied to the modular, relational and captive governance types. Market and hierarchy ones will not be analyzed since, as previously mentioned, their structures are not adapted to inclusive GVC governance. However, viable solutions that are SDGs oriented will be proposed also for them in the next section.

2. The rules of the game

The game is unrolled with perfect information, but not complete information as the players do not know the other's utility function. It is non-cooperative[10] and the agents pursue the maximum output. There are two players: MNC and the supplier. The first to move is always the MNC, asking the supplier to comply with an SDG approach (sequential game).
Firstly, costs and benefits are assessed for each player, influencing the level of outputs for each decision.

MNC being inclusive		Supplier being collaborative	
Costs	Benefits	Costs	Benefits
✓ Harmonization ✓ Capacity building ✓ Switching costs (for relational and hierarchy)	✓ Cooperation building ✓ Cost-sharing ✓ Reduced risks ✓ Better reputation ✓ Increased goodwill ✓ Stable business environment (for relational and hierarchy)	✓ Transformation ✓ Overhead ✓ Market repositioning (for modular) ✓ Switching (for relational and hierarchy)	✓ Learning ✓ Long term relationship ✓ Reputation ✓ Reduced risks related to compliance

Secondly, according to the cultural propension, the MNC can be inclusive (I) or non-inclusive (NI), and in response to this behavior, the supplier can be cooperative (C) or not (NC). According to the economic viability of the players' strategy in each governance structure, the outputs are defined as following: (b,d,f,h) for the MNC and (a,c,e,g) for the supplier. Where NI = (b,f), I = (d,h), C = (a,c), NC = (e,g) , as shown in the table below. Then, the outputs are ordered from the most to the least desirable for each player, and numerical values are attributed (+1;+0,5;0;-0,5;-1) in order to show the degree of desirability of the outputs.

GT Governance Type	MNC	
Supplier	Non-Inclusive (NI)	Inclusive (I)
Cooperative (C)	(a,b)	(c,d)
Non-Cooperative (NC)	(e,f)	(g,h)

MNC outputs = … > … > … > …; Supplier outputs = … > … > … > …

3. Applying the game theory to value chain governances

In the **modular governance** (ref.paragraph I.b), according to above cost-benefit analysis the **players' preferences** are the following: the MNC most desirable option is the non-inclusive governance (NI) and the

[10] Non-cooperative game theory deals with how rational economic agents deal with each other to achieve their own goals. The most common non-cooperative game is the strategic game, in which only the available strategies and the outcomes that result from a combination of choices are listed. Robert S. Pindyck and Daniel L. Rubinfeld, in Microeconomia, Settima (Milano: Pearson Italia, 2009).

supplier being cooperative (C), since it will impose SDGs standards without taking the costs of implementation. Its worst option is to be inclusive (I) and the supplier being non-cooperative (NC), because it has to adapt to the supplier's conditions and undertake the costs. Regarding the supplier, the best option is to be non-cooperative (NC) and MNC being inclusive (I). Hence, the supplier could keep producing for its customers without undertaking transformation costs. Its worst option is to be cooperative (C) and being obliged by the client to follow and invest (NI) without possibility of negotiation.

If **MNC decides to impose SDGs standards** (NI)**,** the supplier can choose to be not cooperative (NC), because switching costs are low. The outputs will be a *status quo* for both players as they can easily terminate their relationships. However, if the supplier decides to be cooperative (C), its outputs will be negative since it will have major costs to adapt to MNC requests, reshaping its operations and affecting also its other clients.

On the contrary, if **MNC decides to be inclusive** (I), the supplier can choose to be non-cooperative (NC). The outputs will be positive for the supplier not needing to adapt its operations, while they will be negative for the MNC increasing the costs of audits. Nonetheless, if the supplier decides to be cooperative (C), the outputs will be slightly positive for both since they will share the transformation costs, their risks will reduce and their relationship will improve. In the long term, this choice can bring a high level of confidence, less audits and more transparency. The table below shows what it was described:

GT in modular governance	MNC	
Supplier	Non-Inclusive (NI)	Inclusive (I)
Cooperative (C)	(a,b) ; (-1,+1)	(c,d) ; (+0.5,+0.5)
Non-Cooperative (NC)	**(e,f) ; (0,0)**	(g,h) ; (+1,-1)

MNC outputs = b > d > f > h ; Supplier outputs = g > c > e > a

Here, there is one equilibrium where the MNC is non-inclusive and the supplier is non cooperative. This represents a Nash equilibrium[11], even though it is not Pareto optimal[12] that corresponds instead to the strategy where MNC is inclusive and supplier is cooperative. Hence, both players should be encouraged to collaborate.

