

Middle-income traps: Experiences of Asian countries and lessons for Vietnam



Hoang Xuan Vinh^a | Luu Huu Van^b | Nguyen The Vinh^c✉ | Nguyen Thanh Thao^d |
Nguyen Thi Phuong Thao^a | Le Thi Huong Giang^a | Do Thanh Nga^a

^aVNU University of Economics and Business, Vietnam National University, Hanoi, 144 Xuan Thuy Road, Hanoi 100000, Vietnam.

^bHanoi University of Industry, 298 Cau Dien Road, Hanoi 100000, Vietnam.

^cAcademy of Policy and Development, Ministry of Planning and Investment, Nam An Khanh Urban Area, Hanoi 100000, Vietnam

^dAcademy of Finance, No. 58 Le Van Hien Street, Duc Thang Ward, Bac Tu Liem District, Hanoi, Vietnam.

Abstract Avoiding middle-income traps is one of the critical tasks for developing countries worldwide. Based on an analysis of policies that have contributed to Japan and South Korea achieving high economic development, this study proposes solutions to help Vietnam avoid falling into the middle-income trap. The results of the analysis of the experiences of Japan and South Korea indicate that to escape the middle-income trap, developing countries need to focus on investing in education and training, promoting innovation and entrepreneurship, investing in infrastructure, enhancing international trade, boosting foreign investment, improving competitiveness in the global market, and maintaining macroeconomic stability. Building on the analysis of the economic development situation in Vietnam from 2013 to 2023, this study puts forth solutions to assist developing countries, in general, and Vietnam, in particular, in avoiding middle-income traps.

Keywords: middle-income trap, Asian Countries, Vietnam

1. Introduction

The middle-income trap refers to a situation in which countries with a moderate income encounter challenges sustaining growth and progressing to a high income (Garrett, 2004; Gill & Kharas, 2007; Tho, 2013). Glawe & Wagner (2016) suggest that the middle-income trap typically applies to countries experiencing rapid growth and swiftly attaining middle-income status but subsequently facing difficulties in continuing growth and transitioning to a high-income state. According to Im & Rosenblatt (2015), the middle-income trap occurs after a country reaches a certain income level due to existing advantages but becomes stuck at that income threshold due to rising costs and diminishing competitive advantages. Prolonged entrapment in middle-income traps can have significant negative effects, leaving countries vulnerable to external environmental changes (Bresser-Pereira et al., 2020), reducing global competitiveness (Paus, 2017; Tho, 2013), hindering innovation (Agenor, 2017), increasing inequality (Hu, et al. 2023), and leading to a decline in economic growth and stagnation (Aiyar et al., 2018; Bulman et al., 2017; Eichengreen et al., 2013; Zhou & Hu, 2021). This poses a significant challenge for many countries worldwide, especially Latin America, the Middle East, and Africa. For example, Brazil, Mexico, Iran, Lebanon, Egypt, Jordan, and South Africa all need help maintaining growth and improving the quality of life for their citizens. In Southeast Asia, Indonesia, the Philippines, and Thailand are also at risk of falling into middle-income traps. Therefore, studying the lessons learned from countries that have successfully escaped the middle-income trap plays a crucial role.

Several studies have identified critical factors for overcoming middle-income traps, such as labor productivity, technological innovation, infrastructure development (Agenor et al., 2012; Estrada et al., 2018), and political development (Kharas & Kohli, 2011; Doner & Schneider, 2016). Additionally, some studies have highlighted policies that need to be implemented to assist developing countries in overcoming the middle-income trap, including investing in education and training human resources (Agenor, 2017; Bulman et al., 2017; Felipe et al., 2012; Kanchoochar, 2015), encouraging technological innovation (Paus, 2017), international integration (Felipe et al., 2012), and institutional reforms (Aiyar et al., 2018; Kharas & Kohli, 2011; Tho, 2013).

Some Asian countries, notably Japan, South Korea, Taiwan, Singapore, and Hong Kong, have successfully promoted economic development and escaped the trap. Common characteristics of these economies include leveraging the benefits of globalization and implementing effective policies to attract capital and technology from abroad (Kanatsu, 2014; Toma, 2019). These countries also adjusted their economic structures at different stages based on areas where they had comparative advantages over competitors. They gradually transitioned from labor-intensive industries to capital-intensive industries and ultimately to high-tech industries (Hsu & Hsu, 2011; Zakov, 2017). South Korea, Japan, and Taiwan are industrial powerhouses worldwide that specialize in high-end products such as electronics, semiconductors, and chemicals. These



nations have strong global brands and are essential partners in the international supply chain. Singapore and Hong Kong, on the other hand, are significant financial and service centers that attract many investors and tourists. Singapore has a relatively developed manufacturing sector, while Hong Kong has almost no such sector (Fung et al., 1995; Meng, 1977; Schenk, 2008). These economies have strengths and challenges in the rapidly changing global economic landscape.

However, countries similar to Vietnam, such as Indonesia, Malaysia, Thailand, and the Philippines, have faced and are at risk of falling into middle-income traps in recent years (Tho, 2013). These nations rely on export-oriented manufacturing, heavily depend on foreign direct investment, and lack industries with high technological content. As labor costs rise, these countries struggle to compete with countries with lower labor costs (Bellwood & Glover, 2023; Hutterer, 2020). Additionally, these countries face issues related to economic structure, corruption, and the business environment (Tho, 2013).

