

Fostering Global Innovation: Strategies for Japanese Entrepreneurs and Business Ecosystems

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Abstract

This paper explores strategies for fostering global innovation among Japanese entrepreneurs by addressing key challenges within Japan's entrepreneurial environment. The prolonged economic stagnation, commonly referred to as the "Lost Decades," has contributed to a low level of entrepreneurial activity and innovation. This study employs a mixed-methods approach, combining qualitative and quantitative data from three case studies of Japanese small and medium-sized enterprises (SMEs) operating overseas. The findings highlight the importance of entrepreneurial education, the formation of regional industrial clusters, and the utilization of both domestic and international networks to enhance global competitiveness. The role of aspiration, defined as ambitions related to growth, international expansion, and social value creation, is identified as a critical factor in achieving innovation. Policy recommendations are provided to support the development of a sustainable entrepreneurial ecosystem in Japan, emphasizing government support, cross-border collaboration, and knowledge sharing to overcome structural barriers and promote a culture that encourages entrepreneurial endeavors.

Introduction

In recent years, there has been growing interest in Japan's entrepreneurial environment, particularly regarding how the prolonged economic stagnation, often referred to as the 'Lost Decades,' has impacted innovation activities. GME (2024) points out that the low social recognition of entrepreneurship has contributed to the stagnation of the overall business environment. Understanding these challenges highlights the importance of fostering global innovation from Japan.

1. How are Japanese entrepreneurs generating innovations that compete globally?
2. What experiences and learning processes have enabled successful entrepreneurs to achieve global innovation?
3. What obstacles do Japanese entrepreneurs face when creating global innovations, and what implications do these challenges have for business practices and policy measures?

By analyzing the experiences of Japanese entrepreneurs who have succeeded overseas, this paper aims to provide insights for building a sustainable ecosystem in Japan that supports ongoing global innovation.

1. The Fundamental Challenges in Japan's Entrepreneurial Environment

Japan's entrepreneurial activity index¹ remains low on an international scale, and this figure has hardly changed over the past 30 years of stagnation. At first glance, this low

¹ Total Early-Stage Entrepreneurial Activity (TEA) represents the proportion of adults engaged in either

ranking might create the misconception that Japanese people lack the ability to start businesses. However, the fundamental issue lies elsewhere.

For instance, when examining the trends in the number of potential entrepreneurs, such as "aspiring entrepreneurs," "prospective entrepreneurs," and "active entrepreneurs," all these categories have been decreasing. On the other hand, the ratio of active entrepreneurs to prospective entrepreneurs is on an upward trend (White Paper on Small and Medium Enterprises in Japan, 2020). Furthermore, when looking at the proportion of those interested in entrepreneurship who actually engage in entrepreneurial activities, Japan ranks relatively high among major developed countries, second only to the United States (White Paper on Small and Medium Enterprises in Japan, 2017). This suggests that the proportion of people with entrepreneurial interest who actually become entrepreneurs is not low, and that Japan indeed has a high level of entrepreneurial competence. The real issue lies in the fact that very few people in Japan consider entrepreneurship as a career choice in the first place.

Nagayama (2020) highlights that the majority of people in Japan do not even consider entrepreneurship as an option, and the fundamental problem is that starting a business is not part of life planning or career choice. Therefore, he argues that the priority should be to engage those who are indifferent to entrepreneurship and increase the number of "aspiring entrepreneurs." Takahashi (2013) also analyzes individual data from the Global Entrepreneurship Monitor (GEM)², using a model where entrepreneurial "attitudes" serve as explanatory variables for entrepreneurial "activities" to capture the unique characteristics of Japan's entrepreneurial landscape. His analysis seeks to determine which stage of the entrepreneurial process is most effectively influenced by policy intervention. The findings reveal that differences in entrepreneurial attitudes lead to variations in entrepreneurial activities, suggesting that targeting "entrepreneurial attitudes" could be an effective policy.

In the entrepreneurial process, entrepreneurial activity does not begin spontaneously; rather, it is preceded by the acquisition of an "entrepreneurial attitude." This attitude consists of four indicators³: the penetration of entrepreneurial activities, recognition of business opportunities, relevant knowledge and experience, and perception of the threat of failure. Those who possess these qualities constitute a pool of potential entrepreneurs, from which

the "nascent" phase, involving preparation for a new business without yet receiving a salary (or for less than three months), or the "new business" phase, where entrepreneurs have operated a business for 3 to 42 months. Japan ranks at the bottom among major advanced economies.

² The Global Entrepreneurship Monitor (GEM) survey evaluates entrepreneurial activity across multiple countries, offering policy recommendations for national entrepreneurship. Initiated in 1999 with 10 countries, including Japan, the survey now encompasses 115 countries, providing over two decades of longitudinal data. It is widely cited in academic literature due to its reliable annual data.