In the **relational governance** (ref.paragraph I.c), according to above cost-benefit analysis the **players preferences** are the following: the MNC most desirable option is the non-inclusive governance (NI) and the supplier being cooperative (C), since MNC will impose SDGs standards without the costs of implementation and taking all the benefits. Its worst option is being non-inclusive (NI) and the supplier being non-cooperative (NC), because it will entail higher costs of transaction and higher switching costs. Regarding the supplier, the best option is being non-cooperative (C) and MNC being inclusive (I) since there will be a durable relationship with the MNC and shared transformational costs. Its worst option is the same worst one of the MNC for the same reasons.

If **MNC decides to impose SDGs standards** (NI) and the supplier chooses to be cooperative (C), the outputs will be positive for the MNCs since it will impose SDGs standards without the costs of implementation and also get the benefits of a stable relationship with the supplier. The outputs for the supplier will be *a status quo*. It needs to adapt and support the transformational costs, however it will save on the switching costs. If the supplier decides not to be cooperative (NC), the output will be negative for both since there is a risk that the relationship, that is the most valuable element in this type of governance, breaks causing costs for both.

On the contrary, if **MNC decides to be inclusive** (I) and the supplier chooses to be non-cooperative (NC), the outputs will be slightly positive for the supplier not needing to adapt and it will be a *status quo* for the MNC, increasing risk and audit costs meanwhile keeping a stable business environment. Nonetheless, if the supplier decides to be cooperative (C), the outputs will be positive for both since they have the opportunity

[11] Nash equilibrium is when there is no incentive for players to deviate from their initial strategy. Ibid.

[12] Pareto optimality is a situation where no individual or preference criterion can be made better off without making at least one individual or preference criterion worse off. Ibid.

to develop, share costs, progress and improve their operations. Moreover, they will both have a stable relationship, ensuring their production in the long term. The table below shows what it was described.

GT in relational governance	MNC	
Supplier	Non-Inclusive (NI)	Inclusive (I)
Cooperative (C)	**(a,b) ; (0,+1)**	(c,d) ; (+1,+0.5)
Non-Cooperative (NC)	(e,f) ; (-1,-1)	(g,h) ; (+0.5,0)

MNC outputs = b > d > h > f ; Supplier outputs = c > g > a > e

Here, the equilibrium is when MNC is non-inclusive (NI) and supplier is cooperative (C). This represents a Nash equilibrium, even though it is not Pareto optimal, that, instead, corresponds to the strategy where MNC is inclusive (I) and the supplier is cooperative (C). Hence, both players should be encouraged to be collaborative.

Finally, in the **captive governance** (ref.paragraph I.d), the **players preferences** are the following: the MNC most desirable option is the non-inclusive governance (NI) and the supplier being cooperative (C). The MNC, lead firm, has a great deal of power and control over the supplier. Hence, it is easier to impose its conditions on the supplier that depends on the MNC. The worst option for the MNC is to be inclusive (I) and the supplier being non-cooperative (NC), because it will entail higher transaction and switching costs. In this type of governance suppliers have developed unique capabilities and MNC are dependent on them. For these reasons switching costs are very high. Regarding the supplier, the best option is to be cooperative (C) and MNC being inclusive (I) since there will be a durable relationship with the MNC and shared transformational costs. Its worst option is to be cooperative (C) and MNC being non-inclusive (NI) because of adaptation and transformational costs on its charge.

If **MNC decides to impose SDGs standards** (NI) and the supplier chooses to be cooperative (C), the outputs will be positive for the MNC since it will impose SDGs standards without the costs of implementation and conserving the benefits of a stable relationship with the supplier. The outputs for the supplier will be negative, having the burden of transformational costs and the risk of breaking the relationship. If the supplier chooses to be non-cooperative (NC), the output will be the *status quo* for both. Indeed, none of them spend on transformational costs.

On the contrary, if **MNC decides to be inclusive** (I) and the supplier chooses to be non-cooperative (NC), the outputs will be negative for both. The MNC will have the burden of audit costs and an increasing reputational risk. The supplier will have a risk of breaking the relationship. Nonetheless, if the supplier decides to be cooperative (C), the outputs will be positive for both since they have the opportunity to develop, share costs, progress and improve operations. Only in this case, they can get all the benefits of a sustainable value chain. The supplier will then get more autonomy and access to better economic, social and environmental conditions. Even if this will not be the best output for the MNC, it is still the best equilibrium that will ensure long-term value creation. The table below shows what it was described.

