Unlocking Startup Ecosystems: Conceptual Basis for Escaping Low-and-Lower-Middle-Income Trap through Poverty Reduction

Masatoshi Hara

Business Breakthrough University, Japan, masah6841@gmail.com

Abstract

The Low-and-Lower-Middle-Income Trap (LLMIT) poses a significant challenge for economies in low-and-lower-middle-income countries (LLMICs), hindering their progress towards higher income levels. This issue is especially prevalent in Southeast Asia, South Asia, and Sub-Saharan Africa, where job opportunities are scarce, and incomes are unstable. To address these challenges and promote economic development, particularly in terms of innovation and poverty reduction, it is essential to accelerate business activities, with a focus on fostering startup ecosystems. Despite the importance of this relationship, there is a noticeable gap in research, especially regarding the connection between startup ecosystems and economic development aimed at poverty reduction in LLMICs striving to overcome the LLMIT. This study conducts a qualitative empirical review to identify crucial conditions for promoting startup ecosystems as contributors to economic development. Preliminary demonstrations of theoretical foundations for escaping LLMIT through nurturing startup ecosystems are presented, referencing 15 selected literatures. Using the Grounded Theory Approach with ATLAS.ti, the findings highlight the scarcity of research on the mechanisms linking startup ecosystems to economic progress, notably in the context of poverty reduction in LLMICs facing LLMIT. The study emphasizes the necessity for continuous support in reviewing economic development policies and regularly monitoring economic performance, particularly in the aim of extensively mitigating LLMIT.

Keywords: Low-and-Lower-Middle-Income Trap, Poverty Reduction, Startup Ecosystems, Economic Development, Conceptual Basis.

Despite the global economy making considerable progress since World War II, numerous countries continue to encounter obstacles regarding growth, prosperity, and development. Previous research has underscored the urgent need to achieve the Sustainable Development Goals (SDGs) in underdeveloped countries, highlighting this as a critical social concern according to the UN (2018). Developing countries continue to struggle with high poverty rates and low-income levels, identified as pressing social issues by the World Bank (2024). Despite the ongoing pandemic that began in early 2020 (WHO, 2022), fostering socio-economic development by alleviating poverty remains essential for achieving the SDGs.

Business opportunities provide a pathway for nations to stimulate economic growth and improve individual incomes. Innovation, recognized by Schumpeter as a driver of economic growth (Shionoya, Nakayama, and Tohata, 1977), is essential for establishing an innovation infrastructure. This infrastructure integrates "human resources," "financial support," "research and development expertise," and "market expansion" to effectively generate new products and services (OECD, 2023). The startup ecosystem, as a catalyst for economic growth, has become a benchmark for economic development since the 2010s (Kato, 2022). Economic development should be closely linked with business management to boost national and individual incomes and improve long-term organizational productivity. Though economics and businesses are interconnected within the social sciences, the theoretical foundations for fostering startups to drive economic development through poverty reduction in Southeast Asia have been seldom explored.

Given this societal and academic context, this article focuses on elucidating the conceptual basis for fostering startups to drive economic development in Low- and Lower-Middle-Income Countries (LLMICs). This practical and interdisciplinary approach seeks to advance development in the developing world by utilizing insights from current research and analytical frameworks. The creation of this new discipline is important for its theoretical and practical contributions to sustainable development in low- and lower-middle-income countries (LLMICs).

Review of Literature

2.1. World Economic Development Status

A substantial amount of statistical data is accessible, offering valuable perspectives on the progress of nations in the under-developed countries. Particularly noteworthy is World Bank's dataset known as World Development Indicators (WDI, 2024). A straightforward example demonstrating a nation's economic status is income, with Gross National Income (GNI) per capita being a globally recognized value. Table 1 presents data on Gross National Income (GNI) per person across different regions, illustrating economic trends from 1990 to 2023. During the past 33 years, there has been a notable disparity in GNI per capita between two distinct groups: East Asia, Europe, and North America, identified as “Successful Cluster,” and South Asia, Latin America, and Sub-Saharan Africa, termed “Failure Cluster” in terms of developmental outcomes (Otsuka, 2020). The author highlights industrial factors such as industrialization, business opportunities, and entrepreneurship as crucial elements contributing to the development of the Successful Group.

Economic development focuses on addressing and studying these developmental issues, particularly strategies aimed at increasing per capita income and reducing poverty levels. A crucial component of this effort involves categorizing countries into various income stages of Low-income, Lower-middle-income, Higher-middle-income, and High Income, as emphasized by Hamadeh, Rompaeyeric, and Metreau (2023). The term "Middle-Income Trap (MIT)," introduced by Gill and Kharas (2007), refers to the difficulty faced by economies trying to progress beyond the middle-income level, a phenomenon particularly seen in Southeast Asia, as well as Latin America.