³ According to Takahashi (2013), the KNOWENT index measures the presence of entrepreneurial role models by asking respondents if they personally know someone who started a business within the last two years, with results expressed per 100 adults. The OPPORT index gauges the perception of favorable conditions for starting a business in the next six months within the respondent's area. The SUSKIL index measures perceived knowledge, skills, and experience necessary for entrepreneurship. The FEARFAIL index reflects the proportion of individuals whose fear of failure may deter them from starting a business.

actual entrepreneurs emerge. Both Nagayama (2020) and Takahashi (2013) emphasize the importance of fostering an environment that nurtures entrepreneurs at this pre-entrepreneurial stage.

In Japan, there are significant cultural and systemic barriers that inhibit the transition to becoming a prospective entrepreneur. For instance, the cultural bias that favors stable employment as the norm creates a disincentive to pursue entrepreneurship. Another major obstacle is the lack of a business ecosystem in Japan capable of generating global innovation. As discussed in Yoshida (2023a,2023b,2024), highly competent prospective entrepreneurs often recognize that overseas markets offer more favorable conditions for entrepreneurship than Japan, resulting in a trend of outward migration. This outward migration is not merely about market expansion but is also driven by the ease with which essential resources for starting a new business can be acquired abroad.

Addressing these challenges is not something that can be accomplished in the short term. While it would be ideal to cultivate a business ecosystem across Japan that facilitates continuous global innovation, current institutional, cultural, and educational issues, as well as regional characteristics, make it impractical to implement uniform national policies. Thus, it is valuable to examine cases of global innovation initiated by Japanese entrepreneurs abroad. Such analyses could uncover essential elements and conditions for fostering innovation that are not apparent solely within the Japanese context, revealing Japan's strengths and weaknesses. Drawing policy implications in a phased manner from these findings is also significant.

Stage 1: Preparing to Cultivate a Japanese Business Ecosystem

The first step is to prepare for the cultivation of a Japanese-style business ecosystem from a medium- to long-term perspective. It is crucial to understand the mechanisms and conditions by which Japanese entrepreneurs establish roots within overseas business ecosystems, coexist in diversity, and drive innovation. For instance, learning from Japanese entrepreneurs who have successfully integrated into global hubs like Silicon Valley could provide insights into strategies for thriving in competitive international markets.

Stage 2: Encouraging the Repatriation of Innovation to Japan

The second stage involves encouraging Japanese entrepreneurs who have created global innovations abroad to repatriate⁴ these innovations like a “Umi-Game” and use Japan as a base for market expansion. This requires creating an environment that makes Japan an attractive development or startup hub for successful Japanese transnational entrepreneurs. Such efforts would not only encourage the return of Japanese entrepreneurs but could also stimulate the entry of foreign entrepreneurs, fostering a climate of "competition and cooperation"⁵ based on diversity. For instance, Karr (2020) highlights that immigrant

⁴ The term "Umi-Game" (literally "sea turtle") is used metaphorically in China to describe returnees who bring back business experience, technology, and networks gained abroad to foster economic growth in their homeland (Nihon Keizai Shimbun, December 17, 2013).

⁵ A business ecosystem (Industrial Cluster) is characterized by a dynamic interplay between "competition" with rivals that drives innovation and "collaboration" in the supply chain for mutual benefit. The importance of "competition and cooperation" in fostering innovation is extensively discussed by Porter (1998)

entrepreneurs contribute significantly to employment and global innovation in host countries, with 63% of companies in Silicon Valley founded by entrepreneurs of foreign origin⁶.

To foster a continuous chain of Japan-originated global innovations, it is essential to adopt a strategic approach that focuses on both "cultivating a Japanese-style business ecosystem" and "establishing incentives for the repatriation of innovation." By doing so, Japan will gradually develop role models in entrepreneurship, leading to an increase in prospective entrepreneurs and a stronger entrepreneurial ecosystem.

2. The Role of "Aspiration" in Global Innovation Creation

The Global Entrepreneurship Monitor (GEM) report identifies "ambition" as a key indicator of entrepreneurial activity that influences whether entrepreneurs will be able to create global innovations in the future. Generally, "ambition" refers to the goals and aspirations associated with entrepreneurial activity, measured by factors such as growth, international expansion, new product development, and the creation of social value. The potential contributions of entrepreneurship include transforming ideas into new products or services, introducing new technologies or business models, and driving organizational change. GEM emphasizes that entrepreneurship engaging in such innovative activities could become a significant characteristic of high-growth firms⁷.

Accordingly, GEM surveys individuals who are starting or running new businesses, asking whether they are engaged in global innovation activities that extend beyond their home country. Figure 1 illustrates the proportion of early-stage entrepreneurial activity (TEA) with customers abroad.