GT in captive governance	MNC	
Supplier	Non-Inclusive (NI)	Inclusive (I)
Cooperative (C)	(a,b) ; (-1,+1)	**(c,d) ; (+1,+0.5)**
Non-Cooperative (NC)	(e,f) ; (0,0)	(g,h) ; (-1,-1)

MNC outputs = b > d > f > h; Supplier outputs = c> g > e > a

This equilibrium represents a Nash equilibrium, and it is also Pareto optimal.

To conclude, the game theory demonstrates the influence of the different governance types on the relationships of the players. Nash equilibriums vary along the governances, nonetheless the pareto optimality is always positioned in one scenario: the decision of the MNC to be inclusive (I) and the supplier being cooperative (C). The next section will illustrate operational solutions for each existing governance type that will encourage players shifting toward the pareto optimality.

III. Customized solutions for an inclusive global value chain governance.

The adoption of inclusive governance is a factor of change, the right path towards the SDGs, the recipe to positively frame the impact of GVCs. What are the solutions that incentivize this structure? Who are the agents (people, associations etc..) involved in the implementation of these measures? The following paragraphs answer these two questions in each pre-existing governance type proposing customized solutions that are able to influence the actors cultural propension and economic viability, therefore guiding them to the Pareto optimality (inclusive governance).

a. Fostering inclusive price in the Market governance structure

In the Market governance there is no lead firm and everything is determined by the price that is the only element of governance. The relationship between parties is transaction based. Given these conditions, inclusive governance is not applicable. Thus, it is necessary to incentivize an inclusive price governance that reflects both the economic and socio-environmental costs through:

i. Increasing consumer propension to purchase sustainable products and services: according to the theory of consumer behavior, the consumer's rational choice is to maximize his utility with a limited income[13]. Hence, letting him perceive that buying sustainable products and services is more satisfying, will push the demand up. Higher demand will increase the price in the short term, but also the quantity in the long term. The increase of the offer will enable economies of scale reducing the price reaching a new equilibrium. The agents involved in this process are the consumers associations and others related to human rights, environmental standards *etc*..; national and international governments by setting regulations to apply informational labels concerning SDGs standards on the products and services offered and providing subsidies such as vouchers to consumers with lower incomes, exchangeable for products and services that meet these standards. Finally, schools through their educational programs and social media through advertising campaigns.

ii. Negotiating inclusive price by establishing a sustainable commercial contract model using shared sustainable contracting principles: These types of chains are deficient in durable relationships and coordination. Hence, the only way of cooperation between the buyer and suppliers is through contracts. Two measures would be effectives to integrate an inclusive price in commercial contracts. Firstly, the integration and development of **sustainable contracting principles** regardless of the origin of the buyer and supplier and their legal system[14]. United Nations Global Compact, representing more than 17000 engaged companies worldwide, could be the leading agent of setting these principles. Secondly, the creation of a **sustainable commercial contract model:** a commercial standardized contract which in its objectives and execution, includes ESG aspects. Each category association would play the role of pivotal agent of implementation and customization of the model according to the sector's specificities. Indeed, exchanges should check companies ESG standards before admitting them in the market, they could use the customized models as a condition to enter and negotiate in the market (e.g. in the metal exchange and commodity markets transactions are extremely standardized).

b. Encouraging the supplier to cooperate in the Modular governance structure

As seen in the game theory, in the modular governance switching costs are particularly low disincentivizing long term relationships. The supplier adapts its production process for the lead firm but also for other customers. By inciting the supplier to collaborate, the lead firm will gain from being inclusive. What are the solutions and the agents that incentivize the supplier?

i. Building an industry collaboration among lead firms that are the supplier's customers to pressure the supplier to achieve the SDGs. Such collaboration will increase the bargaining power of the lead firms. It

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[13]Ibid, pp. 62-63.