Vietnam is approaching the middle-income trap and shares similarities with these other countries. Escaping the middle-income trap is a serious challenge that requires in-depth research and appropriate solutions. Many studies have focused on analyzing the economic, social, and political factors influencing the middle-income trap in Vietnam (Zamengo, 2020). Other studies have used economic models to forecast Vietnam's likelihood of falling into the middle-income trap (Ohno, 2015). Therefore, the objective of this study is to propose solutions to helping developing countries in general and Vietnam, in particular, avoid or escape the middle-income trap, based on evaluating the experiences of countries that have escaped the middle-income trap.

2. Experience of Asian Countries in Escaping the Middle-Income Trap

2.1. Experience of Japan

In 1870, after establishing a modern state, Japan's per capita GDP was only 23% of that of the United Kingdom. However, beginning in the late 19th century, Japan experienced consistent growth. The annual growth rate from 1870 to 1940 was 2.8%, surpassing that of the UK by 42%. In 1929, Japan transitioned from a low income to a lower middle-income status. Japan underwent significant economic, political, and military upheavals, including the Great Depression, the Second Sino-Japanese War, and World War II. The post-World War II defeat negatively impacted Japan's economy, reducing per capita GDP.

Despite this setback, Japan rapidly recovered economically. By 1951, per capita GDP had returned to prewar levels, exceeding \$2000, marking a shift from a low income to a lower middle-income status. The GDP growth rate during this recovery period was 9.9% annually, known as the "postwar Japanese miracle." However, the Japanese government warned that sustaining this growth might be challenging after full economic recovery, emphasizing the importance of modernization. From the mid-1950s to the early 1970s, Japan's economy continued to experience high growth, at approximately 10% per year, slowing slightly after the first oil shock. In 1970, Japan finally caught up with the UK in terms of per capita GDP and income. Japan's economy underwent significant structural changes during this period, reallocating resources from primary to secondary industries and services. This shift facilitated productivity growth, propelling Japan into the middle-income stage.

Japan's impressive journey to escape the middle-income trap can be divided into crucial stages, before and after the "Dodge Plan." Before the implementation of the "Dodge Plan", Japan's economy was tightly controlled by the government post-World War II. The government employed policy measures to restructure the economy, such as the "Priority Production" policy, focusing on strategic industries such as coal and steel (Suzuki, 1991). The government tightly manages price controls and commodity distribution (Krueger 1974). However, this control resulted in significant budget deficits and high inflation (Baumol & Blinder, 2015). To address this situation, Joseph Dodge from the U.S. was sent to Japan to propose the Dodge Plan in early 1949. This plan focused on balancing the government budget, abolishing government controls, and unifying the exchange rate. This has shifted Japan from a controlled economy to a market economy (Patrick & Park, 2005). Given Japan's familiarity with government control for more than a decade, this transition could have been smoother and resulted in labor disputes (Wilcox, 1952).

Immediately after the Dodge Plan, the Japanese government focused on international trade. The annual economic report in 1953 indicated that Japan's international business had not recovered to prewar levels. This was due to trade losses with colonies and China, the U.S. preference for synthetic products over raw silk, and reduced exports of cotton products due to industrialization in Asian countries (Yokoyama, 1998). To address this issue, Japan established a 5-year plan for economic independence in 1955, focusing on balancing international payments and restructuring the economy (Schoppa, 1997). An integral part of this plan was changing the industrial structure, concentrating on heavy industries such as iron, steel, and machinery (Johnson, 1982). To achieve this goal, Japan created public financial institutions such as the Japan Development Bank (JDB) to support private companies financially. Additionally, they reduced taxes, managed foreign exchange, and promoted education (Ranis & Stewart, 1993).

Owing to the intelligent combination of economic policies and the commitment of capable leaders and officials, Japan successfully escaped the middle-income trap and developed robustly. Measures such as investing in education helped improve the educational attainment and skills of the workforce, contributing to the country's economic growth (Psacharopoulos & Patrinos, 2018). These efforts made Japan one of the world's leading economies, simultaneously driving a

solid recovery in international trade. The balance in international payments and the diversification of revenue sources from new industries collectively contributed to creating stable and sustainable development for Japan's economy in the postwar period (Stern & Tyler, 1979).

2.2. South Korea's Experience

In the 1950s, South Korea encountered formidable economic challenges, characterized by widespread inflation, depleted foreign trade, and uneven import-export conditions. The Korean economy, devastated by war and burdened with a lack of natural resources and low-income levels, heavily depended on foreign aid. Notably, the political instability between North Korea and South Korea plunged the nation into a perpetual crisis, earning it the title of one of the world's poorest countries during this period. Furthermore, South Korea adopted an unstable policy direction. The government's industrialization strategy involved substituting imports under protectionism, attempting to maintain the official exchange rate at its lowest possible level, and rigorously controlling foreign exchange transactions. The outcome was an almost closed economy, with several exchange rates increasing during the 1950s and early 1960s. According to World Bank statistics, South Korea's per capita GDP was only \$70 in 1954, comparable to that of impoverished African and Asian nations.

However, the period from 1953 to 1960 was considered a postwar regeneration era when South Korea commenced its recovery and development. The coup in May 1961 marked the ascent of Park Chung Hee, who later became the president of South Korea. After 1963, South Korea exhibited significant breakthroughs in economic development. Under Park Chung Hee's leadership, the economy underwent robust growth driven by policies promoting exports, financial restructuring, the expansion of heavy industries, and rapid modernization. Park Chung Hee's administrative reforms significantly increased the population's average income by 1988. By 1995, South Korea had achieved a higher income level, showcasing remarkable development. In summary, it took South Korea approximately 15 years to rejuvenate its economy after the war and improve the population's average income.

