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Building Sustainable and Stable Global Value Chains: Case Study of Morocco

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Abstract

Global value chains (GVCs) are intended to fragment global production among several countries and companies. In this context, national economies have begun processes of insertion and specialization with both social and green objectives, because multinationals (MNEs) create significant negative externalities. As country, relies on a long-term political vision and some modern infrastructures even if Morocco has chosen to develop an integrated economy in global businesses. However, the GVCs face a tremendous change because the Covid-19 pandemic, war in Ukraine and shortages in value chains. In addition to these external shocks, MVCs face two internal mechanisms. First, the temptation of multinationals to reorganize their operations in a more regional manner. Second, the claim of many countries to produce and capture greater value added through their efforts to train people and develop ESG-based solutions. It is interesting to compare and analyze different types and levels of insertion of activities in GVCs. This paper examines four different cases in Morocco: phosphate, automotive, textile and agribusiness. We identify three trends. First, the government's strategic ambition to solve all problems, sometimes in a hurry, sometimes through a consistent policy of infrastructure provision. We identify a constant effort to prefer subsidizing local production to the emergence of strong and innovative local SMEs and locomotives. Second, we assess the ambition of some powerful multinationals in substituting, even partially, the role of government in key territories, and by deciding to achieve their short-term integration into the global economy. Third, all actors must address the challenges of ESG and sustainability investment.

Index terms— global value chains, morocco, public and private governance, global and local stakeholders, SMEs rise, innovation.

1 I. Introduction

he Kingdom of Morocco, a major player in the international phosphate market, has succeeded in becoming a competitive hub in the automotive value chain linking Europe and Africa. A look at the performance of the Moroccan economy's integration in GVCs, including participation and position indices, shows how committed the country is to GVC development.

However, Morocco's participation in some GVCs is still characterized today by low value added, poor upgrading, lack of innovation by SMEs (little risktaking), few jobs for young people (market uncertainties, lack of growth prospects), and a strong dependence of the Moroccan economy on environmental conditions and the European market. As a result, Moroccan industry is trapped in certain low-value-added GVCs that hardly allow it to develop innovation and think about the 4th industrial revolution. We show that for a couple of industries, it is still difficult to take in hand the industrial, digital, social and environmental changes. The objectives of this research are to:

1. Rethink and develop an approach to integrate Morocco into GVCs and serve the socio-economic development of sites where GVCs are in line with the UN Sustainable Development Goals,
2. Reflect on relevant and innovative

44 investment programs in the four GVCs analyzed, 3. Define the operational model for SMEs, multinationals and
45 public authorities, and identify the new positioning of Morocco itself.

46 2 II.

47 Global Value Chains -Emergence and Evolution: A Theoretical Background GVC is the fragmentation of global
48 production between several countries and companies advocating to invest in an ecosystem of suppliers. At
49 the same time, it also promotes the transfer of technologies and good practices. Therefore, it is possible to
50 produce in one place, consume in another, and control production and other segments of the value chain remotely
51 and from another country. In this process, both countries and companies specialize in value-added tasks and
52 functions without worrying about manufacturing an entire finished good. All countries participate in but in
53 different ways depending on their comparative advantages 1 In this globalizing form, fragmentation ??Jones and
54 Kierzkowski,2001), offshore supply (Arndt, 1997), external orientation (Campa and Goldberg, 1997), production
55 disintegration ??Feenstra, 1998), sharing of world production (Yeats, 2001), vertical specialization . All actors
56 must cope with new external and internal factors that can transform the existing GVC organization. ??Hummels
57 et al., 2001), outsourcing (Grossman and Helpman, 2002), global production networks ??Hanson and ??l., 2004,
58 Ceo, et al., 2008), GVC governance (Gereffi et Fernandez-Stark, 2016), CSR and GVC ??Bair, 2005), social,
59 political and environmental integration (Levy 2008; Coe, Dicken, and Hess 2008), task exchanges (Grossman and
60 Rossi-Hansberg, 2008), internalization theory and GVC (Strange & Humphrey, Benito et al, 2019), innovation
61 and cooperation (Mudambi, 2008), GVC resilience ??Bair, 2005 and 2015; Gereffi and Baldwin, 2020 and 2021),
62 reflect the importance of GVCs in the relationship among countries, multinational firms, and civil society.