Poverty is characterized as a condition where people lack access to essential resources needed for a satisfactory standard of living, according to the United Nations Development Programme (UNDP, 2021). A number of global organizations have been actively involved in initiatives to alleviate poverty in economically disadvantaged nations. Although some East Asian economies have achieved substantial development, further progress and improvements in living conditions are still necessary, particularly in Southeast Asia, South Asia, and Sub-Saharan Africa, where poverty continues to be a major social issue (Hara, 2023).

The World Development Indicators (WDI, 2024) database is a valuable tool for studying poverty-related metrics such as the count of people living below $1.90 per day and the poverty headcount ratio across six regions: East Asia & Pacific, Europe & Central Asia, Latin America & Caribbean, Middle East & North Africa, South Asia, Sub-Saharan Africa, and globally. Otsuka (2020) aptly describes the global development scene as "Successful Development in Asia vis-à-vis Failure in Africa" in his work. People living in poverty on less than $1.90 per day, often called the "Base of the Pyramid (BOP)," total over 4 billion worldwide, as stated by Hammond et al. (2007). Similarly, Collier (2008) referred to this group as the "Bottom of Billion" in his work. Regrettably, extreme poverty continues to be a pressing issue today.

Poverty is not merely defined by income; it includes multiple dimensions. For instance, UNDP (2024) has introduced Human Development Index (HDI), which considers three key elements: life expectancy, secondary education enrolment rates, and GNI per capita. This index is based on the "Capability Approach" proposed by Sen (1999). By considering factors beyond individual income, the UNDP (2024) emphasizes the need to assess poverty from various perspectives and ranks countries globally based on their HDI scores. The closer a country's HDI figure is to 1.00, the higher its development status. Table 2 accumulated bar charts depicting regional trends in HDI scores from 1990 to 2022. Notably, there has been an improvement in HDI, particularly in East Asia and the Pacific, where the score increased from 0.507 in 1990 to 0.766 in 2022. However, there is still a need for further improvement in South Asia and Sub-Saharan Africa, with scores 0.632 and 0.549 in 2022, respectively.

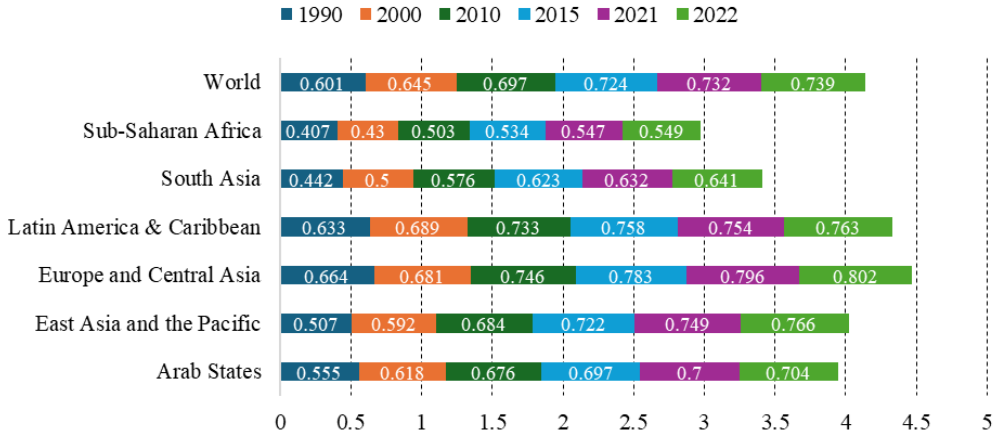
Table 1: The GNI per capita (Atlas Method, current US$) from 1990 to 2023

