From Locale to Global: Mechanisms for upgrading start-ups into global value chains- lessons from the South Korean experience.*,

Azzedine ali[1] . Saidi mohamed karim[2]

[1] University of Djelfa, aliazzedine3@gmail.com,
[2] University of Djelfa, mk.saidi@univ-djelfa.dz,

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Abstract:

This study aims to analyze the mechanisms for promoting start-ups and enabling them to integrate into global value chains by reviewing the South Korean experience as a successful reference model in this field. The study sought to highlight a set of integrated policies and cumulative strategies pursued by South Korea to transform its start-ups into key players in the global economy by focusing on promoting innovation, building technological capabilities, and expanding the international openness of companies.

The results of the study show that Korea's success was not the results of a single factor, but rather the result of coordinated interaction between industrial, technological, and trade policies, which contributed to creating a dynamic environment that stimulated competitiveness and sustainable growth.

Finally, this study confirms that developing countries can benefit from the South Korean experience by adapting its approach to local contexts, thereby enhancing their ability to integrate into global value chains and contributing to a more open and sustainable economic growth trajectory.

Keywords: Start-ups, Global value chains, South Korea, Developing countries.

* Corresponding author

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Jel Classification Codes : F63, O31, L26.

1. INTRODUCTION

Start-ups are an important component of modern economic systems, as they create wealth, provide jobs, and promote economic diversification. With the opening up of the international market, global value chains have emerged as one of the most prominent features of the international economy, and participation in them has become a prerequisite for increasing competitiveness and achieving sustainable development.

However, the integration of these enterprises in developing countries continues to face many challenges related to weak infrastructure, limited financing, and insufficient technological and administrative capacities, which calls for research into effective mechanisms to upgrade them and increase their competitiveness.

Some international experiences, notably that of South Korea, have shown how integration into global value chains can be achieved through supportive and innovative policies, which opens the way for developing countries to draw lessons and adopt similar strategies in line with their economic and social characteristics.

Based on the previous discussion, this paper addresses the following question: **How did South Korea manage to upgrade its start-ups to integrate into global value chains? What lessons can be learned from this experience?**

Based on this question, the sub-questions of this study are as follows:

- What are global value chains, and what is their role in the global economy?
- What mechanisms and policies helped South Korea upgrade its start-ups to integrate into global value chains?
- What lessons can be learned from this reference experience that can be generalized to developing countries?

Through this problem and sub-questions, we can formulate the following hypotheses:

- Global value chains are the process of distributing production stages across several countries and are considered a key driver of growth and competitiveness.
- South Korea has pursued supportive policies such as supporting innovation, providing an enabling institutional environment, and providing capital.
- Developing countries can benefit from South Korea's experience by adopting policies appropriate to their circumstances to help their start-ups integrate into global value chains.

This Study aims to highlight the role of start-ups in global value chains and seeks to explore mechanisms for promoting these enterprises in foreign markets by analyzing South Korea's experience in this area as a successful model for enabling this type of enterprise to become a major player in the global economy, with a view to drawing lessons that can serve as a reference for application in developing countries.

The importance of this study lies in its treatment of a vital issue related to the ability of emerging institutions to adapt to the requirements of globalization and trade liberalization and the resulting opportunities for creating sustainable development. It is also significant in that it analyzes a pioneering international experience such as that of South Korea, which provides a scientific model that can be used as a reference option to ensure its integration into global value chains.

1.1. Literature review

The study of the promotion of start-ups for integration into global value chains requires consideration of creation of certain conceptual dimensions that from the theoretical background of this research. Start-ups are no longer merely local economic actors of limited importance. With the transformations taking place in the global economy, they have become a strategic element that contributes to linking national economies to the international economy through several roles (production, innovation, and

value-added generation). Start-ups are newly established economic units characterized by their limited size in terms of capital and workforce compared to large institutions, and they represent the largest proportion of the economic census in most countries around the world. These institutions are distinguished by their ability to adapt quickly to changes compared to large institutions. However, their limited resources mean that they need government support and policies to strengthen their presence in the markets, especially in light of intense international competition, which creates the need to integrate into global value chains to access wider markets and acquire knowledge, enabling them to achieve sustainability.