63 However, multinational firms that coordinate the activities and tasks of GVCs, are now under the scrutiny
64 and mainly targeted for their social, governance, and environmental impact. Economists, analysts and civil
65 society note that these business networks create significant negative externalities in both social and environmental
66 (CNUCD, 2013; Firms have therefore started a social turn and a green turn. However, these actions are still often
67 considered social washing and green washing. It leads to an intense criticism of multinational firms (MNEs).
68 Massive contradictions do exist between the ESG practices and policies of firms and their behaviors and strategies
69 that led to the rise of mistrust and injustice feelings among various stakeholders of GVC. Among these factors, we
70 observe negative perception of GVC, high demand for jobs and integration of local SMEs, difficulty of dialogue
71 and communication with stakeholders, low added value captured by developing countries, non-compliance with
72 standards of rehousing of local populations, and environmental nuisances are the biggest challenges.

73 The concept of GVC sustainability is not limited to improving the social conditions of workers or broadening
74 the participation of stakeholders in the value-sharing process. However, it aims to use resources reasonably,
75 guarantee partners goods and services with good value for money, and ultimately maximize the well-being of
76 all GVC participants. Therefore, we can anticipate that the GVCs of tomorrow will be value chains providing
77 answers to local, social, and environmental problems and transform threats into opportunities.

78 As a result, ESG has become the main field of the struggle of actors to improve the private governance of GVC
79 (Bair, 2015). For governance, several specialists suggested that actors, including social actors, find ways to take
80 advantage of ESG and force change to adapt the business models of value chains towards models that allow the
81 sustainability of activities and the active participation of all the driving forces of value chains. However, Gereffi
82 and Meyer respectively demonstrate how leading companies have managed to shape the field where this struggle
83 is taking place, mobilizing ESG to control risk and maintain control along the value chain. It appears that ESG
84 strives to absorb and disseminate social protest and political conflicts in this perspective.

85 Finally, the logic of sustainability, long-term governance, and collaborative innovation induce the systemic
86 transformation of GVCs. A recent study by Kano et al. (2020) identifies new themes to challenge the conceptual
87 frameworks for the analysis of GVC. It introduces an institutional and systemic perspective. It crosses the global
88 performance of global value chains with different factors: value sharing, mapping of the GVC ecosystem, learning,
89 impact of leading companies, social and environmental nuisances, digitalization, and trade agreements. Thus,
90 the multidimensional review offers a broader and sustained perspective of GVC to further integrate them into
91 collective dynamics with other stakeholders.

92 Another good example is a report entitled "Building Resilient Supply Chain, Revitalizing American Man-
93 ufacturing, and Fostering Broad Growth," released in June 2021 by President Joe Biden's administration. It
94 identifies five GVCs as vulnerable: semiconductors, batteries, metals, active ingredients, and large-scale public
95 services. In this context, the authors of the McKinsey Global Institute (GSI) report on "Risk, Resilience and
96 Rebalancing in GVCs" also suggest a dozen of measures like relocation of production, diversification of suppliers,
97 strategic stockpiling, risk management capabilities, redundancy of transportation networks, and reduction of
98 product complexity.

99 Moreover, several scholars have highlighted the importance of platforms and advanced technologies in better
100 integrating suppliers and monitoring their inventories and capacities. Nowadays, automation is used to detect
101 changes instantly in retail trends, allowing for quick adjustments in needed projections. Similarly, artificial
102 intelligence (AI) and automation can help improve efficiency and productivity. The increase in ecommerce
103 delivery solutions and the importance of short, decentralized, and customer-focused supply chains (Panwar et
104 al., 2022) is considerable. Furthermore, other authors have pointed out that we are moving into a phase of
105 "techno-nationalism." Postpandemic governments are likely to play a much more significant role in orchestrating

106 GVCs, especially for more sophisticated products, where they will actively support local knowledge development
107 and production (Gereffi, 2021).

108 This paper considers this new context of internationalization shaping of the GVCs are organized in networks
109 of countries (Asia, Morocco, Egypt, Turkey, Mexico, Eastern Central Europe) and SMEs, and forging new forms
110 of relationships and innovations. ESG best practices, mergers, and strategic alliances between companies to form
111 more integrated groups, new localized and innovative production sites and the integration of local communities
112 are at the heart of this transformation of GVCs.