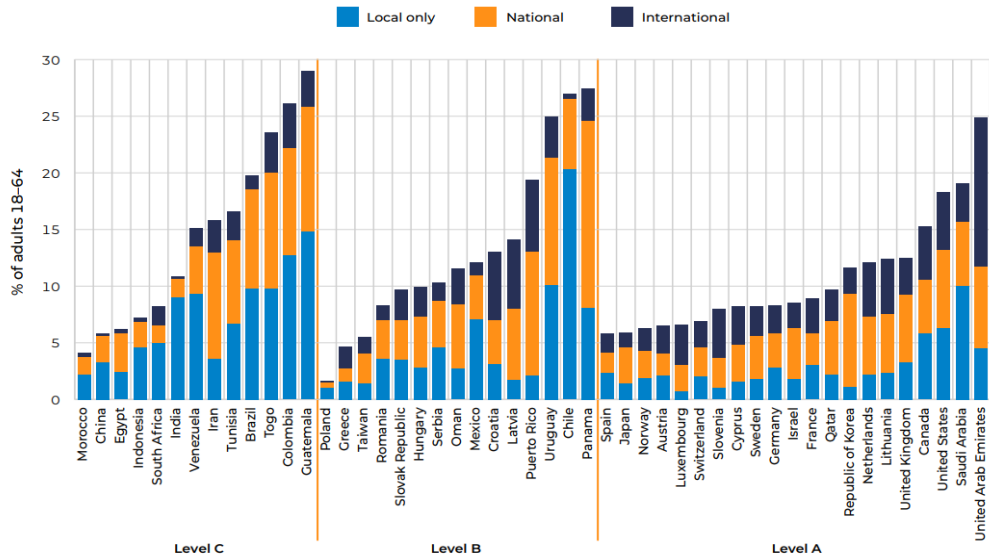
Following this, Figure 2 presents the proportion of early-stage entrepreneurs who expect to generate at least 25% of their revenue from international markets. The data indicate that other advanced, growing economies exhibit a strong inclination toward innovative activities, particularly those aimed at achieving global innovation. In contrast, Japan ranks significantly lower among innovation-driven economies. For Japan to continue thriving in the global economy, it is crucial to adopt a global perspective from the entrepreneurial stage and actively pursue global innovation activities. The GEM report suggests that entrepreneurship aiming to connect ideas to global innovation is more likely to achieve sustained growth⁸.

⁶ See Karr (2020), P15. Vendor (2023) reports that immigrants tend to exhibit a higher propensity for entrepreneurship compared to natives. Research on immigrant entrepreneurship has become increasingly prevalent in recent years.

⁷ See Global Entrepreneurship Monitor (2023).

⁸ See Ibid.

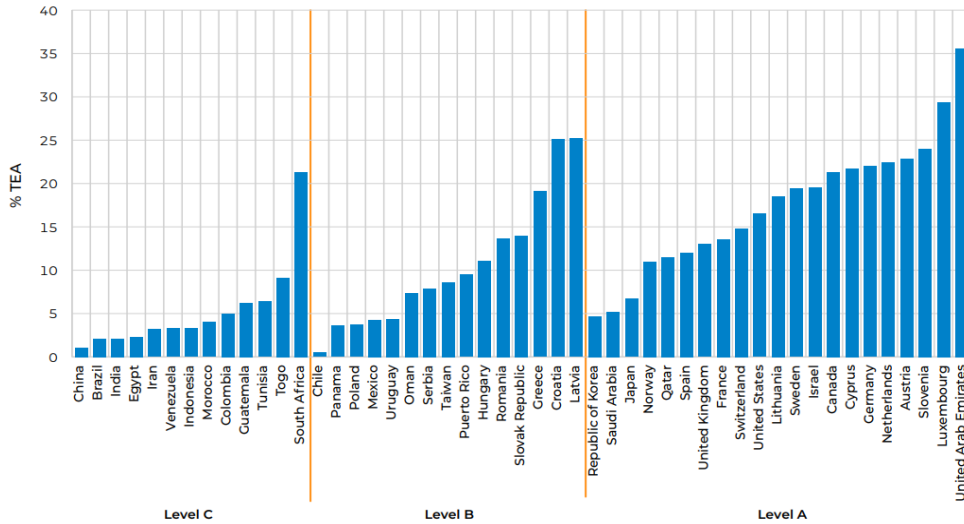
Figure 1: Percentage of Early-Stage Entrepreneurial Activity (TEA) Involving International Customers



Source: Global Entrepreneurship Monitor (2023)

*This figure illustrates Japan's position relative to other advanced economies regarding the international orientation of early-stage entrepreneurial activities.

Figure 2: Percentage of Early-Stage Businesses Expecting Over 25% of Revenue from Overseas



Source: Global Entrepreneurship Monitor (2023)

*This figure compares Japan with other advanced economies concerning revenue expectations from international markets, emphasizing the relatively low ambition for global expansion among Japanese startups.

It is also evident that unicorn companies⁹ have emerged from firms that target global markets from the outset. While unicorn companies were relatively rare about a decade ago, they are now widely recognized as high-growth firms driving entire industries and economies forward. As of 2024, there are approximately 1,200 unicorn companies worldwide (CB Insights), but Japan has only seven unicorn companies¹⁰.

