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MASTER THESIS

Business and Development: Empirical Evidence from Southeast Asia

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GLODEP Program 2023

I hereby declare that this thesis has been written and composed entirely by myself. Except when stated otherwise, the work belongs to me and is of my authorship.

Hoang Phuong Hai Chau, May 2023

A handwritten signature in black ink, appearing to read 'Hoang Phuong Hai Chau', located in the bottom right corner of the page.

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Theses guidelines:

While “the Asian miracle” of Hong Kong, Singapore, South Korea, and Taiwan has been studied extensively within the field of development, the focus on the emerging economies of Southeast Asia has been relatively limited. However, within the next two decades of favorable demographic conditions and digital transformation, these economies are predicted to be enticing to new investors. Capturing this opportunity, a favorable condition for investment can be a catalyst for growth. Thus, this article wishes to shed light on the effect of the business environment on Southeast Asia’s development. Quantitative analysis will be adopted with a focus on building a model that accounts for the heterogeneity of Southeast Asian countries.

Recommended resources:

Business freedom by country, around the world. (n.d.). Retrieved January 10, 2023, from https://www.theglobaleconomy.com/rankings/herit_business_freedom/
Guide to top emerging markets in Asia (2022): Acclime. (2022, May 25). Retrieved January 11, 2023, from <https://www.acclime.com/insights/emerging-markets-asia-guide/#:-:text=Emerging%20Asia%2C%20which%20includes%20China,consumer%20class%20development%2C%20digital%20transformation%2C>
Jaafar, M., Walters, J., Wu, E., & Wastuwidyaningtyas, B. (2021, January 08). Capitalizing on Asia’s booming upper middle class. Retrieved January 11, 2023, from <https://www.bcg.com/publications/2016/globalization-growth-capitalizing-asias-booming-upper-middle-class>
Understanding asia’s emerging wealth landscape. (n.d.). Retrieved January 10, 2023, from <https://www.gbm.hsbc.com/en-gb/feed/growing-my-business/understanding-asias-emerging-wealth-landscape>

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Abstract

Encountering significant challenges from the middle-income trap, the Association of Southeast Asian Nations (ASEAN) formed ASEAN Economic Community (AEC) envisioning its integration into a competitive global market. Of several solutions, the ASEAN Economic Blueprint 2025, as the name suggested, established a road map to actualize ASEAN's potential. The recent trend of shifting focus to optimal business and economic reform, with a new dynamic brought by a very fast-paced digital transformation in the region and a group of upper-middle-income consumers, has become a new source of hope for ASEAN. Through this transformation, the region expects more business owners to enter the market with fewer barriers. As people start building their entrepreneurship, the region also expects an upward economic growth trajectory. However, the question remains as to how we realize said future. How do we act as a springboard for business owners, the tech-savvy young generation, and a group of wealthy consumers that demand more services? Answering this question, this study tests the relationship between the current business environment and economic development to establish an initial foundation for ASEAN's direction toward business environment reform.

Keywords: business, growth, development, digital transformation

I. Introduction

1. Research focus

“Is Southeast Asia getting old before getting rich?” has repeatedly been asked in recent years¹. While the benefits from demographic dividends are still multiplying in full force, the reality of a middle-income trap is also approaching². Within the next ten years, this region will be home to nearly 110 million senior citizens, which accounts for 15 percent of the population. By 2050, the problem is more pronounced, as the total number of people aged 60 or older will reach 176 million or 22 percent of the region's population³.

Responding to this challenge, the Association of Southeast Asian Nations (ASEAN) has emphasized its efforts on creating the optimal environment for micro, small, and medium-sized enterprises (MSMEs), together with the help of digital transformation for future trajectory⁴.

The business environment and its effect on economic growth have become increasingly essential in today's discussions^{5 6 7}. However, it is even more prominent as the Association

¹ Patrick Ziegenhain, “Getting Old Before Getting Rich (and Not Fully Realizing It): Premature Ageing and the Demographic Momentum in Southeast Asia,” in *Global Political Demography: The Politics of Population Change*, ed. Achim Goerres and Pieter Vanhuysse (Cham: Springer International Publishing, 2021), 167–93, https://doi.org/10.1007/978-3-030-73065-9_7.

² Koichi Ishikawa, “The ASEAN Economic Community and ASEAN Economic Integration,” *Journal of Contemporary East Asia Studies* 10, no. 1 (January 2, 2021): 24–41, <https://doi.org/10.1080/24761028.2021.1891702>.

³ Sen Nguyen, Vijitra Duangdee, and Chan Muyhong, “Asean's Developing Nations Are Getting Old before Getting Rich,” *South China Morning Post*, June 26, 2021, <https://www.scmp.com/week-asia/people/article/3138571/developing-asean-getting-old-getting-rich-and-pensions-arent>.

⁴ “ASEAN Economic Community Blueprint 2025,” 2016, <https://aecvcci.vn/tin-tuc-n1790/asean-economic-community-blueprint-2025.htm>.

⁵ VietnamPlus, “Business Environment Decisive to Boosting Economic Development | Business | Vietnam+ (VietnamPlus),” VietnamPlus, March 4, 2022, <https://en.vietnamplus.vn/improved-business-environment-helps-boost-economic-development/223005.vnp>.

⁶ Stephen Gelb and Alberto Lemma, “Promoting Economic Transformation through Business Environment Reform,” 2019.

⁷ “Business Environment Indicators,” 2012.

of Southeast Nations Association (ASEAN) is entering its next phase of development with constant needs for business environment transformation to realize its fullest potential ⁸.

2. Overview of the region

Established in 1967, ASEAN consists of 10 Member States, namely Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Viet Nam. ASEAN's vision has consistently been economic integration within the region, with a focus on a “rule-based” version of it ⁹. On the basis of the Bangkok Declaration, ASEAN's goal is to strengthen economic, cultural, and social cooperation among member countries while creating conditions for countries to integrate more deeply with the region and the world ¹⁰. Following five founding members, in 1984, 1995, 1997, and 1999, Brunei, Vietnam, Laos, Myanmar, and Cambodia respectively joined ASEAN ¹¹.

On December 31, 2015, ASEAN officially established the "ASEAN Economic Community" - after a joint statement at the ASEAN Summit meeting in Kuala Lumpur, together with the ASEAN Political-Security Community and the Cultural Community. ASEAN society has three important pillars, which include bringing ASEAN to a new step in terms of quality and creating an ASEAN with a position in the world economy ¹².

3. Significance of the topic

⁸ “ASEAN Development Outlook,” ASEAN Main Portal, 2021, <https://asean.org/book/asean-development-outlook/>.

⁹ “ASEAN Charter,” ASEAN Main Portal, accessed May 13, 2023, <https://asean.org/about-asean/asean-charter/>.

¹⁰ “History of ASEAN,” ASEAN Main Portal, accessed May 31, 2023, <https://asean.org/about-asean/the-founding-of-asean/>.

¹¹ “The Founding of ASEAN (Part 2),” ASEAN Main Portal, 2, accessed May 31, 2023, <https://asean.org/about-asean/the-founding-of-asean/the-founding-of-asean-part-2/>.

¹² “What You Need to Know about the ASEAN Economic Community | World Economic Forum,” accessed May 31, 2023, <https://www.weforum.org/agenda/2016/05/asean-economic-community-what-you-need-to-know/>.

ASEAN has been chosen as our topic of research for three main reasons: its unexpected growth rate during the pandemic, its hopeful trajectory towards the future, and its urgent need to establish a favorable business environment to realize said future.

ASEAN emerging economies with unexpected growth surges during the pandemic have called for global attention¹³. Indeed, the pandemic did contribute to the acceleration of novel business formats that helped establish a concrete foundation for a complete transformation of the region. Of which impact of digital technology has directed ASEAN's growth to a path of new opportunities, including e-commerce and e-payments (ASEAN Economic Community (AEC) Blueprint 2025, 2016). The region's e-commerce growth rate stands at around 20% - the fastest globally¹⁴. Explaining this phenomenon, HSBC believes this is an era of ASEAN's Internet population dividend as 80 percent of this region will be connected to the Internet by 2030¹⁵.

While the global economy faces certain difficulties of high inflation and low growth rate, Southeast Asia offers investors and researchers have several reasons to be hopeful¹⁶. Within ASEAN alone, six economies of Malaysia, Indonesia, Singapore, Thailand, and Vietnam receive more attention as their combined population exceeds 570 million and projected gross merchandise value of US\$300 billion by 2025¹⁷. ASEAN has become "the world's fastest-growing trade bloc and now accounts for almost 8% of global exports"¹⁸. Thailand offers a perfect example, as HSBC research finds how, within less than ten years, its wealth landscape more than doubled, creating also a doubled number of millionaires from 2022 to 2030.

¹³ "Faster Growth of ASEAN's New Economy amid the Pandemic, A 4 Trillion USD Consumer Market for Chinese Companies," accessed May 14, 2023, <https://www.business.hsbc.com.cn/en-gb/campaigns/belt-and-road/asean-story-3>.

¹⁴ "Creating Sustainable Growth for Southeast Asia's Digital Economy," Google, October 27, 2022, <https://blog.google/around-the-globe/google-asia/sea-economy-2022/>.

¹⁵ "ASEAN's Rising Middle Class Offers Long-Term Potential," 2021, <https://www.uobgroup.com/asean-insights/articles/aseans-rising-middle-class.page>.

¹⁶ "Why Southeast Asia Offers Reason for Optimism | Insight | HSBC Holdings Plc," HSBC, accessed May 14, 2023, <https://www.hsbc.com/insight/topics/why-southeast-asia-offers-reason-for-optimism>.

¹⁷ "Faster Growth of ASEAN's New Economy amid the Pandemic, A 4 Trillion USD Consumer Market for Chinese Companies."

¹⁸ "Why Southeast Asia Offers Reason for Optimism | Insight | HSBC Holdings Plc."

Vietnam is another rising example that has doubled its GDP per capita within a 10-year span from 2010 to 2019¹⁹.

Furthermore, the growing body of mass prestige (“masstige”) consumers with similar tastes and characteristics is also a very significant element to be considered in Southeast Asia’s growth trajectory²⁰. While heterogeneous by nature, this fast-rising mass-affluent market is unified with the help of digital technology that transcends borders within this region. This new ASEAN class are newly wealth-accumulated professionals or SME business owners who have been upgraded from middle-class within the last five years, with the majority of which is under 40 years old. Indeed, digital transformation, early exposure to digital products, and cross-border social media channels created a very homogenous group of citizens²¹. According to the Boston Consulting Group report in 2019, this group shares very similar values and preferences: they all use social media and rely on digital omnichannel for shopping experience; upgrade to premium products that can cater to their sense of exclusivity; and look for brands’ functionality more than just the façade of it. This group is extremely influential as they are projected to account for 20% of the Southeast Asia population combined, with up to 65% of household wealth in Indonesia, Thailand, and the Philippines²². They also grow faster than the middle-class consumer market in the Philippines, Vietnam, Indonesia, and Thailand²³.

Last but not least, ASEAN's vision and current situation of the business environment and entrepreneurship requires the region to establish a strong empirical foundation as a critical first step²⁴. It has been eight years since the publication of “ASEAN Economic Community (AEC)

¹⁹ “GDP Growth (Annual %) - Vietnam | Data,” accessed May 14, 2023, <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=VN>.

²⁰ “‘Mass Affluent’ to Drive Growth in Southeast Asia | WARC,” 2018, <http://www.warc.com/newsandopinion/news/'mass-affluent'-to-drive-growth-in-southeast-asia/41390>.

²¹ Aparna Bharadwaj, Justine Tasiaux, and Vaishali Rastogi, “Beyond the ‘Crazy Rich,’” BCG Global, August 10, 2020, <https://www.bcg.com/publications/2018/beyond-crazy-rich-mass-affluent-southeast-asia>.

²² “Southeast Asia’s Mass Affluent Are the Next Megamarket,” 2019.

²³ “‘Mass Affluent’ to Drive Growth in Southeast Asia | WARC,” 2018, <http://www.warc.com/newsandopinion/news/'mass-affluent'-to-drive-growth-in-southeast-asia/41390>.

²⁴ OECD and Economic Research Institute for ASEAN and East Asia, *SME Policy Index: ASEAN 2018: Boosting Competitiveness and Inclusive Growth*, SME Policy Index (OECD, 2018), <https://doi.org/10.1787/9789264305328-en>.

Blueprint 2025,” with a distinct outlook on growth. Built upon the success of “AEC Blueprint 2015”, its overall vision continues to promote and encourage the main themes of integration and cohesiveness in the region. However, several new directions have been established in this blueprint, especially regarding the scene of micro, small, and medium enterprises (MSMEs).

The aim to create an enabling business environment, thus, has been discussed widely recently²⁵ ²⁶. MSMEs are increasing their position as the most integral form of establishment in ASEAN, with 70 million in ASEAN and accounting for 97.2% to 99.9% of all business activities²⁷. The Economic Research Institute for ASEAN and East Asia (ERIA) has conducted research on business development regarding trade, investment human resource development, and many other prominent topics²⁸.

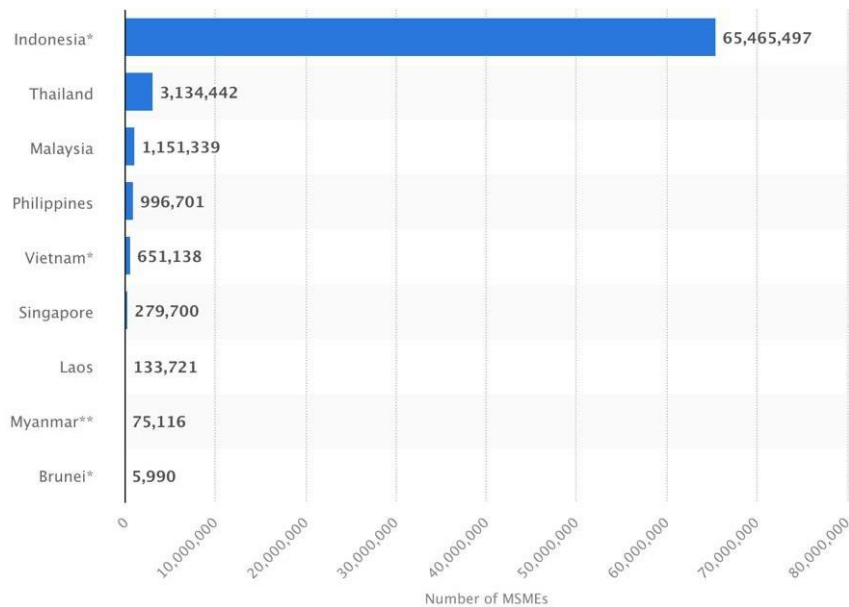
Figure 1 Number of micros, small, and medium-sized enterprises (MSMEs) in Southeast Asia in 2020, by country

²⁵ “Improving the Business Environment in 2022,” 2022, https://mof.gov.vn/webcenter/portal/thtk/pages_r/l/chi-tiet-tin-tin-hoc-va-thong-ke?dDocName=MOFUCM222478.

²⁶ “Policy Insight: Formalisation of Microenterprises in ASEAN,” 2018, <http://www.economica.vn/news/detail/policy-insight-formalisation-of-microenterprises-in-asean/504>.

²⁷ “Development of Micro, Small, and Medium Enterprises in ASEAN (MSME),” ASEAN Main Portal, accessed May 12, 2023, <https://asean.org/our-communities/economic-community/resilient-and-inclusive-asean/development-of-micro-small-and-medium-enterprises-in-asean-msme/>.

²⁸ OECD and Economic Research Institute for ASEAN and East Asia.



(Source: Statista)

With minimal variation within the region, Indonesia tops the list with the greatest number of MSMEs, as they make up for nearly 100 percent of the country’s business scene. This country of nearly 280 million people has a total of more than 65 million MSMEs ²⁹.

Digital transformation also requires a conducive environment that caters to innovation and flexibility ³⁰. This includes policies directing market incentives concerning the efficient allocation of capital, labor, and competition. Indeed, firms learn to adapt to innovation under competitive pressure, which means how a business environment creates a structure of incentives will have a colossal impact on this transformation process ³¹. As a very fast-paced field, digital transformation and innovation entities will also benefit from lower entry barriers, giving young and ambitious companies opportunities to stand on the shoulders of giants ³². In

²⁹ Leander von Kameke, “ASEAN: Share of MSMEs by Country,” Statista, 2022, <https://www.statista.com/statistics/1317161/asean-share-of-micro-small-medium-sized-businesses-by-country/>.

³⁰ Dan Andrews, Giuseppe Nicoletti, and Christina Timiliotis, “Digital Technology Diffusion: A Matter of Capabilities, Incentives or Both?” (Paris: OECD, July 30, 2018), <https://doi.org/10.1787/7c542c16-en>.

³¹ Philippe Aghion et al., “Competition and Innovation: An Inverted-U Relationship*,” *The Quarterly Journal of Economics* 120, no. 2 (May 1, 2005): 701–28, <https://doi.org/10.1093/qje/120.2.701>.

³² Hazel Henderson, “Social Innovation and Citizen Movements,” *Futures* 25 (April 1, 1993): 322–38, [https://doi.org/10.1016/0016-3287\(93\)90140-O](https://doi.org/10.1016/0016-3287(93)90140-O).

summary, policies help facilitate business dynamism by easing access to markets and resources and will create major differences in the digital diffusion of ASEAN.

In conclusion, this region attracts optimism due to its strong grounding in entrepreneurship. Looking forward, how the business environment handles the resources of digital technology, population dividend, and an emergent class of wealth will be translated in either much faster growth or major stagnant for the economy.

4. Research gap

Given the visions, reality, and future of ASEAN, this paper focuses on the relationship between the business environment and its effect on growth in the region. The research question concerns whether a more open entrepreneurial environment will contribute to economic growth in ASEAN. While there are several aspects to be considered with regard to the business environment, from institutions, regulations, and policies to tax administration, this paper focuses on an economic freedom index that captures the big picture of all the aforementioned. On one side, the proxy for the business environment will be the Index of Economic Freedom (IEF) by the Heritage Foundation and Wall Street Journal. On the other side of the equation, the proxy for growth will be the countries' growth rate of GDP per capita. The findings help establish a cornerstone for the body of literature in ASEAN on whether the step towards a more open and liberal economic environment does align with its intended development trajectory. This becomes more urgent as there is limited theoretical frameworks and empirical evidence focusing solely on Southeast Asia, more specifically on ASEAN, regarding this topic.