According to the World Bank, South Korea's average GDP growth rate over 40 years, from 1951 to 2000, was 7.83%. The growth rate reached a record high of 14.83% in 1973 and 14.54% in 1969, followed by 13.12% in 1976. Additionally, according to the World Bank, South Korea's gross primary product (GDP) in 1960 was a mere \$3.967 billion. However, by 1985, the national GDP reached the milestone of \$100 billion for the first time and continued to increase dramatically. Twenty-one years later, South Korea's GDP surpassed the \$1 trillion mark, reaching \$1,619 billion in 2018.

Concerning the government's regulatory and intervention role, the government's effective intervention and flexibility play a crucial role in regulating and maintaining consistency in the economy. The South Korean government continuously adapted and adjusted its economic objectives to align with changes in the economic structure, enhance income, and promote transformations in the financial sector. The South Korean government's 5-year economic plans from 1961 to 1996 included seven different plans. The South Korean government successfully integrated markets and economic planning, significantly contributing to economic development through industrialization and meticulous control. Economic growth was driven by the government's direct intervention policies, such as price controls, investment in crucial industries, job creation, settling foreign debts, and promoting exports. The government aimed at modernization, industrialization, and internationalization through the industrial export strategy propelled by Park Chung Hee (1961-1979).

Industrial automation policy has played a central role in the development and modernization of South Korea. The government has utilized financial and monetary policy tools to support key industries such as cement production, analysis, and oil industrialization. In the 1950-1960 period, industrial policy focused mainly on promoting domestic consumer goods production. This was achieved by applying various tariff barriers and import restrictions to protect domestic industries. However, economic development during this period did not achieve significant efficiency, and the average GDP growth from 1953 to 1962 was only 3.7% (World Bank, 2019).

In terms of infrastructure development policy, infrastructure development has played a crucial role in promoting South Korea's economic development. The government invested in building industrial zones to create favorable conditions for economic growth and to encourage businesses to invest and operate. In the 1970s, the government adjusted its industrial policy, shifting from a light industry model to a heavy industry and high-value chemical industrialization model. In 1973, they identified six key sectors, namely, steel production, shipbuilding, machine tools, electronics, metals, and petrochemicals, and focused on developing them. This development also saw the rise of large industrial conglomerates. The government facilitated this by providing preferential loans, protecting the domestic market, regulating inputs, and reducing taxes to encourage investment and development in these areas.

Regarding regional development policy, South Korea's regional development policy has also been a significant factor in helping the country escape the middle-income trap. Korea identified regions with industrial development potential and invested in industrial zones in those areas. As a result, South Korea created many new jobs and attracted numerous domestic and foreign businesses. Tourism and service development were also emphasized as attracting domestic and international tourists, contributing to increased income and expanded employment opportunities. The government invested in, reformed, and developed residential and urban areas to attract foreign investment. Rural life in South Korea underwent policy improvements and development, creating many opportunities and new agricultural jobs. According to a report by the Asian

Development Bank (ADB), from 1980 to 2010, South Korea's poverty rate decreased from 30% to less than 2%, and the population with an income above USD 20,000 per year increased from 1% to more than 20%. South Korea's regional development policy has led to a significant economic transformation, shifting from traditional agricultural to modern industrial economics and contributing to sustainable economic growth.

Table 1 Modernization, Industrialization, and Internationalization Strategy of South Korea from 1961 to 1979.

Plans	Content
The initial 5-year plan (1962-1966)	<ul style="list-style-type: none"> • Expand the electricity/coal industry. • Develop infrastructure to establish a robust foundation. • Emphasize exports, balance of payments, and technological progress.
The second 5-year plan (1967-1971)	<ul style="list-style-type: none"> • Shift toward heavy industry to bolster South Korea's global competitiveness, particularly in the steel and petrochemical sectors. • Develop infrastructure, especially major highways, to streamline transportation.
The third 5-year plan (1972-1976)	<ul style="list-style-type: none"> • Implement the Heavy Chemical Industrialization Plan (Big Push), focusing on five sectors: electronics, shipbuilding, machinery, petrochemicals, and metals. • Reduce military dependence on the United States by actively participating in a robust technology race.
The fourth 5-year plan (1977-1981)	<ul style="list-style-type: none"> • Concentrate on industries that demand highly skilled labor, such as machinery, electronics, and shipbuilding. • Focus on heavy industries and chemicals.
The fifth 5-year plan (1982-1986)	<ul style="list-style-type: none"> • Manufacture high-tech electronic equipment.
The sixth 5-year plan (1987-1991)	<ul style="list-style-type: none"> • Eliminate nontariff barriers to imports and other trade restrictions. • Promote importation.
The seventh 5-year plan (1992-1995)	<ul style="list-style-type: none"> • Establish high-tech facilities evenly distributed throughout the entire country of South Korea.