A significant issue that must be addressed regarding Japan is the overwhelmingly low proportion of activities related to "global innovation" that contribute to sustainable growth. As globalization continues to advance, and especially in light of Japan's shrinking labor force due to an aging population and declining birthrate, enhancing productivity through global innovation is essential for competing on the world stage and achieving sustained growth. Indeed, macro-level data show that international expansion contributes to productivity improvement for companies (White Paper on Small and Medium Enterprises in Japan, 2023). The case studies presented in this paper also demonstrate that companies engaged in international expansion—particularly those that acquire foreign customers—have achieved higher productivity, leading to sustainable growth.

3. The Outflow and Activities of Global Innovation Talent from Japan

As repeatedly mentioned, the proportion of people in Japan who consider entrepreneurship a desirable career choice remains overwhelmingly low. However, there has been a noticeable increase in cases where talented individuals are challenging themselves to start businesses, thanks in part to government policy support and the growing adoption of flexible mindsets among younger generations.

Traditionally, the University of Tokyo produced many bureaucrats for central government ministries, particularly from its establishment until the Showa era. However, following the bubble economy, the career paths of University of Tokyo graduates have diversified towards major private companies, and recently, consulting firms and IT companies have become popular choices¹¹. A significant shift in career choices among University of Tokyo students has been observed in recent years. The number of students aspiring to become bureaucrats has declined, while the number of students aiming to start businesses (or planning to do so after gaining some experience in a company) has increased. The most common reason for wanting to start a business is the desire to change society through problem-solving, cited by approximately 40% of students. They see entrepreneurship and driving innovation as the fastest route to achieving such goals. Like their criteria for

⁹ The term "unicorn company" refers to privately held startups valued at over \$1 billion and founded within the past decade. The term was coined by Lee of "Cowboy Ventures" in 2013 to highlight the rarity of such companies at the time.

¹⁰ Information regarding unicorn companies is available from CB Insights (<https://www.cbinsights.com/research-unicorn-companies>), accessed on October 7, 2024.

¹¹ University of Tokyo President Fujii's remarks at the 2022 entrance ceremony marked a historic moment, as it was the first time a university president explicitly encouraged entrepreneurship. He set a target of expanding university-affiliated ventures to 700 by 2030 (Toyo Keizai, August 30, 2023).

selecting companies, many University of Tokyo students now view "problem-solving" as a key reason for choosing entrepreneurship as a career, which is noteworthy¹².

Meanwhile, during the COVID-19 pandemic, the overseas expansion of Japanese companies significantly decreased, whereas the number of Japanese emigrants continued to rise¹³. In fact, even before the pandemic, since the late 1990s, the number of Japanese moving abroad had been gradually increasing. According to statistics from the Ministry of Foreign Affairs on the number of Japanese nationals residing overseas, the number of permanent residents¹⁴ reached a record high of approximately 575,000 as of October 1, 2023 (Ministry of Foreign Affairs, Consular Affairs Bureau, 2023). Although long-term stays such as study abroad and overseas assignments declined due to the pandemic, the number of permanent residents seeking a better life or job opportunities abroad increased by about 56,000 compared to pre-pandemic levels in 2019. The recent historic depreciation of the yen and resulting income disparities seem to be accelerating the trend of Japanese looking for employment opportunities abroad.

From the perspective of this study, the number of Japanese entrepreneurs starting businesses overseas is particularly noteworthy. As of 2021, the latest available data indicate that approximately 4,500 Japanese businesses were operating abroad (Ministry of Foreign Affairs, Consular Affairs Bureau, 2023). In Japan, around 90,000 businesses are said to be newly established each year. Thus, if there are 100 people starting businesses in Japan, approximately 4.5 of them are doing so abroad. This indicates a trend toward "international entrepreneurship." Based on the recent changes in the career paths of University of Tokyo students, it can be inferred that talented individuals increasingly perceive starting a business abroad as a quicker, more opportunistic, or more fulfilling option than doing so in Japan. Indeed, such as startups launched in Silicon Valley in the U.S, are typical examples of this trend. If Japan's entrepreneurial environment continues to lag behind that of other countries, it is easy to foresee that ambitious young people raised in Japan, as well as experienced professionals from Japanese companies, will increasingly seek entrepreneurial opportunities in overseas markets where it is easier to start businesses and foster innovation. This would represent a significant loss for the Japanese economy.

Based on my experience investigating immigrant entrepreneurship by Japanese entrepreneurs over the past decade (noting that no official statistics currently exist on this

¹² An article in the Asahi Shimbun (January 23, 2023) reported that the number of Japanese permanent residents abroad reached a record high of 557,000. Professor Tsukasa Sazai of Fukui Prefectural University attributed this trend to the attractiveness of working conditions, wages, and social diversity in North America and Western Europe. He noted that permanent residency typically requires several years, involving steps such as studying abroad, securing employment, or starting a business.

