

Industrial Policy and The New Structural Economics Theory: A Transitional Economy Perspective

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Abstract

This paper explores the connection between industrial policy and New Structural Economics (NSE) from the perspective of a transitioning economy. The NSE emphasizes that by leveraging comparative advantages, investing in infrastructure and human capital, diversifying the industrial base, and enacting institutional reforms, transitioning economies can achieve sustainable economic development. For industrial policy to be effective, it must align with these principles. Using Bangladesh as a case study, this paper proposes a theoretical framework that links industrial policy with NSE to foster sustainable economic growth. The framework emphasizes the critical role of government intervention in resource allocation, benefit distribution, and industrial growth, all of which are driven by targeted industrial policies. Additionally, it categorizes Bangladesh's industries into five groups, prioritizing leading-edge sectors focused on technological advancement and skill development over catching-up industries that address productivity gaps. This paper contributes to the understanding of Bangladesh's industrial policy through the lens of NSE, shedding light on the underlying dynamics that shape the country's industrial structure, competitiveness, and future economic trajectory.

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1. Introduction

In light of current trends and developments in the global economy, industrial policy has re-emerged as a topic of policy debate (Aberg & Becker, 2020; Lin, 2020; Lin & Wang, 2022). Many nations' industrial strategies fail, but we have yet to see a developing country pull ahead of advanced nations (Chang, 2003) or a developed country maintain its lead (Mazzucato, 2013) in the absence of an industrial policy. The need for industrial policy in both developed and developing countries stems from the fact that technological breakthroughs (Rossi, 2023) and industrial advancement (Jie et al., 2023), the two drivers of economic growth (Chen & Xie, 2019), necessitate a collaborative effort by entrepreneurs and government assistance in addressing externalities and coordinating and improving the necessary soft and hard infrastructures (Gaubert et al., 2021; Ge et al., 2024), which entrepreneurs cannot resolve on their own. Governments in developing countries are mostly unable to support every possible technological innovation or industrial development due to limited resources (Lin, 2021; Wang, 2018). As a result, they must prioritize those activities that contribute the most to long-term economic development and make wise use of their limited resources (Xiang, 2020). Industrial policies are measures that employ resources strategically to assist entrepreneurs in specific privileged areas in addressing externalities and coordination issues (Romanova & Ponomareva, 2019). In order to achieve sustainable growth, Bangladesh, as a growing economy, needs a strong and all-encompassing industrial policy (Chowdhury, 2019).

Bangladesh has traditionally encountered a number of challenges in pursuing long-term development goals (M. R. Uddin, 2024). Bangladesh confronts challenges in properly using its resources. In order to protect itself against the consequences of low growth periods in its traditional trade partners in the developed world, Bangladesh must place a high focus on innovation when pursuing its industrial policy (Rumi, 2020). As a result, the country's reliance on low-value-added exports renders it sensitive to the economic cycle effects of richer countries (Uddin & Chowdhury, 2021). In this setting, industrial policy must be constantly adjusted to changing patterns of demand and international commerce, as well as export facilitation measures to facilitate entrance into new markets (Syed & Ikra, 2023). As a result, industrial strategy for a nation like Bangladesh must assure how to best align and give an urgent, cohesive focus on innovation and competitiveness through productivity improvements in order to fulfill its economic development objectives, while also acknowledging that progress is a dynamic target (Chowdhury, 2019; Hasan, 2021; Rana et al., 2023). A favored theory to follow is new structural economics. In modern structural economics, special emphasis is placed on how the government may encourage economic upgrading through comparative advantage, and infrastructure development and industrial policy.

This paper contributes to the literature by examining the economic implications of Bangladesh's industrial policy through the lens of new structural economic theory. Economist Justin Yifu Lin, (2011, 2017a) pioneered the NSE, emphasizing the

importance of aligning industrial policies with a country's comparative advantages and developmental stage to foster long-term economic progress. This study demonstrates that Bangladesh's industrial policy is consistent with key New Structural Economics principles, including exploiting comparative advantages, investing in infrastructure and human resources, diversifying the industrial base, and pursuing institutional changes. Continued work in these areas, together with regional integration, can strengthen Bangladesh's economic resilience and competitiveness in the global market.