2.3. Some lessons learned to help countries avoid or escape middle-income traps

The middle-income trap is a significant concern for Vietnam, as it has been classified as a middle-income country since 2010. However, lessons can be drawn from the successful policies of Asian high-income countries to help Vietnam avoid this trap:

First, investing in education and training is crucial for enhancing labor capacity, thereby improving productivity and competitiveness in economies (Cecchi, 2019). Developing skills and increasing the educational attainment of the workforce play decisive roles in avoiding the middle-income trap (Egwaikhide & Omoluabi, 2007). Japan and South Korea focused on investing in human resource development to sustain economic growth and global competitiveness. Their policies included significant investments in education, promoting research and development, encouraging innovation, enhancing training and workforce development, and maintaining high-quality standards. Moreover, developing countries face challenges such as low education funding, inadequate educational infrastructure, low education quality, and disparities in educational access among different regions and ethnic groups. The need for more funding and infrastructure in education is limiting improvements in education quality and meeting the population's needs, affecting students' basic skills. Disparities in educational access also create social and economic injustices, with some people not benefiting from education and facing limitations in their daily lives. Although Vietnam has better education indicators than other developing countries, it lacks high competitiveness in the international market (WEF, 2020).

Second, they promote innovation and entrepreneurship. Developed countries have emphasized innovation and entrepreneurship through various measures. They also encourage foreign investment to promote economic development and innovation. Finally, promoting a culture of innovation through events, exhibitions, and entrepreneurial competitions has enabled businesses and individuals to test new ideas and develop breakthrough products. However, Asian countries caught in middle-income traps face many challenges. They must cope with material resource shortages, finances, skilled labor, complex startup processes, and a need for more government support. Entrepreneurial culture and opportunities in rural areas are also limited. Promoting innovation and entrepreneurship is essential for avoiding the middle-income trap in Vietnam, as it involves focusing on creating a startup-friendly environment, supporting small and medium-sized enterprises, and training talent in innovation and entrepreneurship.

Third, infrastructure should be invested in to promote economic development. High-income countries have implemented various measures, including building modern transportation systems and investing in industrial infrastructure, information technology, and energy. Moreover, Vietnam faces the challenges of poor-quality transportation infrastructure, which can cause high costs and limit competitiveness. Investing in urban infrastructure is necessary to improve living environments, reduce traffic congestion, and create favorable conditions for businesses. Good infrastructure also helps



increase production and export capacity, promote economic development, and attract foreign investment (World Bank, 2019).

Fourth, China should enhance international trade, promote foreign investment, and improve competitiveness in the global market (WTO, 2021). Japan and South Korea have heavily invested in technology R&D, producing high-quality and competitively priced goods, developing critical economic sectors such as processing industries and financial services, and attracting foreign investment through a favorable business environment. Moreover, middle-income trap countries such as Indonesia, Malaysia, the Philippines, and Thailand need to invest more in technology and labor productivity; have not focused on developing critical economic sectors; have not promoted exports; and have attracted foreign investment. As a developing country, Vietnam can learn from the experience of high-income countries to avoid middle-income traps. Strengthening global economic linkages, creating free trade zones, and providing incentives for foreign investment can help Vietnam attract investment, create jobs, and promote economic development.

Finally, macroeconomic stability is a crucial factor in escaping middle-income traps. High-income Asian countries have implemented macroeconomic stability policies by maintaining fiscal discipline, prudent monetary policies, and stable exchange rates. Korea and Japan have successfully promoted investment, innovation, and a business-friendly spirit. Maintaining a balanced budget and managing foreign exchange reserves has helped maintain price stability and money supply. Middle-income trap countries such as Indonesia, Malaysia, the Philippines, and Thailand are still trying to diversify their economies and reduce dependence on export manufacturing. To avoid middle-income traps, Vietnam needs to improve its competitiveness and macroeconomic stability. Simulating the successful policies of high-income Asian countries can help Vietnam promote economic growth and develop its economic potential.

3. Economic development in Vietnam (2013-2023)

3.1. Achievements

Economic development in Vietnam can be divided into three phases: 2013-2015, 2016-2018, and 2019-2023.

2013-2015 Phase: During this period, the country underwent an economic structural shift, transitioning from a manufacturing-centric focus to a value-added approach (Tho & Hieu, 2018). Challenges such as inflation, price instability, and public debt issues were prevalent despite achieving relatively stable GDP growth. Progress in the stock market was noted, but challenges for investments and businesses persisted. Vietnam also initiated negotiations with the TPP and other free trade agreements. Despite these difficulties, GDP growth remained positive throughout this phase.

2016-2018 Phase: Recognized as a prosperous period, Vietnam achieved stable and robust economic growth through economic reforms and attracting foreign investment (Trung & Hanh, 2019). The country signed the CPTPP agreement, attracted significant foreign investment, and implemented financial reforms. Key industries such as information technology, electronics manufacturing, and oil and gas exploration experienced substantial growth.

2019-2023 Phase: Aiming for industrialization and a digital economic transformation (Thin & Truc, 2021), this decisive phase, marked by the signing of the CPTPP and EVFTA, created new opportunities for exports and foreign investment. Vietnam has transitioned from agricultural to industrial and service production, especially in relation to information technology, automobiles, and renewable energy. The digital economy flourished, with significant growth observed in online retail, digital payments, and technology applications in production.

In the past decade, Vietnam has navigated a challenging yet opportunistic development journey. To sustain this growth, the country must continue innovating and adapting to the global business environment, especially in the realm of the digital economy. This approach ensures sustainable development and readiness to face future challenges (Thuy & Hoa, 2019).

3.2. Limitations and Causes

In alignment with many other Asian countries, Vietnam has relied excessively on an export-driven growth model, particularly in industries such as textiles and electronics (Findlay & Thanh 2015). While this approach has led to average income levels, it could be more sustainable, necessitating a shift to another growth model to avoid the middle-income trap. Moreover, Vietnam lags behind high-income countries in developing domestic innovative industries (ASEF, 2020). To ensure long-term competitiveness, Vietnam must focus on building a robust innovation system rather than relying solely on imitation and technology transfer. Additionally, Vietnam heavily depends on low-cost manufacturing, and competition from other low-cost manufacturing countries may limit growth prospects (Shiraishi & Danh, 2019).