There are two papers that this research relied on for idea references. The first one is "A study on the impact of economic freedom on economic growth in ASEAN countries". In this paper, Tran also used IEF as a variable of interest and GDP per capita growth rate as the dependent variable. The author used a sample of eight ASEAN from 2000 to 2017³³. However, this paper focused on using the three indicators from the index, while the overall score is vaguely touched

³³ Dung Viet Tran, "A Study on the Impact of Economic Freedom on Economic Growth in ASEAN Countries," 2020, https://ageconsearch.umn.edu/record/301155/files/201910101737_24_BEH_2019_Vol15_Issue3_Vol15_Issue3_DV-Tran_Study_economic_freedom_ASEAN_423-449.pdf.

upon. In a similar vein, the second paper, “The Impact of Economic Freedom on Economic Growth? New European Dynamic Panel Evidence,” used a panel data of 43 European countries from 1995 to 2014. This paper moved to use the entire overall score of IEF as a variable of interest, with a main focus on European countries. This article also included the dummy variable of the European Union (EU) to test the effect of EU membership on economic growth. As the EU is the main theme of the paper, chosen control variables also reflected further characteristics of this region.

Our paper, while sharing some similarities in terms of ideas with these two articles, contributed to the body of works of literature by focusing on ASEAN Member States, with IEF overall score as our main focus, while also extending the timeline from 1998 to 2021 to cover for the effect of Covid in ASEAN. We also control for government expenditure as an independent variable while running a fixed effect model with a robustness check. This distinguishes our paper while respecting the contribution of previous researchers.

In conclusion, this paper's main focus will be the quantified aspects of the business environment on the economic growth of ASEAN Member States.

5. Research question

Empirically, what is the effect of an open business environment on economic growth and development in the ASEAN region in the last 20 years? As a distinct region of turbulent history and different levels of development, can individual Member States all benefit from the current trend of market openness? Are ASEAN visions stated in the Blueprint optimal for regional development? Is this regional development on par with global development? What can we learn to adapt from the world, and what do we need to preserve from our own unique set of situations?

To answer these questions, this study collected secondary data from official sources to construct a panel data series containing yearly growth rates at the country level from 1998 to 2021. The relationship between an open business environment and economic development will then be measured by the regression in which the proxy for the business environment is a variable of interest while the growth rate of GDP per capita is the dependent variable. The

variation explained will be attributed to the different levels of business environment openness both from the country dimension and time dimension.

Our model also controls for several variables that had shown statistically significant effects on growth rate in previous studies: unemployment rate, inflation, government final consumption expenditure, foreign direct investment, and exports rate. We also included a dummy variable of Covid to see if this period had any effect on our sample while controlling for its effect on growth.

Our empirical strategy follows the standard procedure for panel data regression: first, we run a correlation matrix and multicollinearity matrix to eliminate unsuitable variables, then we run Hausman Test to decide between the random effect model and fixed effect model. After the decision, we then run heteroskedasticity and serial correlation tests to further decide on an optimal model. Since our variables show statistically significant results for heteroskedasticity, we finally arrive at a feasible generalized least square (FGLS) model to correct for it.

6. Outline

The rest of the paper will be structured as follow: section II of the Literature review includes both conceptual framework and theoretical framework, with a review of literature, empirical evidence, and the current state of the topic in ASEAN and the world. Section III provides data and methodology, which constitutes the explanation of the data construction process with data collection methods and empirical strategy. Section IV then discusses the interpretation of our regression result, and section V will provide robustness check. Section VI discusses main limitations and section VII conclude the paper with a main conclusion, significant findings, and some policy recommendations.

II. Literature review

As 2025 is approaching, and the AEC Blueprint will have to be concluded, this research aspires to fill in an urgent research gap in ASEAN literature by posing a serious question: Which economic directions should we take from here? Answering this question will help the region reflect on its past efforts while having a grounded understanding of development trajectories in the next ten years. For this reason, the paper narrows the topic into the aspect of business environment and development, which should be captured by a panel of ASEAN countries with

similar histories, cultures, and growth rates throughout the span of 23 years from 1998 until 2021.

1. Definitions

1.1. Definition of business environment

Business environment is a multifaceted and non-homogenous concept with multiple identifications and no official definition^{34 35}. Current literature acknowledges both the importance and the complexity of defining this concept³⁶. Vlachou et al. and Weaver et al. concluded that the concept of “business environment” or “business climate” remains inconclusive and broad, without a concrete grounding^{37 38}. However, the author defined the business environment as “the combination of factors that influence the development of entrepreneurship”. This can be seen as the holistic combination of economic, socio-economic, and political characteristics that surround individual business activities. In a similar vein to the ASEAN MSMEs vision, Weaver et al. defined business environment as the existence of a support system for better creation and growth of small enterprises³⁹.

Notable people in the field also had different definitions of this concept. Wheeler defined this concept as “the total of all things external to firms and industries which affect their organization and operations”⁴⁰. Weimer, meanwhile, stated that “business environment encompasses the

³⁴ Dimitri Uzunidis, “Business Climate and Entrepreneurialism,” in *Encyclopedia of Creativity, Invention, Innovation and Entrepreneurship*, ed. Elias G. Carayannis (New York, NY: Springer, 2013), 143–48, https://doi.org/10.1007/978-1-4614-3858-8_194.

³⁵ Dr Kinange and Nikhil Patil, “BUSINESS ENVIRONMENT: The Concept and A Literature Review,” 2020.

³⁶ Sergii Sardak and Ihor Movchanenko, “Business Environment of Enterprise,” 2018.

³⁷ Charisia Vlachou et al., “The Entrepreneurial Environment in Greek Rural Areas: The Entrepreneur’s Viewpoint,” *Sustainability* 13 (February 5, 2021): 1719, <https://doi.org/10.3390/su13041719>.

³⁸ K Mark Weaver, Eric W Liguori, and George S Vozikis, “Entrepreneur Business Climate Perceptions: Developing a Measure and Testing a Model,” 2011.

³⁹ K Mark Weaver, Eric W Liguori, and George S Vozikis, “Entrepreneur Business Climate Perceptions: Developing a Measure and Testing a Model,” 2011, 45.

⁴⁰ “Meaning and Definition of Business Environment,” BrainKart, accessed May 24, 2023, https://www.brainkart.com/article/Meaning-and-Definition-of-Business-Environment_40856/.

‘climate’ or set of conditions, economic, social, political or institutional in which business operations are conducted”⁴¹.

The concept of “business environment” also expands beyond the word itself, as it has also been used interchangeably with “economic environment” or “economic environment of business” in the “Business Environment: Text and Cases” textbook by Justin Paul. Other terms such as “business climate,” “entrepreneurial climate,” and “entrepreneurial environment” are all similar concepts without defined differences in recent literature⁴². “Business climate” is defined as all macroeconomic indicators accompanied by entrepreneurs’ opinions over the short run⁴³. It is the attitude that government and institutions have towards business undertakings⁴⁴. The Federal Reserve Bank of Minneapolis defined it as “a combination of public services, taxation, and regulation that creates the context within which companies operate”⁴⁵. Meanwhile, “entrepreneurial climate” refers to the external or macro environment surrounding enterprises. This includes both tangible and intangible factors (such as institutions) that affect the success and failure of businesses^{46 47}.

A critical analysis of these definitions brings us to a conclusion that common ground is yet to be established. However, repeated themes and perspectives from several researchers show that

⁴¹ “Concept of Business Environment | PDF | Natural Environment | Society,” Scribd, accessed May 24, 2023, <https://www.scribd.com/document/88232733/Business-Environment>.

⁴² Charisia Vlachou et al., “The Entrepreneurial Environment in Greek Rural Areas: The Entrepreneur’s Viewpoint,” *Sustainability* 13 (February 5, 2021): 1719, <https://doi.org/10.3390/su13041719>.

⁴³ Dimitri Uzunidis, “Business Climate and Entrepreneurialism,” in *Encyclopedia of Creativity, Invention, Innovation and Entrepreneurship*, ed. Elias G. Carayannis (New York, NY: Springer, 2013), 143–48, https://doi.org/10.1007/978-1-4614-3858-8_194.

⁴⁴ “What Is Business Climate | IGI Global,” accessed May 24, 2023, <https://www.igi-global.com/dictionary/corruption-business-climate-and-economic-growth/44784>.

⁴⁵ Brian Dabson; Carl Rist; William Schweke, “Business Climate and the Role of Development Incentives | Federal Reserve Bank of Minneapolis,” accessed May 24, 2023, <https://www.minneapolisfed.org/article/1996/business-climate-and-the-role-of-development-incentives>.

⁴⁶ Weaver, Liguori, and Vozikis, “Entrepreneur Business Climate Perceptions: Developing a Measure and Testing a Model.”

⁴⁷ Fatai Alani Lawal et al., “MODELLING THE RELATIONSHIP BETWEEN ENTREPRENEURIAL CLIMATE AND VENTURE PERFORMANCE: THE MODERATING ROLE OF ENTREPRENEURIAL COMPETENCIES” 24, no. 1 (2018).

economic, social, and institutional (policy, regulations, political environment) conditions are at the center of the business environment definition.

Within the scope of this paper, we define a business environment similar to that of the Heritage Foundation's Index of Economic Freedom. More specifically, we believe the four main themes covered in this index also encompass what we want to convey with the concept of the business environment. These four main themes of Rule of Law, Government Size, Regulatory Efficiency, and Open Markets also correspond to UNIDO's policy, legal, institutional, and regulations definition of the business environment.

1.2. Development definition

The terms economic growth and economic development are sometimes used interchangeably, but they are fundamentally different ⁴⁸. As these concepts are discussed in an extensive body of literature, their definitions are concrete and well-established. Economic growth refers to a quantitative and measured increase in income and national or per capita product. If a country becomes more productive and the national average income increases, we will consider it "economic growth". However, economic development is a broader concept in which economic growth has to be translated into an actual improvement in all aspects of human well-being ⁴⁹.

According to the Cambridge Dictionary, economic development is the process in which an economy grows or changes and becomes more advanced, especially when both economic and social conditions are improved. Indeed, these improvements tend to focus on structural changes that take place in health, education, or urbanization. Furthermore, this development needs to be shared among all citizens. This means the concentration of economic surplus should not be in an elite group while all other groups suffer ⁵⁰. Several countries enjoy economic benefits

⁴⁸ Dwight H Perkins et al., "Economics of Development, accessed May 30, 2023, <https://wnorton.com/books/9780393934359>.

⁴⁹ Economic Recovery and Innovation Ministry of Jobs, "What Is Economic Development? - Province of British Columbia" (Province of British Columbia), accessed May 29, 2023, <https://www2.gov.bc.ca/gov/content/employment-business/economic-development/plan-and-measure/economic-development-basics>.

⁵⁰ Perkins et al., "Economics of Development."

through natural resources yet the traditional social structure remains. This is not considered development. Society for International Development defined development as the process of quality change and a continuation of conditions for that change ⁵¹. In conclusion, there are three pillars of development: economic growth, structural transformation, and well-being.

Within the scope of this study, we acknowledge the broadness of development, while narrowing it down for research efficiency. Thus, we decide to see development as an improvement in the standard of living and the health of an economy. This captures the essence of these terms while simplifying it to find one suitable proxy. GDP per capita has been chosen as this figure has been used as a result since it has been used by researchers extensively when analyzing the topic of life quality ⁵². Furthermore, this figure has also been used by economists as a proxy for the state of an economy ⁵³. Together, GDP per capita, though not perfect, fully delivers the message we want for this study.

2. The index

2.1. Advantages

We chose this index mainly for its efficient capturing of the business environment in a holistic approach, both thematically and technically, and its alignment with AEC visions in the past and the future.

Firstly, this index captures the essence of business environment of a country in the most quantitative manners ⁵⁴. While there are other attempts to capture this same factor, namely the World Bank's Doing Business Ranking (DBR) or the World Economic Forum's Global

⁵¹ "What Is Development?," *Sid Israel - Society for International Development* (blog), February 16, 2021, <https://sid-israel.org/en/what-is-development/>.

⁵² Mary Hall, "How Does GDP Affect the Standard of Living?," Investopedia, 2021, <https://www.investopedia.com/ask/answers/060115/how-does-gross-domestic-product-gdp-affect-standard-living.asp>.

⁵³ "Gross Domestic Product (GDP) per Capita and GDP per Capita Annual Growth Rate," accessed May 30, 2023, [https://www.who.int/data/nutrition/nlis/info/gross-domestic-product-\(gdp\)-per-capita-and-gdp-per-capita-annual-growth-rate](https://www.who.int/data/nutrition/nlis/info/gross-domestic-product-(gdp)-per-capita-and-gdp-per-capita-annual-growth-rate).

⁵⁴ "Business Environment Indicators."

Competitiveness Index (GCI), IEF offers a different perspective and strong quantitative measurement of the degree that individuals can function freely in an economy, which includes the freedom to produce, consume, and invest. This index also accounts for the macroeconomic elements of a nation, which helps provide a more holistic outlook, though compressed into one number. Furthermore, IEF also helps convert qualitative data into quantitative numbers for better calculation, with a transparent methodology and grading scheme. In comparison, GCI mostly deals with surveys, and DBR mainly manages local practitioners' responses. We will be more technically dissecting each of its components in detail in the Data & Methodology section.

From a practical standpoint, this index is suitable for serving as a proxy for the business environment from a political economy perspective. By definition, this index “focuses on four key aspects of the economic and entrepreneurial environment over which governments typically exercise policy control”⁵⁵. In fact, IEF also includes both key macroeconomic indexes and the country's historical and political context. In doing so, this index equips researchers with timely information on both the political risks and economic reforms⁵⁶. Through this index, we have a better grasp into the country's risks regarding inflation, taxation, tariffs, and especially property rights enforcement. This index also provides detailed public policy elements that are translated into business' everyday activities: how free entrepreneurship activities take place, what the nation's priorities are, and which direction of business openness is being encouraged.

From a technical standpoint, the four aspects covered by this index, namely the rule of law, government size, regulatory efficiency, and open markets, deeply affect business functions and can be viewed as the business environment as defined in section 1.1. Indeed, these four pillars directly affect a business's operations, profitability, and sustainability⁵⁷. This strengthens our decision to choose IEF as a proxy for the business environment in the world context. Olson,

⁵⁵ “2023 Index of Economic Freedom | The Heritage Foundation,” accessed May 22, 2023, <https://www.heritage.org/index/about>.

⁵⁶ Ryan Olson, “Using the Index of Economic Freedom: A Practical Guide,” The Heritage Foundation, 2014, <https://www.heritage.org/international-economies/report/using-the-index-economic-freedom-practical-guide>.

⁵⁷ Ryan Olson, “Using the Index of Economic Freedom: A Practical Guide,” The Heritage Foundation, 2014, <https://www.heritage.org/international-economies/report/using-the-index-economic-freedom-practical-guide>.

2014 further emphasizes how this index can help depict a great picture for business leaders and policy-makers trying to research into any country's market.

Secondly, the ASEAN trajectory and visions from Economic Community Blueprint 2025 are all measured in this index. From its name, this Blueprint acts as a guiding principle with its overarching vision of cultivating optimal business and economic environment, as stated as follows:

“In the next decade, ASEAN will also provide a new emphasis on the development and promotion of micro, small and medium enterprises (MSMEs) in its economic integration efforts. At the same time, ASEAN will likewise embrace the evolving digital technology as leverage to enhance trade and investments, provide an e-based business platform, promote good governance, and facilitate the use of green technology”⁵⁸.

We now compare the building of 12 indicators of IEF with ASEAN economic goals from ASEAN Economic Community Blueprint 2025 to understand their relevance and similar groundings further.

First, IEF's business freedom and ASEAN's effective competition policy share very similar focus. While the IEF business freedom score measures the efficiency of business regulations, ASEAN Blueprint emphasizes the strengthening of regulatory practices and frameworks that encourage a dynamic landscape in the region. We understand the macro-level effect of ASEAN's vision of creating a more level playing field for Member States to compete and operate with ease⁵⁹. Meanwhile, IEF also takes into consideration the closing of business, as this procedure might also affect the business freedom perception of the public⁶⁰.

Second, IEF's financial freedom measurement well reflects the essence of ASEAN's financial integration, financial inclusion, and financial stability vision. According to the Heritage, IEF's

⁵⁸ “ASEAN Economic Community Blueprint 2025.”

⁵⁹ “ASEAN Economic Community Blueprint 2025.”

⁶⁰ “Business Freedom Index: Regulations on Starting & Operating a Business,” accessed May 21, 2023, [//www.heritage.org/index/business-freedom](http://www.heritage.org/index/business-freedom).

financial freedom score is defined as the degree of independence of the financial sector from the government. This includes banking efficiency and other financial services such as insurers. A free financial system, thus, is the absence (or limitations) of a state-owned banking system, central supervision, and regulations. This also means the credit system is fully market-oriented, and foreign financial institutions can enter the market without any barrier ⁶¹. ASEAN acknowledges this reform of the financial sector with one of its three pillars revolving around Capital Account Liberalization. This liberalization focuses on the intra-ASEAN market with an integrated and connected system that is built upon regulatory cohesiveness. This connectedness will enhance greater capital flows among Member States. However, ASEAN liberalization still requires a level of commitment and consistency with each nation's agenda and its level of readiness. Regardless, protection measures are still to be taken very seriously ⁶².

Third, ASEAN's good governance focus is reflected in IEF's government integrity score. ASEAN acknowledge the significance of good governance and has started incorporating these practices into its regional agenda. The region focuses on promoting transparency in the public sector, as well as the synergies of business and government. We can say that by bridging the gap between public and private sectors, more engagement will also be established, which help cultivate a catalyst for good governance practices ⁶³. In parallel, IEF's government integrity indicator tries to capture the degree of corruption in a country, as the level of corruption signifies the absence of transparency within a nation ⁶⁴.

Fourth, IEF's investment freedom score well captures the ASEAN investment environment prospect of being a globally recognized investment hub. As ASEAN strives to build a transparent and predictable investment regime to accelerate the region's attractiveness, transparency in regulations and investment laws are being emphasized as a key pillar.

⁶¹ "Financial Freedom: Banking Efficiency and Economic Freedom," accessed May 22, 2023, <https://www.heritage.org/index/financial-freedom>.

⁶² "ASEAN Economic Community Blueprint 2025."

⁶³ "ASEAN Economic Community Blueprint 2025."

⁶⁴ "Government Integrity: Index of How Corruption Affects Economic Freedom," accessed May 22, 2023, <https://www.heritage.org/index/freedom-from-corruption>.

Furthermore, investment restrictions and hardship will be supervised for more flexible implementation ⁶⁵. In parallel, IEF's investment freedom indicator carefully examines every aspect of investment, domestically and internationally. As per definition, an economically free nation will have a free flow of investment capital. In reality, certain form of restrictions and regulations are imposed to protect countries from investment risks. However, to what extent these protections are being executed, and which level of transparency that they are being implemented under will be critically graded by IEF ⁶⁶.

Fifth, IEF's judicial effectiveness score perfectly matches ASEAN's target of effective, efficient, coherent and responsive regulations and good regulatory practice. As IEF emphasizes on building a fair and functional framework protecting all citizens, ASEAN also pays attention to a "non-discriminatory, pro-competitive, effective, coherent and enabling" regulatory regime ⁶⁷. Furthermore, the region ensures forward-looking structure and designs, aligning Member States' practices with global standard ⁶⁸.