¹³ According to a survey conducted by the University of Tokyo (May 31, 2022), reasons for aspiring entrepreneurship included "a desire to solve social problems" (39%), "dissatisfaction with traditional corporate work" (28%), "the opportunity to showcase personal abilities" (22%), and "financial motivation" (11%).

¹⁴ The Ministry of Foreign Affairs annually estimates the number of Japanese citizens residing abroad for periods exceeding three months.

matter), it is clear that the majority of successful Japanese entrepreneurs overseas do not return to Japan. Even in cases where they relocate, they often move within the same region (e.g., from Vietnam to Thailand, Los Angeles to Hawaii, or the UK to Spain) rather than returning to Japan, except in cases of business failure or bankruptcy. Additionally, there is a noticeable increase in highly talented Japanese students who aim to start businesses abroad (or to work locally and then start a business) rather than returning to Japan after studying. During my research stay at the University of London in 2023, I encountered many such students. I frequently observed Japanese "student entrepreneurs" presenting business plans and receiving feedback from professionals at informal entrepreneurial study groups held in London.

There are various reasons why people choose to move abroad, but the fact that a significant number of ambitious and successful Japanese entrepreneurs remain overseas, coupled with the reality that some find it difficult or less appealing to start a business in Japan, or even find it easier to do so abroad, represents a considerable opportunity loss for Japan. Japan is now facing a critical phase in which it must seriously consider how to connect these "potential entrepreneurs" to the creation of Japan-originated global innovations.

4. Strategies for Fostering Global Innovation

So far, this paper has delved into the essential challenges surrounding Japan-originated global innovation within the entrepreneurial environment. In this section, insights derived from the analyses in my paper Yoshida(2023a, 2023b, 2024) will be organized to address the research questions presented at the beginning. The implications for establishing a nurturing environment for global innovation in Japan will then be derived.

(1) How Japanese Entrepreneurs Generate Innovations that Compete Globally

The components and mechanisms involved in creating global innovation (local-originated innovation) for Japanese small and medium-sized enterprises (SMEs) are detailed in Yoshida (2020)¹⁵. Yoshida (2020) examined the factors necessary for achieving "local-originated innovation," which bring growth opportunities to overseas bases of SMEs, based on surveys of several Japanese SMEs, drawing on the theories of "reverse innovation" by Govindarajan and Tribble (2012) and "knowledge creation" by Nonaka and Takeuchi (1994). The analysis identified four key factors for growth: "marketing," "entrepreneurship," "human resource development," and "technology utilization," while emphasizing the effectiveness of "knowledge collaboration with industrial cluster partners." Although the analysis focused on SMEs expanding abroad from Japan, rather than on "entrepreneurs" founding businesses directly in overseas markets, the study raised the need to expand the scope of analysis to immigrant entrepreneurs. Expanding the scope to clarify the potential

¹⁵ An analysis of the four factors influencing global innovation (specifically local-origin innovation in foreign markets) is provided in Yoshida (2020), "Internationalization of SMEs and Local Innovation."

for extending "local-originated innovation" could also contribute to strengthening the plausibility of the research field on local-originated global innovation.

This section will analyze Japanese entrepreneurs founding businesses abroad (and engaging in innovation activities overseas), which are the primary subjects of this study, based on the four elements elucidated in previous research by Yoshida (2020) regarding "internationalization of SMEs and local-originated innovation." Additionally, an analysis of the capabilities required for these four elements will be conducted to derive implications.

① Marketing

The common insight from case studies is that success does not hinge on choosing between standardization or localization, but rather on selectively emphasizing Japanese management strengths and traditional techniques while adapting them to local circumstances. Specifically, the advantages of "technology and techniques," "home country culture and historical background," and "Japanese management practices" are carried over from Japan and combined with local sensibilities and needs through marketing, creating new value.

The capabilities needed for marketing include ① information gathering skills, ② problem identification abilities, ③ problem-solving planning skills, ④ local adaptation skills, and ⑤ lean startup capabilities. These abilities cannot be fully demonstrated independently; it is crucial to build these capabilities while relying on networks in both countries. In this regard, networking capabilities within the ecosystem, which will be discussed later, are indispensable.

② Utilization of Technology

Case studies reveal a commonality in the utilization of specific technologies. These technologies become strengths in overseas markets and evolve into world-class products or services. This strength stems from the meticulous nature of Japanese craftsmanship, which has remained unchanged since ancient times. In manufacturing, this is reflected in "traditional techniques" and "skills," while in the service industry, it manifests as "hospitality" and "meticulous service." Such "technology" becomes an added value that builds trust in products and services, which over time, transforms into brand power. This continuous generation of "process innovation" has underpinned Japan's rapid economic growth and established a unique global competitive advantage, famously known as "Kaizen."¹⁶ Even today, Japan's technological prowess and dedication to service in content industries have given rise to "manga" and "anime," successfully attracting fervent fans, known as "otaku," worldwide.