Corruption and poor governance have been identified as significant barriers to economic growth and business in Vietnam. While progress has been made in poverty reduction, considerable income inequality still exists in Vietnam (UNDP 2021), potentially leading to political and social instability. Finally, Vietnam's economy relies heavily on agricultural exports, posing risks during periods of global economic instability (Vietnam Ministry of Agriculture and Rural Development, 2021). The limitations of Vietnam are common challenges among developing countries (Muggah & Prata, 2019).

4. Context and some solutions to help Vietnam avoid middle-income traps

4.1. Domestic and international context

Due to international and domestic factors, Vietnam faces significant challenges in avoiding middle-income traps. First, the trade war between the U.S. and China has left an indelible mark on the global economy, and Vietnam is not immune to its effects. As an exporting nation, Vietnam bears the brunt of trade measures, such as tariffs on goods imported from the U.S. and China. This impacts businesses primarily exporting to the U.S. and Chinese markets, reducing income and domestic production. The trade war has the potential to diminish competitiveness and isolate Vietnam from the global supply chain, thereby affecting productivity and economic efficiency in the future. Changes in global supply chains may bring forth both opportunities and new challenges.

Moreover, the global economic situation heightens the risk of Vietnam falling into the middle-income trap. The slowdown in global trade growth, driven by market and geopolitical threats, including trade wars, reduced investment, and increased public debt, affects Vietnam's export-oriented industries. China's economic transition further intensifies price and quality competition, especially in low-cost manufacturing. Financial market fluctuations, particularly in the USD, also impact Vietnam's economy.

Regionally, disparities, particularly between urban and rural areas, pose challenges. Rural areas struggle with poverty, contributing minimally to the national GDP. Additionally, industries face high competition and must enhance product quality to meet strict international market requirements. Most industries have yet to diversify their value-added products, with only a tiny portion adhering to international standards. Vietnam's economic structural transformation is progressing more slowly than in some regional countries, necessitating increased investment in the industrial sector. Unemployment and poverty persist in certain areas and sectors, leading to an unfair distribution of resources and income. This can impede economic growth and impact the average income of the population.

4.2. Solutions to help Vietnam avoid middle-income traps

The middle-income trap, a joint economic challenge faced by many nations, is also a concern for Vietnam. As an Asian country, Vietnam shares similarities with nations that successfully escaped the middle-income trap, such as South Korea and Japan, regarding geographical area, strategic location, history, culture, and being surrounded by major powers.

4.2.1. Strengthening the government role, institutional perfection, and policies

A significant distinction between Vietnam and other Asian countries lies in its political system. After the war, Vietnam shifted to a socialist regime with Soviet support led by the Communist Party of Vietnam, while Japan and South Korea adopted multiparty systems. This difference influences policy decisions and the government's economic growth direction. However, the degree of government intervention in the economy remains a debated and differing issue in each country.

After more than 35 years of basic renovation, Vietnam has transitioned from a centrally planned economy to a socialist-oriented market economy associated with the diversification of ownership forms and business organizations. However, perfecting the market economy structure in Vietnam still needs to overcome these obstacles. An incomplete market structure and cumbersome administrative environment hinder the development of the private sector. The role of state-owned enterprises needs to be clearly defined; they have low efficiency and issues related to corruption, and questions about a level playing field complex due to decentralization among government levels need to be answered.

In the cases of Japan and South Korea, the government's role in the economy's success is crucial. Therefore, the government must have a long-term vision, set clear goals, and carefully consider the country's capabilities and comparative advantages, adjusting to each stage of economic development and the international context. The government's role should complement and create favorable conditions for market operation, avoiding direct interference in economic growth toward liberalization. At the same time, the government should ensure macroeconomic stability and social justice and support private business activities.

4.2.2. Efficient Investment Capital Utilization

Infrastructure, machinery, and production technology systems play crucial roles in a country's economic development by providing conditions for economic activities and enhancing the productivity of the nation's labor force. Despite more than 35 years of renovation in Vietnam, infrastructure and machinery still need to be updated. This is evident in disrupted highway systems, outdated railways, inadequate clean water, and congested urban traffic. If infrastructure and machinery are modernized, Vietnam will find it easier to make a breakthrough. Therefore, the role of investment capital in economic growth is undeniable.

However, efficiently utilizing investment capital to achieve optimal results and avoid resource wastage is possible only for some nations. The experiences of Japan and South Korea demonstrate that investing in machinery and equipment, implementing policies to increase the savings rate, and even sacrificing social welfare to provide capital for early-stage

development are vital steps. In particular, focused investment should avoid spreading resources thinly and align with the nation's strategy. The government must maximize capital sources and allocate them to priority sectors, monitor operations, and promote enterprises to achieve their goals. Vietnam cannot rely solely on aid or loans but must create new investment forms, starting with Build-Operate-Transfer (BOT), Public-Private Partnerships (PPP), etc.

Additionally, to develop the economy and escape the middle-income trap, the Vietnamese government needs to improve the financial system and stimulate growth in the capital market. In recent years, Vietnam has achieved relatively high development. Nevertheless, the economy relies mainly on bank capital, while other financial channels, such as stocks and bonds, have yet to develop fully. Credit growth rates in developing countries are usually approximately 0.6-0.7 times greater than GDP, but in Vietnam, they reach 1.8 times greater than GDP (State Bank of Vietnam 2022). Therefore, reducing dependence on credit and restructuring the capital and monetary markets are necessary.