Sixth, the direction toward labor freedom receives similar emphasis from both IEF and ASEAN. While IEF puts more focus on regulations on wages, hiring procedures, working hours, and employment opportunities, ASEAN highlights the ease of talent movement and capacity building by providing a shared qualification framework AQRF ^{69 70}.

Seventh, property rights protection is well addressed in both the IEF indicator and ASEAN Blueprint. In fact, intellectual property (IP) is acknowledged as the cornerstone for the ASEAN Member States to move up the ladder of technological development. Indeed, innovation

⁶⁵ "ASEAN Economic Community Blueprint 2025."

⁶⁶ "Investment Freedom: Investment Capital Flow and Economic Freedom," accessed May 22, 2023, <https://www.heritage.org/index/investment-freedom>.

⁶⁷ "2023 Index of Economic Freedom | The Heritage Foundation," accessed May 22, 2023, <https://www.heritage.org/index/about>.

⁶⁸ "ASEAN Economic Community Blueprint 2025."

⁶⁹ "ASEAN Economic Community Blueprint 2025."

⁷⁰ "Labor Market: Flexibility, Economy from the Index of Economic Freedom," accessed May 22, 2023, <https://www.heritage.org/index/labor-freedom>.

stimulation relies on a high degree of trust for transfer of technology. Thus, ASEAN has set goals to strengthen the development of IP offices with the key improvement of services in industrial designs, patents, and trademarks. Patent treaties, protocols, and agreements are also discussed as prominent initiatives to smoothen the IP network in the region. Moreover, regional platforms with technology transfer offices and linking virtual IP marketplaces are also suggested to leverage shared efforts among Member States, which can lead to an ecosystem in the long run ⁷¹. IEF shares the same perspective on the significance of IP while looking at the extent national legal system allows for the private acquisition, holding, and utilization of properties. They also analyze specifically the strength of these laws in effect and the degree of respect that it receives. This reception can be scrutinized while inquiring into the likelihood that private property can be expropriated by the government ⁷².

Eighth, ASEAN taxation cooperation targets and IEF tax burden score share similar views on easing the burden on taxpayers. However, IEF focuses more on measuring the burden reflected through top marginal rates for both individual and corporate income. They also account for this burden by measuring the relativity of tax rate in comparison with GDP ⁷³. ASEAN takes a more forward-thinking direction by leveraging concerted efforts to reduce the effect of double taxation on citizens. This includes improving the current stage of information exchange amongst Member States and testing the global taxpayers' identification strategy. The region also pays attention to excise tax as a good source for better fiscal health⁷⁴.

Ninth, trade freedom, the heart of discussion in economic liberalization, is being critically examined by both IEF and ASEAN. Acknowledging the positive effect of a greater free flow of goods, ASEAN emphasizes continued efforts to eliminate tariffs in the region with ASEAN Trade in Goods Agreement (ATIGA). This goes beyond border barriers, as behind-the-border regulation is also being carefully considered. Some key strategies for a seamless regional

⁷¹ "ASEAN Economic Community Blueprint 2025."

⁷² "Property Rights: Definition, Economic Growth, Index, Examples," accessed May 23, 2023, <https://www.heritage.org/index/property-rights>.

⁷³ "Tax Burden: How Tax Burden Affects Economic Freedom," accessed May 23, 2023, <https://www.heritage.org/index/fiscal-freedom>.

⁷⁴ "ASEAN Economic Community Blueprint 2025."

movement include strengthening current free trade agreements; simplifying administration processes of import, export, and customs procedures; minimizing compliance costs of Non-Tariff Measures (NTMs); strengthening relationship with the private sector to prioritize optimal procedures that are business-friendly ⁷⁵. IEF measure exactly the average tariff rate and nontariff barriers (NTBs) accordingly ⁷⁶.

Table 1 The relevance of Index of Economic Freedom's indicators and ASEAN vision from ASEAN Economic Community Blueprint 2025

Economic Freedom Indicators	ASEAN Economic Community Blueprint 2025 visions
Business Freedom	B.1. Effective Competition Policy
Financial Freedom	A.4. Financial Integration, Financial Inclusion, and Financial Stability
Fiscal Health	
Government Integrity	B.6. Good Governance
Government Spending	
Investment Freedom	A.3. Investment Environment
Judicial Effectiveness	B.7. Effective, Efficient, Coherent and Responsive Regulations, and Good Regulatory Practice
Labor Freedom	A.5. Facilitating Movement of Skilled Labor and Business Visitors
Monetary Freedom	
Property Rights	B.3. Strengthening Intellectual Property Rights Cooperation
Tax Burden	B.5. Taxation Cooperation
Trade Freedom	A.1. Trade in Goods

(Source: Author)

⁷⁵ “ASEAN Economic Community Blueprint 2025.”

⁷⁶ “Trade Freedom: Tariffs, Imports, Exports, and Economic Freedom,” accessed May 23, 2023, [//www.heritage.org/index/trade-freedom](http://www.heritage.org/index/trade-freedom).

2.2. Limitation of the data

However, we acknowledge the limits of IEF in its calculation method. IEF relies on the World Bank's Ease of Doing Business (EDB) in calculating one of its 12 elements: the business freedom scores⁷⁷. We understand that World Bank's data manipulation scandal discredits the legitimacy of this index, and we should find an alternative option⁷⁸. However, finding the best alternative has not been an easy task, as EDB has been used as the reference for all related indices measuring the business environment. However, we still decided to use IEF as it only uses one score in related to EDB. The other 11 elements have been transparently compiled without any issues.

3. The conceptual framework of business environment on development

Business environment has been discussed extensively in management studies and, more recently, entrepreneurship research as its role in innovation and economic growth has been recognized^{79 80}. Some researchers believe that governments, through public policies, should cultivate a sustainable and healthy business environment as this will help countries reach long-term economic development⁸¹.

⁷⁷ "Trade Freedom: Tariffs, Imports, Exports, and Economic Freedom," accessed May 23, 2023, [//www.heritage.org/index/trade-freedom](http://www.heritage.org/index/trade-freedom).

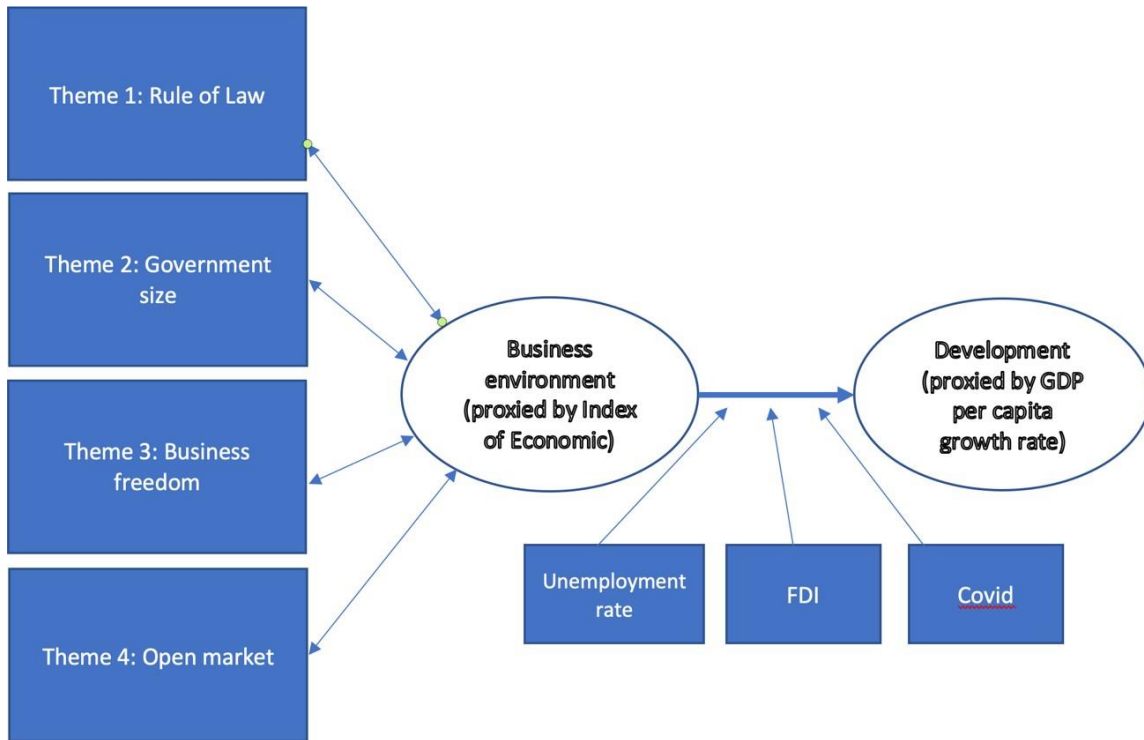
⁷⁸ "Assessing Performance on the Access to Credit, Business Start-Up, and Land Rights and Access Indicators | Millennium Challenge Corporation," accessed May 21, 2023, <https://www.mcc.gov/who-we-select/indicators/doing-business-indicators-fy21>.

⁷⁹ Vlachou et al., "The Entrepreneurial Environment in Greek Rural Areas."

⁸⁰ David L. Barkley, Mark Henry, and Doohee Lee, "Innovative Activity in Rural Areas: The Importance of Local and Regional Characteristics," *Community Development Innovation Review*, no. 3 (2006): 1–14.

⁸¹ Vlachou et al., "The Entrepreneurial Environment in Greek Rural Areas."

Figure 2 Conceptual framework



(Source: Author)

4. Theoretical framework and empirical evidence

This paper aims to highlight the significance of the business environment on growth. To realize this goal, we have established concrete definitions of the business environment and growth with quantifiable elements. A theoretical framework will now be developed to test this relationship, its direction, and its strength, followed by empirical evidence.

4.1. Business environment and development using Ease of Business (EOB)

In recent years, the application of the World Bank's ease of doing business (EOB) has been found in research with important findings, especially in the field of economic development. Even though we acknowledge their most recent problems and discontinuity, it is vital we

critically analyze papers that have adopted this index in the past to fully understand the current stage of the theoretical framework within this topic.

EOB has shown a consistent pattern and effect on two major proxies for growth, namely Foreign Direct Investment (FDI) and GDP per capita growth rate. While Vogiatzoglou emphasizes there exists such a relationship between the effectiveness of business regulations and FDI attraction⁸², Adeoju states that EOB has an impact on the annual growth rate of GDP per capita, even though it is more statistically significant at the subsamples level⁸³. Indeed, both papers iterate that future economic growth requires a more business-friendly framework and regulations. The channel through which EOB affects growth and FDI can be examined in a more detailed level of efficiency in regulating the starting and closing of a business, trade, and taxation system⁸⁴. A more recent study by Datta & Verma finds that there are four pillars that generate the most impact on growth namely: starting a business, property rights, investor protection, and trading across borders⁸⁵.

However, EOB also shows the mixed result when Moorthy examines its impact from a more macro perspective, and Adepoju separates countries into different groups with different level of income and development^{86 87}. The robustness hence has been questioned.

In Asia, even though limited, attempts to test this relationship also show how EOB has significant effect on GDP per capita growth, in which more than eighty percent of economic growth variation can be explained simply by the changes in EOB's indicators. Indeed, the channel here is construction permits, credit access, property rights, and trading across border

⁸² Klimis Vogiatzoglou, "Ease of Doing Business and FDI Inflows in ASEAN," *Journal of Southeast Asian Economies* 33, no. 3 (2016): 343–63.

⁸³ Uthman K Adepoju, "Ease of Doing Business and Economic Growth," 2017.

⁸⁴ Vogiatzoglou, "Ease of Doing Business and FDI Inflows in ASEAN."

⁸⁵ Ankita Datta and Aastha Verma, "Understanding the Effects of Ease of Doing Business on Economic Growth and Development," 2020, <http://repository.iimb.ac.in/handle/2074/19420>.

⁸⁶ Vivek Moorthy, "Links between Ease of Doing Business and Growth," 2017, <http://repository.iimb.ac.in/handle/2074/14165>.

⁸⁷ Adepoju, "Ease of Doing Business and Economic Growth."

⁸⁸. Specifically, EOB can also be leveraged to identify countries' socioeconomic wealth, proving a causal relationship between the entrepreneurship environment and the wealth of nation ⁸⁹. In this paper, the role of free trade is further elaborated as being significant to a nation's wealth level. In the same vein, Islam proves that the increase in EOB will be translated to national competitiveness ⁹⁰. Further research into the country-specific level of the Philippines and Malaysia emphasizes how EOB can be an encouraging "tool" for the success of a nation's entrepreneurship environment. Overall, there are several channels and aspects through which EOB exercises its effect on development.

4.2. Business environment, economic freedom, economic freedom indexes and development

The challenge to define and find a proxy for the business environment while replacing the EOB index led this study to carefully scrutinize indexes and literature in the sphere of economic freedom. While IEF shows optimal relevancy to our study as the general definition of economic and business environment are closely related, it is imperative we acknowledge the depth and intertwinement of literature in the sphere of economic and business freedom and all other indexes of the same umbrella. The concept of economic freedom and business environment has several definitions and a huge body of research with major efforts dedicated to quantifying exactly what constitutes of it. With different philosophical groundings, constructions, angles, and mediators being carefully examined, this very concept has shown robust result on growth in the last decade.

One of the earliest attempts to quantify economic freedom and business environment was of Easton and Walker in 1992. Utilizing this index, Islam tested the relationship between scoring

⁸⁸ G. Ani Teodorica, "Effect of Ease of Doing Business to Economic Growth among Selected Countries in Asia," *Asia Pacific Journal of Multidisciplinary Research*, January 1, 2015, https://www.academia.edu/41968943/Effect_of_Ease_of_Doing_Business_to_Economic_Growth_among_Selected_Countries_in_Asia.

⁸⁹ Antonio L. Leal-Rodríguez and Carlos Sanchís-Pedregosa, "Could the Ease of Doing Business Be Considered a Predictor of Countries' Socio-Economic Wealth? An Empirical Analysis Using PLS-SEM," *Journal of International Studies* 12, no. 4 (2019): 229–43.

⁹⁰ Azwardi Azwardi and Wahyu Aji Wijaya, "CORRUPTION, EASE OF DOING BUSINESS, FOREIGN DIRECT INVESTMENT, AND COMPETITIVENESS IN ASEAN COUNTRIES," *Integrated Journal of Business and Economics* 6, no. 3 (October 31, 2022): 185–97, <https://doi.org/10.33019/ijbe.v6i3.492>.

high with this index and the national growth rate ⁹¹. The result shows there exists a direct relationship between them in high-income and all countries in the sample. This is not the only paper confirming a positive relationship of the economic freedom index. In fact, a majority of them stated how there is a direct link between the economic and business environment (and its indexes) with the annual per capita growth rate ^{92 93 94}.

The second prominent and commonly applied quantitative measure for economic and business freedom is the Fraser Institute's Economic Freedom of the World (EFW) index. Asking the question of "Does Really Economic Freedom Matter for Growth in South Asia, Nadeem et al. found concrete empirical evidence and positive direction from economic freedom and GDP per capita growth ⁹⁵. Akin et al. argued that while there exists a statistically significant and positive correlation between economic freedom and economic growth, the strength of this effect varies as the lower-middle income group receives more contribution from a free environment ⁹⁶. Nevertheless, all levels of economic freedom still benefit from this openness. Discovering the relationship in-depth, Faria & Montesinos found a robust pathway from economic openness to prosperity and proposed the least risky way to economic development should be ignited through better policies to cater to these findings ⁹⁷. Kacprzyk further explored the relationship by testing each indicator from the index and found property rights, monetary policy quality,

⁹¹ Sadequl Islam, "Economic Freedom, per Capita Income and Economic Growth," *Applied Economics Letters* 3, no. 9 (September 1, 1996): 595–97, <https://doi.org/10.1080/135048596356032>.

⁹² Islam.

⁹³ Saima Sarwar and Noor ul Haq, "Re-Assessing Political, Social and Economic Determinants of Economic Growth: An Analysis from Selected Asian Developing Economies," *Journal of Emerging Economies and Islamic Research* 5, no. 1 (January 31, 2017): 82–92, <https://doi.org/10.24191/jeeir.v5i1.8798>.

⁹⁴ Kandi Dwi Pratiwi and Ika Yuni Wulansari, "Economic Globalization in Asean Countries: A Panel Cointegration Analysis," *Economics Development Analysis Journal* 11, no. 4 (December 18, 2022): 425–41, <https://doi.org/10.15294/edaj.v11i4.56323>.

⁹⁵ Muhammad Nadeem et al., "Does Really Economic Freedom Matter for Growth in South Asia? Empirical Evidences from Pre-Economic Crises and Post-Economic Crises Period," *Asian Economic and Financial Review* 9, no. 1 (January 2, 2019): 52–63, <https://doi.org/10.18488/journal.aefr.2019.91.52.63>.

⁹⁶ Cemil Serhat Akin, Cengiz Aytun, and Başak Gül Aktakas, "The Impact of Economic Freedom upon Economic Growth: An Application on Different Income Groups," *Asian Economic and Financial Review* 4, no. 8 (2014): 2.

⁹⁷ Hugo J. Faria and Hugo M. Montesinos, "Does Economic Freedom Cause Prosperity? An IV Approach," *Public Choice* 141, no. 1 (October 1, 2009): 103–27, <https://doi.org/10.1007/s11127-009-9440-0>.

freedom to trade, and regulatory framework as the four key aspects of economic freedom that translate into growth. From this finding, the author confirms the significant and positive impact that a free environment has on European economic development, highlighting the biggest impact found in enhancing property rights protection ⁹⁸.

However, the application of EFW also reveals intriguing findings by Weede that there might be underlying characteristics that direct the strength of this relationship ⁹⁹. The level of prior economic development and the existing human capital of the nation itself might play into the mechanism. The author also proposed a new lens to dissect the matter within a global context: economic freedom has a massive spillover effect, as all countries are indirectly taking advantage of it, not only those directly benefiting.

Last but not least, using Heritage Foundation's IEF, several authors have presented interesting results on the relationship between economic and business environment on growth. Heckel explored whether there is a causal relationship between them and found that the level of freedom measured by the index can be a good predictor for growth ¹⁰⁰. The Granger-causality tests certainly suggest Capital Flows, Property Rights, and Regulation precede growth and not the other way around. However, researchers also found that this effect might also be seen in the long term. As a recent paper by Pratiwi & Wulansari suggests, several factors must first be met for this impact to be visible ¹⁰¹. Applying panel data cointegration analysis on ASEAN, this study tested the effect of globalization proxied by ICT, economic freedom, and economic openness. While ICT and economic openness showed immediate results in growth, economic freedom required zooming out of the timeline to fully be accounted for. Similar results can be found in a paper by Brkić et. al with a sample of European countries in panel data ¹⁰².