113 In conclusion, about sustainability, the concept of GVC becomes even more useful, as it involves internal and
114 external stakeholders in the process of creating added value and transforming current business models towards
115 sustainable and inclusive models. Starting from a presentation of the complex relationship between multinational
116 firms and national economy that highlights the crucial role of the multinational firms in the governance of GVC
117 through the participation of countries and companies in the manufacture and trade of intermediate parts and
118 The GVC offers an appropriate policy framework to build a sustainable global system to guarantee its partner's
119 products and services at the best value for money to ensure the maximum well-being of stakeholders with the
120 fairest use of resources. The GVC is indeed a global perspective to activate all the contributions and initiatives
121 of national economies by promoting investment, learning, and synergies. Thus, countries and companies seek a
122 role to play in the global economy instead of destructive competition. This context also encourages MNEs to
123 outsource innovation to SME networks to limit country and investment risks but also to upscale and improve
124 business skills ??Mudambi et In addition, the economic performance of the Global Value Chain will depend
125 on its various activities and functions. These contribute to this performance, which shifts the issue of the
126 competitiveness of companies to the efficiency of value chains. These develop a global capacity to fragment
127 production and coordinate it in a country's offer. As a result, the performance of GVC and the dynamics of
128 development depend on the ability of foreign and local actors (suppliers and subcontractors) to offer innovative
129 services to multinational firms and to set up productions that differentiate them from competitors, either through
130 the specificity of the intermediate good itself, or through the specificity of quality and/or through innovative
131 design processes, production, marketing, and development.

132 In global economics, the popularity of the GVC concept is marked by the fragmentation of global production
133 among several countries and companies. Thus, more and more countries are getting involved in GVC integration
134 policies. In these policies, the trend towards developing more integrated global groups and deep local integration
135 is confirmed through a dynamic of mergers of companies and positioning of SMEs as service providers and sources
136 of innovation proposals to GVC. This trend has fostered the global networking of multinationals, suppliers, and
137 SMEs. In this perspective, clusters or technological innovation centers have become privileged tools of MNEs
138 to promote adaptation, R&D, and innovation. The theoretical debate allows us to begin the analysis of the
139 integration of the Moroccan economy into the Global Value Chains, where we are strongly interested in the
140 competitiveness of GVC in Morocco, their adaptation, and the implementation of innovation to create integrative
141 clusters.

142 In this complex and multidimensional integration process, there is no ready-made recipe for success. Still,
143 good practices observed and reflections that should generate debate, it should not be imagined that Morocco's
144 participation in Global Value Chains will be what has been achieved in other Asian countries. Cultures are not
145 the same, nor are ecosystems, resources, technologies, price structures, price structures, markets, etc. On the
146 other hand, Morocco must have its own place by its environment and its African ambition.

147 In a country like Morocco, favoring employment and projects with a human dimension appears to be the best
148 way, which does not exclude the use of new technologies and participation in sophisticated value chains. The gap
149 between international and local actors should also be reduced. Local actors are poorly mobilized and have little
150 capacity and impact along the value chain. GVC subcontractors have little ambition and fail to offer services or
151 innovations to different industries. Sophisticated value chains are therefore not integrated, and markets are very
152 short-term. Doing this work is based on a triple approach: i) a study of the environment that has favored the
153 emergence of new Global Value Chains in Morocco, ii) an analysis of the opportunities and threats that weigh
154 on Morocco's model of participation in GVCs, and iii) prospects for the recovery of GVCs through innovation
155 and entrepreneurship.

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157 A triangular approach, allowing us to make a reading of several distinct but congruent facets, using macro-
158 economic sources (OECD, WTO, Ministries, Trade, ExChange Office, Central bank...), industry analysis
159 (ecosystems, sectoral federations...), and interviews with actors (MNEs, SMEs, and public actors...).

160 Instead of proceeding according to a purely sectoral value chain approach, the analysis of Morocco's
161 participation in GVCs is systemic. It takes place at several levels that must be distinguished: at the national
162 level, at the level of the multinational firm, at the level of the GVC, and the of the SMEs (survey). Thus, in the
163 first part, we will briefly describe how GVCs and their specificities have contributed to trade, economic growth,
164 and development.