Global value chains refer to interconnected production networks spread across several countries, where different stages of production, from design and manufacturing to marketing, are carried out in different geographical locations according to the characteristics of each country or institution. They reflect the transformation that international trade is undergoing, from closed domestic production to the construction of a complex system based on international specialization and role sharing. The importance of integration into these chains for start-ups lies in the opportunities it opens up for them to expand into foreign markets, benefit from technology and knowledge transfer, and improve quality and productivity standards. It also affords them an international competitive advantage and makes them more capable of creating added value and achieving excellence in the global context. The smile curve model illustrated in **Fig.1.** highlights that effective integration into global value chains requires positioning in high value-added activities, rather than settling for low-value production. The curve is one of the modern explanatory models that consider that the added value generated from economic activities is not equal across all stages of production.

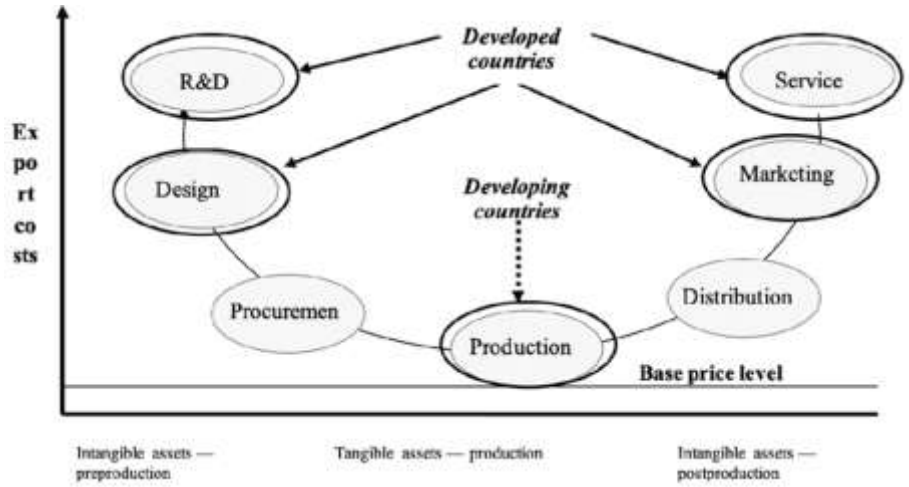


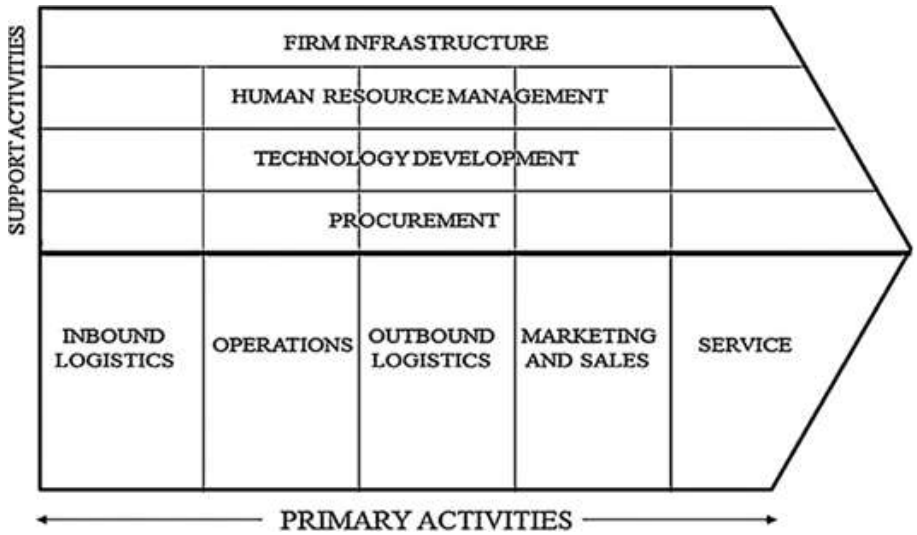
Fig.1. The smile curve model

Source: (Sapir et al., 2021)

Pre-production activities (such as research and development, design, and knowledge acquisition) and post-production activities (such as marketing, distribution, and services) are considered to be activities that create the highest percentage of added value and are concentrated in developed countries due to their knowledge and technological capabilities. In contrast, physical production activities continue to have lower added value and are often assigned to developing countries with high labor intensity. The importance of this model lies in its demonstration to institutions of the need to move beyond the low-value role of the producer.