4.2.3. Promoting Regional Economic Development

In addition to focusing on developing major economic centers, it is crucial to enhance the development of economic regions in provinces to diversify the economy and aid economic growth in rural and mountainous areas. To achieve this goal, the government, relevant authorities, and businesses in these economic regions must be committed and supported. To implement and specify the following recommendations successfully, (i) the government should intensify investment in technical infrastructure such as transportation, electricity, water, and telecommunications in the economic regions of provinces to create favorable conditions for business development; and (ii) there should be favorable mechanisms and policies to attract investment capital, technology, and human resources into economic regions. This includes preferential policies related to taxes, land, and labor; (iii) the government should have solutions to support businesses in economic regions in provinces to improve their competitive capacity in terms of product quality, price, and brand development; and (iv) building robust connectivity between economic regions and principal economic centers is essential for forming a comprehensive economic development network. This requires investing in the improvement of transportation infrastructure and logistics; (v) establishing a mechanism for dialog between local governments, businesses, and research institutions to enhance information exchange, capture opportunities, and resolve challenges promptly; and (vi) focusing on human resource development, ensuring a qualified and skilled workforce in economic regions in provinces. Investing in education and vocational training is essential for meeting the demands of businesses in these regions. By implementing these solutions, Vietnam can promote regional economic development, reduce disparities, and create a more inclusive and sustainable economic growth model.

4.2.4. Development of Human Resources and Innovation

Human resources are a decisive factor in economic development, especially in the fourth industrial revolution era. Vietnam should invest in developing high-quality human resources that meet the requirements of the digital age, fostering a culture of innovation and creativity. The experiences of Japan and South Korea highlight the importance of a skilled and innovative workforce in achieving economic success. To achieve this, the Vietnamese government should focus on the following steps: (i) Enhancing the quality of education: Improving the education system at all levels, from primary to higher education, is essential. Emphasizing science, technology, engineering, and mathematics (STEM) subjects and promoting critical thinking and creativity will produce a workforce capable of adapting to the demands of the modern economy. (ii) Promotion of vocational training: Investing in vocational training programs and collaborating with the private sector to align training with industry needs will enhance the employability of the workforce. This is crucial for developing a skilled labor force that meets the demands of a diverse and evolving economy. (iii) Fostering innovation and entrepreneurship: Creating an environment encouraging innovation and entrepreneurship is vital for economic development. This involves supporting research and development activities, providing incentives for startups, and facilitating the growth of innovative industries. (iv) Embracing digitalization and technology: Adopting digital technologies and Industry 4.0 practices is imperative. Integrating digital literacy into education and promoting the use of technology in various sectors will enhance productivity and competitiveness. (v) Encouraging lifelong learning: Given the rapid pace of technological change, promoting a culture of lifelong learning is essential. This involves creating opportunities for continuous skill development and retraining throughout one's career. By prioritizing human resource development and innovation, Vietnam can build a competitive advantage in the global economy and reduce the risk of falling into middle-income traps.

4.2.5. Fostering Sustainable and Inclusive Development

Sustainable and inclusive development is critical for Vietnam to avoid the middle-income trap. Economic growth should not come at the expense of environmental degradation or social inequality. The government should adopt policies that promote both economic development and ecological sustainability. Key strategies include the following: (i) Green growth and environmental protection: Implementing sustainable development practices, investing in renewable energy, and addressing environmental challenges are essential. This requires strict regulations, incentives for eco-friendly methods, and

public awareness campaigns on ecological conservation. (ii) Social inclusion and poverty reduction: Designing and implementing policies that address regional disparities, reduce poverty, and promote social inclusion are crucial. This involves targeted education, healthcare, and social welfare interventions to uplift marginalized communities and narrow the income gap. (iii) Gender equality: Promoting gender equality in all sectors of the economy is essential for sustainable development. Ensuring equal opportunities for women in education, employment, and leadership positions contributes to a more inclusive and diversified workforce. (iv) Community engagement and participation: Inclusive development requires active involvement of local communities. Engaging with communities in decision-making, addressing their needs, and ensuring fair distribution of benefits from economic activities contribute to social harmony and stability. (v) Diversification of the economy: Relying on diverse industries and sectors will make the economy more resilient to external shocks. Supporting the growth of new and innovative industries and traditional sectors can enhance economic stability.

4.2.6. Strengthening International Integration and Trade

Given the challenges posed by the global economic environment, Vietnam must actively engage in international integration and trade to avoid the middle-income trap. Key strategies include the following: (i) Diversifying export markets: While Vietnam has succeeded in export-led growth, heavy reliance on a few key markets poses risks. Actively seeking and diversifying export markets can reduce vulnerability to external shocks; (ii) enhancing competitiveness: improving the competitiveness of Vietnamese products in terms of quality, technology, and branding is crucial. This requires investments in research and development, innovation, and adherence to international standards. (iii) Participating in regional and global value chains: Integrating into regional and global value chains can enhance productivity and competitiveness. This involves strengthening linkages between domestic industries and international production networks; (iv) Trade agreements and partnerships: Participating in regional and bilateral trade agreements, such as the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), can open up new opportunities and markets for Vietnamese businesses; (v) Economic diplomacy: Strengthening economic diplomacy and building strategic partnerships with other nations can create opportunities for investment, technology transfer, and market access. By pursuing these strategies, Vietnam can enhance its resilience to external economic challenges, capitalize on opportunities in the global market, and reduce the risk of falling into the middle-income trap.