This paper offers a theoretical framework exploring the relationship between Bangladesh's industrial policy, sustainable economic growth, and new structural economic theory. The framework emphasizes the importance of analyzing and identifying industries with comparative advantage, as well as implementing industrial policies to support them. This is seen as crucial for achieving sustainable economic growth under government intervention. The New Structural Economics (NSE) emphasizes the significance of specializing in products or services where a country has a comparative advantage (Lin, 2014; Lin & Wang, 2017). This framework highlights the importance of industrial plans in promoting the growth and competitiveness of industries with export potential, ultimately leading to sustainable economic growth. The new structural economics emphasizes the importance of governments providing compassionate guidance, ensuring effective management of infrastructure investments, and addressing external challenges that enterprises may face while upgrading their industries (Lin & Wang, 2020). For developmental success, it is critical that the government use industrial policies to support industries with comparative advantage, transforming them into competitive advantages in both domestic and global markets (Lin, 2021). This proposed framework also emphasizes government intervention. Undoubtedly, industrial policy plays a crucial role in propelling economic progress for the government of Bangladesh. The government plays a crucial role in resource allocation, benefit distribution, and shaping industrial growth through the implementation of industrial policy.

Furthermore, this paper divides industries into five categories: catching-up industries, leading-edge or cutting-edge industries, comparative advantage-losing industries, corner-overtaking industries, and comparative advantage-defying strategic industries, based on the differences observed between these industries and those of global leaders. This classification focuses on how Bangladesh might achieve economic diversification and competitive advantages by using endowments, technological capabilities, and comparative advantage concepts. This study emphasizes Bangladesh's emphasis on supporting cutting-edge businesses that prioritize technical innovation and skill development, as opposed to relying primarily on catching-up industries that seek to close productivity disparities through talent development (Lin, 2017c). To encourage the development of industries that can swiftly expand, advance technologically, and diversify exports, the government should commit resources and implement tailored policies.

The paper is structured as follows. Section 2 describes the literature reviews considering new structural economics theory and Bangladesh industrial policies. Section 3 provides a theoretical framework considering the connection among new structural economic theory, Bangladesh industrial policy and sustainable economic development. Section 4 defines the NSE-based industry classification. Section 5 focuses on discussion, while Section 6 concludes.

2. Literature Review

2.1 New Structural Economics Theory and Industrial Policies

New structural economics theory and industrial policy literature have drawn a lot of attention in the field of economics (Åberg & Becker, 2020; Lin, 2015, 2020; Lin & Wang, 2017). This field of study aims to understand the factors that lead to economic development and structural change in countries (Atolia et al., 2018; Elryah, 2019). It examines the relationship between economic growth (Li et al., 2022) and industrialization (Álvarez & Brando, 2019; Weiss, 2018), as well as the potential effects of government intervention on structural change (Ferrannini et al., 2021).

The New Structural Economics (NSE) theory offers a comprehensive framework for formulating industrial policies that align with a country's comparative advantage and stage of development (Lin & Wang, 2017). The NSE theory highlights the significance of market forces and industrial transformation in fueling economic growth. The NSE emphasizes the importance of assessing a country's comparative advantage, which is influenced by factors such as natural resources, available workforce, and technological capabilities. It is crucial to develop an effective industrial policy that optimizes resource allocation and enhances competitiveness in both domestic and international markets (Åberg & Becker, 2020). According to NSE, it is advisable to focus on industries that are experiencing growth and have the potential to create a competitive edge (Lin, 2014). The industrial policy should prioritize the establishment of industries where the country has a clear advantage or the potential to develop one.

Existing studies focus that the government should identify companies with latent comparative advantages and then incentivize the first movers to overcome coordination deficiencies in building infrastructure and institutions so that they can be transformed into national competitive advantages, according to the New Structural Economics (Ge et al., 2024; Lin, 2021; Yang et al., 2019). Industrial policy ought to serve as a beneficial instrument for the government to execute in order to carry out its facilitative function. The majority of industrial policies implemented in developing countries have been unsuccessful, which has tarnished their standing in mainstream economics. However, in the absence of governmental support for the advancement of sectors that are in line with the nation's comparative advantage, established industries may face demise due to a loss of comparative advantage, whereas the emergence of novel sectors is improbable due to the absence of pioneers and suitable physical and virtual infrastructure (Wang, 2018). The

deindustrialization process would constitute a consequence. Without the development of new industries, nations cannot achieve substantial economic growth, solve the dilemma of employment creation, or escape the low- or middle-income trap (W. Li & Wu, 2023).

The NSE recognizes the importance of export-oriented industrialization in driving economic development (Güvercin, 2020; Lin, 2015). Efforts should be made to integrate domestic industries into global value chains, enhancing their competitiveness and export capabilities. Export-oriented industries can benefit from various measures, such as export promotion initiatives, trade facilitation efforts, and maintaining high quality standards (Adams, 2003). The NSE recognizes the importance of diversifying industries and improving production capacities to ensure sustainable, long-term growth. To promote industrial diversity, industrial policy should prioritize fostering innovation, embracing technology, and cultivating skills. Strategies for industrial upgrading may involve fostering connections between domestic enterprises and global corporations, enhancing the dissemination of information, and facilitating the transfer of technology.