The value chain is one of the prominent theoretical frameworks that has contributed to understanding how to create value and enhance the competitive advantage of institutions. It was developed by Michael Porter in **Fig.2**, which illustrates the internal activities that lead to the creation of added value for products and services, thereby supporting the competitive capabilities of the institution in the local and international markets.

Fig.2. Michael Porter theory



Source: (Ghannam, 2016)

According to this theory, an organization's activities are divided into two basic categories:

- **Primary Activities:** These are activities directly related to production, marketing, and services, such as internal logistics, operations, external logistics, marketing and sales, and services. They are considered the backbone of value creation.
- **Support Activities:** These are activities that support and sustain primary activities, such as corporate infrastructure, human resource management, technology development, and procurement. Their importance lies in providing support and a framework for primary activities, making them more efficient and effective.

Therefore, the theoretical framework of this study is based on considering start-ups as a fundamental element of the new dynamics of the global economy, where their success is no longer dependent solely on internal factors but also on their ability to position themselves within cross-border production networks and access advanced knowledge, technological

and material resources, and advanced material resources, which enhances their competitiveness and makes them more distinctive. These enterprises represent a link between the local and international economies, which doubles their economic role if they receive the appropriate support and mechanisms from public and strategic policies through financing and the provision of adequate infrastructure.

Based on the above, it is important to draw inspiration from successful international experiences and apply them to developing countries to improve their economic situation, which is mainly dependent on oil and gas products.

The integration of start-ups into global value chains is a key pathway to economic growth and innovation, especially in rapidly developing economies such as South Korea. The above literature highlights the opportunities and challenges faced by start-ups as they transition from local markets to global networks, emphasizing the importance of government policies, innovation, and support for the entrepreneurial ecosystem.

1.1.1. Mechanisms for promoting start-ups within global value chain:

Several recent studies indicate that integrating startups into global value chains is a critical factor in enhancing their competitiveness and supporting innovation and sustainable growth. From this perspective, the most prominent mechanisms that contribute to the advancement of startups within global value chains can be identified as follows:

- **Access to and dissemination of knowledge**: Engagement in global value chains gives start-ups access to high-quality information and knowledge that would be difficult to obtain by other means, facilitating product development and improving production processes. (Ambos et al., 2021)
- **Strategic internationalization:** Early and strategically planned internationalization, often driven by companies' desire to enhance their profile and access new knowledge, is a key factor in improving the performance of startups in East Asia, including South Korea. (Hemmert et al., 2022)

- **Innovation networks:** Building strong horizontal and vertical links within global value chains helps start-ups enhance their technological capabilities and move towards higher value-added activities. (Ambos et al., 2021)

1.1.2. The role of government policies and the ecosystem:

- **Supportive government policies:** Governments act as both supporters and regulators, using public policy decisions to promote the participation of companies in global value chains, enabling them to achieve greater gains in terms of added value, while also supporting social and environmental advancement. The effectiveness of these policies requires close coordination between different government agencies.(De Marchi & Alford, 2022)
- **Entrepreneurial ecosystem:** Access to human capital, technology, and industrial agglomeration effects are critical factors in supporting the growth of start-ups and their integration into global value chains. (Hemmert et al., 2022)

While South Korea is considered a successful reference case in integrating startups into global value chains, previous studies have focused on the Chinese model. Therefore, there is an urgent need for further studies that take into account the specificity of the Korean context, especially with regard to cultural factors, financing, and the dynamics of corporate work teams. This study aims to fill this gap by analyzing South Korea's experience in this field, researching mechanisms that can promote these enterprises in foreign markets, and attempting to draw lessons that can be generalized to developing countries in line with their economic, cultural, and social capabilities.

2. METHODOLOGY

This study relies on a descriptive-analytical approach, as it is considered the most appropriate for addressing the topic of emerging institutions and their relationship with integration into global value chains. The aim is to analyze their theoretical and practical dimensions based on quantitative and qualitative data available in reports from international organizations, academic studies, and comparative experiences.

A comparative approach was used to highlight the South Korean experience as a reference example in the process of integration into global value chains, as some of its mechanisms can be applied in other environments, and general conclusions can be drawn that can be applied in developing environments.

The information relied primarily on previous academic literature, reports form international organizations, and comparative study and experiences specific to South Korea. It was chosen for several objective reasons, as it represents a successful model of a country that, in a short period of time, was able to transform itself from a developing economy with limited capabilities into an advanced economic power through clear strategies to support startups and enable them to play a pivotal role in global value chains. This experience shows how government policies can support this type of company, which has a positive impact on their competitiveness and makes them an important element in overall development.