165 In a second step, we analyze some significant trends in Global Value Chains such as the fragmentation of
166 global production, interdependencies, and the governance of multinational firms. The second part concludes
167 with a subsection exploring the OECD's Trade-in Value Added (TiVA) database and discusses the integration

168 policies of national economies. A third part examines the strengths of the Moroccan integration model by
169 characterizing its participation in the GVCs and by evoking the signs of a transition of the automotive and
170 phosphate sectors to increasingly specialized and complex activities and tasks. In this part, we have chosen to
171 study four GVC, not only because of their importance but also because of their very different respective positions.
172 The analytical framework for each GVC places the four industries along the value chain, characterizing them in
173 terms of positioning, degree of specialization and level of autonomy. In this context, an analysis is carried out
174 for each GVC assessing strengths, weaknesses, opportunities, and risks and threats.

175 4 c) What can we Learn from Morocco?

176 In this paper, we have chosen to study four GVCs, not only because of their importance but also because of their
177 very different respective positions:

178 1. For Agri-Food, the GVC is essentially market-driven.

179 Morocco maintains a production capacity and cost advantage, but it must be careful about climate change
180 and better manage its water resources in distress situations. The Agri-food value chain is backed by strong local
181 agriculture: Morocco has adaptation to proximity to customers and better management of scarce resources are
182 required. 2. The automotive GVC is very well structured and is orchestrated by foreign MNEs. The Stellantis
183 group has formed a powerful and more integrated ecosystem. However, the local SMEs often acts only in tier 3 and
184 4 levels as subcontractors. Innovation and value sharing become high expectations of Morocco partners. 3. The
185 Morocco-born OCP group controls the GVC of phosphates. Morocco is positioning itself on R&D and fertilizers
186 to expand its strategic positioning. As many international mining groups, OCP now faces two main challenges: A
187 stronger regulatory environment that forces producers to review their business models and significant legal risks
188 related to the effects of certain chemicals on human health. 4. The GVC of textile is dominated by Inditex, the
189 large Fast Fashion Spanish group. Morocco must train a creative workforce and manufacture locally the fabric
190 requiring a lot of energy and R&D but specialized in labor-intensive activities. Therefore, it is required for the
191 case of Morocco to better capitalize on national success stories such as Diamantine and Marwa by proposing an
192 authentic and traditional offer.

193 In sum, innovation and cooperation are the main requirements to develop and maintain a competitive advantage
194 for local producers (Mudambi, 2008). Participation in GVC can help countries and companies in their process
195 of improving product quality and developing value-added tasks (Giovanni, 2021). However, GVCs are multiple,
196 and their operating models are diverse. It is therefore important that the country or the local company properly
197 assess their up-scaling capabilities and choose a GVC with the same-shared values, and interests. In this vein, the
198 solution lies in the principle of shared value, which involves creating economic value in a way that also spreads
199 value for society by addressing its needs and challenges. Businesses must reconnect company success with social
200 progress by creating new ways to achieve economic success (Porter and Kramer, 2011). Not to mention other
201 factors come into play such as GVC governance ??Gereffi, 2005) or industrial and trade policy (Pietrobelli and
202 Staritz, 2018).

203 To our knowledge, on the one hand, the global performance of GVC become more and more linked to the
204 positive and sustainable impact that must be generated by production and assembly operations in the territories
205 of the countries where the firms and their subsidiaries operate. On the other hand, they must imperatively act on
206 social acceptability and integrate Sustainable and Stable Global Value Chains: Case Study of Morocco
207 succeeded in creating national champions such as Cosumar, Lesieur, Copag Jaouda, etc. Their fast value chains
208 of global businesses are today driven by international locomotives with which local producers are Tier #1 and #2
209 equipment manufacturers. However, leading companies are often multinationals and rarely set up Joint Ventures
210 (JV) with Moroccan companies. In most case, the local SMEs often act only in Tier #3 as subcontractors, or
211 even Tier #4 deeply dependent on the MNEs decision. This is not new but raises many concerns about the ability
212 to capture the value and operate sustainable steps of value chains. The important challenge for Morocco today
213 is to go backward gradually. The scheme would be subcontracting, then signing JV, and after becoming national
214 locomotives, at least regional. This observation applies to Morocco's so-called "global professions" sectors such
215 as automotive, aeronautics, and electronics.