The NSE recognizes the importance of infrastructure development in driving industrialization and promoting economic growth (Lin, 2011; Lin & Wang, 2016). It is crucial for industrial policies to prioritize investments in physical infrastructure, including transportation, electricity, and telecommunications, as well as institutional infrastructure, such as legal and regulatory frameworks (Malah Kuete & Asongu, 2023). The study of Kozhukhivska et al., (2017) states that investments in physical infrastructure will lead to a reduction in transaction costs, enhance market access, and encourage investment. The NSE highlights the importance of strengthening human capital to foster industrialization and technological progress. It is crucial for industrial policy to prioritize the allocation of resources towards education, skills training, and lifelong learning. Indira & Chandrasekaran, (2023) also confirms that the development of a highly skilled and adaptable workforce enhances productivity, creativity, and competitiveness in industrial activity.

The NSE recognizes the importance of institutional reforms in creating a favorable environment for economic progress (Álvarez & Brando, 2019; Weiss, 2018). It is crucial for industrial strategies to focus on improving governance, reinforcing the rule of law, minimizing regulatory barriers, and fostering market competitiveness. Transparent and predictable institutional frameworks foster corporate trust, investment, and entrepreneurship (Fuzhan, 2019). The NSE acknowledges the potential benefits and challenges presented by globalization and regional integration in relation to industrial development. Industrial strategies should focus on capitalizing on global market opportunities while also addressing potential vulnerabilities, such as exposure to foreign competition and economic fluctuations. Regional integration projects can enhance market access, promote economies of scale, and facilitate the transfer of technology and information (Kozhukhivska et al., 2017).

The New Structural Economics Theory provides valuable insights for crafting industrial policies that promote economic growth, structural transformation, and sustainable development. Policymakers can align industrial policies with a country's comparative advantages and development objectives to promote a strong and adaptable industrial sector that fosters equitable and sustainable economic growth.

2.2 Bangladesh Industrial policies

Following its independence, Bangladesh has implemented several industrial development initiatives, with the initial one being the nationalization of the industrial sector in 1973. Over time, Bangladesh underwent a gradual shift towards a more liberalized industrial framework. The industrial policy underwent a series of gradual transformations that increasingly favored a market-oriented approach to manufacturing-based export-led industrialization (Mostafiz, 2023). This shift emphasized the need of export diversification, the promotion of small and medium-sized firms, and the integration of information and communication technology (ICT) as crucial components (Rumi, 2020).

The implementation of the industrial policy in Bangladesh throughout the 1990s marked a significant milestone in the nation's industrial development. The fundamental basis for the entire industrial policy was predicated around the notion of a competitive market economy. In order to attract both domestic and international investors, the government implemented several proactive measures included eliminating concessionary interest rates and special credit facilities, removing the requirement to seek permission for establishing industries, and relaxing restrictions on foreign equity participation (Hossain, 2018; IP, 2016). Additional infrastructure was developed to facilitate the promotion of exports and the implementation of an export-led growth plan, including the establishment of additional export processing zones aimed at supporting the growth of export-oriented businesses. The foreign trade sector can be enhanced through the process of liberalization, which involves the rationalization of tariffs and the reduction of non-tariff obstacles (Rahman Bhuyan, 2011). In addition to the elimination of non-tariff barriers, quantitative tariff barriers were also abolished. Though Bangladesh adopting diverse policies but couldn't achieve expected results.

Bangladesh's industrial policies frequently rely on conventional methods such as export-oriented industrialization or import substitution without giving enough emphasis to innovation and adapting to changing global dynamics (Abdin, 2021; Rahim, 1978). There is a demand for more innovative and forward-thinking strategies that harness emerging technology, global value chains, and new business models to drive industrial growth. The regulatory environment in Bangladesh's industrial development is characterized by bureaucratic procedures, excessive paperwork, and regulatory obstacles that hinder investment, entrepreneurship, and business growth. Improving regulations, enhancing transparency, and making it easier to conduct business are essential for creating a more favorable business environment (Alam, 1989). In Bangladesh, there seems to be a focus on short-term

gains like increasing exports and attracting foreign investment rather than prioritizing long-term structural changes and sustainable growth (Chowdhury, 2019). This can lead to missed opportunities for developing native industrial capabilities, encouraging local value addition, and addressing structural obstacles. While considering industry comparative advantages, Bangladesh must prioritize developing an industrial policy that ensures industrial upgrading, technological advancement, and economic growth.