The capabilities required to link technological strength to innovation include ① expertise in specific fields, ② the ability to apply technology in new areas, and ③ a craftsmanship spirit. In particular, in a horizontal industrial structure of open innovation, specialized

¹⁶ Historically, Japan has not excelled in creating new value or systems from scratch, as seen in "zero-based" innovation.

technical skills in a specific field provide a significant advantage over more general technological capabilities, thus expanding business opportunities. This is because specialized expertise is often the key to breaking into the ecosystem. A business model idea utilizing unique, difficult-to-replicate technology can attract the interest of ecosystem stakeholders, including investors. Once a breakthrough is achieved, the technology can be adapted to local needs, creating a new value chain in the region. Additionally, the process of market testing and refining products or services is essential for new market development. This requires agility in solving problems quickly through experimentation (lean startup capability).

③ Entrepreneurship

The connection between marketing practices and the application of technology to new manufacturing methods or product development hinges significantly on entrepreneurship. As entrepreneurship is not merely a matter of "spirit" or "behavioral traits"; it encompasses "implementation ability" and "business creation skills" needed to conceptualize and realize business creation. Key elements of entrepreneurship include ① determination and will for self-fulfillment, ② the pursuit of new business opportunities, ③ the ability to mobilize resources, and ④ business creation skills for identifying and evaluating business opportunities. In terms of global innovation, having a global awareness early on is particularly significant, which necessitates some form of prior overseas experience¹⁷. Mobilizing resources also requires effectively balancing resources from both countries. The experiential knowledge gained through past and present experiences shapes the entrepreneur's "will" and "value judgments," forming ideas within the context of the business ecosystem, which, if evaluated and implemented, can evolve into "innovation activities."

To engage and establish roots in the ecosystem, the necessary abilities include ① presentation skills, ② networking skills, and ③ trust-building skills. Entrepreneurs who can skillfully utilize industrial clusters for capability building (entrepreneurial learning) are likely to succeed in innovation creation. Since entry into the business ecosystem is a prerequisite for innovation, networking skills to open the gateway are essential. Even with a network in place, presentation skills are needed to translate connections into business opportunities by effectively communicating one's competitive advantage. Given that innovation activities often require mutual communication-based discussions, building trust is also crucial.

④ Human Resource Development

As Yoshida (2020) emphasizes, human resource development involves more than acquiring experiential knowledge (tacit knowledge); it requires a spiral-up process where tacit knowledge is converted to explicit knowledge and then re-integrated into experiential

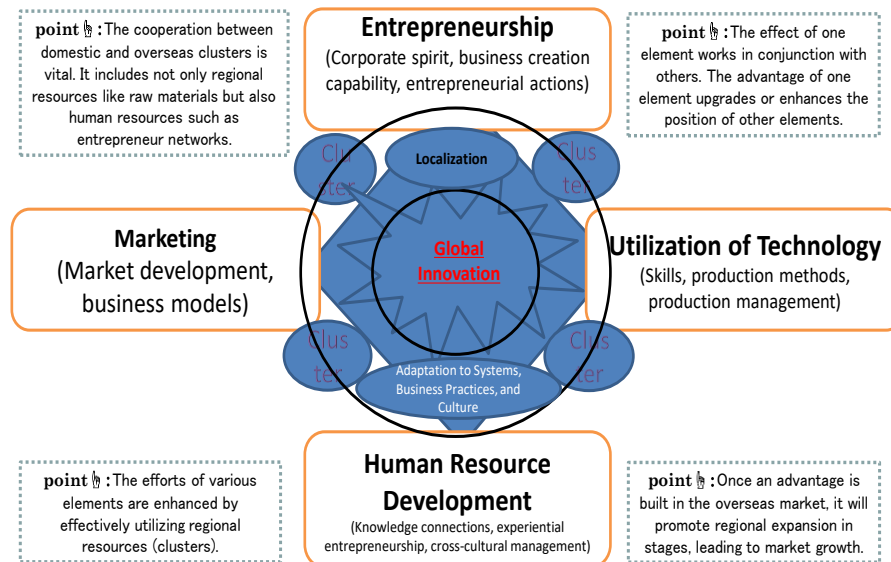
¹⁷ Engaging with global diversity can be achieved through meaningful interactions, even without physical relocation abroad. Experiencing cultural diversity enables a global perspective and heightened awareness of global issues.

knowledge. From a global innovation perspective, as Hayashi (2023) discusses, the "sharing of knowledge" between Japanese entrepreneurs and local teams is crucial. Hayashi (2023) points out the necessity and effectiveness of integrating tacit knowledge across technical and market-related domains in local markets¹⁸.

Furthermore, the level of collaboration—how high-quality the partners are—affects learning and human resource development. Here, "high quality" refers to the level of expertise (otaku-level dedication)¹⁹ needed to produce innovations that are accepted in the market. Ultimately, the output resulting from collaboration must lead to market development to be meaningful.