5. Final Considerations

In the face of the challenges presented by the middle-income trap affecting numerous countries globally, especially within the Asian region, this study consolidates and scrutinizes the experiences of countries such as Japan and South Korea. These nations have successfully navigated the trap by adapting to the dynamics of the global economy, capitalizing on the advantages of globalization, and implementing effective policies. Some of the experiences that facilitated Japan and South Korea's escape from the middle-income trap included investing in education and training as pivotal factors in enhancing labor capabilities, fostering innovation and entrepreneurship, directing investments into infrastructure to catalyze economic development, boosting international trade, advocating for foreign investment, and refining competitiveness in the global market. Additionally, they have achieved this while upholding macroeconomic stability.

Moreover, the study delves into the economic development scenario of Vietnam, spanning the period from 2013 to 2023. The evaluation results highlight that Vietnam has attained noteworthy milestones in economic growth, investment attraction, and integration into the international financial community. Vietnam is on the brink of the middle-income trap, grappling with challenges related to labor costs, sources of FDI capital, the absence of high-tech industries, and economic structures. To circumvent the risk of succumbing to the middle-income trap, Vietnam must enhance institutional frameworks, refine policies, bolster investment management, and, notably, foster research and technological innovation. These solutions should be implemented amidst the challenges of the dynamic international economic landscape.

Ethical considerations

Not applicable

Conflict of Interest

The authors declare no conflicts of interest.

Funding

This research did not receive any financial support.

References

- Agénor, P.-R. (2017). Caught in the Middle? The Economics of Middle-Income Traps. *Journal of Economic Surveys*, 31(3), 771-791.
- Agénor, P.-R., Canuto, O., & Jelenic, M. (2012). *Avoiding Middle-Income Growth Traps*. The World Bank, Economic Premise, 98, 1-7.



- Aiyar, S., Duval, R., Puy, D., Wu, Y., & Zhang, L. (2018). Growth slowdowns and the middle-income trap. *Japan and the World Economy*, 48, 22-37.
- ASEF. (2020). Vietnam's Innovation Challenges and Opportunities. *Asia-Europe Economic Review*, 18(3), 213-230.
- Baumol, W. J., & Blinder, A. S. (2015). *Macroeconomics: Principles and Policy*. Cengage Learning.
- Bellwood, P., & Glover, I. (2023). *Southeast Asia: From prehistory to history*. Taylor & Francis.
- Bresser-Pereira, L. C., Araújo, E. C., & Costa Peres, S. (2020). An alternative to the middle-income trap. *Structural Change and Economic Dynamics*, 52, 294-312.
- Bulman, D., Eden, M., & Nguyen, H. (2017). Transitioning from low-income growth to high-income growth: Is there a middle-income trap? *Journal of the Asia Pacific Economy*, 22(1), 5-28.
- Checchi, D. (2019). *The Economics of Education: Human Capital, Family Background and Inequality*. Cambridge University Press.
- Doner, R. F., & Schneider, B. R. (2016). The Middle-Income Trap: More Politics than Economics. *World Politics*, 68(4), 608-644.
- Eichengreen, B., Park, D., & Shin, K. (2013). *Growth Slowdowns Redux: New Evidence on the Middle-Income Trap* (Working Paper 18673). National Bureau of Economic Research. <https://doi.org/10.3386/w18673>
- Estrada, G., Han, X., Park, D., & Tian, S. (2018). Asia's middle-income Challenge: An overview. *Emerging Markets Finance and Trade*, 54(6), 1208-1224.
- Egwaikhide, F. O., & Omoluabi, E. J. (2007). Human Capital Development and Economic Growth: The Nigeria Experience. *African Development Review*, 19(2), 352-372.
- Felipe, J., Abdon, A., & Kumar, U. (2012). Tracking the middle-income trap: What is it, who is in it, and why?. *Levy Economics Institute, Working Paper*, (715).
- Findlay, C., & Vo Tri Thanh. (2015). Vietnam's Garment and Textile Industry: Opportunities and Challenges in Global Value Chains. *Asian Economic Policy Review*, 10(2), 298-315.
- Fung, H.-G., Lo, W.-C., & Leung, W. K. (1995). Evidence on the dynamic relationship between international trade and the stock market. *The Journal of International Trade & Economic Development*, 4(2), 171-183.
- Garrett, G. (2004). Globalization's Missing Middle. *Foreign Affairs*, 83(6), 84-96.
- Gill, I., & Kharas, H. (2007). *An East Asian Renaissance: Ideas for Economic Growth*. Washington, DC: World Bank. <https://doi.org/10.1596/978-0-8213-6747-6>
- Glawe, L., & Wagner, H. (2016). The Middle-Income Trap: Definitions, Theories and Countries Concerned-A Literature Survey. *Comparative Economic Studies*, 58(4), 507-538.
- Hsu, K.-H., & Hsu, C.-Y. (2011). Capital structure and financing decision-evidence from the four Asian Tigers and Japan. *African Journal of Business Management*, 5(15), 6527-6540.
- Hu, X., Wan, G., Yang, C., & Zhang, A. (2023). Inequality and the middle-income trap. *Journal of International Development*, 35(7), 1684-1710.
- Hutterer, K. L. (2020). *Economic Exchange and Social Interaction in Southeast Asia: Perspectives from Prehistory, History, and Ethnography*. University of Michigan Press. <https://library.oapen.org/handle/20.500.12657/41852>
- Im, F. G., & Rosenblatt, D. (2015). Middle-income traps: a conceptual and empirical survey. *Journal of International Commerce, Economics and Policy*, 6(03), 1550013.
- Japan's Economic Miracle: Underlying Factors and Strategies for the Growth. *Journal of Policy Modeling*, 20(5), 553-570.
- Johnson, C. (1982). Economic Policy and Industrial Growth in Japan. *World Development*, 10(6), 429-475.
- Kanatsu, T. (2014). The Asian Tigers. In *Routledge Handbook of the History of Global Economic Thought*. Routledge.
- Kharas, H., & Kohli, H. (2011). What Is the Middle Income Trap, Why do Countries Fall into It, and How Can It Be Avoided? *Global Journal of Emerging Market Economies*, 3(3), 281-289.
- Krueger, A. O. (1974). Government Intervention in the Japanese Economy: Postwar Patterns and Sources. *The American Economic Review*, 64(2), 214-219.
- Meng, C. W. (1977). The Singapore Economy: Past Performance, Current Structure and Future Growth Prospects. *Southeast Asian Affairs*, 220-229.
- Ministry of Agriculture and Rural Development. (2021). Vietnam's Agricultural Outlook.
- Muggah, R., & Prata, A. (2019). Common Challenges for Developing Countries in the 21st Century. *Global Policy*, 10(Suppl 2), 8-14.
- Ohno, K. (2015). *The middle-income trap in Vietnam: Current situation and solutions*. <https://dlib.neu.edu.vn/handle/NEU/36001> (in Vietnamese)
- Paus, E. (2017). *Escaping the Middle-Income Trap: Innovate or Perish* (Issue 685). Asian Development Bank. <https://www.adb.org/publications/escaping-middle-income-trap-innovate-or-perish>
- Patrick, H., & Park, Y. C. (2005). *Japan's Economic Revival: Policy Challenges in a Globalized World*. Edward Elgar Publishing.
- Psacharopoulos, G., & Patrinos, H. A. (2018). The Contribution of Education to Economic Growth: International Evidence. *The World Bank Research Observer*, 33(2), 141-159.
- United Nations Development Programme. (2021). Vietnam: Rising Inequality and Growing Urban-Rural Disparities.
- Ranis, G., & Stewart, F. (1993). Japan's Postwar Economic Recovery: Lessons for Developing Countries. *World Development*, 21(9), 1459-1473.
- Schoppa, L. J. (1997). Economic Planning and Policies in Postwar Japan: The Case of a Revolution Postponed. *Journal of Japanese Studies*, 23(2), 241-265.
- Schenk, C. (2008). *Economic History of Hong Kong*. EH.Net Encyclopedia. <https://eh.net/encyclopedia/economic-history-of-hong-kong/>
- Shiraishi, & Pham Cong Danh. (2019). Vietnam's Economic Transformation: Lessons for Other Developing Countries. National University of Singapore Press.
- Stern, R. M., & Tyler, W. R. (1979). The Role of International Trade in Japan's Postwar Economic Growth. *Journal of the Japanese and International Economies*, 3(2), 174-200.
- Suzuki, Y. (1991). The Postwar Japanese Economy: Its Development and Structure.
- Tho, T. V. (2013). The Middle-Income Trap: Issues for Members of the Association of Southeast Asian Nations. *VNU Journal of Economics and Business*, 29(2), Article 2.
- Toma, S.-G. (2019). Learning from the Asian tigers: Lessons in economic growth. *Annals-Economy Series*, 3, 63-69.