Region/Year	1990	2000	2012	2021	2023
East Asia & Pacific	2,801	3,870	9,126	12,841	13,712
Japan	28,390	36,810	50,060	43,670	39,030
Republic of Korea	6,450	11,030	25,650	35,180	35,490
China	330	940	5,910	11,950	13,400
Singapore	11,450	23,680	51,710	64,970	70,590
Thailand	1,520	1,980	5,420	7,100	7,180
Malaysia	2,470	3,490	9,980	10,740	11,970
Indonesia	560	570	3,550	4,170	4,870
The Philippines	830	1,180	2,840	3,550	4,230
Vietnam	130	380	1,980	3,590	4,180
Lao PDR	190	280	1,360	2,510	2,120
South Asia	372	442	1,383	2,097	2,388
Bangladesh	300	430	970	2,570	2,860
India	380	440	1,470	2,180	2,540
Pakistan	370	470	1,140	1,470	1,500
Europe (Euro Area)	17,351	21,868	38,918	42,019	44,016
United Kingdom	18,590	29,420	41,810	45,550	47,800
France	20,710	24,990	43,410	43,810	45,070
Germany	21,300	26,180	46,560	52,050	53,970
Latin America & Caribbean	2,761	4,213	9,887	8,200	9,566
Brazil	3,930	3,910	12,270	7,880	9,070
Mexico	2,860	6,620	10,590	9,920	12,100
Peru	840	1,960	5,740	6,440	6,990
North America	23,725	34,675	52,537	69,010	77,494
United States	24,060	35,960	52,690	71,330	80,300

Sub-Saharan Africa	n.a.	671	1,699	1,581	1,642
Ethiopia	260	130	400	940	1,130
Kenya	380	430	1,060	2,080	2,110
South Africa	2,890	3,280	8,320	6,540	6,750
Tanzania	280	390	800	1,120	1,210
Uganda	320	270	830	860	980
Zambia	450	350	1,660	1,050	1,320
World	4,286	5,506	10,468	12,129	13,211

Note: “n.a.” means Not Applicable as lacking data.
Source: Based on the WDI (2024), author made.

Table 2: Human Development Index from 1990 to 2022 per region

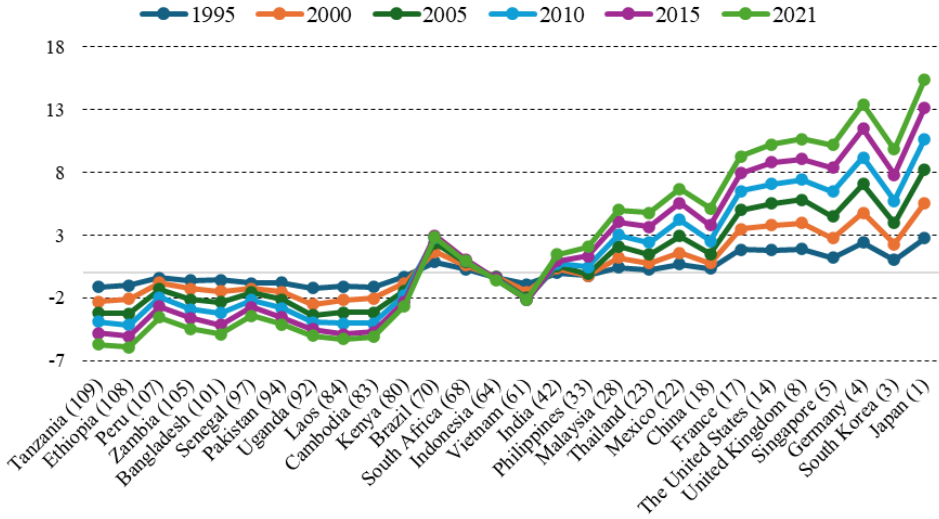


Source. Based on the UNDP (2024), author summarized

Another new indicator, the Economic Complexity Index (ECI), assessed by the Harvard Growth Lab (2024), measures the diversity and complexity of the products a country can produce. The ECI quantifies the variety and complexity of a country's goods, reflecting the level of knowledge accumulation. Economic development requires accumulating productive knowledge and applying it to increasingly complex industries. Countries improve their ECI by diversifying and increasing the complexity of their exported products (Harvard Growth Lab, 2024). Table 3 provides a summary of the Economic Complexity Index (ECI) for approximately 30 countries spanning the period from 1995 to 2021. This graph represents a stacked line graph. Using data from 1995, 2000, 2005, 2010, 2015, and 2021, the values for each year are accumulated and plotted as a line graph. The ECI assesses the diversity and sophistication of a country's export mix, with higher rankings indicating greater, shown in brackets next to the country’s name and lower rankings indicating less complexity (Harvard Growth Lab, 2024). Consequently, high-income and upper-middle-income economies such as Japan, France, Korea, Germany, Singapore, the U.K., and the U.S. consistently occupy the top 30 positions. Countries ranked between 30th and 70th, including the Philippines, India, Indonesia, and Vietnam, generally belong to the lower-middle-income category. On the other hand, countries ranked 70th and below, predominantly from lower-middle-income and low-income

categories, particularly in South America, South Asia and Sub-Saharan Africa, consistently show negative figures over the years. These findings potentially indicate a notable correlation between a country's economic classification based on income and its performance on the ECI. As shown earlier, high-income and upper-middle-income countries consistently achieve higher ECI rankings, reflecting their diverse and complex export structures. In contrast, lower-middle-income and low-income countries, particularly in regions, notably South Asia and Sub-Saharan Africa, tend to have lower ECI scores or negative trends, highlighting challenges in diversifying their economies and enhancing export sophistication. This connection underscores the importance of economic diversification and complexity as drivers of economic growth and development across different income groups globally.