216 For the GVC of the Agri-food industry, the value chain is surely backed by solid local agriculture. Morocco has
217 national leaders such as Cosumar, Lesieur, and Copag Jaouda, etc. The same configuration applies to phosphate
218 and fertilizer industries, and the fishing industry. However, actors take advantage of access to specific assets,
219 but very few take the leadership in their own global GVC. The OCP group in the phosphate industry appears
220 an exception. In addition, our diagnosis of the GVC of textiles and clothing highlights two trends that must
221 be considered. First, the positioning of Turkey is based on a very competitive pricing policy fighting with local
222 producers. Second, the upstream integration (fabric) is very expensive, thus requiring more capital, energy,
223 and R&D. It is, therefore, appropriate for the case of Morocco to capitalize on national success stories such as
224 Diamantine and Marwa by proposing an authentic and traditional offer, but it is far to obtain a solid control of
225 a large part of textile GVC.

226 Considering the four case studies we analyze in this paper, it appears that GVCs governed by private national
227 (OCP governance) or MNEs (case of Stellantis and Renault groups) adopt two complementary initiatives to
228 implement their shared value strategies:

229 ? An industrial initiative (purchasing processes dedicated to local companies), ? A societal initiative
230 (sustainability and entrepreneurship programs).

231 Thanks to the strict control of an essential mining resource, the OCP Group has successfully completed an
232 industrial transformation enabling it to make a transition toward high value-added products (fertilizers and
233 derivatives). Thus, R&D has become an essential area of activity and competence for OCP. In automotive, the
234 merger of PSA and Fiat Chrysler to create Stellantis has led to a more integrated and competitive industrial
235 group. The key infrastructures like Tangier Med Port and the HST are the backbone of this automotive GVC.
236 MNEs take advantage of these huge national investment efforts, and the industrial ecosystems expect to take
237 advantage for enlarging their scope of activities and control of value added.

238 Moreover, despite the support of the government, the less sophisticated GVCs (Agri-Food and Textile) remain
239 dominated by buyers or global brands. Moroccan companies appear mostly like local producers, and they must
240 find the industrial critical mass and improve the quality of products, in hypercompetitive contexts. Moreover, our
241 study shows how it is necessary to distinguish between global and traditional GVCs. The ESG as levers for GVC
242 performance. These are essential components of the firms' strategy. In the context of Morocco, three actions can
243 be implemented to accelerate the integration of Moroccan companies into Global Value Chains, including:

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245 ? The restructuring of Moroccan SMEs through the creation of a national program or Joint-Venture fund to
246 set up a learning curve allowing a gradual integration of Moroccan players into the international dynamics of
247 GVCs. ? The trend to mass-markets to obtain the necessary volume and critical mass that justify the canvassing
248 and location of large locomotives. ? Supporting industrial dynamics through specific training and R&D led by
249 the private sector. In this case, the Moroccan Automotive Center of Stellantis and the Industrial Competence
250 Centers of OCP (ICC) open the way to the emergence of new innovative and localized production sites.

251 6 d) Main Learnings from the Morocco's Economic Consolidation in the GVCs

253 7 i. Private-private Initiatives and Territories

254 First, it is necessary to target both the sector level and at the level of suppliers (foreigners and Moroccan) before
255 developing the roadmap dedicated to quality upgrading. Thus, the integration of Morocco into the GVCs cannot
256 address the needs of all the leading companies. At the same time, the goal is not to replace existing GVCs. It is,
257 therefore, necessary to clarify the targets of the integration policy on two main axes:

258 ? A sector axis: The choice of target sectors must obey both the potential of the sectors, the specificity of
259 the territories concerned, and the needs of GVC suppliers. ? A supplier axis: Beyond the traditional population
260 of suppliers with a high level of capital and education (the easiest to access population), it is a question of ii.
261 Clustering the SMEs One of the major determinants of GVC performance remains access to markets, particularly
262 local markets. The regions where a growing number of GVCs are in Morocco (Tangier and Kenitra, in particular)
263 are territories where the activities of these GVCs represent an important weight in the local economy and national
264 GDP. Although efforts are currently being made in this direction, local perception remains the predominance of
265 foreign or sometimes domestic suppliers. A committed perspective in this direction should be undertaken with
266 the following objectives:

267 ? The acceleration of "local content", either directly through an entrepreneurial and support process, or
268 through a subcontracting strategy. ? Support for the emergence of local champions in certain priority sectors. ?
269 Supporting local suppliers in their upgrade and consolidation process.