3. Proposed Theoretical Framework

The New Structural Economics (NSE) (Lin, 2014) approach to guiding economic growth in developing countries like Bangladesh emphasizes the importance of comparative advantage and industrial policy as key components. The NSE begins by evaluating a nation's present comparative advantages, which may encompass natural resources, labor force attributes, or established industrial capabilities. A well-crafted industrial policy would prioritize industries that align with a country's acknowledged comparative advantages, under the guidance of the NSE. Comparative advantage is a concept that can evolve and adapt over time. The NSE urges governments to adapt their economic policies to changing comparative advantages. As a country's industrial capabilities grow, it is important to have flexible and adaptable industrial policies that can accommodate changes in focus and goals. The key to economic progress lies in the specialization of industries that possess comparative advantages (Huang et al., 2024). The NSE promotes the idea of industrial upgrading as a way to transition towards more advanced and complex sectors. The NSE's industrial policies aim to support new enterprises and encourage the adoption and upgrading of technology through various incentives. Figure 1 presents a theoretical framework that explores the relationship between the new structural economics theory, industrial policy, and sustainable economic growth in Bangladesh.

According to the framework, it is imperative for Bangladesh to achieve sustainable economic growth by analyzing and identifying industries with comparative advantages and adopting industrial policies to facilitate those industries. This framework also emphasizes that industrial policies should emphasize infrastructure development, skill development, technological advancement, innovation, industry upgrading, and public and private partnerships. Finally, this framework highly emphasizes government intervention specially for developing countries like Bangladesh. It argues that governments ought to provide compassionate guidance, taking into account different circumstances, particularly in addressing external challenges that enterprises may encounter during the process of upgrading their industries. Additionally, governments should coordinate infrastructure investments that cannot be effectively managed solely through an enterprise's decision-making (Lin & Chang, 2009).

New Structural Economics (NSE) focuses on the importance of specializing in products or services for which Bangladesh has a comparative advantage. The

ultimate goal of industrial plans is to prioritize the expansion of industries with export potential, thereby strengthening their global competitiveness and achieving economic growth. Clustering or classifying industries with comparative advantage, and adopting and implementing industrial policies accordingly, can lead to economic growth (Álvarez & Brando, 2019; Ros, 2001). Industrial policies should emphasize technological advancement and innovation, infrastructure development, skill development, industry upgrading, and public-private partnerships (Weiss, 2018). NSE believes in strategic industrial policies, which include targeted government interventions to develop and promote specific industries with export potential. Industrial policies are crucial in creating an environment conducive to export-oriented growth. This includes supporting new sectors, offering incentives, and facilitating technology transfer.

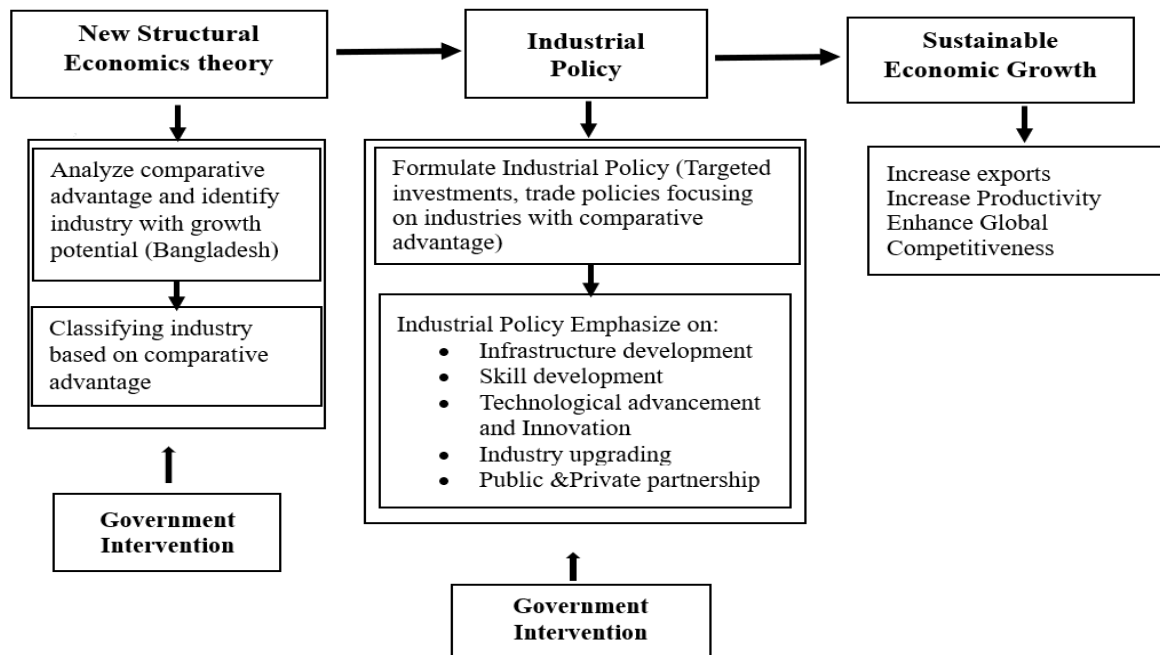


Figure 1: Proposed framework linking Bangladesh industrial policy, sustainable economic growth, and the New Structural Economics Theory