⁹⁸ Andrzej Kacprzyk, "Economic Freedom–Growth Nexus in European Union Countries," *Applied Economics Letters* 23, no. 7 (May 2, 2016): 494–97, <https://doi.org/10.1080/13504851.2015.1083076>.

⁹⁹ Erich Weede, "Economic Freedom and Development: New Calculations and Interpretations," *Cato Journal* 26 (2006): 511.

¹⁰⁰ Jac C. Heckelman, "Economic Freedom and Economic Growth: A Short-Run Causal Investigation," *Journal of Applied Economics* 3, no. 1 (May 1, 2000): 71–91, <https://doi.org/10.1080/15140326.2000.12040546>.

¹⁰¹ Pratiwi and Wulansari, "Economic Globalization in Asean Countries."

¹⁰² Ivana Brkić, Nikola Gradojević, and Svetlana Ignjatijević, "The Impact of Economic Freedom on Economic Growth? New European Dynamic Panel Evidence," *Journal of Risk and Financial Management* 13, no. 2 (February 2020): 26, <https://doi.org/10.3390/jrfm13020026>.

Increases in economic freedom proxied by Heritage Foundation's Index are correlated with growth regardless of its level. In the same vein, results from BRICS and Latin America Countries samples also showed concrete evidence. Explaining the relationship's mediator in the BRICS sample, Haydaroglu found that economically free governments and institutions undertake opportunities to enhance the national quality of life and reduce poverty in emerging economies ¹⁰³. The aggregate effect of IEF on growth once again confirms its vitality to any developing country. In the Latin American countries sample, Bengoa & Sanchez-Robles entangled the relationship with panel data analysis and found that the channel through which economic freedom manifested its effect on growth is FDI ¹⁰⁴. The quality of FDI that a country attracts will be vital to its developing stage. Indeed, the case study from Vietnam confirms this relationship at 5% significant level while the case study from the ASEAN sample also shows a significant relationship ^{105 106}.

Another prominent paper using Heritage Foundation's Index is "A Study on the Impact of economic freedom on economic growth in ASEAN Countries". While testing for the relationship between economic and business freedom indicators and growth, the author found several insights into the mechanism that underlies it. Which, higher financial liberalization is seen to have a positive effect on the growth of its association with direct money transfer and foreign investment. These streams of capital, in turn, will stimulate economic growth and translate into long-term development. The author also found that labor freedom increases growth, as lower regulation frameworks on wages, working hours, and labor force participation give employers and employees a window of flexibility. Aligning with AEC Blueprint on

¹⁰³ Ceyhun Haydaroglu, "The Effect of Foreign Direct Investment and Economic Freedom on Economic Growth: The Case of BRICS Countries," *Research in World Economy* 7 (March 7, 2016), <https://doi.org/10.5430/rwe.v7n1p1>.

¹⁰⁴ Marta Bengoa and Blanca Sanchez-Robles, "Foreign Direct Investment, Economic Freedom and Growth: New Evidence from Latin America," *European Journal of Political Economy* 19, no. 3 (September 2003): 529–45, [https://doi.org/10.1016/S0176-2680\(03\)00011-9](https://doi.org/10.1016/S0176-2680(03)00011-9).

¹⁰⁵ Nguyen Huu Cung and Nguyen Thi Hong Nhung, "Impact of Economic Freedom and Corruption Perceptions Index on Foreign Direct Investment in Vietnam," *European Scientific Journal ESJ* 16, no. 10 (April 30, 2020), <https://doi.org/10.19044/esj.2020.v16n10p25>.

¹⁰⁶ Tran, "A Study on the Impact of Economic Freedom on Economic Growth in ASEAN Countries."

lowering the trade barriers through the reduction of tariffs and nontariff, the result also shows a positive effect of trade freedom in the region.

However, this paper by Tran also records worth-noting insights: financial freedom and credit to the private sector do not necessarily hold a positive relationship on economic development in ASEAN¹⁰⁷. This can be explained through the lens of risk management: credit to the private sector might have an unwanted linkage to the increase in overall risk within an economy.

The idea to combine both Heritage Foundation and Fraser Institute Indexes for a more objective outlook on the matter has been realized by Mimoun & Essaggay¹⁰⁸. The authors also explored both the aggregate and disaggregated versions of these indexes, as this implementation will provide insights into the most efficient policy recommendation for assured growth. Indeed, property rights, efficiency in government spending, flexible regulations, business freedom, and investment are once again confirmed as major sources for growth, proxied by the total factor of production. In fact, the index itself can explain up to 72 percent difference across regions for GDP per worker and up to 65 percent of the total factor of production. This finding confirms the weight of the economic and institutional environment's influence on cross-countries different levels of development.

Further research into economic and business freedom influence also shows a strong nexus of economic freedom-FDI and growth. In ASEAN, Ansari & Sensarma found that economic freedom can, in fact, be the channel through which FDI fully exercises its effect on growth, alongside improvement in human capital quality and financial institutions¹⁰⁹. A bigger sample of South Asia, East Asia, Latin America, and North and West Europe contributes to the robustness of this result. This mechanism can also be explained as macroeconomic factors from economic freedom help attract FDI, and this liberalization further enhances the FDI inflow in

¹⁰⁷ Tran.

¹⁰⁸ Mohamed Mimoun and Ali Essaggay, "Economic Freedom, TFP and Growth: Comparative Analysis of GCC and East Asian Newly Industrialized Economies (NIEs)," *INTERNATIONAL JOURNAL OF RESEARCH IN LAW ECONOMIC AND SOCIAL SCIENCES* 4 (March 1, 2018).

¹⁰⁹ Md. Gyasuddin Ansari and Rudra Sensarma, "Does Economic Freedom Influence the FDI–Growth Nexus in ASEAN Economies?," *Journal of Asian Economic Integration* 4, no. 2 (September 1, 2022): 144–59, <https://doi.org/10.1177/26316846221112228>.

the long run. Once again, a trade openness policy with relaxed tariff and export procedures create an investment-friendly environment that directly boosts the FDI inflow ¹¹⁰. Another paper by Azman-Saini et al. helps explain the mechanism on which this relationship fully expands: the degree of effect from FDI is based upon the level of economic freedom in the country as countries with a higher level of freedom also gain more when multinational cooperations enter ¹¹¹. This means FDI itself does not directly cause growth but a country's own characteristics. The authors, thus, emphasized the significance of policies that help mediate the full effect of FDI. Since the effect of economic freedom is both direct and indirect, the government is encouraged to fully account for positive spillovers of foreign investment.

In summary, economic freedom indexes and their key constituents of property rights, legal framework, regulations, trade freedom, and investment freedom show a robust and positive result on growth regardless of the index being used.

However, economic freedom on growth receives massive criticism by Singh & Gal ¹¹². The author argued how literature had been tainted strongly in favor of economic freedom with massive publication bias, making it challenging to decipher their true effect. Echoing this view is Doucouliagos & Ulubasoglu applied meta-analysis and panel data analysis and found a specification bias when controlling for physical capital ¹¹³.

¹¹⁰ Devesh Singh and Zoltán Gal, "Economic Freedom and Its Impact on Foreign Direct Investment: Global Overview," *Review of Economic Perspectives* 20, no. 1 (March 1, 2020): 73–90, <https://doi.org/10.2478/revecp-2020-0004>.

¹¹¹ W. N. W. Azman-Saini, Ahmad Zubaidi Baharumshah, and Siong Hook Law, "Foreign Direct Investment, Economic Freedom and Economic Growth: International Evidence," *Economic Modelling* 27, no. 5 (September 1, 2010): 1079–89, <https://doi.org/10.1016/j.econmod.2010.04.001>.

¹¹² Devesh Singh and Zoltán Gal, "Economic Freedom and Its Impact on Foreign Direct Investment: Global Overview," *Review of Economic Perspectives* 20, no. 1 (March 1, 2020): 73–90, <https://doi.org/10.2478/revecp-2020-0004>.

¹¹³ Chris Doucouliagos and Mehmet Ali Ulubasoglu, "Economic Freedom and Economic Growth: Does Specification Make a Difference?," *European Journal of Political Economy* 22, no. 1 (March 1, 2006): 60–81, <https://doi.org/10.1016/j.ejpoleco.2005.06.003>.

5. Research gap

Sourcing through the literature, we understand there is a lack of literature on the ASEAN business environment and growth. This is alarming, especially given the new Blueprint that requires in-depth policy aligning with the long-term vision of the regions.

6. Conclusion

This chapter has established a foundation of definitions, scope, and theoretical relationship of the business environment and growth. A panel data of 8 ASEAN countries with a span of 23 years (from 1998 to 2021) has been collected to leverage both the cross-sectional and time-series dimensions. The following chapter on Data and Methodology will help us clarify the strength and limitations of this choice.

III. Data & Methodology

1. Data

1.1. Data description

This study uses a panel data with unbalanced observations, in which 8 Member States of ASEAN will be followed from 1998 until 2021. There, are two reasons we choose these countries and time periods: data availability and the timeline legitimacy of the region. While ASEAN consists of 10 Member States, there is limited data availability for Brunei Darussalam and Myanmar. 1998 was chosen as the start of the timeline so that the effect of the 1997 Asian financial crisis would not be included and confound the result.

We want to include credit to the private sector and literacy rate as control variables. However, due to data missing problems, we cannot include them in the model.

Table 2 Description of variables

Abbreviation	Unit	Description	Source
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		Dependent variable	
gdppcgrowth	annual %	GDP per capita growth	World Bank national accounts data, and OECD National Accounts data files.
		Variable of interest	
overallscore	Estimate	The degree of economic freedom in the world's nations	The Heritage Foundation and Wall Street Journal
		Control variables	
unemployment	% of total labor force	Unemployment, total (modeled ILO estimate)	International Labor Organization
fdi	% of GDP	Foreign direct investment, net inflows	International Monetary Fund, International Financial Statistics and Balance of Payments databases, World Bank, International Debt Statistics, and World Bank and OECD GDP estimates.
export	% of GDP	Exports of goods and services	World Bank national accounts data, and OECD National Accounts data files.
covid	dummy variable	Time when ASEAN receives effect from the global pandemic	Self-constructed

	= 1 in 2020 and 2021 = 0 otherwise		
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(Source: author)

1.2. Data limitations

The data is unbalanced and requires econometric techniques to account for it.

2. Constructing variables and theoretical background

2.1. Dependent variable

GDP per capita growth rate: “Annual percentage growth rate of GDP per capita based on constant local currency. GDP per capita is gross domestic product divided by midyear population. GDP at purchaser's prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources.”

2.2. Variable of interest

“Overallscore” is the Index of Economic Freedom (IEF) discussed during the conceptual framework of our literature review. We now take a more detail-oriented analysis with and ask: why is this index suitable for the measuring of the environment of business activities? By critically examining each theme within this index and their relevant literature, we will be able to confirm that this index is the most optimal measurement of our notion of the “business environment.”

The first theme of IEF is the Rule of Law, which consists of Property Rights, Judicial Effectiveness, and Government Integrity. This theme will be discussed in depth as inconclusive

findings in literature paved the way for major discussion. The second, third, and fourth themes receive more consensus and will be touched upon with the most prominent points.

The mechanism through which the rule of law and its components influence economic growth is the efficient structures that create a positive exogenous environment. Also, the rule of law increases the transparency and trust in society, which in turns multiply the reliability of an economy. Indeed, the rule of law has shown a positive effect in a sample of developed countries, in which any percentage increase in the rule of law will lead to an increase in income per capita ¹¹⁴. A strong foundation of the rule of law was proven to improve the healthcare sector, education and alleviate poverty. Governments around the globe have shown active efforts to increase their rankings within this subject matter ¹¹⁵.

However, the rule of law also receives the most criticism for the way it was formulated. While the rule of law is widely regarded as the key to development, researchers agree that this is a multidimensional concept that requires deliberate and delicate analysis. Indeed, Haggard & Tide found that a global sample might not be suitable for drawing inferences, as the correlation between indicators for developing countries and that of developed ones are a lot different ¹¹⁶. A study by Özpölat et al. found that within a group of developing countries, the rule of law effect is neither significant nor meaningful ¹¹⁷. Oman & Arndt, with first-principles thinking, questioned the legitimacy of the construction of these indicators, as they found how individual indicators told a much different picture from the final result of composite indexes ¹¹⁸. Also, they found how differences in econometric models and underlying assumptions can completely change the robustness of research concerning the rule of law. Haggard et al. tried to explain

¹¹⁴ Aslı Özpölat et al., “Does Rule of Law Affect Economic Growth Positively?,” *Research in World Economy* 7 (March 3, 2016), <https://doi.org/10.5430/rwe.v7n1p107>.

¹¹⁵ William H. Neukom, “The World Justice Project,” *Leadership and Management in Engineering* 9, no. 3 (July 2009): 129–30, [https://doi.org/10.1061/\(ASCE\)1532-6748\(2009\)9:3\(129\)](https://doi.org/10.1061/(ASCE)1532-6748(2009)9:3(129)).

¹¹⁶ Stephan Haggard and Lydia Tiede, “The Rule of Law and Economic Growth: Where Are We?,” *World Development* 39, no. 5 (May 2011): 673–85, <https://doi.org/10.1016/j.worlddev.2010.10.007>.

¹¹⁷ Aslı Özpölat et al., “Does Rule of Law Affect Economic Growth Positively?,” *Research in World Economy* 7 (March 3, 2016), <https://doi.org/10.5430/rwe.v7n1p107>.

¹¹⁸ Charles P. Oman and Christiane Arndt, *Uses and Abuses of Governance Indicators*, Development Centre Studies (OECD, 2006), <https://doi.org/10.1787/9789264026865-en>.

these results, as they acknowledged a fundamental difference between advanced economies and the rest: the role of formal institutions. For several developing countries, the informal economy and informal institutions can be considered as important as the formal ones ¹¹⁹.

We now look into the literature on indicators in the Rule of Law. Property rights is considered as one of the key elements for any economic development; however, literature shows mixed arguments on its effect and direction on growth. Using an index measuring property rights, Haydaroglu analyzed the situation in EU and OECD countries from 2007 to 2014 and found that there is a positive relationship between these special rights and growth ¹²⁰, as any improvement of this index directly leads to a positive growth rate. However, Haggard et al. argued that it is not the existence of the rule of law that helped establish property rights but a whole complex process of power struggle that has formed these rights in the first place ¹²¹. This argument has been confirmed by a study by Sattar & Mahmood in which a sample of high-income, middle-income, and low-income countries was used ¹²². The effect of intellectual property rights is strongest and most significant, as expected, in countries that promote the rule of law or developed and advanced countries. However, this effect cannot be found in other groups of countries.

In the same light, the effect of judicial systems on development is also ambiguous. Analyzing a sample of China provinces, Yuan et al. found the establishment of a court and strict enforcement of law can bring massive change to society without affecting economic growth ¹²³. Hayo & Voigy found three elements of procedural formalism that positively affect growth:

¹¹⁹ Stephan Haggard, Andrew MacIntyre, and Lydia Tiede, “The Rule of Law and Economic Development,” *Annual Review of Political Science* 11, no. 1 (2008): 205–34, <https://doi.org/10.1146/annurev.polisci.10.081205.100244>.

¹²⁰ Ceyhun Haydaroglu, “The Relationship between Property Rights and Economic Growth: An Analysis of OECD and EU Countries,” *DANUBE: Law and Economics Review* 6, no. 4 (December 1, 2015): 217–39, <https://doi.org/10.1515/danb-2015-0014>.

¹²¹ Haggard, MacIntyre, and Tiede, “The Rule of Law and Economic Development.”

¹²² Abdul Sattar and Tahir Mahmood, “Intellectual Property Rights and Economic Growth: Evidences from High, Middle and Low Income Countries,” *Pakistan Economic and Social Review* 49, no. 2 (2011): 163–86.

¹²³ Huaxi Yuan, Longhui Zou, and Yidai Feng, “How to Achieve Emission Reduction without Hindering Economic Growth? The Role of Judicial Quality,” *Ecological Economics* 209 (July 1, 2023): 107839, <https://doi.org/10.1016/j.ecolecon.2023.107839>.

written procedures, the right to counsel, and timeliness¹²⁴. While the quality of the judicial system can bring good results, the lengthy procedures might be at risk of corruption. Indeed, this argument was found in a paper by Djankov et. al as they constructed an index on judicial procedures¹²⁵. Results show higher formalism leads to less consistency, less honesty, and more corruption; overall, justice was compromised. As we see, the power of the court to enforce rights and orders does not always translate to development. They can completely use this stronghold for private firms that control the economy. The formality of constitutions and strict rules can be used by the court to protect the already established class in the society – whose voices are well heard and recorded into the system. As such, the interest of the leaders and citizens are not always in alignment with each other¹²⁶.

The second theme of IEF is government size, which includes tax burden, fiscal health, and government spending. According to OECD, government spending provides a look into the size of government around the world, in which different approaches to public goods provision are reflected¹²⁷. Government spending has long been found to have inconclusive results as the expansion of government can be harmful under various circumstances. While Wagner’s law stated that government spending grows with the development of economy, for low-income countries, results have been found to support more government spending does not lead to economic growth or development¹²⁸. Bergh & Karlsson found that there is a robust and negative correlation between government size and growth rate¹²⁹. However, they also concluded that big government could use their openness to their own advantage and mitigate

¹²⁴ Bernd Hayo and Stefan Voigt, “The Relevance of Judicial Procedure for Economic Growth,” *CESifo Economic Studies* 60, no. 3 (September 1, 2014): 490–524, <https://doi.org/10.1093/cesifo/ifs044>.

¹²⁵ Simeon Djankov et al., “Courts: The Lex Mundi Project,” SSRN Scholarly Paper (Rochester, NY, April 1, 2002), <https://papers.ssrn.com/abstract=307127>.

¹²⁶ Tom Ginsburg and Tamir Moustafa, eds., *Rule by Law: The Politics of Courts in Authoritarian Regimes* (Cambridge [UK] ; New York: Cambridge University Press, 2008).

¹²⁷ “General Government - General Government Spending - OECD Data,” theOECD, accessed May 29, 2023, <http://data.oecd.org/gga/general-government-spending.htm>.

¹²⁸ Shih-Ying Wu, Jenn-Hong Tang, and Eric S. Lin, “The Impact of Government Expenditure on Economic Growth: How Sensitive to the Level of Development?,” *Journal of Policy Modeling* 32, no. 6 (November 1, 2010): 804–17, <https://doi.org/10.1016/j.jpolmod.2010.05.011>.

¹²⁹ Andreas Bergh and Martin Karlsson, “Government Size and Growth: Accounting for Economic Freedom and Globalization,” *Public Choice* 142, no. 1/2 (2010): 195–213.

unwanted effects. Panel data from 108 countries were used to test how government size's effects also vary with different levels of political rights and civil freedom ¹³⁰.