Table 3: Economic Complexity Index (ECI) from 1995 to 2021



Source. Based on the Harvard Kennedy School Growth Lab (2024), author summarized

2.2. Low- and Lower-Middle-Income Trap (LLMIT)

Gill and Kharas (2007) categorized global economies into high, middle, and low-income groups and introduced the concept of the Middle-Income Trap (MIT) in 2006. They defined MIT as the prolonged difficulty economies face in progressing from low-and-lower-middle-income stages to higher levels of prosperity. Tran (2016) demonstrated a framework outlining the stages of development as low-income, middle-income, and high-income, using key theories of the "turning point" of Lewis (1954) and the "take-off" by Rostow (1956). He, then, explored development strategies to escape the MIT, identifying two syndromes: the lower-middle-income trap (LMIT) and the higher-middle-income trap (HMIT). Key challenges include addressing issues such as inadequate infrastructure, slow innovation, vulnerable institutions, and deficiencies in the labor market, crucial for overcoming the MIT (ADB, 2017). Scholars consistently emphasize the role of promoting industrialization in driving economic development (Allen, 2011; ADB, 2017; Otsuka, 2020). Another group of nations, primarily

located in Southeast Asia, South Asia, and Sub-Saharan Africa, known as Low-and-Lower-Middle-Income Countries (LLMICs), confront the intertwined challenges of persistent poverty and the MIT, forming what is termed the Low-and-Lower-Middle-Income Trap (LLMIT). These economies are ensnared in a cycle of poverty and limited economic progress. Economic development, distinct from poverty alleviation efforts which aim to expand individuals' life choices, is discussed by scholars such as Sen (1999) and Otsuka (2020), who highlight the importance of sustainable growth through industrial structural changes. Conceptually, the LLMIT encompasses regions experiencing prolonged periods of being stuck in low- and lower-middle-income stages. Overcoming the LLMIT involves promoting economic development through poverty reduction by maximizing the potential of human, organizational, regional, and national capital. Therefore, a theoretical approach is needed to understand how to overcome the LLMIT.

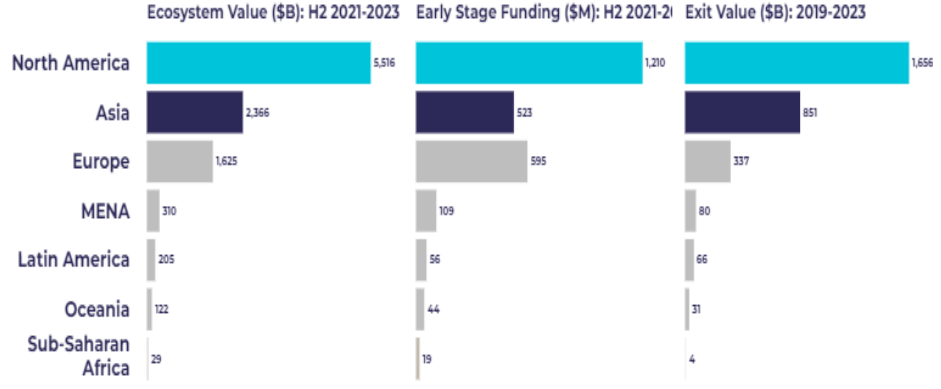
2.3. Startup Ecosystems

Startups are businesses that have the capacity for substantial growth by introducing new value or services, regardless of their size or stage of development (Baldridge and Curry, 2022). They are characterized by their focus on innovation, scalability, and problem-solving. Startups are typically founded to innovate, scale quickly, and tackle market issues with fresh ideas and initiatives (Kato, 2022). According to Baldridge and Curry (2022), startups offer advantages such as significant independence, adaptability, and agility.

When it comes to securing funding, startups typically initiate a "seed round" once they validate market acceptance of their idea. As the company expands, it may pursue successive funding rounds, e.g.) Series A, B, and C, securing investments from venture capitalists and major stakeholders. These funds are allocated towards product development, marketing initiatives, and executing growth plans. Alternative funding sources include backing from angel investors and capital generated through Initial Public Offerings (IPOs) or acquisitions, although participation in an initial seed round is often standard (Kato, 2022).