270 One direction might be to encourage the development of shared workshops, based on SMEs participation and
271 mutualizing tools and equipment dedicated to innovation and new technologies. The objectives would be to
272 create a favorable environment to innovation, like Makerspaces, with a cluster effect along the value chain that
273 could crystallize the integration of local companies, anchoring and interacting with the other GVC structuring
274 projects, through a global service offer:

275 ? Entrepreneurial, digital, and financing support.

276 ? Access to high-tech machines (numerically controlled, 3D printing, etc.) and low-tech also to support
277 the professions like the industrial maintenance, parts and components, service to industry, renewable energies,
278 circular economy, recycling, metal creation, and wood, etc. ? Manufacture of prototypes and innovations in the
279 industrial exchanges within GVCs (parts and components, transfer of technologies).

280 The role of such ecosystems, cluster, or makerspaces in each GVC would help for a backward and upgrading
281 move of SMEs in an emerging country. The vision to be designed for a global deployment should above all
282 consider the specificity explicit to each of the GVCs. It must also be part of the system of governance structures
283 and structuring projects undertaken by multinational firms or their subsidiaries. A strategy for duplicating
284 GVC "Integrator Makerspace" is based on different factors: Identification of strategic partners, skills transfer,
285 specialized equipment, solution testing, feedback from the field and local learning, etc. Business Networks,
286 Chambers of Commerce, and Industry, etc.). In addition, to strengthen the sensitivity of the makerspace to
287 sustainable development, it is possible to create sustainability challenges among leading companies and suppliers,

288 either to submit technical problems encountered at the GVC manufacturing or assembly site, or problems
289 related to sustainability such as product recycling, fighting against pollution, and lowering energy consumption.
290 Examples of such challenges from the simplest to the more complex are related to recycling of obsolete production
291 equipment, the second life of objects for sustainability, repairing parts and components by 3D printing, objects
292 with very low energy consumption, or technical improvement to a machine currently in use.

293 Overall, the strategy for integration into GVCs must consider the ecosystem approach. Several stakeholders
294 are currently operating at the level of GVC installed in Morocco. They have overall sectoral and functional
295 orientations, and primarily address activities such as services, manufacturing, assembly, export, and even research
296 and development. It is not a question for Morocco to replace these subsidiaries and suppliers.

297 In a context of uncertainty, multinational firms express more needs in terms of subsidiarity and coordination
298 to have a close follow-up at territorial and local levels. Thus, Morocco and firms should consider this need for
299 interrelationships:

300 ? At the level of the choice of sector offers/tasks to be developed within the GVC. ? In terms of providing the
301 necessary expertise, technology, and know-how.

302 ? At the level of information to be offered to the target of local and foreign suppliers.

303 As suggested, it is time to implement innovation to create a national economy capable of overcoming GVC
304 challenges and transitioning toward quality upgrading and sustainable development.

305 8 iv. Public-Private Collaborations

306 Moroccan State was at the origin of the major strategic choices of integration into the global economy. It is through
307 superior comparative advantages and strong SMEs that the Moroccan economy should face the industrial, social,
308 and environmental challenges of tomorrow. In this paper, we can bring some new elements likely to add to the
309 reflection of the articulation between the GVCs and the national economy.

310 We observe how Morocco's participation has progressively evolved in advancing GVCs. The automotive
311 ecosystem in Morocco is a good example. We also identified how the OCP Group has successfully innovated in
312 implementing an agile ecosystem around phosphates and fertilizers. In cooperation with public entities, OCP
313 also created the Mohamed VI Polytechnic University to become the new growth engine of the phosphate and
314 derivatives industry. By extension, this modern university welcomes laboratories that can train future employees
315 of some other GVCs.

316 9 Learning Autonomy GVC Market Integration

317 Based on the analysis of previous experiences and practices of four different industries, we present and discuss
318 what occurred by revealing the "why" and "how". We map all global level actors involved in the four GVCs
319 that appeared at the key moments in the process of GVCs' development, but we also elaborate typologies of
320 integration to show the diversity of positive interactions between the government, companies, and society around
321 these processes.