The tax burden has had a conclusive base as several researchers found a negative relationship between a tax increase and development beyond a threshold of economic maximization. Of which, the case of Turkey further confirms this result ¹³¹. This paper also found Granger Causality between tax and growth, which holds strong policy implications for the country. Koatsa et al. found an insignificant result of tax in Lesotho applying a log-linear model ¹³². Meanwhile, IEF measures both government deficits and debt to GDP ratio that reflect the health of government management. Heritage Foundation argued that poor fiscal health would result in instability and uncertainty in the economy.

The third theme of business freedom relies on the World Bank's report on EOB, consisting of business freedom and labor freedom as indicators. As reviewed in our literature (part II.5.2), easy procedures for doing business show a robust relationship with economic growth. The mechanism can be easy to decipher, as we can see in the successful case of Singapore and the system in place. By attracting investors and entrepreneurs, positive externalities can be created for the whole society, even if these businesses fail ¹³³.

Monetary policy, with inflation being measured and calculated into the equation, does show an impact on economic and development. This topic has been studied extensively with massive support for negative causal relationship results. According to Akinsola & Odhiambo, however, a consensus has not been fully reached, as a review of existing literature found there are four main categories into which this topic can be divided into: inflation does not have any effect on

¹³⁰ António Afonso and João Tovar Jalles, "Economic Performance and Government Size," SSRN Scholarly Paper (Rochester, NY, October 28, 2011), <https://doi.org/10.2139/ssrn.1950570>.

¹³¹ Ozay Ozpence and Nedim Mercan, "THE RELATIONSHIP BETWEEN TAX BURDEN AND ECONOMIC GROWTH: TURKEY CASE," *Journal of Business Economics and Finance* 9, no. 2 (June 30, 2020): 143–54, <https://doi.org/10.17261/Pressacademia.2020.1220>.

¹³² N. Koatsa, C. Paramaiah, and M. Scona, "Tax Burden and Economic Growth in Lesotho: An Estimate of the Optimal Tax Burden," *Accounting* 7, no. 3 (2021): 525–34.

¹³³ Seung-Hyun Lee, Mike W. Peng, and Sangcheol Song, "Governments, Entrepreneurs, and Positive Externalities: A Real Options Perspective," *European Management Journal* 31, no. 4 (August 1, 2013): 333–47, <https://doi.org/10.1016/j.emj.2013.01.006>.

growth, inflation has a positive effect on economic development, inflation only affects economy after certain thresholds and negative relationship between them ¹³⁴. If we dive into the topic by region, the South Asia case showed a positive relationship between two variables ¹³⁵. The authors concluded that attempts to eliminate inflation might lead to unwanted consequences. If we dissect this effect by countries, the study by Jayathileke et al. found that there is a long-term negative and significant effect in Sri Lanka ¹³⁶. In contrast, both China and India do not have any strong relationship between economic growth and inflation. In Tanzania, a negative impact has been found, though no long-run relationship is visible ¹³⁷. Another angle to look at inflation has been developed by ¹³⁸. According to the authors, low inflation is important, but the authors reemphasize how it is not sufficient for healthy economic growth. For the case of Latin America, Bittencourt found a harmful impact of the two variables applying time-series analysis ¹³⁹. In Malaysia, a causality from inflation to growth was discovered in the short-run ¹⁴⁰. However, in the long run, it is economic growth that has Granger causality on inflation.

The fourth theme of an open market with trade freedom, investment freedom, and financial freedom falls under the nexus of economic freedom and growth, which was reviewed in Section II, part 5.3. Depending on researchers and studies, economic freedom and open markets are

¹³⁴ Foluso A. Akinsola and Nicholas M. Odhiambo, "Inflation and Economic Growth: A Review of The International Literature," *Comparative Economic Research. Central and Eastern Europe* 20, no. 3 (September 30, 2017): 41–56, <https://doi.org/10.1515/cer-2017-0019>.

¹³⁵ Girijasankar Mallik and Anis Chowdhury, "INFLATION AND ECONOMIC GROWTH: EVIDENCE FROM FOUR SOUTH ASIAN COUNTRIES" 8, no. 1 (2001).

¹³⁶ Pradana M. Bandula Jayathileke and Rathnayaka M. Kapila Tharanga Rathnayake, "Testing the Link between Inflation and Economic Growth: Evidence from Asia," *Modern Economy* 04, no. 02 (2013): 87–92, <https://doi.org/10.4236/me.2013.42011>.

¹³⁷ Faraji Kasidi and Kenani Mwakanemela, "Impact of Inflation on Economic Growth: A Case Study of Tanzania," *Asian Journal of Empirical Research* 3, no. 4 (April 17, 2013): 363–80.

¹³⁸ Mario Švigir and Josipa Miloš, "Relationship between Inflation and Economic Growth; Comparative Experience of Italy and Austria," *FIP - Financije i Pravo* 5, no. 2 (December 21, 2017): 91–101.

¹³⁹ Manoel Bittencourt, "Inflation and Economic Growth in Latin America: Some Panel Time-Series Evidence," *Economic Modelling* 29, no. 2 (March 1, 2012): 333–40, <https://doi.org/10.1016/j.econmod.2011.10.018>.

¹⁴⁰ Dr Kanchan Datta and Dr Chandan Kumar Mukhopadhyay, "Relationship between Inflation and Economic Growth in Malaysia - An Econometric Review," 2011.

used

interchangeably.

2.3. Control variables

The field of development studies has long been focusing on the determinants of economic growth; however, little consensus on an over-encompassing model has been found. Prominent findings, thus far, include government efficiency, labor market, financial system, fiscal policies, saving, and investment ¹⁴¹. A paper from Nawz et al. used a total of five variables to capture economic growth, including inflation, interest rate, and exchange rate as proxies for government monetary policy, literacy rate as a proxy for human capital, and FDI as a proxy for investment ¹⁴². To the best of our knowledge and data availability, we have included the unemployment rate, foreign direct investment, and a dummy variable as potentially confounding factors to control for their effects on economic growth. We wanted to include both literacy rate and credit to the private sector in the model; however, we encountered several missing values and had to leave them out.

World Bank defined unemployment as “the share of the labor force that is without work but available for and seeking employment.” We need to control for the effect of unemployment on growth as this relationship has received consensus in economic literature, proposed by Okun’s law. As Oner from International Monetary Fund stated: “Growth and unemployment can be thought of as two sides of the same coin.” Indeed, unemployment has been seen as countercyclical as it reduces if the economy does well and vice versa. There are several empirical pieces of evidence supporting this relationship, of which the case study from South Africa showed a long-term effect between the unemployment rate and output growth while confirming the statistical significance of it ¹⁴³. Li & Liu also found a negative correlation between economic development (GDP) and the rate of unemployment in the case of China

¹⁴¹ Florin Teodor Boldeanu and Liliana Constantinescu, “The Main Determinants Affecting Economic Growth,” n.d.

¹⁴² Muhammad Nawaz et al., “Which Factors Influence the Economic Growth of the Country? Evidence with Reference to Pakistan,” 2014.

¹⁴³ Sibusiso Clement Makaringe and Hlalefang Khobai, “The Effect of Unemployment on Economic Growth in South Africa (1994-2016),” MPRA Paper, March 19, 2018, <https://mpra.ub.uni-muenchen.de/85305/>.

¹⁴⁴. In India, Okun's law is further confirmed with a significant result: 1% increase in GDP will negatively affect the unemployment rate by nearly 0.5 percentage points ¹⁴⁵. A panel data analysis from European Union also reached the same conclusion as they demonstrated how a higher unemployment rate has negative impact on GDP per capita ¹⁴⁶. In Malaysia, this impact is also confirmed, with Okun's coefficient stands at 3.5 percent. This means 1 percent decrease in the unemployment rate will lead 3.5 percent increase in GDP growth ¹⁴⁷. Jordan, despite being a small country, also contributed to the robustness of literature with an existence of an inverse linkage between output and unemployment ¹⁴⁸.

Hussain & Haque found that the effects of FDI on economic growth have mostly been positive ¹⁴⁹. Developing countries often have low capital accumulation rates, and therefore, FDI is considered an important source of capital to supplement domestic investment for economic growth. It contributes by increasing capital account surplus, improving the balance of payments in general, and stabilizing the macro-economy. FDI also creates opportunities for poor countries to access more advanced technologies, facilitate technology transfer, promote knowledge dissemination, and improve management skills and labor qualifications. This effect is known as the productivity spillover of FDI, which contributes to the productivity of domestic firms and ultimately to economic growth in general ¹⁵⁰. However,

¹⁴⁴ Changshuai Li and Zi-juan Liu, "Study on the Relationship among Chinese Unemployment Rate, Economic Growth and Inflation" 1 (March 31, 2012).

¹⁴⁵ Tariq Ahmad Bhat and Tariq Ahmad Lone, "The Validity of Okun's Law: Evidences from Indian Economy," n.d.

¹⁴⁶ Qamar Uz Zaman, Zhang Donghui, and Muhammad Imran, "Unemployment and Economic Growth of European Union: A Panel Data Analysis," *European Journal of Economic Studies* 15 (March 1, 2016), <https://doi.org/10.13187/es.2016.15.292>.

¹⁴⁷ Irpan Hamidah Muhd and Saad Rosfadzimi Mat, "Investigating Relationship between Unemployment Rate and GDP Growth in Malaysia," ProQuest, 2016, <https://www.proquest.com/openview/d10900adee22ddce5e8c27f0464d9822/1?pq-origsite=gscholar&cbl=936334>.

¹⁴⁸ Hala Hjazeen, Mehdi Seraj, and Huseyin Ozdeser, "The Nexus between the Economic Growth and Unemployment in Jordan," *Future Business Journal* 7, no. 1 (December 26, 2021): 42, <https://doi.org/10.1186/s43093-021-00088-3>.

¹⁴⁹ Mohammed Ershad Hussain and Mahfuzul Haque, "Foreign Direct Investment, Trade, and Economic Growth: An Empirical Analysis of Bangladesh," *Economies* 4, no. 2 (June 2016): 7, <https://doi.org/10.3390/economies4020007>.

¹⁵⁰ Le Le Doan Hong Quan, "TÁC ĐỘNG CỦA FDI TỚI TĂNG TRƯỞNG KINH TẾ Ở VIỆT NAM Dự Án SIDA," accessed May 31, 2023, https://www.academia.edu/32387423/T%C3%81C_%C4%90%E1%BB%98NG_C%E1%BB%A6A_FDI_T%E

while having a positive initial impact on growth, in the long run, dependence on foreign investment has a negative impact on growth, causing problems of unemployment, over-urbanization, persistent levels, and inequality ¹⁵¹.

According to World Bank, “foreign direct investment (FDI) are the net inflows of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor. It is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments. This series shows net inflows (new investment inflows less disinvestment) in the reporting economy from foreign investors, and is divided by GDP.” Dabour argued that FDI is an important part of private investment that drives economic growth around the world ¹⁵². FDI is seen as a channel to supplement the level of domestic investment, as well as to ensure efficiency across the economy with appropriate technology, management knowledge, and business culture transfer. The author also argued that FDI encourages access to foreign markets, increases employment opportunities, and improves living standards.

World Bank defined export as: “Exports of goods and services represent the value of all goods and other market services provided to the rest of the world. They include the value of merchandise, freight, insurance, transport, travel, royalties, license fees, and other services, such as communication, construction, financial, information, business, personal, and government services. They exclude compensation of employees and investment income (formerly called factor services) and transfer payments” ¹⁵³. While we initially want to control for this variable, they do not pass the correlation test, and we need to eliminate them from the model.

1%BB%9AI_T%C4%82NG_TR%C6%AF%E1%BB%9ENG_KINH_T%E1%BA%BE_%E1%BB%9E_VI%E1%BB%86T_NAM_D%E1%BB%B1_%C3%A1n_SIDA.

¹⁵¹ Jeffrey Kentor and Terry Boswell, “Foreign Capital Dependence and Development: A New Direction,” *American Sociological Review* 68 (April 1, 2003): 301, <https://doi.org/10.2307/1519770>.

¹⁵² Nabil Dabour, “THE ROLE OF FOREIGN DIRECT INVESTMENT (FDI) IN DEVELOPMENT AND GROWTH IN OIC MEMBER COUNTRIES,” 2000.

¹⁵³ “Glossary | DataBank,” accessed May 31, Jeffrey Kentor and Terry Boswell, “Foreign Capital Dependence and Development: A New Direction,” *American Sociological Review* 68 (April 1, 2003): 301, <https://doi.org/10.2307/1519770.2023>, <https://databank.worldbank.org/metadata/glossary/jobs/series/NE.EXP.GNFS.ZS>.

The Covid dummy variable was also included to account for the unwanted effect of this pandemic on development.

3. Empirical Strategy: Panel Data Regression

Does economic freedom as defined by the standard of Heritage affect the growth rate of ASEAN Member States? Is it better for ASEAN to push for a more open business environment, or is some level of control required for emerging state economies? The correlation between our dependent variable with variables of interest will be tested, while we control for some potentially confounding variables. Our econometric regression of the panel dataset will be performed by the following model:

$$gdppcgrowth_{it} = \alpha + \beta_1 overallscore_{it} + \beta_2 unemployment_{it} + \beta_5 fdi_{it} + \beta_7 covid_{it} + \mu_i + \varepsilon_{it}$$

in which: i is the Member State and t is the time period. We care about the effect of the independent variable of interest on the dependent variable while controlling for other variables. The dependent variable $gdppcgrowth_{it}$ or the growth rate of GDP per capita within a nation at each point of observation (in this study, we observe it annually). The independent variable of interest in the $overallscore_{it}$ also known as the Index of Economic Freedom that we discussed. We control for the effect of the unemployment rate with $unemployment_{it}$, Foreign Direct Investment (FDI) with fdi_{it} . We also control for the effect of Covid as the dataset runs through 2020 and 2021 and might potentially distort the result.

We choose panel data to record our sample and this empirical strategy since it can record and track many individuals across time. This decision relies on the fact that a time-series model of one individual (in our case, country) will not be able to fully capture and explain the complex insights of our variables' relationship. Panel data, thus, is seen as a tool to help isolate the effect of policies on our dependent outcome¹⁵⁴. Other reasons for the application of panel data include controlling for omitted variable bias. As the economic model can never fully account for every element, this method helps reduce the effect of unobserved variable bias. The

¹⁵⁴ Cheng Hsiao, "WHY PANEL DATA?," *The Singapore Economic Review* 50, no. 02 (October 2005): 143–54, <https://doi.org/10.1142/S0217590805001937>.

consistent internal patterns of all individuals make it easier for researchers to eliminate unwanted effects on dependent variables.

IV. Result and Discussion

This chapter presents the results and the main findings from the regression model. While the model controls for several variables to obtain a confoundedness assumption, the causal relationship should not be interpreted without caution. Coefficients, thus, should be seen as correlations first and foremost.

1. Result

1.1. Summary of statistics

Table 3 Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Gdp	192	0.04997	0.03623	-0.13126	0.145197
gdppcgrowth	192	0.0353	0.03635	-0.1448	0.12509
overallscore	192	0.61768	0.12543	0.335	0.897
unemployment rate	192	0.0281	0.01715	0.0014	0.0806
fdi	192	0.05861	0.06421	-0.0276	0.2969
export	187	0.71967	0.51911	0.17271	2.28994
covid	192	0.08333	0.27711	0	1

We first look at descriptive statistics to understand the overview of this dataset. ASEAN has an average GDP per capita growth rate of 3.5% while having a negative growth rate of 1.4% as a minimum value. The maximum rate of 12.5% was observed in Singapore in 2010. Indeed, this country was the fastest-growing Asian nation during this time.

Overall, at 0.61, ASEAN has a lower-end ranking in terms of economic freedom score, with an exception being Singapore. This nation has long led the ASEAN bloc in all aspects, standing

at 0.897 for its great policy and freedom. This also puts them at the top of the world consistently. The lowest index of 0.335 belongs to Indonesia in 1999, which can be explained by the political chaos between Indonesia and East Timor. Violence after violence led one of the promising Asian tigers into deep turbulence that also translated to its economic aspect ¹⁵⁵.

Onto the unemployment rate, ASEAN can maintain a rather healthy one at 2.8%. The lowest rate is of Cambodia at less than 1% in 2017, while the highest one is at 8% and belongs to Indonesia in 2007. This is a record-high number for a country like Indonesia, as they stand at 3.83% in 2021, nearly 5 percentage points lower than that of the world ¹⁵⁶.

FDI witnessed a decline in Indonesia in 2000, at -2%. This year's economy was partially affected by the turbulence caused by an earthquake and tsunami ¹⁵⁷. However, researchers found that 2000 marked a start of a new political system for Indonesia after several decades of struggle. However, the turmoil from the new presidency of Gus Dur has stirred national concerns ¹⁵⁸. In contrast, 2000 saw the highest inflow of FDI into Singapore. This is not unanticipated as this economy was receiving attention from foreign investors with an impressive growth rate of 9.5 percent in 2000. While this growth was recorded right before the storm of the internet bust, Singapore's economy did have its peak after the Asian financial crisis ¹⁵⁹.

With regards to export, Indonesia was recorded with the lowest rate in 2020 from our sample. Meanwhile, Vietnam reached a record high in 1998. This is a rather difficult phase for Vietnam as they were still trying to recover from the financial crisis. Though not fully integrated into

¹⁵⁵ Minh Quang Dao, "Exports, Imports, Government Consumption and Economic Growth in Upper-Middle Income Countries," *Progress in Development Studies* 14, no. 2 (April 2014): 197–204, <https://doi.org/10.1177/1464993413517791>.

¹⁵⁶ "Indonesia Unemployment Rate - Data, Chart," TheGlobalEconomy.com, accessed May 16, 2023, https://www.theglobaleconomy.com/Indonesia/unemployment_rate/.

¹⁵⁷ "Indonesia: Earthquake - May 2000 | ReliefWeb," September 4, 2020, <https://reliefweb.int/disaster/eq-2000-000230-idn>.

¹⁵⁸ "INDONESIA IN 2000 A Shaky Start for Democracy on JSTOR," accessed May 31, 2023, <https://www.jstor.org/stable/10.1525/as.2001.41.1.208>.

¹⁵⁹ Jeffrey Hays, "SINGAPOREAN ECONOMY IN THE 2000s AND 2010s | Facts and Details," accessed May 31, 2023, https://factsanddetails.com/southeast-asia/Singapore/sub5_7c/entry-3783.html.

the global economy, the Vietnam market was opened since the Doi Moi reform, thus a challenging consequence of such events ¹⁶⁰.

1.2. Correlation Matrix

Table 4 Correlation Matrix

	gdppcg~h	overal~e	unempl~e	fdi	export	covid
gdppcgrowth	1					
overallscore	-0.214	1				
Unemployment rate	-0.2081	0.2899	1			
fdi	0.1325	0.6122	0.0137	1		
export	-0.0587	0.7946	0.1976	0.7685	1	
covid	-0.3291	0.1299	-0.0125	0.0522	-0.003	1

(Source: Author)

Next, we move to correlation matrix to drop any value that exceeds the correlation coefficient's cut-off of 0.7. In this case, we need to drop the variable of export as it stands at 0.7946. The logic behind eliminating variables is to drop either of those that are highly correlated with each other. In this case, overallscore and export are correlated. However, overallscore is our variable of interest so we need to eliminate the variable of export instead.