Specific skills needed for fostering human resources through "knowledge collaboration" include ① the ability to communicate a vision, ② the ability to motivate others, and ③ the ability to integrate the strengths of both countries. Since global innovation involves cross-cultural management, it is essential for leaders to communicate their business philosophy clearly to both Japanese and local employees. It is also significant to consider motivating foreign employees and cultivating a corporate culture that synergizes diverse cultures and traditions.

Figure 3: "Conceptual Framework of Factors Contributing to Global Innovation"



Source: Revised by the author based on Yoshida (2020,2023a,2023b,2024).

¹⁸ Hayashi (2023) emphasizes the significance of exposure to diverse experiences in developing a global mindset.

¹⁹ It is not about being a group of geniuses or prodigies, but rather about the collaboration and learning necessary to generate innovation in a specific field.

Based on these findings, the points are summarized in Figure 3. Here, "industrial cluster" refers to the business ecosystem. The key points are as follows:

1. New value (competitive advantage) is created in the host country by leveraging clusters in both the home and host countries.
2. Each element's conditions are activated through the active utilization of the business ecosystem.
3. If one element demonstrates a competitive advantage, other elements will subsequently upgrade.
4. If local market development (creation of global innovation) succeeds in the host country, expansion through the development of overseas sales channels will follow.

This analysis confirms that the factors and mechanisms identified by Yoshida (2020) for generating globally competitive innovation among Japanese SMEs can also be applied to "Japanese transnational entrepreneurs," the primary focus of this study.

(2) What Experiences and Learning Have Enabled Successful Entrepreneurs to Achieve Global Innovation?

Yoshida (2020) did not analyze the relationship between local-originated innovation and the time axis, including the connection between past experiences and current innovation activities, or how the experiences of "immigrant entrepreneurs" who started businesses overseas relate to their innovation activities in local overseas markets. Not only Yoshida (2020), but no other research known to the author has sufficiently addressed how past experiences contribute to the current creation of global innovation, or the significance of entrepreneurial learning based on experience in global innovation. Addressing this gap could significantly expand research possibilities.

Based on this perspective, the experiences and learning required for global success will be examined. As discussed in Yoshida (2023b), many of the environmental and experiential factors necessary for fulfilling leadership roles are acquired early in life, before adulthood (Castillo & Trinh, 2018). Meanwhile, case studies presented in each case study such as Yoshida(2023a,2023b,2024) show that entrepreneurs grow as business leaders by repeatedly learning and accumulating knowledge through participation in local business ecosystems abroad. This suggests that not only past experiences, but also ongoing "experiences" play a significant role in enhancing global innovation capabilities.

An analysis of the relationship between past and present experiences and entrepreneurship, based on the cases in Yoshida (2023a, 2023b, 2024), reveals the importance of experience. Entrepreneurial learning based on experience is closely related to the formation of entrepreneurship within business ecosystems concerning "will" and "value judgments."

The wisdom derived from experiential learning is shaped by both past experiences and "situational learning" in close-knit environments, such as family or community settings (Kawana, 2014)²⁰. "Situational learning" involves more than the acquisition of knowledge; it encompasses the ability to act intelligently and engage in meaningful interactions within real-world contexts. Such learning, deeply embedded in one's immediate community, cannot be easily attained through formal education alone. It is through these community-based experiences that the seeds of "will" and "value judgments" are sown, and through further experiential development, these seeds grow into the roots of "wisdom." This wisdom forms the basis for ongoing innovation, fostering the ability to generate ideas, identify problems, and conceptualize new business models. By adopting this perspective, the causal relationship between past experiences within local environments and current innovation activities becomes clearer and more comprehensible.

In other words, even if the central dogma²¹ is the same, the genetic information in the seeds is unique, making it unlikely that identical results will be produced. The growth process may vary significantly depending on the ecosystem of the soil. This is why, for example, simply replicating Steve Jobs' methods to create a company identical to Apple is an unfeasible endeavor. Each individual's unique experiences and learning shape distinct ideas and value standards, leading to different product ideas and decision-making within unique ecosystems.

If entrepreneurship is defined based on the premise of "exploring new business opportunities," as discussed in Yoshida(2023b)²², then discovering problems and thoroughly considering new methods to solve them are essential aspects. These abilities are refined through "experience" and "learning," which includes both failures and successes, leading to the next stage of innovation activities.

Past entrepreneurial learning, refined with each experience, enhances the absorptive capacity for ongoing entrepreneurial learning, creating a synergistic effect. The Western cultural norm of valuing repeated failures can be understood as an expectation for "human capacity development"²³ through entrepreneurial learning.

Starting a business abroad, localizing it, and further developing the business is not easy and requires advanced abilities (or wisdom). High-level abilities do not need to be present

²⁰ Kawana (2014) contends that entrepreneurial education plays a critical role in cultivating entrepreneurial initiative, with practical learning experiences in local communities serving as a vital component.