The global number of startups has increased significantly. Figure 1, summarizing the state of the global startup economy by region, shows that North America, Europe, and Asia are leading continents in terms of startup ecosystem value, early-stage funding, and exit value. Notably, four economies—China, India, Japan, and South Korea—are key hubs in Asia.

Figure 1: The State of Global Startup Economy per Region in 2023



Source. Startup Genome (2024).

As observed in Figure 1, there is a significant disparity in the contribution of different regions to the global startup economy. Specifically, the regions of MENA (Middle East and North Africa), Latin America, Oceania, and Sub-Saharan Africa play a much smaller role compared to North America, Asia, and Europe. According to Startup Genome (2024), North America, Asia, and Europe collectively account for 90% of the global startup ecosystem, while MENA, Latin America, Oceania, and Sub-Saharan Africa contribute only 10%. This stark contrast highlights the substantial differences in the development and presence of startup economies across various regions. In the global south, these regions have a smaller role in the overall startup landscape, indicating the need for targeted efforts to bolster startup ecosystems in these areas. The data underscores the focus of startup activity and resources merely in a several key regions, suggesting that MENA, Latin America, Oceania, and Sub-Saharan Africa face unique challenges that limit their participation and growth in the global startup economy. Addressing these disparities will be crucial for fostering a more balanced and inclusive global startup environment.

2.4. Startups for Economic Development through Poverty Reduction

Startups are recognized for their substantial economic influence, significantly contributing to entrepreneurial competitive advantage, innovation, and employment. Major U.S. companies, especially Amazon, Facebook, Google, Uber, and X as a former name of Twitter began as small startups and rapidly grew into industry giants, showcasing the profound impact of startups (Kato, 2022). Consequently, many countries have ramped up efforts to support startups since 2017, acknowledging the critical role of startup-driven innovation in economic development.

In the context of poverty alleviation, Hussein (2023) emphasized the potential of entrepreneurship and startups. By creating job opportunities, fostering economic growth, and providing essential goods and services to underserved communities, startups can help lift people out of poverty and contribute to sustainable development. Data from the Global Entrepreneurship Monitor reveals that small and medium-sized enterprises (SMEs) comprise over 90% of all businesses and contribute more than 50% to global employment. One-way startups can aid in poverty alleviation is by providing disadvantaged individuals with access to financial services. The World Bank (2022) reports that around 2 billion adults worldwide lack basic banking services, hindering their ability to save, borrow, and invest. Successful examples such as M-Pesa in Kenya and Branch in Nigeria have offered mobile banking services, enabling individuals and small businesses to access financial resources and improve their economic prospects. Additionally, the International Finance Corporation suggests that a 1% increase in access to financial services correlates with a 0.5% increase in GDP.

However, despite the significant growth in the number of startups, some Low- and Lower-Middle-Income Countries (LLMICs) show limited economic progress. For instance, India's startup ecosystem has experienced substantial growth since 2015, ranking as the third largest in the world (Government of India, 2023). The number of startups has surged from 471 in 2010 to over 98,119 in 2023, according to the Department for Promotion of Industry and Internal Trade, spanning 670 districts (Invest India, 2023; Statista, 2023; Times of India, 2022). However, the low level of Gross National Income (GNI) per capita coupled with a high poverty rate in India has remained unchanged since 2015. Thus, the impact of startups on economic development through poverty reduction in LLMICs requires further exploration from the perspective of innovation within startup ecosystems.

Study Gaps

Despite acknowledging the importance of revising development policies in Low-and Lower-Middle-Income Countries (LLMICs), there is a noticeable lack of research on the theoretical foundations aimed at fostering startup ecosystems to accelerate economic development through poverty reduction, particularly in the context of overcoming the Lower-Middle-Income Trap (LLMIT). While other scholars, governments, and international organizations have extensively studied the significant impact of promoting business opportunities on economic development, the theoretical framework for startups' role in fostering economic development through poverty reduction remains inadequately defined. Therefore, there is a need for further academic and practical exploration of the theoretical foundations to promote startups and their contribution to economic development through poverty reduction in the LLMICs.

Study Objective

The primary purpose in this study is to promote economic development in developing nations by investigating the theoretical foundations for nurturing startup ecosystems, specifically focusing on overcoming the Lower-Middle-Income Trap (LLMIT).

Research Question (RQ)

How can the conceptual foundations for fostering startup ecosystems to promote economic development, particularly in the context of escaping the low-and-lower-middle-income trap, be explored?