New Structural Economics (NSE) recognizes the necessity of partnerships between the public and private sectors in supporting economic development. Collaboration between the public and private sectors can aid in the implementation of successful industrial policies that support industry growth and economic transformation (Narassimhan et al., 2024; Rossi, 2023). Efficient transportation infrastructure is critical for the movement of goods and people because it lowers logistics costs and increases market access. Investment in transportation infrastructure, such as roads, railways, and ports, would be a component of industrial policy to facilitate the

efficient transfer of raw materials and finished goods. Industrial activities necessitate a continuous and cost-effective energy source. The NSE acknowledges the importance of energy in promoting economic prosperity. Industrial plans would emphasize investments in energy infrastructure, including power generation and distribution, to ensure a consistent and cost-effective energy supply for businesses. Industrial strategy would include investments in technology infrastructure, such as research and development facilities, to stimulate technological breakthroughs and innovation within sectors. Industrial policy would include measures to enhance rural infrastructure, guarantee that the benefits of industrialization reach different regions, and promote inclusivity.

Industrial policies can play a significant role in fostering sustainable economic growth by guiding the development and direction of key industries. Indeed, industrial policy is an important tool for Bangladesh's government to drive economic progress. By implementing industrial policy, the government intervenes in the process of resource allocation and benefit distribution, controls or promotes firm behavior, and defines the course of industrial growth.

4. NSE-based industry classification for Bangladesh

Bangladesh's economic progress has reached a new plateau. The New Structural Economics (Lin, 2011) theory categorizes industries into five groups such as catching-up, leading-edge, comparative advantage losing, corner overtaking industries and comparative advantage-defying strategic industries based on the differences between specific countries' industries and global leaders. Industrial policy should play a particular facilitating role in each of them, depending on the circumstances. Table 1 shows the classification of Bangladeshi industries based on the NSE theory.

Table 1: Bangladesh Industries Classification based on NSE theory

Catching-Up Industries	Leading-edge Industry	Comparative Advantage-Losing Industries	Corner-Overtaking Industries of Bangladesh	Comparative Advantage-Defying Strategic Industries
Garments and Textiles	Information Technology (IT) and Software Development	Low-Value-added Garments	Digital Economy and E-commerce	Heavy Industry and Infrastructure Development
Agro-processing	Biotechnology and Pharmaceuticals	Traditional textiles such as muslin, jamdani, and handloom fabrics	Renewable Energy and Green Technologies	High-Technology Manufacturing
	Renewable Energy and Green Technologies	Jute and Jute Goods	IT Outsourcing and Software Development	Advanced Materials and Nanotechnology
Pharmaceuticals	Advanced Textiles and Technical Fabrics	Handicrafts and Cottage Industries	Healthcare and Biotechnology	Advanced services and knowledge-based industries such as IT consulting, financial services, and creative industries
Information Technology (IT) and Business Process Outsourcing (BPO)	ICT-enabled services industry, including business process outsourcing (BPO), knowledge process outsourcing (KPO), and IT-enabled services (ITES)	Low-Technology Manufacturing	Agri-tech and Food Processing	
Renewable Energy, Light Engineering and Tourism and Hospitality			Creative Industries and Cultural Exports	

Source: Author's own categorization based on NSE theory and Bangladesh Bureau of Statistics Data.

Catching-up industries in Bangladesh are those that have the potential to swiftly expand and catch up with more advanced economies by capitalizing on the country's existing assets and capabilities (Khan, 2019). These industries are critical to accelerating economic growth, creating jobs, and facilitating fundamental transformation. Investing in these catching-up industries, combined with favorable regulations and reforms to institutions, has the potential to boost Bangladesh's economic growth, encourage industrial diversity, and help the country transition to a more dynamic and resilient economy (Ahasan et al., 2021). Furthermore, by constructing the necessary infrastructure and enhancing the business environment, the government can select high-end manufacturing products from developed countries, based on their respective comparative advantages, and attract overseas investment to encourage manufacturers to establish plants in Bangladesh (M. A. Khan et al., 2020). If local governments can provide adequate infrastructure, personnel training programs, and business and legal environments conducive to these high-end manufacturing industries, they will encourage many foreign high-end manufacturers to establish factories in Bangladesh to meet rising consumer demand and produce a diverse range of products for global markets. Bangladesh, for example, has built a number of Export Processing Zones (EPZs) to encourage international investment and job creation (Mostafiz & Sun, 2023). We are still in a window of opportunity and can help attract investment in medium- to high-end companies.