²¹ The central dogma of molecular biology, proposed by Francis Crick in 1958, refers to the flow of genetic information. It highlights the uniqueness of genetic information in every living organism.

²² Shimizu (2022) defines entrepreneurship as the pursuit of new business opportunities without being constrained by current resources.

²³ According to Wakabayashi (2010), "Based on discussions on traditional cluster development theory, policies and frameworks for the development of regional human resources also hold significant importance in the development of an ecosystem for the clustering of new technology-based firms (NTBFs), especially considering international competition and the development competition in regions where these firms are concentrated.

from the beginning but are developed through entrepreneurial learning both in the home country's ecosystem and the local one. Experiences that shape value standards and will help the entrepreneur grow and eventually elevate the business into one with a differentiated and hard-to-replicate competitive advantage.

This understanding shows that entrepreneurial learning based on experience is closely related to the formation of entrepreneurship within business ecosystems concerning "will" and "value judgments."

(3) What Challenges Exist for Japanese Entrepreneurs to Create Global Innovations in Japan, and What Implications Are There for Business Practices and Policy Responses?

According to a survey conducted by the Venture Enterprise Center (2020), around 60% cited "awareness, climate, and social attitudes" and "retry opportunities and safety nets" as challenges. Although starting a business has become easier from a procedural and legal standpoint, there is still room for improvement in fostering a society where entrepreneurs are respected, a social climate that encourages challenges, and a system where failure is valued. There is also a need to move away from a system where entrepreneurs carry the risks and instead adopt a structure where investors share these risks. The case studies suggest that relationships with the business ecosystem must be considered.

Research focusing on the behavioral traits of entrepreneurs and the business creation process indicates that the business ecosystem network plays a crucial role in an entrepreneur's success. Therefore, examining ways to effectively complement resources entrepreneurs lack within the ecosystem, including human capacity development, is necessary for business success.

When considering this, it is significant to look at how these elements connect organically rather than separately increasing entrepreneurial education programs, the number of investors, or subsidies. Elements extracted from Western cases will not activate the mechanism without dynamic movement based on Japan's strengths. Business ecosystems must be perceived as layered structures, where the driving force connecting elements in intersecting layers is essential. This dynamic movement, facilitated by the entrepreneur, investors, and other ecosystem members, enhances knowledge linkages.

Based on these findings, four key challenges are identified:

- Inadequate development of ecosystems that continuously generate global innovations.
- The need to improve the environment for cultivating globally-minded entrepreneurs.
- The need to create a culture that encourages entrepreneurial aspirants and establish an environment that promotes entrepreneurial learning.
- The urgent need to expand options for mentors, accelerators, funding, and investment tailored to Japan's needs.

To address these challenges, five implications should be considered for fostering a Japan-originated business ecosystem:

- The Need for Entrepreneurial Learning That Cultivates "Will" and "Value Judgments (Insight)"
- Creating Opportunities to Acquire Experiential Knowledge in Local Communities, Including Failures
- Leveraging Japan's Technological Strengths While Developing an Ecosystem That Supports Entrepreneurship
- Building Relationships With Both Domestic and International Ecosystems
- Attracting Successful Japanese Transnational Entrepreneurs Back to Japan and Promoting the Inclusion of Foreign Talent

This study has demonstrated the factors that enable Japanese entrepreneurs to generate innovations with global relevance, elucidating the mechanisms through which these entrepreneurs have achieved global innovation through their experiences and learning. Drawing from the commonalities found in the case studies of Yoshida (2023a, 2023b, 2024), the essential components for fostering global innovation were identified, and a dynamic mechanism was proposed to ensure these components function sustainably. By comparing these components and mechanisms with the current state in Japan, this paper has clarified the necessary strategies, preparations, and competencies required. Additionally, implications for business management and policy responses have been derived.

However, while interviews were conducted with Japanese entrepreneurs who succeeded in overseas startups through global innovation, the reality of entrepreneurs who were unable to sustain their businesses remains unexamined. Thus, it remains unclear whether the components and causal relationships presented in this paper indeed determine the factors that distinguish between success and failure. Moreover, this study did not delve into the reasons why Japanese entrepreneurs who succeeded abroad did not return to make Japan their innovation hub, nor why they initially chose to start overseas rather than in Japan. Given that the focus of this research is on entrepreneurs, specific policy recommendations for support measures have not been fully addressed.

Moving forward, efforts to foster business ecosystems and facilitate the return of the "Umi-no-kame" (Japanese expatriates who return to contribute to the local economy) to Japan, as well as to attract and retain foreign entrepreneurs and accelerators, will require more than just private sector efforts; gradual policy support is essential. These aspects warrant further consideration. Additionally, Japan has a vast body of prior research on industrial cluster theory. Incorporating insights from Japanese industrial cluster studies can enhance the validity of contemporary Japanese business ecosystem theories. Addressing these outstanding research issues will be a focus for future work.

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