In terms of analytical approach, the focus was on analyzing basic information from documents and reports, identifying similarities and differences between different contexts. Thus, the methodology adopted is not limited to theoretical description but seeks to understand the phenomenon in its practical context and link it to lessons learned from the South Korean experience.

3. RESULTS AND DISCUSSION

This study reveals a set of findings that allow for a deeper understanding of the role of emerging institutions in global value chains, while also clarifying the specific factors that determine their success or failure in this area. Theoretical data show that these enterprises, despite their limited size in terms of capital and labor, have become a cornerstone of the contemporary economy, as they contribute effectively to generating added value, creating jobs, and promoting innovation. Recent analyses reveal that start-ups have become a strategic element in South Korea's economic transformation, as their role has transcended the domestic market to become a player in global value chains through innovation, digitization, and early internationalization.

According to a report by the Korean Ministry of SMEs and Startups (MSS), there are an estimated 1.1 million startups in Korea, of which 214,917 are technology-based (Ministry of SMEs of Startups Releases 2024 Startup Trends, 2025). The literature reveals that South Korea is a reference model for how to transform small and medium-sized enterprises into key players in value chains, once a limited country, it has now built a strong base for SMEs through industrial and educational policies, making them part of global production chains (CHUNG, 2016). South Korea's startup ecosystem is ranked among the world's most advanced, with the country ranking 20th worldwide and third in East Asia after Japan and Taiwan in 2025. South Korea also has nine cities ranked in the Startupblink ecosystem index. On the other hand, the government is aware of the challenges facing this type of company and has launched several initiatives that seek to support entrepreneurship and innovation.

These initiatives focus on supporting local companies to expand into global markets while attracting more international startups to Korea. The Korean government aims to create five unicorn companies by 2027. The Second Chance Startup initiative by the Korea Institute for Startup and Entrepreneurship Development also aims to improve and develop startups and entrepreneurship by reducing the cost of failure for entrepreneurs. The Korean government also provides regulatory sandboxes, which seek to

reduce risks for companies, especially in their early stages. The Invest KOREA initiative seeks to connect local startups with foreign investors and contribute to brining foreign investment into the Korean market. Foreign entrepreneurs also benefit from the Korean support system that encourages them to integrate into the local innovation environment. The OASIS visa, designed for startup founders, has been launched, along with the Digital Nomad visa, which targets remote workers and international entrepreneurs. The K-startup challenge, a four-month acceleration program, provides a scientific framework to help foreign startups establish their presence in the Korean market and finance and support the growth of local enterprises. (South Korea Startup Ecosystem - Rankings, Startups, and Insights, 2025)

South Korea has adopted three key pillars to support startups:

- **Promoting innovation:** Through innovation routines in Korean startups, from product development to process improvement, it has helped to upgrade the global value chain and move from low-value activities to more complex and profitable stages. (Oh et al., 2025)
- **Strategic networks:** Collaboration between small and medium-sized enterprises, startups, and large companies has provided access to knowledge, markets, and international contracts, allowing them to overcome individual limitations. (Kang & Kim, 2023)
- **Institutional support:** Through targeted funding programs, tax incentives, and links with universities and research centers.

Among the most prominent global value chains in which South Korea has integrated are:

- **Electronics:** Through companies such as Samsung and LG, which have become the main suppliers of smartphone components such as screens and electronic chips.
- **Automobiles:** Through companies such as KIA and Hyundai, which supply essential components for vehicle parts and designs.

-Biomanufacturing and pharmaceuticals: Such as Samsung Biologics, which provides manufacturing and development services to international companies in this sector.

The integration of Korean start-ups into these global chains not only demonstrates industrial diversity in traditional sectors such as electronics and automobiles but also extends to high-tech sectors such as biomanufacturing. This distinction enables the country to achieve a strategic advantage by reducing its dependence on a single sector and adapting to global fluctuations in demand and market.