Frameworks

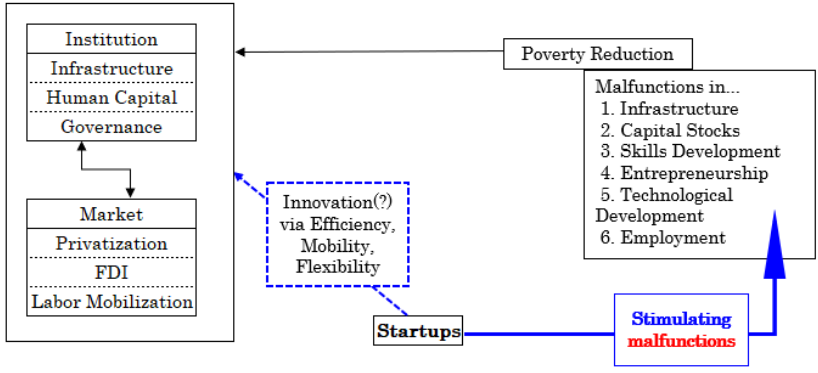
To explore the aforementioned RQ, different frameworks illustrating how startups can help countries escape Low-and-Lower-Middle-Income Trap (LLMIT) by reducing poverty were examined. Numerous relevant studies that specifically delve into the relationship between startups and poverty alleviation were identified.

Firstly, Pramanik (1994) and Hassan (2006) introduced two approaches to address poverty: "Indirect Strategies," which involve macro-economic policies promoting sustainable growth, increased employment, and higher per capita income, and "Direct Strategies," which target marginalized populations by providing support such as credit access, improved healthcare, and enhanced literacy rates. Also, Morris, Santos, and Neumeyer (2020) introduced the SPODER conceptual framework in developed economies to foster entrepreneurship among disadvantaged populations. This framework encompasses elements like supportive infrastructure, entrepreneur training, expanded opportunities, identification of unique selling points, a well-defined economic model, and the utilization of community resources.

Based on these frameworks, theoretical principles were established to illustrate how startups contribute to economic development by reducing poverty. Figure 2 illustrates the theoretical mechanism of startup ecosystems on poverty reduction in Low-and-Lower-Middle-Income Countries (LLMICs) within the framework of escaping the LLMIT conceptually created by Hara (2024a). This framework considers Tran (2010)’s emphasis on stimulating institutions and markets, breaking them down into infrastructure, human capital through education and health, governance, privatization, FDI, and labor mobilization. This approach aims to generalize the applicability and effectiveness of the proposed strategies while encompassing the unique development contexts and challenges in LLMICs.

The original framework proposed by Hara (2024a) suggests that startups can directly enhance elements such as innovation, thereby boosting productivity. However, they face limitations in directly addressing poverty due to challenges e.g.) infrastructure, human capital, governance, entrepreneurial leadership, employment, and labor market dynamics.

Figure 2: Theoretical Foundations of Startups for Escaping LLMIT in LLMICs



Source. Author modified the framework by Hara (2024, p.63).

Instead, startup ecosystems can indirectly influence these areas, contributing to poverty alleviation. Building upon this theory from previous research, the perspective was adjusted. While institutions and markets can still be indirectly influenced, startups can directly impact poverty reduction. This adjustment reverses the relationship depicted in Hara (2024a), where the roles of direct and indirect impacts are inverted. A critical revision in the framework recognizes that poverty is a pervasive challenge across countries, which can be mitigated through overcoming economic hurdles such as skills development, employment generation, entrepreneurship, technological advancement, infrastructure enhancement, and capital accumulation.

Consequently, the directional arrows in the framework have been adjusted to illustrate that improving appropriate institutions and markets can spur the activation of startup ecosystems, thereby fostering poverty reduction. In summary, startup ecosystems play a crucial role in stimulating institutions and markets, enabling lower-middle-income countries (LLMICs) to enhance productivity and employment through innovation, ultimately leading to innovative poverty alleviation strategies, in consideration of the unique developmental contexts with socio-economic constraints in these regions.

Methodology

This study intends to build the theoretical link between startups and poverty reduction, building on preliminary research by Hara (2024a), despite the availability of specific variables such as poverty rates (or GDP/GNI per capita) and startup data. Traditional quantitative analyses may not suffice to establish robust theoretical foundations, necessitating the use of qualitative analysis to develop a comprehensive framework for understanding the theoretical mechanisms linking startups to economic development.