322 Our approach allows us to analyze the integration of Morocco in the GVCs out of the four experiences (Agri-
323 food, phosphates, automotive, and textiles) and to identify the favorable and unfavorable factors of local and
324 global dynamics (and their social, economic, and environmental consequences) (Amachraa and Quélin, 2022).
325 Thanks to our analysis, we show how mobilizing international and national actors around a long-term vision
326 was favorable in Morocco's case. Strategic-leading government, responsiveness of companies, diversity of clients
327 and suppliers, national solidarity, and collaboration of Moroccan industrialists made Morocco a resilient and
328 innovative country during the pandemic lockdown period.

329 v

330 10 . An Ambitious National Program

331 The four industries study helps to identify that creative human capital, participatory governance, technology,
332 water, and energy are the key components of a more sustainable and inclusive GVC integration strategy. The
333 success of this strategy depends on the mobilization of all driving forces of the territories where the GVCs are
334 located and the creation of an agile ecosystem of suppliers able to offer innovative proposals and services.

335 The challenge for Moroccan integration policy is therefore to be as close as possible to local actors, their
336 needs, and their expectations in getting the most from the GVCs, to act and work mutually on the challenges of
337 governance, ESG, value sharing and innovation.

338 More recently, the impact of the Covid-19 pandemic and the interdependencies within the GVCs have made it
339 more than necessary to change the rules of the game involving government, business associations, communities,
340 businesses, and citizen initiatives. The Sustainable Development Goals (SDG) and the New Development Model
341 (NDM) of Morocco set up in 2021 have put local actors at the heart of their recommendations.

342 The systemic GVC approach can also be materialized through the building of a new industrial collaboration
343 model among the different stakeholders whose purpose is to improve the value chain, develop new integration
344 models, offer sustainable growth, and finally change the rules of the game. The objectives vary from encouraging
345 the emergence of local players to attracting international investment with new value-added tasks and functions, to

stimulate the development of local clusters around industrial ecosystems and finally to encourage the development of other activities attracted by the industrial critical mass of large national firms or MNEs.

Overall, the Kingdom must have a concern for the sustainability of the GVC and strategic independence and it has the means to do so. It would also be necessary to avoid overly dominant positions on GVC that would hinder national private initiatives. GVC must consist mainly of a network of small and medium-sized enterprises capable of offering innovative services and supplying the domestic and African markets. In a few years, explore export market niches towards the USA and Asia.

11 III. Conclusion

Morocco will have to be very vigilant about the quality of the GVC projects that will be presented to it and be wary of GVC that are only attracted by the tax system or who can leave before the change of the tax system. At the same time, in a context of increased competition, when investment commitments are made, they will have to be enforced, which is not always the case.

As for investors and multinationals, Morocco will need trusted foreign partners to transfer technology and markets to the country, but some priority should be given to domestic entrepreneurial investors to limit the risks of large international firms that do not hesitate to cut ties if they run into trouble.

The emergence of Morocco in the GVCs must create sustainable value while respecting the environment. The skills and resources of multinational firms and large groups must be put at the service of local industry. The new framework for Morocco's participation in GVCs should guarantee customers and suppliers the best value for money for products and services, ensure maximum collective welfare (stakeholders and local communities), and guarantee the most efficient use of resources.

The challenge of participating in sophisticated GVCs offers Morocco the opportunity to trigger all the potential initiatives and to co-build innovative ecosystems over time. Morocco needs to expand its current participation framework to include all stakeholders. The OCP experience offers the first elements of broad and sustained governance. It also seems relevant to us to question the projection of these experiences to Africa by OCP Group on the dimensions of governance and societal contribution (well-being of stakeholders and local communities)".

Ultimately, there is no shortage of solutions to such global challenges. But a country's economic emergence in the GVC, i.e., the process that leads it to tasks and functions at both ends of the value chain, is not just a matter of a favorable environment or infrastructure alone. Other prerequisites are essential, precisely the quality of human capital, R&D, innovation, support for SMEs, acceleration of energy and ecological transitions, the integration of strategic industries at national and regional level and investment in rare metals and batteries.