1.3. Multicollinearity Matrix

Table 5 Multicollinearity matrix

Variable	VIF	1/VIF
overallscore	3.12	0.320588
fdi	2.60	0.385132

¹⁶⁰ Mark Sidel, "Vietnam in 1998: Reform Confronts the Regional Crisis," *Asian Survey* 39, no. 1 (1999): 89–98, <https://doi.org/10.2307/2645598>.

unemployme~e	1.17	0.853964
covid	1.09	0.916835
Mean VIF	2.46	

Next, we test for multicollinearity with a universal cut off of 5. There is no problem with our variables in this test, as all of them have coefficients below 5.

1.4. Hausman Test

Table 6 Hausman Test result

	Coefficients		(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
	(b) fe	(B) re		
overallscore	-.0038179	-.1089886	.1051707	.0551177
unemployme~e	-.1698442	-.2289571	.0591129	.2677019
fdi	.2165955	.2150488	.0015466	.0615215
covid	-.0456884	-.0395337	-.0061547	.003479

b = consistent under Ho and Ha; obtained from xtreg
 B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

$\chi^2(4) = (b-B)'[(V_b-V_B)^{-1}](b-B)$
 = **3.81**
 Prob>chi2 = **0.4329**

(Source: author)

Hausman Test is executed to decide between the Fixed Effect Model and Random Effect Model. While panel data requires the application of the Fixed Effect Model normally, this result of insignificance leads us to choose Random Effect Model, in which we assume differences in coefficients are not systematic.

1.5. Heteroskedasticity and Serial correlation test

Table 7 Heteroskedasticity and serial correlation test

Tests:

Random Effects, Two Sided:

ALM(Var(u)=0) = 4.27 Pr>chi2(1) = 0.0389

Random Effects, One Sided:

ALM(Var(u)=0) = -2.07 Pr>N(0,1) = 0.9806

Serial Correlation:

ALM(lambda=0) = 4.38 Pr>chi2(1) = 0.0364

Joint Test:

LM(Var(u)=0, lambda=0) = 6.71 Pr>chi2(2) = 0.0349

Serial correlation coefficient does not show statistically significant results while the heteroskedasticity test has a significant result at 5% level, leading us to implement a strategy to account for it in the next section.

1.6. FGLS

Table 8 Two specifications

	(1)	(2)
	Model RE	Model GLS
VARIABLES	GDPPCGROWTH	GDPPCGROWTH
OVERALLSCORE	-0.109*** (-4.35)	-0.0637*** (-3.45)
UNEMPLOYMENTRATE	-0.229 (-0.580)	-0.467*** (-1.496)
FDI	0.215*** (4.63)	0.161*** (3.50)

COVID	-0.0395*** (-4.71)	-0.0374*** (-6.43)
Constant	0.0997*** (7.60)	0.0838*** (9.72)
Observations	192	192
Number of id	8	8

z-statistics in parentheses

*** p<0.01, ** p<0.05, * p<0.1

(Source: author)

Model (2) or Model GLS is being used to fix the problem of heteroskedasticity that we encountered in the previous section.

The juxtaposition of the Random Effect (RE) specification and the Feasible Generalized Least Squares (FGLS) specification reflects the robustness of the model. Our main result is the second specification; however, seeing both show consistent results without major differences in values proved the model's correct direction. For future research, the same model's framework can be considered, while changing and accounting for more control variables.

First, we analyze control variables and their significance in two specifications. The unemployment rate is the only variable without a consistent effect on GDP per capita growth. While the main specification finds a significant coefficient, Random Effect Model does not produce a similar finding. However, both specifications show how the unemployment rate has negative consequences on growth, as expected with literature in the field and the Okun law. This was also confirmed by studies done by several other researchers^{161 162 163 164}.

¹⁶¹ Makaringe and Khobai, "The Effect of Unemployment on Economic Growth in South Africa (1994-2016)."

¹⁶² Li and Liu, "Study on the Relationship among Chinese Unemployment Rate, Economic Growth and Inflation."

¹⁶³ Bhat and Lone, "The Validity of Okun's Law: Evidences from Indian Economy."

¹⁶⁴ Uz Zaman, Donghui, and Imran, "Unemployment and Economic Growth of European Union."

FDI has a strong and statistically positive result on growth, which is confirmed by literature in the field from Dabour; Hussian; Quan ¹⁶⁵ ¹⁶⁶ ¹⁶⁷. COVID has a statistically negative consequence on growth, which can be confirmed also with literature on ASEAN's growth rate during the pandemic.

2. Main discussion

From our model, the variable of interest or the IEF's overall score for the economic and entrepreneurial environment has shown a statistically significant and negative result on development. This is alarming, given how we discussed the similarity between AEC Blueprint and IEF's main themes toward a more liberalized external environment for businesses. Indeed, of four major pillars, AEC included globalization and integration into the world economy as an outlook towards the future. This plan has ASEAN planned to sign trade agreements and join economic partnerships. Furthermore, several ASEAN countries are preparing to improve their position in the global supply chain ¹⁶⁸.

Though alarming, this result is anticipated, whilst contradicting the current state of research in the field. To our knowledge, this is the second paper on the topic of business and economic environment with an exclusive focus on ASEAN as a region. Previous papers, with bigger panel data and more countries, had never grouped ASEAN countries together. This is exactly where this study fills in the gap, as we understand the underlying homogeneity of this region will act as a background for real effects to emerge.

Based on our careful analysis and close scrutiny, the most plausible explanation to explain this negative relationship between our variables lie in the informal economy of ASEAN.

¹⁶⁵ Dabour, "THE ROLE OF FOREIGN DIRECT INVESTMENT (FDI) IN DEVELOPMENT AND GROWTH IN OIC MEMBER COUNTRIES."

¹⁶⁶ Hussain and Haque, "Foreign Direct Investment, Trade, and Economic Growth."

¹⁶⁷ Quan, "TÁC ĐỘNG CỦA FDI TỚI TĂNG TRƯỞNG KINH TẾ Ở VIỆT NAM Dự Án SIDA."

¹⁶⁸ "ASEAN Economic Community Blueprint 2025."

Our observation follows the logic that one-fourth of IEF scores rely on the rule of law, which has been criticized for its inconclusive impact on development. Concurrently, countries that depend on the informal sector receive negative short-term impacts from economic freedom, especially from the rule of law, and ASEAN is such a region. The informal sector is currently at the heart of the ASEAN economy, and while it might be beneficial to eliminate them for future growth, visions to reform the whole economy towards economic and business freedom might need certain adjustments to match the current state of development.

Economic and business freedom and the informal economy have been proven to have a strong negative relationship. In the recent research by Sweidan the informal economy was studied by analyzing a balanced panel of 112 countries over 7 years period ¹⁶⁹. Characteristics that help the informal economy grow will greatly be affected by the current concept of economic and business freedom. The author also suggested that countries with the informal sector to carefully understand their own situation, as implementing economic freedom policies will seize the life of their informal sector. This argument is also confirmed by D'Agostino et. al as they found how an increase in economic freedom measurement results in the reduction of the shadow economy in countries with high corruption and low democracy ¹⁷⁰. Furthermore, evidence found how the rule of law only matched countries that encourage the concept and not necessarily countries of different structures ¹⁷¹. Property rights, which are usually regarded as the key component of economic integration, rely on the assumption that it is established due to the existence of the rule of law. However, it is worth noting how the struggle for power comes into play. Property rights existed because the institution that benefits from it wanted it in the first place ¹⁷². Another study by Berdiev et al. also found evidence of underground economy mitigation as five aspects of economic freedom increase ¹⁷³.

¹⁶⁹ Osama Sweidan, "Economic Freedom and the Informal Economy," *Global Economy Journal* 17, no. 4 (December 2017): 20170002, <https://doi.org/10.1515/gej-2017-0002>.

¹⁷⁰ Elena D'Agostino, Marco Alberto De Benedetto, and Giuseppe Sobbrino, "Does the Economic Freedom Hinder the Underground Economy? Evidence from a Cross-Country Analysis," *Economia Politica (Bologna, Italy)* 40, no. 1 (2023): 319–41, <https://doi.org/10.1007/s40888-022-00288-2>.

¹⁷¹ Sattar and Mahmood, "Intellectual Property Rights and Economic Growth."

¹⁷² Haggard and Tiede, "The Rule of Law and Economic Growth."

¹⁷³ Aziz N. Berdiev, James W. Saunoris, and Friedrich Schneider, "Give Me Liberty, or I Will Produce Underground: Effects of Economic Freedom on the Shadow Economy," *Southern Economic Journal* 85, no. 2 (2018): 537–62.

As such, countries and regions with huge informal sectors will be at risk of trying to abruptly implement their policies toward economic and business freedom. ASEAN has been struggling to build its economy from the grassroots with a completely different set of values and institutions. With half of the region’s population or 244 million of people relying on the informal economy for living, amounting to almost 80 percent of the workforce, the ASEAN situation requires careful consideration ¹⁷⁴. This situation was pronounced during Covid as no protection was formally provided for these workers. Any policy targeting this group of vulnerable people, thus, should be carefully considered. Given this context, a paper by Wilson suggested a gradual path toward growth as countries resort to their own informal strengths and build themselves while reforming their environment ¹⁷⁵.

V. Robustness test

While this research does not aim to establish a causal link between economic and business environment and development, this robustness test is still executed to further improve the reliability and direction of the model that the study is trying to argue for. We try to replace the GDP per capita growth rate with the real GDP growth rate to see if the model and its results still hold. By replicating the exact process with the previous section, we see how our model is grounded and consistent throughout all specifications.

1. Correlation Matrix

Table 9 Correlation Matrix

	gdppcg~h	overall~e	unempl~e	fdi	export	covid
gdpgrowth	1					

¹⁷⁴ “Promoting Decent Work and Protecting Informal Workers | The ASEAN,” accessed May 31, 2023, <https://theaseanmagazine.asean.org/edition/promoting-decent-work-and-protecting-informal-workers/>.

¹⁷⁵ Wilson, “Does Governance Cause Growth?”

overallscore	-0.2179	1				
Unemployment rate	-0.1785	0.2899	1			
fdi	0.1133	0.6122	0.0137	1		
export	-0.0344	0.7946	0.1976	0.7685	1	
covid	-0.4036	0.1299	-0.0125	0.0522	-0.003	1

(Source: Author)

Next, we find two variables exceeding coefficient's cut-off of 0.7 as our main model. Standing at 0.7946, this variable is highly correlated with our variable of interest, which is IEF's "overallscore" variable. We again need to eliminate export variables to keep our variable of interest. However, this high correlation can be a source of future direction for our subsequent research.

2. Multicollinearity Matrix

Table 10 Multicollinearity Matrix

Variable	VIF	1/VIF
overallscore	3.12	0.320588
fdi	2.60	0.385132
unemployme~e	1.17	0.853964
covid	1.09	0.916835
Mean VIF	2.46	

(Source: author)

All variables pass multicollinearity test as they do not exceed the threshold of 5. This means our model does not have any multicollinearity problem, and we can proceed to the next step.

3. Hausman Test

Table 11 Hausman Test result

	Coefficients		(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
	(b) fe	(B) re		
overallscore	-.0096805	-.1004695	.090789	.0521797
unemployment	-.1334203	-.1841593	.050739	.2512043
fdi	.1517128	.1941334	-.0424206	.0568489
covid	-.0541329	-.0493487	-.0047842	.003136

b = consistent under Ho and Ha; obtained from xtreg
 B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

chi2(4) = (b-B)'[(V_b-V_B)^(-1)](b-B)
 = **4.26**
 Prob>chi2 = **0.3720**
 (V_b-V_B is not positive definite)

(Source: author)

With a p-value > 0.1, the hypothesis was not rejected; thus, we will choose the Random Effect model for our robustness check.

4. Serial correlation and heteroskedasticity

Table 12 Serial correlation and heteroskedasticity result

Tests:

Random Effects, Two Sided:

$$\text{ALM}(\text{Var}(u)=0) = 1.15 \text{ Pr}>\text{chi2}(1) = 0.2826$$

Random Effects, One Sided:

$$\text{ALM}(\text{Var}(u)=0) = -1.07 \text{ Pr}>\text{N}(0,1) = 0.8587$$

Serial Correlation:

$$\text{ALM}(\text{lambda}=0) = 6.16 \text{ Pr}>\text{chi2}(1) = 0.0131$$

Joint Test:

$$\text{LM}(\text{Var}(u)=0, \text{lambda}=0) = 6.30 \text{ Pr}>\text{chi2}(2) = 0.0429$$

(Source: author)

Given this result, we will proceed to the next step to account for both specifications.

Table 13 Two specifications

	(1)	(2)
	Model RE	Model GLS
VARIABLES	GDPPCGROWTH	GDPPCGROWTH
OVERALLSCORE	-0.100*** (-3.87)	-0.0637*** (-3.52)
UNEMPLOYMENTRATE	-0.184 (-1.23)	-0.381*** (-2.80)
FDI	0.194*** (4.07)	0.151*** (3.46)
COVID	-0.0493*** (-6.05)	-0.0420*** (-7.36)

Constant	0.110*** (7.98)	0.0967*** (11.77)
Observations	192	192
Number of id	8	8

z-statistics in parentheses

*** p<0.01, ** p<0.05, * p<0.1

The result shows consistency with our main model, proving that our model is robust and we can draw lessons and analysis from the coefficient in our model.

VI. Limitations

Since there is a very limited research for the ASEAN sample specifically, this paper contributed by asking the question of whether or not the current approach to the business environment is the most helpful for the region as a whole. We also found a way to replace the EOB index, which was manipulated and distorted, with a transparent index of the Heritage Foundation and Wall Street Journal. This helps our research be unique while taking advantage of the great foundation of studies before us.

However, this paper is yet to answer which is the same element to be focused on. We have not dissected the index into smaller indicators to preserve the essence of our research question. As we would like to answer the question on the general direction of the ASEAN business environment topic, we believe saving this idea for future research will be the most ideal.

We also could not include all data from ASEAN, as Myanmar and Brunei lack a significant portion of quantitative measurements. We understand that this might cause unwanted bias and would like to acknowledge this limitation for future reference.

A more holistic model, which accounts for more variables that might affect development, can include an index on human capital and infrastructure. We wanted to include Human Development Index in our research; however, one of its indicators for economic living standards correlates directly with our dependent variable. We also want to include the

infrastructure index given its significant role in developing countries. However, the infrastructure index does not cover the period of our research, thus can lead to unbalanced panel data.

VII. Conclusion

In conclusion, this paper has reviewed the theoretical literature on the relationship between the business environment and economic development in ASEAN. To the best of our knowledge, this is the first paper using IEF as the main focus to analyze the business environment in the region. While this relationship has many layers, we tried to entangle them from different perspectives. Our model shows the negative and significant effect of reforming the business environment towards the global trajectory of freedom, suggesting how ASEAN might have underlying characteristics unready for this reform.

This paper aims to answer whether it is optimal for ASEAN as a region to open its business environment and continue its path toward global integration. We examine a panel data from 1998 to 2021 of 8 ASEAN Member States, applying Random Effect Model and correction from Feasible Generalized Least Squares (FGLS). We also tested for robustness by replacing our dependent variable with a more restricted one. While we control for possible confounding factors, we are aware of model limitations and do not establish a causal link between two variables.

This finding leads us to question the current stage of ASEAN development and realize region's distinct characteristic lies in its informal economy. Policy implications drawn from this finding might help researchers and policy-makers reflect on the region's trajectory toward economic development. A more vibrant and sustainable business environment might be beneficial for ASEAN, yet approaching them takes massive efforts and strategic risk management. In the case of China, a process of capital and experience accumulation contributes to this process, creating a strong, grounded, and anchored reform. Our result robustness, while contradicting with papers on the same topic, can act as a foundation more future research direction.

We also realize how concepts of economic or business freedom do not fully account for global differences. While several researchers have questioned the underlying philosophy of this concept with inconclusive results, little effort has been executed to create another index that

can factor in unique traits among nations. At the moment, there is also no concrete definition for ‘business environment.’ Manipulation of data is another topic to be discussed, as the termination of the World Bank EOB project has been a challenge for researchers to test their theories fully. While there are other indexes in the field, there is yet to be a perfect substitution for EOB, especially regarding business environment research.

However, we acknowledge all the challenges and look forward to the future trajectory of the ASEAN business environment and development.

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MASTER THESIS

Business and Development: Empirical Evidence from Southeast Asia

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GLODEP Program 2023

I hereby declare that this thesis has been written and composed entirely by myself. Except when stated otherwise, the work belongs to me and is of my authorship.

Hoang Phuong Hai Chau, May 2023

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Abstract

Encountering significant challenges from the middle-income trap, the Association of Southeast Asian Nations (ASEAN) formed ASEAN Economic Community (AEC) envisioning its integration into a competitive global market. Of several solutions, the ASEAN Economic Blueprint 2025, as the name suggested, established a road map to actualize ASEAN's potential. The recent trend of shifting focus to optimal business and economic reform, with a new dynamic brought by a very fast-paced digital transformation in the region and a group of upper-middle-income consumers, has become a new source of hope for ASEAN. Through this transformation, the region expects more business owners to enter the market with fewer barriers. As people start building their entrepreneurship, the region also expects an upward economic growth trajectory. However, the question remains as to how we realize said future. How do we act as a springboard for business owners, the tech-savvy young generation, and a group of wealthy consumers that demand more services? Answering this question, this study tests the relationship between the current business environment and economic development to establish an initial foundation for ASEAN's direction toward business environment reform.

Keywords: business, growth, development, digital transformation

I. Introduction

1. Research focus

“Is Southeast Asia getting old before getting rich?” has repeatedly been asked in recent years¹. While the benefits from demographic dividends are still multiplying in full force, the reality of a middle-income trap is also approaching². Within the next ten years, this region will be home to nearly 110 million senior citizens, which accounts for 15 percent of the population. By 2050, the problem is more pronounced, as the total number of people aged 60 or older will reach 176 million or 22 percent of the region's population³.

Responding to this challenge, the Association of Southeast Asian Nations (ASEAN) has emphasized its efforts on creating the optimal environment for micro, small, and medium-sized enterprises (MSMEs), together with the help of digital transformation for future trajectory⁴.

The business environment and its effect on economic growth have become increasingly essential in today's discussions^{5, 6, 7}. However, it is even more prominent as the Association

¹ Patrick Ziegenhain, “Getting Old Before Getting Rich (and Not Fully Realizing It): Premature Ageing and the Demographic Momentum in Southeast Asia,” in *Global Political Demography: The Politics of Population Change*, ed. Achim Goerres and Pieter Vanhuysse (Cham: Springer International Publishing, 2021), 167–93, https://doi.org/10.1007/978-3-030-73065-9_7.