The industries at the forefront of technological innovation, high value-added production, and global competitiveness in Bangladesh are considered leading-edge industries. These industries usually require cutting-edge technologies, specialized expertise, and significant investment in research and development (R&D). Although Bangladesh is still in its early stages of developing leading-edge industries, it is showing promise in this regard. This paper highlights the importance of investing in cutting-edge industries, nurturing innovation ecosystems, and fostering collaboration between the public and private sectors. These efforts can greatly expedite Bangladesh's shift towards a knowledge-based economy and bolster its competitiveness in the global market.

In the context of Bangladesh, the government has the capability to establish research funds that provide financial assistance for fundamental scientific research to boost these industries (Abbas & Liu, 2022). This can be achieved through fostering collaboration between enterprises operating in advanced industries and educational institutions such as colleges, universities, and research institutes within their respective jurisdictions (Hossain et al., 2012). The primary objective of such collaboration is to facilitate the advancement of novel products and technologies. Furthermore, these entities have the capability to offer monetary assistance to enterprises operating in related sectors, facilitating the joint establishment of shared technical research and development (R&D) platforms (Khan, 2019). Through these platforms, firms can engage in collaborative efforts to achieve significant advancements in technology, as well as create novel products and technologies based on the acquired knowledge. In order to expand their market presence,

industries in the forefront of innovation must construct comprehensive global networks for sales, manufacturing, and customer service. This undertaking requires the support of governmental entities in various aspects, such as staff training, financing, legal affairs, consular protection, and investment protection.

Comparative advantage-losing industries in Bangladesh are those that struggle to sustain competitiveness and profitability as a result of changes in global market dynamics, technical improvements, and shifting consumer tastes (Milton, 2013). To meet the problems posed by these comparative advantage-losing industries, Bangladesh may need to implement structural changes, engage in technology and innovation, improve infrastructure and logistics, boost talent development, diversify product offerings, and enter niche markets. In addition, tailored government policies and support measures may be required to reinvigorate these businesses and maintain their long-term viability in the face of shifting global trends.

To deal with this industry, the government is taking several steps. The majority of manual labor-intensive export processing firms are clustered in distinct geographic areas. In order to aid these businesses, the government might choose between two separate measures. One technique entails providing thorough training programs in design, research and development (R&D), and marketing, allowing certain businesses to advance to the top and bottom of a "smile curve." The second policy is to encourage processing firms to expand internationally. One possible way is to provide detailed information on host countries and to provide training programs for workers needed for foreign operations. Another option is cooperating with host governments to construct export-processing zones, which can provide companies with acceptable infrastructure and business environments. In 2009, a significant number of countries, including Japan, South Korea, Hong Kong, Thailand, Sri Lanka, China, Taiwan, Malaysia, Indonesia, Singapore, the United States, the United Kingdom, Australia, Canada, Germany, France, Italy, Sweden, the Netherlands, Switzerland, India, and Pakistan, invested in various projects within Bangladesh's Export Processing Zones (EPZs) (Molla, 2018). The overall number of countries operating within EPZs in 2020 is 38. The manufacture of readymade garments accounts for the greatest share of units within the country's EPZs, accounting for 68 of the total 297 units in March 2009, and 135 of the 416 units in 2020 (Alam et al., 2020). The aforementioned categories are followed by the manufacture of clothing accessories, which numbered 43 in 2009 and is expected to expand to 92 by 2020. Furthermore, in 2009, knitwear accounted for 32 units, while terry towel production accounted for 16 units. Electric and electronic goods manufacturing reached 15 units in 2009 and is expected to increase to 19 units by 2020. Plastic items accounted for 14 units in 2009, while footwear and leather products accounted for 13 units in 2009 and are expected to expand to 27 units by 2020. Additional goods manufactured at the country's Export Processing Zone facilities include headwear, shelters, packing materials, cordage, and various agro-processing products (Majumder et al., 2022).

Corner-overtaking industries in Bangladesh are those that have the ability to outperform competitors and develop a dominant position in the global market by

capitalizing on technical advancements, new business methods, and rising market opportunities (E. Islam et al., 2023). These industries are characterized by rapid expansion, high value-added output, and competitive advantage. Investing in these corner-overtaking industries, cultivating innovative ecosystems, and encouraging entrepreneurship can help Bangladesh expedite its economic transformation and position itself as a dynamic and competitive player in the global economy. Majumder et al., (2024) highlights that by capitalizing on new market trends, technical breakthroughs, and strategic opportunities, Bangladesh can harness its strengths to gain leadership positions in these rapidly growing industries