Following the approach outlined by Hussain, Bhuiyan, and Baker (2014) and Hara (2024a), an empirical review was conducted. This involved summarizing existing empirical studies on the relationship between startups and economic development, particularly focusing on poverty reduction in Low- and Lower-Middle-Income Countries (LLMICs). Following the specific method by Hara (2024b), the literature search encompassed various online databases including Google Scholar, Springer, Wiley, Science Direct, JSTOR, Scopus, among others, resulting in the selection of 15 relevant sources of books, articles, websites, and conference papers for comprehensive review.

As following Hara (2024a; 2024b), each article chosen underwent a detailed evaluation to ensure it aligned with the study's goals. Inclusion criteria emphasized relevance to the theoretical frameworks linking startup ecosystems to overcoming the challenges of the Lower-Middle-Income Trap (LLMIT) and reducing poverty. The review process carefully examined the objectives, methodologies, and outcomes of each empirical study, concentrating on their pertinence to the research investigation.

Moreover, referring to specific data procedures as per Hara (2024b), ATLAS.ti (Version 24), a widely recognized qualitative analysis tool, was employed, in reference to the previous article by Hara(2024b). While ATLAS.ti's coding function does not cover all coding methods of the Grounded Theory Approach (GTA) according to the ATLAS.ti manual, it supports a flexible approach not confined exclusively to GTA (Glaser and Strauss, 1967). The tool allows detailed coding of units and facilitates verification of correspondence between codes and coded data sections, emphasizing data-grounded analysis in alignment with GTA principles (Higuchi, 2017). The versatility of ATLAS.ti allows for the application of a customized version of GTA to build concepts and formulate theories relevant to specific research topics in this study.

Study Results

The empirical review adhered to the approach described by Hussain, Bhuiyan, and Baker (2014) and Hara (2024a), which is outlined in the Appendix provided at the conclusion of this article. The 15 chosen sources from the literature were classified into three categories: "Innovation and Economic Development/Poverty Reduction," "The Link between SME Entrepreneurship and Poverty Reduction," and "Approaches for Poverty Alleviation via Startup Ecosystems," as displayed in the Appendix.

Under the category "Innovation and Economic Development/Poverty Reduction," three sources were selected: Otsuka (2020), Tran (2010), and Yamagata, Kuchiki, and Nogami (1997). These studies delve into economic theories examining how innovation influences economic advancement and poverty alleviation in developing nations. They provide insights from various angles including capital accumulation, institutional frameworks, market dynamics, and technological progress.

In the second category, "The Relationship between SME Entrepreneurship and Poverty Reduction," six sources were analyzed. These studies investigated approaches to back up the finances in SMEs, such as integrating microfinance, sharing technology, and enhancing individual skills. Contributions to this category included works by Hussain, Bhuiyan, and Baker (2014); Hoque, Khan, and Mohammad (2015); Kao, Chen, Wu, and Yang (2016); and Morris, Santos, and Neumeyer (2020).

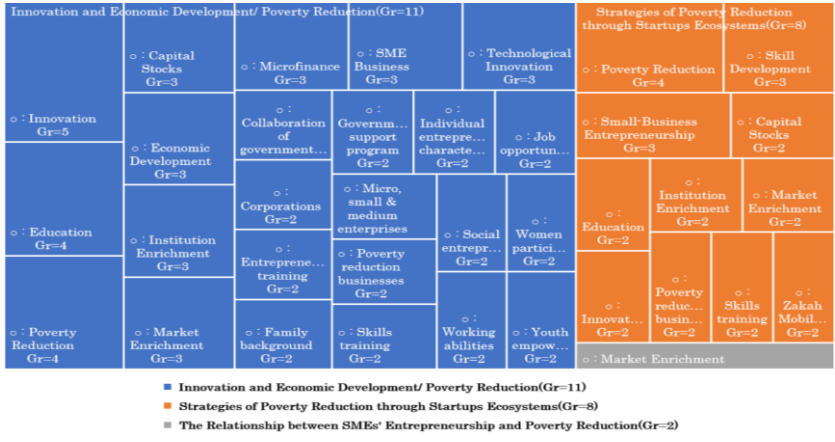
The third category, "Strategies for Poverty Reduction through Startup Ecosystems," explored various strategies to promote entrepreneurship. Topics included both direct and indirect strategies, financial concepts like assets and liabilities, and the importance of effective partnerships. Works by Hassan (2006); Pramanik (1994); VanSandt and Sud (2012); Morris and Tucker (2021); and the inclusive business approach as highlighted by GIZ (2021) were reviewed. However, these sources did not explicitly outline the specific mechanisms through which startup ecosystems contribute to poverty reduction.