² Koichi Ishikawa, “The ASEAN Economic Community and ASEAN Economic Integration,” *Journal of Contemporary East Asia Studies* 10, no. 1 (January 2, 2021): 24–41, <https://doi.org/10.1080/24761028.2021.1891702>.

³ Sen Nguyen, Vijitra Duangdee, and Chan Muyhong, “Asean's Developing Nations Are Getting Old before Getting Rich,” *South China Morning Post*, June 26, 2021, <https://www.scmp.com/week-asia/people/article/3138571/developing-asean-getting-old-getting-rich-and-pensions-arent>.

⁴ “ASEAN Economic Community Blueprint 2025,” 2016, <https://aecvcci.vn/tin-tuc-n1790/asean-economic-community-blueprint-2025.htm>.

⁵ VietnamPlus, “Business Environment Decisive to Boosting Economic Development | Business | Vietnam+ (VietnamPlus),” VietnamPlus, March 4, 2022, <https://en.vietnamplus.vn/improved-business-environment-helps-boost-economic-development/223005.vnp>.

⁶ Stephen Gelb and Alberto Lemma, “Promoting Economic Transformation through Business Environment Reform,” 2019.

⁷ “Business Environment Indicators,” 2012.

of Southeast Nations Association (ASEAN) is entering its next phase of development with constant needs for business environment transformation to realize its fullest potential ⁸.

2. Overview of the region

Established in 1967, ASEAN consists of 10 Member States, namely Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Viet Nam. ASEAN's vision has consistently been economic integration within the region, with a focus on a “rule-based” version of it ⁹. On the basis of the Bangkok Declaration, ASEAN's goal is to strengthen economic, cultural, and social cooperation among member countries while creating conditions for countries to integrate more deeply with the region and the world ¹⁰. Following five founding members, in 1984, 1995, 1997, and 1999, Brunei, Vietnam, Laos, Myanmar, and Cambodia respectively joined ASEAN ¹¹.

On December 31, 2015, ASEAN officially established the "ASEAN Economic Community" - after a joint statement at the ASEAN Summit meeting in Kuala Lumpur, together with the ASEAN Political-Security Community and the Cultural Community. ASEAN society has three important pillars, which include bringing ASEAN to a new step in terms of quality and creating an ASEAN with a position in the world economy ¹².

3. Significance of the topic

⁸ “ASEAN Development Outlook,” ASEAN Main Portal, 2021, <https://asean.org/book/asean-development-outlook/>.

⁹ “ASEAN Charter,” ASEAN Main Portal, accessed May 13, 2023, <https://asean.org/about-asean/asean-charter/>.

¹⁰ “History of ASEAN,” ASEAN Main Portal, accessed May 31, 2023, <https://asean.org/about-asean/the-founding-of-asean/>.

¹¹ “The Founding of ASEAN (Part 2),” ASEAN Main Portal, 2, accessed May 31, 2023, <https://asean.org/about-asean/the-founding-of-asean/the-founding-of-asean-part-2/>.

¹² “What You Need to Know about the ASEAN Economic Community | World Economic Forum,” accessed May 31, 2023, <https://www.weforum.org/agenda/2016/05/asean-economic-community-what-you-need-to-know/>.

ASEAN has been chosen as our topic of research for three main reasons: its unexpected growth rate during the pandemic, its hopeful trajectory towards the future, and its urgent need to establish a favorable business environment to realize said future.

ASEAN emerging economies with unexpected growth surges during the pandemic have called for global attention¹³. Indeed, the pandemic did contribute to the acceleration of novel business formats that helped establish a concrete foundation for a complete transformation of the region. Of which impact of digital technology has directed ASEAN's growth to a path of new opportunities, including e-commerce and e-payments (ASEAN Economic Community (AEC) Blueprint 2025, 2016). The region's e-commerce growth rate stands at around 20% - the fastest globally¹⁴. Explaining this phenomenon, HSBC believes this is an era of ASEAN's Internet population dividend as 80 percent of this region will be connected to the Internet by 2030¹⁵.

While the global economy faces certain difficulties of high inflation and low growth rate, Southeast Asia offers investors and researchers have several reasons to be hopeful¹⁶. Within ASEAN alone, six economies of Malaysia, Indonesia, Singapore, Thailand, and Vietnam receive more attention as their combined population exceeds 570 million and projected gross merchandise value of US\$300 billion by 2025¹⁷. ASEAN has become "the world's fastest-growing trade bloc and now accounts for almost 8% of global exports"¹⁸. Thailand offers a perfect example, as HSBC research finds how, within less than ten years, its wealth landscape more than doubled, creating also a doubled number of millionaires from 2022 to 2030 .

¹³ "Faster Growth of ASEAN's New Economy amid the Pandemic, A 4 Trillion USD Consumer Market for Chinese Companies," accessed May 14, 2023, <https://www.business.hsbc.com.cn/en-gb/campaigns/belt-and-road/asean-story-3>.

¹⁴ "Creating Sustainable Growth for Southeast Asia's Digital Economy," Google, October 27, 2022, <https://blog.google/around-the-globe/google-asia/sea-economy-2022/>.

¹⁵ "ASEAN's Rising Middle Class Offers Long-Term Potential," 2021, <https://www.uobgroup.com/asean-insights/articles/aseans-rising-middle-class.page>.

¹⁶ "Why Southeast Asia Offers Reason for Optimism | Insight | HSBC Holdings Plc," HSBC, accessed May 14, 2023, <https://www.hsbc.com/insight/topics/why-southeast-asia-offers-reason-for-optimism>.

¹⁷ "Faster Growth of ASEAN's New Economy amid the Pandemic, A 4 Trillion USD Consumer Market for Chinese Companies."

¹⁸ "Why Southeast Asia Offers Reason for Optimism | Insight | HSBC Holdings Plc."

Vietnam is another rising example that has doubled its GDP per capita within a 10-year span from 2010 to 2019 ¹⁹.

Furthermore, the growing body of mass prestige (“masstige”) consumers with similar tastes and characteristics is also a very significant element to be considered in Southeast Asia’s growth trajectory ²⁰. While heterogeneous by nature, this fast-rising mass-affluent market is unified with the help of digital technology that transcends borders within this region. This new ASEAN class are newly wealth-accumulated professionals or SME business owners who have been upgraded from middle-class within the last five years, with the majority of which is under 40 years old. Indeed, digital transformation, early exposure to digital products, and cross-border social media channels created a very homogenous group of citizens ²¹. According to the Boston Consulting Group report in 2019, this group shares very similar values and preferences: they all use social media and rely on digital omnichannel for shopping experience; upgrade to premium products that can cater to their sense of exclusivity; and look for brands’ functionality more than just the façade of it. This group is extremely influential as they are projected to account for 20% of the Southeast Asia population combined, with up to 65% of household wealth in Indonesia, Thailand, and the Philippines ²². They also grow faster than the middle-class consumer market in the Philippines, Vietnam, Indonesia, and Thailand ²³.

Last but not least, ASEAN's vision and current situation of the business environment and entrepreneurship requires the region to establish a strong empirical foundation as a critical first step ²⁴. It has been eight years since the publication of “ASEAN Economic Community (AEC)

¹⁹ “GDP Growth (Annual %) - Vietnam | Data,” accessed May 14, 2023, <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=VN>.

²⁰ “‘Mass Affluent’ to Drive Growth in Southeast Asia | WARC,” 2018, <http://www.warc.com/newsandopinion/news/'mass-affluent'-to-drive-growth-in-southeast-asia/41390>.

²¹ Aparna Bharadwaj, Justine Tasiaux, and Vaishali Rastogi, “Beyond the ‘Crazy Rich,’” BCG Global, August 10, 2020, <https://www.bcg.com/publications/2018/beyond-crazy-rich-mass-affluent-southeast-asia>.

²² “Southeast Asia’s Mass Affluent Are the Next Megamarket,” 2019.

²³ “‘Mass Affluent’ to Drive Growth in Southeast Asia | WARC,” 2018, <http://www.warc.com/newsandopinion/news/'mass-affluent'-to-drive-growth-in-southeast-asia/41390>.

²⁴ OECD and Economic Research Institute for ASEAN and East Asia, *SME Policy Index: ASEAN 2018: Boosting Competitiveness and Inclusive Growth*, SME Policy Index (OECD, 2018), <https://doi.org/10.1787/9789264305328-en>.

Blueprint 2025,” with a distinct outlook on growth. Built upon the success of “AEC Blueprint 2015”, its overall vision continues to promote and encourage the main themes of integration and cohesiveness in the region. However, several new directions have been established in this blueprint, especially regarding the scene of micro, small, and medium enterprises (MSMEs).

The aim to create an enabling business environment has been discussed widely recently^{25 26}. MSMEs are increasing their position as the most integral form of establishment in ASEAN, with 70 million in ASEAN and accounting for 97.2% to 99.9% of all business activities²⁷. The Economic Research Institute for ASEAN and East Asia (ERIA) has conducted research on business development regarding trade, investment human resource development, and many other prominent topics²⁸.

Figure 1

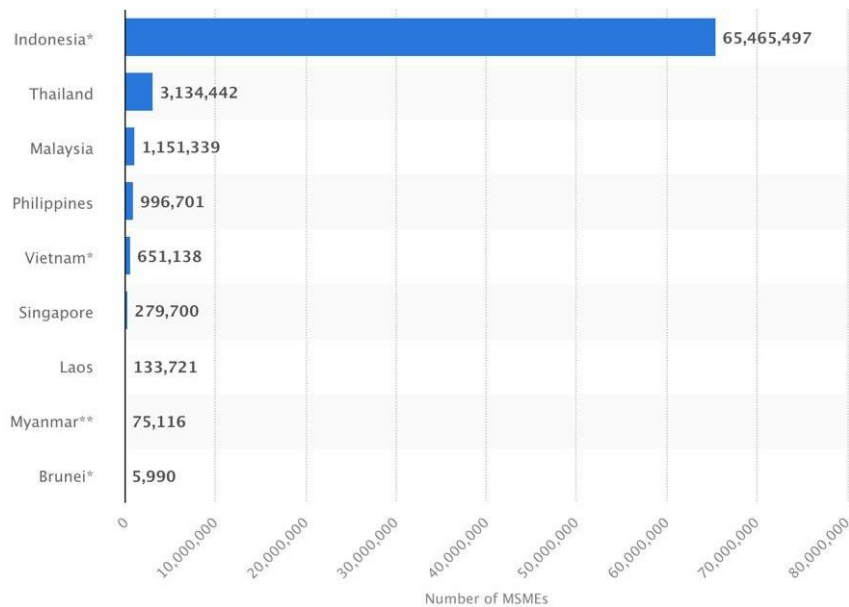
Number of micros, small, and medium-sized enterprises (MSMEs) in Southeast Asia in 2020, by country

²⁵ “Improving the Business Environment in 2022,” 2022, https://mof.gov.vn/webcenter/portal/thtk/pages_r/l/chi-tiet-tin-tin-hoc-va-thong-ke?dDocName=MOFUCM222478.

²⁶ “Policy Insight: Formalisation of Microenterprises in ASEAN,” 2018, <http://www.economica.vn/news/detail/policy-insight-formalisation-of-microenterprises-in-asean/504>.

²⁷ “Development of Micro, Small, and Medium Enterprises in ASEAN (MSME),” ASEAN Main Portal, accessed May 12, 2023, <https://asean.org/our-communities/economic-community/resilient-and-inclusive-asean/development-of-micro-small-and-medium-enterprises-in-asean-msme/>.

²⁸ OECD and Economic Research Institute for ASEAN and East Asia.



(Source: Statista)

With minimal variation within the region, Indonesia tops the list with the greatest number of MSMEs, as they make up for nearly 100 percent of the country’s business scene. This country of nearly 280 million people has a total of more than 65 million MSMEs ²⁹.

Digital transformation also requires a conducive environment that caters to innovation and flexibility ³⁰. This includes policies directing market incentives concerning the efficient allocation of capital, labor, and competition. Indeed, firms learn to adapt to innovation under competitive pressure, which means how a business environment creates a structure of incentives will have a colossal impact on this transformation process ³¹. As a very fast-paced field, digital transformation and innovation entities will also benefit from lower entry barriers, giving young and ambitious companies opportunities to stand on the shoulders of giants ³². In

²⁹ Leander von Kameke, “ASEAN: Share of MSMEs by Country,” Statista, 2022, <https://www.statista.com/statistics/1317161/asean-share-of-micro-small-medium-sized-businesses-by-country/>.

³⁰ Dan Andrews, Giuseppe Nicoletti, and Christina Timiliotis, “Digital Technology Diffusion: A Matter of Capabilities, Incentives or Both?” (Paris: OECD, July 30, 2018), <https://doi.org/10.1787/7c542c16-en>.

³¹ Philippe Aghion et al., “Competition and Innovation: An Inverted-U Relationship*,” *The Quarterly Journal of Economics* 120, no. 2 (May 1, 2005): 701–28, <https://doi.org/10.1093/qje/120.2.701>.

³² Hazel Henderson, “Social Innovation and Citizen Movements,” *Futures* 25 (April 1, 1993): 322–38, [https://doi.org/10.1016/0016-3287\(93\)90140-O](https://doi.org/10.1016/0016-3287(93)90140-O).

summary, policies help facilitate business dynamism by easing access to markets and resources and will create major differences in the digital diffusion of ASEAN.

In conclusion, this region attracts optimism due to its strong grounding in entrepreneurship. Looking forward, how the business environment handles the resources of digital technology, population dividend, and an emergent class of wealth will be translated in either much faster growth or major stagnant for the economy.

4. Research gap

Given the visions, reality, and future of ASEAN, this paper focuses on the relationship between the business environment and its effect on growth in the region. The research question concerns whether a more open entrepreneurial environment will contribute to economic growth in ASEAN. While there are several aspects to be considered with regard to the business environment, from institutions, regulations, and policies to tax administration, this paper focuses on an economic freedom index that captures the big picture of all the aforementioned. On one side, the proxy for the business environment will be the Index of Economic Freedom (IEF) by the Heritage Foundation and Wall Street Journal. On the other side of the equation, the proxy for growth will be the countries' growth rate of GDP per capita. The findings help establish a cornerstone for the body of literature in ASEAN on whether the step towards a more open and liberal economic environment does align with its intended development trajectory. This becomes more urgent as there is limited theoretical frameworks and empirical evidence focusing solely on Southeast Asia, more specifically on ASEAN, regarding this topic.

There are two papers that this research relied on for idea references. The first one is "A study on the impact of economic freedom on economic growth in ASEAN countries". In this paper, Tran also used IEF as a variable of interest and GDP per capita growth rate as the dependent variable. The author used a sample of eight ASEAN from 2000 to 2017³³. However, this paper focused on using the three indicators from the index, while the overall score is vaguely touched

³³ Dung Viet Tran, "A Study on the Impact of Economic Freedom on Economic Growth in ASEAN Countries," 2020, https://ageconsearch.umn.edu/record/301155/files/201910101737_24_BEH_2019_Vol15_Issue3_Vol15_Issue3_DV-Tran_Study_economic_freedom_ASEAN_423-449.pdf.

upon. In a similar vein, the second paper, “The Impact of Economic Freedom on Economic Growth? New European Dynamic Panel Evidence,” used a panel data of 43 European countries from 1995 to 2014. This paper moved to use the entire overall score of IEF as a variable of interest, with a main focus on European countries. This article also included the dummy variable of the European Union (EU) to test the effect of EU membership on economic growth. As the EU is the main theme of the paper, chosen control variables also reflected further characteristics of this region.

Our paper, while sharing some similarities in terms of ideas with these two articles, contributed to the body of works of literature by focusing on ASEAN Member States, with IEF overall score as our main focus, while also extending the timeline from 1998 to 2021 to cover for the effect of Covid in ASEAN. We also control for government expenditure as an independent variable while running a fixed effect model with a robustness check. This distinguishes our paper while respecting the contribution of previous researchers.

In conclusion, this paper's main focus will be the quantified aspects of the business environment on the economic growth of ASEAN Member States.

5. Research question

Empirically, what is the effect of an open business environment on economic growth and development in the ASEAN region in the last 20 years? As a distinct region of turbulent history and different levels of development, can individual Member States all benefit from the current trend of market openness? Are ASEAN visions stated in the Blueprint optimal for regional development? Is this regional development on par with global development? What can we learn to adapt from the world, and what do we need to preserve from our own unique set of situations?

To answer these questions, this study collected secondary data from official sources to construct a panel data series containing yearly growth rates at the country level from 1998 to 2021. The relationship between an open business environment and economic development will then be measured by the regression in which the proxy for the business environment is a variable of interest while the growth rate of GDP per capita is the dependent variable. The

variation explained will be attributed to the different levels of business environment openness both from the country dimension and time dimension.

Our model also controls for several variables that had shown statistically significant effects on growth rate in previous studies: unemployment rate, inflation, government final consumption expenditure, foreign direct investment, and exports rate. We also included a dummy variable of Covid to see if this period had any effect on our sample while controlling for its effect on growth.

Our empirical strategy follows the standard procedure for panel data regression: first, we run a correlation matrix and multicollinearity matrix to eliminate unsuitable variables, then we run Hausman Test to decide between the random effect model and fixed effect model. After the decision, we then run heteroskedasticity and serial correlation tests to further decide on an optimal model. Since our variables show statistically significant results for heteroskedasticity, we finally arrive at a feasible generalized least square (FGLS) model to correct for it.

6. Outline

The rest of the paper will be structured as follow: section II of the Literature review includes both conceptual framework and theoretical framework, with a review of literature, empirical evidence, and the current state of the topic in ASEAN and the world. Section III provides data and methodology, which constitutes the explanation of the data construction process with data collection methods and empirical strategy. Section IV then discusses the interpretation of our regression result, and section V will conclude the paper with a main conclusion, significant findings, and some policy recommendations.

II. Literature review

As 2025 is approaching, and the AEC Blueprint will have to be concluded, this research aspires to fill in an urgent research gap in ASEAN literature by posing a serious question: Which economic directions should we take from here? Answering this question will help the region reflect on its past efforts while having a grounded understanding of development trajectories in the next ten years. For this reason, the paper narrows the topic into the aspect of business environment and development, which should be captured by a panel of ASEAN countries with

similar histories, cultures, and growth rates throughout the span of 23 years from 1998 until 2021.

1. Definitions

1.1. Definition of business environment

Business environment is a multifaceted and non-homogenous concept with multiple identifications and no official definition^{34 35}. Current literature acknowledges both the importance and the complexity of defining this concept³⁶. Vlachou et al. and Weaver et al. concluded that the concept of “business environment” or “business climate” remains inconclusive and broad, without a concrete grounding^{37 38}. However, the author defined the business environment as “the combination of factors that influence the development of entrepreneurship”. This can be seen as the holistic combination of economic, socio-economic, and political characteristics that surround individual business activities. In a similar vein to the ASEAN MSMEs vision, Weaver et al. defined business environment as the existence of a support system for better creation and growth of small enterprises³⁹.