The rise of the information age provides Bangladesh with the opportunity to compete directly with wealthy nations in various areas, such as software and handheld devices. These industries rely heavily on human capital for innovation and have unusually fast cycles of invention (Huda et al., 2024). The development of a novel pharmaceutical compound necessitates a protracted period of time spanning decades, as well as a huge financial investment amounting to billions of dollars. In contrast, with the help of a small team of engineers, the development of software or mobile phone prototypes can be completed in a relatively short amount of time, often covering a few months. In Bangladesh, limited access to capital does not pose an insurmountable obstacle to innovation in items requiring a relatively small capital expenditure. In comparison to capital-rich industrialized nations, this disadvantage is somewhat less significant. These firms allow emerging nations to outperform developed ones in a certain subject or industry. The government can effectively facilitate industrial growth in Bangladesh through a variety of tactics and processes. These strategies include investing in the education and training of individuals with specialized knowledge in relevant domains, establishing incubators to foster and sustain innovative concepts, improving intellectual property rights protection, advocating for venture capital accessibility, implementing favorable tax policies, facilitating the establishment of start-up ventures led by both domestic and international creative individuals, and leveraging (Huda et al., 2024).

In Bangladesh, comparative advantage-defying strategic industries are those in which the country faces inherent challenges or disadvantages, but strategic investments and policy interventions can help overcome these obstacles and foster competitiveness (Moktadir et al., 2019; Shabur & Hridoy, 2021). These industries often require a lot of cash, a long development cycle, and significant involvement. In this sense, Bangladesh does not currently have a comparative advantage. However, these advancements have implications for Bangladesh's future development and national security. This category includes aerospace, new materials, new energy, supercomputers, and aircraft. Their reliance on government protection and subsidies, in addition to the market, is one of their unique characteristics. Direct allocation and distorted component prices have traditionally been the forms of government protection and subsidies (Islam et al., 2022). In the developed nations of the United States and Europe, the government directly funds the development of new products and technologies in all strategic industries, whether they are state-owned or private. The government also facilitates the production of these industries

by either buying their goods or promoting them to other nations. The government should support strategic industries as a matter of state policy. No matter where they are, they will tangentially promote industrial upgrading and technological advancement in nearby supporting industries. Therefore, in order to attract strategic industries to locate in their jurisdictions, governments can promote the growth of their supporting industries while simultaneously making improvements to living standards, infrastructure, education, and other soft and hard environments (Hassan et al., 2019). This creates a win-win situation for the transformation and upgrading of such strategic and local industries.

Developing an industrial policy for these five industries in Bangladesh, based on the principles of New Structural Economics (NSE) theory, requires recognizing the obstacles these industries encounter and implementing specific measures to improve their ability to compete and facilitate their shift towards more valuable activities.

5. Discussion

Recent literature has underlined that the application of NSE varies depending on a country's unique circumstances and challenges (Ju et al., 2023; Lin, 2017b; Nanda, 2021). While some countries may find NSE principles useful, others may need to tailor their strategies to their specific circumstances, as seen in the rapid success of Huajian footwear in Ethiopia (Vrolijk, 2021), C&H garments in Rwanda (Behuria, 2019), and the successful implementation of new structural economics in Poland (Berglof et al., 2015). The NSE acts as a roadmap for policymakers in developing economies attempting to achieve long-term and inclusive economic growth.

Bangladesh, as a developing nation, requires the implementation of a comprehensive and practical industrial policy to effectively achieve the desired outcomes from its economic endeavors. The current administration is implementing comprehensive guidelines aimed at achieving holistic economic development across all sectors. Undoubtedly, the work at hand is a formidable challenge for the government, given the limitations imposed by resource limits and various other detrimental conditions, such as political turmoil. However, considering the importance of the private sector, the government is providing comprehensive assistance to entrepreneurs in the private domain, including large-scale, medium-sized, and small-scale enterprises. This support has given both the public and commercial sectors a sense of vitality. Given this context, it is imperative to analyze diverse facets of industrialization and its effects on overall economic endeavors (Yang et al., 2019).

In the context of heightened global rivalry, the private sector plays a significant role in driving the country's industrialization process. As a result, the Bangladesh Ministry of Industries has assumed the role of facilitator. In response to the complexities posed by the free-market economy and globalization, the government has embraced the notion of private ownership and management of industrial businesses as a significant driving factor in achieving economic expansion. In

addition, the government has implemented numerous constructive and timely reforms in business management, as well as facilitated trade liberalization. These measures aim to enable private entrepreneurs to effectively capitalize on prospects for founding and operating industrial enterprises in a profitable and unrestricted manner.

Bangladesh has not officially adopted New Structural Economics (NSE). However, Bangladesh's strategies and policies related to economic development exhibit several NSE features. The government of Bangladesh has been implementing a range of policies aimed at fostering economic growth, export-oriented industrialization, and structural restructuring. Certain components of Bangladesh's economic policy fit with the features of New Structural Economics, including a focus on gradual structural change, identification of comparative advantages, and government assistance in the transformation process. In order to boost economic advancement, the nation has been undertaking efforts to diversify its industrial foundation, foster foreign direct investment (FDI), and improve infrastructure.