Through analysis, it can be concluded that startups face three categories of challenges:

- **Internal challenges:** These include weak financing capabilities, insufficient technological capabilities, limited administrative and organizational competencies, demographic change, and increasing geopolitical divisions. (Full Report, 2023)
- **External challenges**: These include international competition, difficulty entering foreign markets, and compliance with international quality standards.
- **Institutional challenges:** These include the absence of effective public policies and weak supporting structures such as incubators and research and development centers, despite government initiatives aimed at start-ups. (Choi et al., 2021)

A study of South Korea enables us to say that the lessons learned from this reference model in promoting start-ups to integrate into global value chains cannot be achieved without:

- Special government support for start-ups, which should be well thought out, gradual, and long-term.
- Investment in human and technological capital.
- Linking local start-ups with multinational companies.
- Stimulating innovation, as it is the main factor in achieving added value.

The results show that start-ups are not only measured by their ability to participate in value chains but also by their position within these chains. Enterprises that remain involved in assembly or primary activities remain hostage to low added value, while those that manage to position themselves in higher stages such as core, research and development, and marketing achieve greater returns and higher sustainability. Studies have shown that participation in global value chains creates tangible social impacts. South Korea`s integration into value chains has led to higher wages and the creation of higher-skilled jobs, but it has also widened the gap between sectors and between skilled and unskilled labor (CHUNG, 2016). This is consistent with the theory of "upgrading in value chains", developed by Humphrey & Schmitz in 2002, which assumes that development is not achieved simply by joining the chain but by gradually moving towards higher-value activities. This is confirmed by the Korean experience, which has upgraded its institutions form mere local contractors to actors in innovation and high-quality production.

Based on the above, it can be said that start-ups represent a strategic link between the local and global economies. Their successful integration requires innovative capabilities, strong cooperation networks with large institutions and universities, and government support. South Korea`s experiences provide a vivid example of how to move from the margins to the center of global value chains through integrated policies, an experience from which other countries seeking to promote their start-ups can draw lessons.

This study is consistent with the hypotheses put forward earlier, where the first hypothesis is that global value chains are a process of distributing production stages across several countries. While the study highlighted the validity of the second hypothesis, which considered its start-ups to integrate into global value chains. On the other hand, the third hypothesis, which considers that the lessons learned from the reference example can be applied to developing countries, provided that the experience is adapted to the economic and social conditions of each country,

is also valid.

Previous studies show that integrating start-up into global value chains is an effective mechanism for enhancing competitiveness and innovation. However, most of this literature has focused on major economics such as China or Southeast Asia, with relative neglect of the Korean experience despite its distinction in this field. Based on the above, this study aims to fill this gap by analyzing the South Korean experience, which represents a unique model that combines strategic government planning with a dynamic entrepreneurial ecosystem. While research by (Hemmert et al., 2022) and (Ambos et al., 2021) shows the importance of access to knowledge and network building in promoting innovation, the results of this study show that these mechanism in the Korean context would not have been achieved without supportive government policies focused on promoting value through innovation. This study also showed that long-term support enabled the transition from simple assembly stages to high-tech design and production stages.

This study agrees with what (De Marchi & Alford, 2022) pointed out regarding the crucial role of public policies in promoting participation in value chains. This study thus contributes to the theoretical framework of research on integration into global value chains by examining the case of a technologically advanced economy that relies on start-ups an engine of growth.

4. CONCLUSION

This paper concludes that start-ups have become a key player in linking national economics to the global economy. However, their integration into global value chains remains conditional on the adoption of clear mechanism to enhance their competitiveness, whether through the development of innovation and technology or the improvement of institutional and regulatory structures. The experience of South Korea has shown that the transition from a regulatory structure. The experience of South Korea has shown that the transition from a marginal participant to a key player in global chains requires a long-term strategic vision based on investment in research and development, the adoption of stimulating public policies, and the activation of public-private partnership. This experience can therefore serve as a reference point for economies seeking to upgrade their start-ups, with a view to achieving a better position within the dynamics of the global economy and ensuring sustainable development based on knowledge and innovation.

Finally, this study concluded with a set of recommendations drawn from the results of this study and the analysis of the Korean experience, namely:

- Expanding incubation and support programs and linking them directly to research centers and universities.
- Improving financing mechanisms through national funds and agencies, loans, and financing foe entrepreneurs.
- Leveraging the digital economy through the use of artificial intelligence technologies, data analysis, and electronic platforms.
- Establish mechanisms for cooperation between start-ups and large companies within national and global value chains.
- Establish and strengthen economic diplomacy to support entry into global markets and remove trade barriers for start-ups.
- Provide financial incentives and tax exemptions for companies that move from simple manufacturing to innovation in design or software.

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