[14]Ecovadis and Affectio Mutandi, "Sustainability Clauses in Commercial Contracts: The Key to Corporate Responsibility", www.eticanews.it, 2018, https://www.eticanews.it/wp-content/uploads/2018/07/ecovadis_contrat_clauses_RSE__20.06.2018_eng_v5-1.pdf

is effective when the demand of the suppliers' customers corresponds to a relevant volume of sales letting the supplier consider to shift towards an SDG approach. This will influence the supplier's cultural propension to negotiate. Indeed, in some industries, this can happen when the suppliers of a market leader firm are the same also for other lead firms. If the market leader is a pioneer in implementing SDG standards along the GVC, all the other lead firms will benefit from it, since it is easier to convince the supplier (e.g. cosmetic and beauty industry).

ii. Giving better access to finance: the supplier could be incentivized by lowering the cost of financing thanks to **SDGs bonds, green bonds, social bonds** and other entrepreneurial initiatives that lead to **risk-sharing solutions**, such as **joint ventures**. The joint venture would allow the supplier to achieve external growth and create production lines that meet the standards required by the MNC. This will impact the supplier's economic viability.

c. Strengthening international cooperation in the Relational governance structure

The application of game theory to relational governance showed that the supplier has a dominant strategy of cooperation, while the lead firm has an attitude to impose SDGs standards and being not inclusive. Working at the level of the lead firm could allow a shift towards inclusive governance.

i. On a cultural level, all **suppliers should cooperate and create a coalition building action** to pressure the lead firm implementing inclusive governance. The coalition should be transparent about what is achievable. This will demystify the effectiveness of imposed standards compared to a collaborative approach that is more convenient.

ii. On an economic level, the lead firm should be aware of the importance of its supplier's survival since the high value of the relational linkage. Therefore, **the lead firms could be incentivized by international funds to cooperate with them in order to ease sustainable suppliers' access to finance**[15]. Such approach with a third-party will counterbalance the power of the lead firm, decreasing its harmonization, capacity building and compliance costs and maximizing its financial and extra-financial performances.

d. Creating a relationship durability index in the Captive governance structure

In the captive governance, the switching costs are high for both parties, however the asymmetry of power is favorable to the lead firm. To minimize the dark side of the imbalance of power, it is suggested to work on the lead firm cultural propension and economic viability through:

i. A supplier relationship durability index: this index should illustrate the lead firm's positive impact on the supplier performance in the given market. It should also include the negative consequences in the case of the supplier's exclusion from the GVC. The index should be directly proportional to the durability of the relation and the extra-financial performances: high longevity of the relationship and good performances correspond to high levels of the index. Therefore, an exclusion of the supplier from the GVC would be the least efficient option for the lead firm. Instead, the use of contractually agreed penalties toward the supplier would potentially create leverages to make it more accountable for its actions. Rating companies are the most appropriate agents to implement the measure. This solution will create the conditions to incentivize the MNC on both aspects: the cultural propension and economic viability.

e. Incentivizing an inclusive internal corporate governance in the Hierarchy structure

It is not appropriate to refer to inclusive GCV governance in the hierarchy structure. Indeed, the buyer and suppliers are integrated. Suppliers are mainly foreign subsidiaries of the lead firm. Subsidiaries are independent in terms of governance being a separate legal entity. Nevertheless, due to the majority ownership, the controlling company has a major say in the election of the subsidiary's board of directors and its functioning. Hence, the lead firm has all the power to decide and to impose sustainable standards to its different subsidiaries. The risk is not considering the needs of its subsidiaries while dealing with sustainable procedures, and creating, eventually, a negative impact at a local level. Therefore, the issue at stake is how to incentivize an inclusive internal corporate governance. It could be done by:

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[15] A UN Global Compact best practice case illustrates how Levi Strauss & Co. partnered with the International Finance Corporation (IFC) to offer reduced loan financing to those suppliers with the strongest sustainability performance based on the company's Terms of Engagement.

i. Strengthening the internal and external stakeholders' dialogue: on the one hand, the management board of each subsidiary and the employees have a broader understanding of local conditions. They are the major influential internal stakeholders. Hence, they should pressure the controlling company to an inclusive dialogue. The incentive to accept for the lead firm is to reduce its reputational risk. Existing safe reporting channels for whistleblowers[16] ensuring their protection and easing the divulgation of unethical and illegal practices are the leverages that the internal stakeholders have on the company image. On the other hand, the most influential external stakeholders are NGOs and local communities impacted by the company activity. They should pressure for a dialogue with the subsidiary management board and raise awareness about the harming issues caused by a non-inclusive internal governance. Once again, the incentive for the subsidiary management board and the controlling company to engage in a dialogue is to avoid the reputational risk and increase operational efficiency. The result should be a transformational governance.

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[16] A whistleblower is someone who comes forward and shares the personal knowledge of any wrongdoing which he/she thinks is happening in his/her organization or specific department. A whistleblower could be an employee, contractor, suppliers (and others depending on the legal system) who become aware of any illegal corporate activity. E.g. the EU Directive 2019/1937 that is being transposed by the EU member states is an example of best practice regulation to frame and implement these reporting channels incentivizing companies to be more accountable.