Our study opens up doors for future research in two themes. The first one is to look at how to strengthen the positive and sustainable impact of global value chains on local territories and actors, essential elements of the stability of GVCs. The second one is how synergies and strategic linkages among different GVCs can help all stakeholders evolve their business model towards more sustainability and shared value. The strategic rapprochement between the automotive industry and the mining industry to integrate rare metals and batteries or the growing role of fertilizer players in the structuring of the cereal value chain reinforce our orientation.

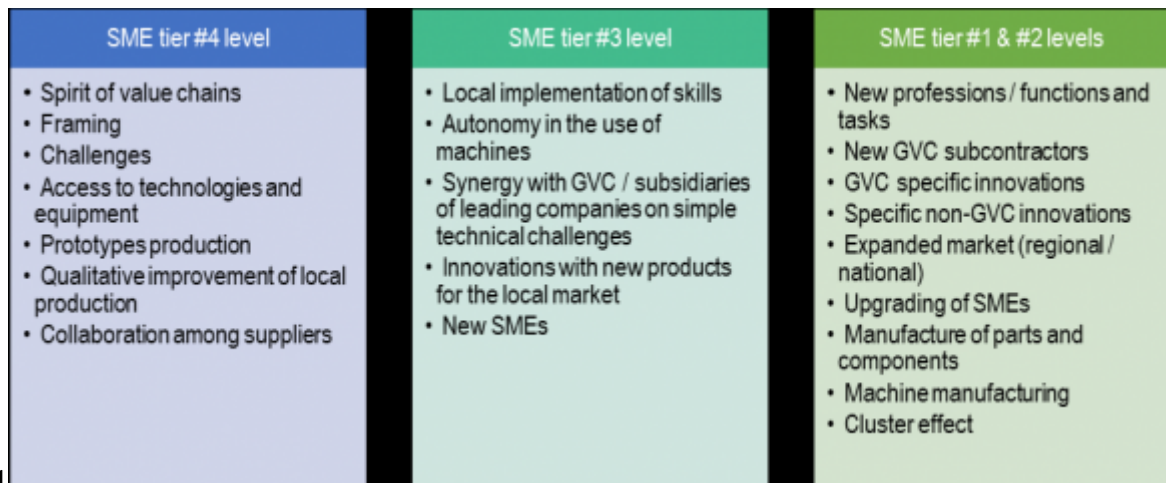


Figure 1: Figure 1 :

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Figure 2:

GVC Governance	Place within the GVC	Challenges
? Public governance	? Mining	> Energy and Green transitions
? National mining resource	? Fertilizers	> A firmer regulatory environment
? GVC orchestrated by OCP	? Research and development	requiring producers to renew their business models
Phosphates ? Present throughout the entire value chain and Derivatives	? (UM6P University)	> Significant legal risks arising from the effects of certain chemicals on
It is a Moroccan locomotive, with a corporate strategist around Business Unit network	? Declared African ambition	human health
? European decision center	human health	
? GVC structured by MNEs	? Morocco has developed a modern infrastructure: The HST and the Tangier Med port are the backbone of this GVC	> standards
? GVC	particularly	investments (CO2 standard).
accelerated	by 2	> Upstream integration difficulties
Automotive manufacturers: Stellantis and Renault	? Electric and hydrogen car as further step	> Value sharing
? Foreign locomotives	? Agricultural	production
Moroccan SMEs are very little integrated	? Agricultural	> F
? Market-driven governance	? Agricultural	a
? GVC European market (Spanish in particular)	governed by	w
in particular)	capacity	t
Agri-Food Multiple GVCs (sardines, tomatoes, citrus, red fruits, etc.) supported by the State and at the crossroads of two national sectoral plans (PAI and PMV)	? Cost leadership	s
? Buyer-driven chains	? Product quality	c
? Spanish and Turkish	? Green (2nd phase of the Green Morocco Plan)	r
? Buyer-driven chains	value	> Health risks
? Spanish and Turkish	9	> R&D led by the private sector
? Spanish and Turkish	? Production cost	> Global trade tensions
? Spanish and Turkish	? Industrial flexibility	> Ecological and recycling textile
? Spanish and Turkish	> High elasticity of	> Market massification

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Figure 4: Table 2 :

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