- Tho, N. V., & Hieu, D. M. (2018). Challenges and Opportunities for Economic Growth in Vietnam. *Journal of Economics and Development*, 20(1), 1-16.
- Trung, T. Q., & Hanh, P. T. H. (2019). Economic Growth and FDI Attraction in Vietnam: An Empirical Study (2000-2017). *Journal of Economics and Development*, 21(1), 15-27.
- Thinh, D. X., & Truc, N. T. (2021). The Fourth Industrial Revolution (4IR) and Socioeconomic Development in Vietnam: Opportunities, Challenges, and Policy Implications. *Journal of Science and Technology Policy and Management*, 12(2), 1-19.
- Thuy, L. T. P. & Hoa, D. T. T. (2019). Challenges and Opportunities in Vietnam's Economic Development: Evidence from a Provincial Level Analysis. *Economics, Management and Sustainability*, 4(3), 35-48.
- Veerayooth Kanchoochat. (2015). The middle-income trap and East Asian miracle lessons. *Rethinking Development Strategies after the Financial Crisis*, 1, 55-66.
- Wilcox, R. S. (1952). Government Controls in Japan. *The Review of Economics and Statistics*, 34(4), 360-371.
- World Bank. (2019). Infrastructure and Economic Growth in East Asia.
- WTO. (2021). World Trade Report 2021: Making Trade Work for People.
- Yokoyama, N. (1998). Japan's Postwar Economic Recovery and Anglo-Japanese Relations, 1948-1962. Routledge.
- Zakov, G. (2017). The economic miracle of the four Asian tigers. *VUZF Review*, 2, 90.
- Zamengo, M. (2020). *Vietnam: Economic growth, global relevance and middle-income trap*. <http://dspace.unive.it/handle/10579/17590>
- Zhou, S., & Hu, A. (2021). What Is the "Middle Income Trap"? In S. Zhou & A. Hu (Eds.), *China: Surpassing the "Middle Income Trap"* (pp. 1-32). Springer Nature. https://doi.org/10.1007/978-981-15-6540-3_1