The adoption of New Structural Economics offers developing nations like Bangladesh a comprehensive framework for formulating and executing policies that foster sustainable, inclusive, and resilient economic growth. However, the achievement of desired outcomes is contingent upon proficient policy execution, the presence of sound governance practices, and the ability to adjust tactics in response to the ever-changing dynamics of the global economic landscape.

6. Conclusion and Policy Implications

This paper examines Bangladesh's industrial policy through the lens of New Structural Economics. This paper states that Bangladesh's industrial policy is consistent with key New Structural Economics tenets, including leveraging comparative advantages, investing in infrastructure and human capital, diversifying the industrial base, and pursuing institutional reforms. Sustained efforts in these domains, together with regional integration, can strengthen Bangladesh's financial stability and viability in the global market.

This paper further proposes a theoretical framework for the connection between Bangladesh industrial policy, sustainable economic growth, and new structural economic theory. According to the framework, it is essential to analyze and identify industries that have a competitive advantage and implement industrial strategies to assist those industries in order to achieve sustainable economic growth. The New Structural Economics (NSE) emphasizes the significance of concentrating on products or services in which a country has a competitive advantage. The purpose of industrial plans is to prioritize the growth of industries that have the ability to export their products, with the ultimate aim of enhancing their global competitiveness and achieving sustained economic growth. This paradigm also posits that the existence of a facilitating government, which implements industrial policies to bolster industries with a comparative advantage, is crucial for attaining developmental success. This proposed framework also emphasizes Bangladesh

government intervention. Undoubtedly, industrial policy plays a crucial role in propelling economic progress for the government of Bangladesh. The government plays a crucial role in resource allocation, benefit distribution, and shaping industrial growth through the implementation of industrial policy.

Furthermore, this paper categorizes industries into five groups in which Bangladesh can attain economic diversification and establish competitive advantages through the utilization of factors such as endowments, technological capabilities, and comparative advantage principles. This paper also reveals that Bangladesh is prioritizing the growth of leading-edge industries that focus on technological progress and skill development over catching-up industries that focus on skill development and reducing productivity gaps. This implies that to foster the development of industries capable of swift expansion, technological advancement, and export diversification, policymakers ought to distribute resources and enact narrowly focused policies.

6.1 Policy Implications

This paper has several policy ramifications. Firstly, this paper conducts a critical evaluation of the efficacy and consequences of previous policy interventions by examining the extent to which Bangladesh's industrial policies adhere to the principles of the NSE. In order to more effectively promote industrial transformation and structural transformation, this paper provides recommendations for policy reform and strategic realignment, highlighting areas where we can enhance policy coherence and efficacy. Secondly, this paper categorizes the industries with the most promising prospects for sustainable expansion and industrial modernization in Bangladesh. In addition, this paper identifies industries in which Bangladesh can attain economic diversification and establish competitive advantages through the utilization of factors such as endowments, technological capabilities, and comparative advantage principles. Bangladesh is focusing on building up leading-edge industries, which focus on technological progress and skill development, rather than catch-up industries, which focus on skill development and closing productivity gaps. This implies that to foster the development of industries capable of swift expansion, technological advancement, and export diversification, policymakers ought to distribute resources and enact narrowly focused policies.

6.2 Contribution to Theory

The paper contributes by conducting a thorough examination of Bangladesh's industrial policy using NSE theory, shedding light on the underlying dynamics that shape the country's industrial structure, competitiveness, and economic prospects. It presents a sophisticated perspective of the challenges and possibilities confronting Bangladesh's industrial sector, as well as identifying significant factors impacting industrial development. The paper contributes to the scholarly literature on industrial economics, development economics, and policy analysis by bringing NSE theory to Bangladesh from a transitioning economy perspective.

6.3 Research Limitations and Future Research Area

The NSE theory, similar to other theoretical frameworks, has the potential to oversimplify the intricate reality of industrial development in Bangladesh. The study might not encompass the complete spectrum of issues that influence industrial dynamics, such as political economics considerations, institutional limits, and social dynamics, all of which can have a substantial impact on policy decisions (Fuzhan, 2019). The study focuses emphasizes policy development and design, neglecting the issues associated with policy administration and execution. The efficient implementation of industrial policies in Bangladesh may be hindered by bureaucratic inefficiencies, institutional inadequacies, and governance constraints, which in turn limit their impact on industrial development results (Abbas & Liu, 2022). Additional investigation might be carried out with regard to policy implementation and execution. The paper's results and recommendations are from the Bangladesh perspective. Further investigation might be conducted to explore the viewpoints of other developing nations. Although new structural economics offers a valuable framework, it is important to include other theoretical perspectives, such as institutional economics or evolutionary economics, which may provide additional or alternative explanations for the dynamics of industrial development. These perspectives should be examined in future research.

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