In summary, while essential aspects of the theoretical link between entrepreneurship and poverty reduction were identified, the reviewed empirical studies did not explicitly uncover the crucial role of startups in poverty reduction. Nonetheless, Figure 3 presents a theoretical framework constructed based on foundational insights drawn from these reviews, utilizing ATLAS.ti for analysis.

The study's findings, summarized in Figure 3 with an accompanying tree map above, categorize the results into three distinct areas. The first category, "Innovation and Economic Development/Poverty Reduction," is denoted in blue, while the second category, "The Relationship between SMEs' Entrepreneurship and Poverty Reduction," is represented in orange. The third category, "Strategies of Poverty Reduction through Startup Ecosystems," is depicted in grey.

Additionally, the total number of coded words, labelled as "Gr," was determined through AI coding analysis. Specifically, 15 coding words were identified for the first category, 8 for the second category, and 2 for the third category, resulting in a total of 21 codes across both categories, as illustrated in Figure 3. The analysis focused on words with higher frequencies, including "Capital Stocks," "Skill Development," "Institution Enrichment," "Market Enrichment," and "Technological Innovation," which are integral to the framework presented in Figure 3.

Figure 3: Results of the Coding Analysis for Responding to the RQ



Source. ATLAS.ti (2024) Output

Although the three categories being analyzed do not overlap directly, the analysis revealed some recurring themes. By examining these themes in detail, I was able to identify important policies that could help prevent countries from falling into the LLMIT. This in-depth analysis provided a clear understanding of the strategies needed to support economic advancement and avoid stagnation in these income brackets.

Conclusion

9.1. Interpretations of Study Results

In relation to the research question, the theoretical framework presented in Figure 2 potentially justifies its relevance regarding how startup ecosystems influence the Lower-Middle-Income Trap (LLMIT) in Low-and-Lower-Middle-Income Countries (LLMICs). Conceptually, startup ecosystems have the capacity to stimulate both market dynamics and institutional frameworks. This mechanism underscores the importance of clearly delineating the specific pathways to poverty reduction by emphasizing essential developmental components that require activation.

Furthermore, insights from the coding analysis with ATLAS.ti provide foundational insights into formulating policies that promote startup ecosystems. The framework holds promise for guiding policymaking in LLMICs aimed at overcoming the LLMIT. To ensure practical applicability, strategic development policies to foster startups should be further refined, monitored, and evaluated. This approach will facilitate progress towards higher income stages effectively.

9.2. Limitations

Firstly, there is a need for further development of the theoretical foundations, particularly due to the preliminary nature of the survey and analysis presented. The current framework lacks consideration of the specific developmental contexts within each Low-and-Lower-Middle-Income Country. Thus, expanding the empirical literature base using qualitative tools is essential to gain nuanced insights into the unique factors contributing to the Low-and-Lower-Middle-Income Trap.

Secondly, there is a necessity to formulate specific strategies tailored to fostering startup ecosystems in LLMICs, taking into account the region- or country-specific challenges. While startup ecosystems have thrived in OECD economies such as the U.S., U.K., Japan, Korea, and emerging economies like China and India, LLMICs often face barriers due to insufficient capital. Harnessing foreign capital could play a crucial role in unlocking and effectively supporting these ecosystems.

Finally, this study heavily relies on examples and frameworks from developed and emerging economies, potentially overlooking the distinct barriers faced by LLMICs. This might result in unrealistic recommendations that do not adequately address the specific needs and constraints of these regions. To mitigate this risk, it is necessary to employ a mixed-method approach that considers the specific needs and constraints of LLMICs on a country-by-country basis through field surveys.

9.3. Recommendations

Firstly, conducting field surveys to observe local startup ecosystems in Low-and-Lower-Middle-Income Countries (LLMICs) and their role in reducing poverty is advisable. Direct observation during field trips provides practical insights into how these ecosystems foster economic development through innovation. Therefore, organizing field trips is considered to be absolutely crucial for gathering data and gaining firsthand perspectives.

Secondly, exploring the impact of startup ecosystems on productivity within specific industries through case studies is recommended. By focusing on selected industries, valuable insights into economic development and innovation can be obtained. These case studies provide actionable information for policymakers, investors, and businesses, identifying factors that enhance productivity and guiding strategies to foster a supportive environment for startups and innovation.

Finally, in conducting economic development and business research, study collaboration is preferred. Collaborating with development specialists, private sectors, and other relevant experts enhances depth and breadth of study efforts. Leveraging diverse expertise notably enhances the quality and relevance of research on global challenges, leading to deeper findings in the future.

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