Notable people in the field also had different definitions of this concept. Wheeler defined this concept as “the total of all things external to firms and industries which affect their organization and operations”⁴⁰. Weimer, meanwhile, stated that “business environment encompasses the

³⁴ Dimitri Uzunidis, “Business Climate and Entrepreneurialism,” in *Encyclopedia of Creativity, Invention, Innovation and Entrepreneurship*, ed. Elias G. Carayannis (New York, NY: Springer, 2013), 143–48, https://doi.org/10.1007/978-1-4614-3858-8_194.

³⁵ Dr Kinange and Nikhil Patil, “BUSINESS ENVIRONMENT: The Concept and A Literature Review,” 2020.

³⁶ Sergii Sardak and Ihor Movchanenko, “Business Environment of Enterprise,” 2018.

³⁷ Charisia Vlachou et al., “The Entrepreneurial Environment in Greek Rural Areas: The Entrepreneur’s Viewpoint,” *Sustainability* 13 (February 5, 2021): 1719, <https://doi.org/10.3390/su13041719>.

³⁸ K Mark Weaver, Eric W Liguori, and George S Vozikis, “Entrepreneur Business Climate Perceptions: Developing a Measure and Testing a Model,” 2011.

³⁹ K Mark Weaver, Eric W Liguori, and George S Vozikis, “Entrepreneur Business Climate Perceptions: Developing a Measure and Testing a Model,” 2011, 45.

⁴⁰ “Meaning and Definition of Business Environment,” BrainKart, accessed May 24, 2023, https://www.brainkart.com/article/Meaning-and-Definition-of-Business-Environment_40856/.

‘climate’ or set of conditions, economic, social, political or institutional in which business operations are conducted”⁴¹.

The concept of “business environment” also expands beyond the word itself, as it has also been used interchangeably with “economic environment” or “economic environment of business” in the “Business Environment: Text and Cases” textbook by Justin Paul. Other terms such as “business climate,” “entrepreneurial climate,” and “entrepreneurial environment” are all similar concepts without defined differences in recent literature⁴².

“Business climate” is defined as all macroeconomic indicators accompanied by entrepreneurs’ opinions over the short run⁴³. It is the attitude that government and institutions have towards business undertakings⁴⁴. The Federal Reserve Bank of Minneapolis defined it as “a combination of public services, taxation, and regulation that creates the context within which companies operate”⁴⁵. Meanwhile, “entrepreneurial climate” refers to the external or macro environment surrounding enterprises. This includes both tangible and intangible factors (such as institutions) that affect the success and failure of businesses^{46 47}.

A critical analysis of these definitions brings us to a conclusion that common ground is yet to be established. However, repeated themes and perspectives from several researchers show that

⁴¹ “Concept of Business Environment | PDF | Natural Environment | Society,” Scribd, accessed May 24, 2023, <https://www.scribd.com/document/88232733/Business-Environment>.

⁴² Charisia Vlachou et al., “The Entrepreneurial Environment in Greek Rural Areas: The Entrepreneur’s Viewpoint,” *Sustainability* 13 (February 5, 2021): 1719, <https://doi.org/10.3390/su13041719>.

⁴³ Dimitri Uzunidis, “Business Climate and Entrepreneurialism,” in *Encyclopedia of Creativity, Invention, Innovation and Entrepreneurship*, ed. Elias G. Carayannis (New York, NY: Springer, 2013), 143–48, https://doi.org/10.1007/978-1-4614-3858-8_194.

⁴⁴ “What Is Business Climate | IGI Global,” accessed May 24, 2023, <https://www.igi-global.com/dictionary/corruption-business-climate-and-economic-growth/44784>.

⁴⁵ Brian Dabson; Carl Rist; William Schweke, “Business Climate and the Role of Development Incentives | Federal Reserve Bank of Minneapolis,” accessed May 24, 2023, <https://www.minneapolisfed.org/article/1996/business-climate-and-the-role-of-development-incentives>.

⁴⁶ Weaver, Liguori, and Vozikis, “Entrepreneur Business Climate Perceptions: Developing a Measure and Testing a Model.”

⁴⁷ Fatai Alani Lawal et al., “MODELLING THE RELATIONSHIP BETWEEN ENTREPRENEURIAL CLIMATE AND VENTURE PERFORMANCE: THE MODERATING ROLE OF ENTREPRENEURIAL COMPETENCIES” 24, no. 1 (2018).

economic, social, and institutional (policy, regulations, political environment) conditions are at the center of the business environment definition.

Within the scope of this paper, we define a business environment similar to that of the Heritage Foundation's Index of Economic Freedom. More specifically, we believe the four main themes covered in this index also encompass what we want to convey with the concept of the business environment. These four main themes of Rule of Law, Government Size, Regulatory Efficiency, and Open Markets also correspond to UNIDO's policy, legal, institutional, and regulations definition of the business environment.

1.2. Development definition

The terms economic growth and economic development are sometimes used interchangeably, but they are fundamentally different⁴⁸. As these concepts are discussed in an extensive body of literature, their definitions are concrete and well-established. Economic growth refers to a quantitative and measured increase in income and national or per capita product. If a country becomes more productive and the national average income increases, we will consider it "economic growth". However, economic development is a broader concept in which economic growth has to be translated into an actual improvement in all aspects of human well-being⁴⁹.

According to the Cambridge Dictionary, economic development is the process in which an economy grows or changes and becomes more advanced, especially when both economic and social conditions are improved. Indeed, these improvements tend to focus on structural changes that take place in health, education, or urbanization. Furthermore, this development needs to be shared among all citizens. This means the concentration of economic surplus should not be in an elite group while all other groups suffer⁵⁰. Several countries enjoy economic benefits

⁴⁸ Dwight H Perkins et al., "Economics of Development, accessed May 30, 2023, <https://www.norton.com/books/9780393934359>.

⁴⁹ Economic Recovery and Innovation Ministry of Jobs, "What Is Economic Development? - Province of British Columbia" (Province of British Columbia), accessed May 29, 2023, <https://www2.gov.bc.ca/gov/content/employment-business/economic-development/plan-and-measure/economic-development-basics>.

⁵⁰ Perkins et al., "Economics of Development."

through natural resources yet the traditional social structure remains. This is not considered development. Society for International Development defined development as the process of quality change and a continuation of conditions for that change ⁵¹. In conclusion, there are three pillars of development: economic growth, structural transformation, and well-being.

Within the scope of this study, we acknowledge the broadness of development, while narrowing it down for research efficiency. Thus, we decide to see development as an improvement in the standard of living and the health of an economy. This captures the essence of these terms while simplifying it to find one suitable proxy. GDP per capita has been chosen as this figure has been used as a result since it has been used by researchers extensively when analyzing the topic of life quality ⁵². Furthermore, this figure has also been used by economists as a proxy for the state of an economy ⁵³. Together, GDP per capita, though not perfect, fully delivers the message we want for this study.

2. The index

2.1. Advantages

We chose this index mainly for its efficient capturing of the business environment in a holistic approach, both thematically and technically, and its alignment with AEC visions in the past and the future.

Firstly, this index captures the essence of business environment of a country in the most quantitative manners ⁵⁴. While there are other attempts to capture this same factor, namely the World Bank's Doing Business Ranking (DBR) or the World Economic Forum's Global

⁵¹ "What Is Development?," *Sid Israel - Society for International Development* (blog), February 16, 2021, <https://sid-israel.org/en/what-is-development/>.

⁵² Mary Hall, "How Does GDP Affect the Standard of Living?," Investopedia, 2021, <https://www.investopedia.com/ask/answers/060115/how-does-gross-domestic-product-gdp-affect-standard-living.asp>.

⁵³ "Gross Domestic Product (GDP) per Capita and GDP per Capita Annual Growth Rate," accessed May 30, 2023, [https://www.who.int/data/nutrition/nlis/info/gross-domestic-product-\(gdp\)-per-capita-and-gdp-per-capita-annual-growth-rate](https://www.who.int/data/nutrition/nlis/info/gross-domestic-product-(gdp)-per-capita-and-gdp-per-capita-annual-growth-rate).

⁵⁴ "Business Environment Indicators."

Competitiveness Index (GCI), IEF offers a different perspective and strong quantitative measurement of the degree that individuals can function freely in an economy, which includes the freedom to produce, consume, and invest. This index also accounts for the macroeconomic elements of a nation, which helps provide a more holistic outlook, though compressed into one number. Furthermore, IEF also helps convert qualitative data into quantitative numbers for better calculation, with a transparent methodology and grading scheme. In comparison, GCI mostly deals with surveys, and DBR mainly manages local practitioners' responses. We will be more technically dissecting each of its components in detail in the Data & Methodology section.

From a practical standpoint, this index is suitable for serving as a proxy for the business environment from a political economy perspective. By definition, this index “focuses on four key aspects of the economic and entrepreneurial environment over which governments typically exercise policy control”⁵⁵. In fact, IEF also includes both key macroeconomic indexes and the country's historical and political context. In doing so, this index equips researchers with timely information on both the political risks and economic reforms⁵⁶. Through this index, we have a better grasp into the country's risks regarding inflation, taxation, tariffs, and especially property rights enforcement. This index also provides detailed public policy elements that are translated into business' everyday activities: how free entrepreneurship activities take place, what the nation's priorities are, and which direction of business openness is being encouraged.

From a technical standpoint, the four aspects covered by this index, namely the rule of law, government size, regulatory efficiency, and open markets, deeply affect business functions and can be viewed as the business environment as defined in section 1.1. Indeed, these four pillars directly affect a business's operations, profitability, and sustainability⁵⁷. This strengthens our decision to choose IEF as a proxy for the business environment in the world context. Olson,

⁵⁵ “2023 Index of Economic Freedom | The Heritage Foundation,” accessed May 22, 2023, <https://www.heritage.org/index/about>.

⁵⁶ Ryan Olson, “Using the Index of Economic Freedom: A Practical Guide,” The Heritage Foundation, 2014, <https://www.heritage.org/international-economies/report/using-the-index-economic-freedom-practical-guide>.

⁵⁷ Ryan Olson, “Using the Index of Economic Freedom: A Practical Guide,” The Heritage Foundation, 2014, <https://www.heritage.org/international-economies/report/using-the-index-economic-freedom-practical-guide>.

2014 further emphasizes how this index can help depict a great picture for business leaders and policy-makers trying to research into any country's market.

Secondly, the ASEAN trajectory and visions from Economic Community Blueprint 2025 are all measured in this index. From its name, this Blueprint acts as a guiding principle with its overarching vision of cultivating optimal business and economic environment, as stated as follows:

“In the next decade, ASEAN will also provide a new emphasis on the development and promotion of micro, small and medium enterprises (MSMEs) in its economic integration efforts. At the same time, ASEAN will likewise embrace the evolving digital technology as leverage to enhance trade and investments, provide an e-based business platform, promote good governance, and facilitate the use of green technology”⁵⁸.

We now compare the building of 12 indicators of IEF with ASEAN economic goals from ASEAN Economic Community Blueprint 2025 to understand their relevance and similar groundings further.

First, IEF's business freedom and ASEAN's effective competition policy share very similar focus. While the IEF business freedom score measures the efficiency of business regulations, ASEAN Blueprint emphasizes the strengthening of regulatory practices and frameworks that encourage a dynamic landscape in the region. We understand the macro-level effect of ASEAN's vision of creating a more level playing field for Member States to compete and operate with ease⁵⁹. Meanwhile, IEF also takes into consideration the closing of business, as this procedure might also affect the business freedom perception of the public⁶⁰.

Second, IEF's financial freedom measurement well reflects the essence of ASEAN's financial integration, financial inclusion, and financial stability vision. According to the Heritage, IEF's

⁵⁸ “ASEAN Economic Community Blueprint 2025.”

⁵⁹ “ASEAN Economic Community Blueprint 2025.”

⁶⁰ “Business Freedom Index: Regulations on Starting & Operating a Business,” accessed May 21, 2023, [//www.heritage.org/index/business-freedom](http://www.heritage.org/index/business-freedom).

financial freedom score is defined as the degree of independence of the financial sector from the government. This includes banking efficiency and other financial services such as insurers. A free financial system, thus, is the absence (or limitations) of a state-owned banking system, central supervision, and regulations. This also means the credit system is fully market-oriented, and foreign financial institutions can enter the market without any barrier ⁶¹. ASEAN acknowledges this reform of the financial sector with one of its three pillars revolving around Capital Account Liberalization. This liberalization focuses on the intra-ASEAN market with an integrated and connected system that is built upon regulatory cohesiveness. This connectedness will enhance greater capital flows among Member States. However, ASEAN liberalization still requires a level of commitment and consistency with each nation's agenda and its level of readiness. Regardless, protection measures are still to be taken very seriously ⁶².

Third, ASEAN's good governance focus is reflected in IEF's government integrity score. ASEAN acknowledge the significance of good governance and has started incorporating these practices into its regional agenda. The region focuses on promoting transparency in the public sector, as well as the synergies of business and government. We can say that by bridging the gap between public and private sectors, more engagement will also be established, which help cultivate a catalyst for good governance practices ⁶³. In parallel, IEF's government integrity indicator tries to capture the degree of corruption in a country, as the level of corruption signifies the absence of transparency within a nation ⁶⁴.

Fourth, IEF's investment freedom score well captures the ASEAN investment environment prospect of being a globally recognized investment hub. As ASEAN strives to build a transparent and predictable investment regime to accelerate the region's attractiveness, transparency in regulations and investment laws are being emphasized as a key pillar.

⁶¹ "Financial Freedom: Banking Efficiency and Economic Freedom," accessed May 22, 2023, <https://www.heritage.org/index/financial-freedom>.

⁶² "ASEAN Economic Community Blueprint 2025."

⁶³ "ASEAN Economic Community Blueprint 2025."

⁶⁴ "Government Integrity: Index of How Corruption Affects Economic Freedom," accessed May 22, 2023, <https://www.heritage.org/index/freedom-from-corruption>.

Furthermore, investment restrictions and hardship will be supervised for more flexible implementation ⁶⁵. In parallel, IEF's investment freedom indicator carefully examines every aspect of investment, domestically and internationally. As per definition, an economically free nation will have a free flow of investment capital. In reality, certain form of restrictions and regulations are imposed to protect countries from investment risks. However, to what extent these protections are being executed, and which level of transparency that they are being implemented under will be critically graded by IEF ⁶⁶.

Fifth, IEF's judicial effectiveness score perfectly matches ASEAN's target of effective, efficient, coherent and responsive regulations and good regulatory practice. As IEF emphasizes on building a fair and functional framework protecting all citizens, ASEAN also pays attention to a "non-discriminatory, pro-competitive, effective, coherent and enabling" regulatory regime ⁶⁷. Furthermore, the region ensures forward-looking structure and designs, aligning Member States' practices with global standard ⁶⁸.

Sixth, the direction toward labor freedom receives similar emphasis from both IEF and ASEAN. While IEF puts more focus on regulations on wages, hiring procedures, working hours, and employment opportunities, ASEAN highlights the ease of talent movement and capacity building by providing a shared qualification framework AQRF ^{69 70}.

Seventh, property rights protection is well addressed in both the IEF indicator and ASEAN Blueprint. In fact, intellectual property (IP) is acknowledged as the cornerstone for the ASEAN Member States to move up the ladder of technological development. Indeed, innovation

⁶⁵ "ASEAN Economic Community Blueprint 2025."

⁶⁶ "Investment Freedom: Investment Capital Flow and Economic Freedom," accessed May 22, 2023, <https://www.heritage.org/index/investment-freedom>.

⁶⁷ "2023 Index of Economic Freedom | The Heritage Foundation," accessed May 22, 2023, <https://www.heritage.org/index/about>.

⁶⁸ "ASEAN Economic Community Blueprint 2025."

⁶⁹ "ASEAN Economic Community Blueprint 2025."

⁷⁰ "Labor Market: Flexibility, Economy from the Index of Economic Freedom," accessed May 22, 2023, <https://www.heritage.org/index/labor-freedom>.

stimulation relies on a high degree of trust for transfer of technology. Thus, ASEAN has set goals to strengthen the development of IP offices with the key improvement of services in industrial designs, patents, and trademarks. Patent treaties, protocols, and agreements are also discussed as prominent initiatives to smoothen the IP network in the region. Moreover, regional platforms with technology transfer offices and linking virtual IP marketplaces are also suggested to leverage shared efforts among Member States, which can lead to an ecosystem in the long run ⁷¹. IEF shares the same perspective on the significance of IP while looking at the extent national legal system allows for the private acquisition, holding, and utilization of properties. They also analyze specifically the strength of these laws in effect and the degree of respect that it receives. This reception can be scrutinized while inquiring into the likelihood that private property can be expropriated by the government ⁷².

Eighth, ASEAN taxation cooperation targets and IEF tax burden score share similar views on easing the burden on taxpayers. However, IEF focuses more on measuring the burden reflected through top marginal rates for both individual and corporate income. They also account for this burden by measuring the relativity of tax rate in comparison with GDP ⁷³. ASEAN takes a more forward-thinking direction by leveraging concerted efforts to reduce the effect of double taxation on citizens. This includes improving the current stage of information exchange amongst Member States and testing the global taxpayers' identification strategy. The region also pays attention to excise tax as a good source for better fiscal health⁷⁴.

Ninth, trade freedom, the heart of discussion in economic liberalization, is being critically examined by both IEF and ASEAN. Acknowledging the positive effect of a greater free flow of goods, ASEAN emphasizes continued efforts to eliminate tariffs in the region with ASEAN Trade in Goods Agreement (ATIGA). This goes beyond border barriers, as behind-the-border regulation is also being carefully considered. Some key strategies for a seamless regional

⁷¹ "ASEAN Economic Community Blueprint 2025."

⁷² "Property Rights: Definition, Economic Growth, Index, Examples," accessed May 23, 2023, <https://www.heritage.org/index/property-rights>.

⁷³ "Tax Burden: How Tax Burden Affects Economic Freedom," accessed May 23, 2023, <https://www.heritage.org/index/fiscal-freedom>.

⁷⁴ "ASEAN Economic Community Blueprint 2025."

movement include strengthening current free trade agreements; simplifying administration processes of import, export, and customs procedures; minimizing compliance costs of Non-Tariff Measures (NTMs); strengthening relationship with the private sector to prioritize optimal procedures that are business-friendly ⁷⁵. IEF measure exactly the average tariff rate and nontariff barriers (NTBs) accordingly ⁷⁶.

Table 1

The relevance of Index of Economic Freedom's indicators and ASEAN vision from ASEAN Economic Community Blueprint 2025

Economic Freedom Indicators	ASEAN Economic Community Blueprint 2025 visions
Business Freedom	B.1. Effective Competition Policy
Financial Freedom	A.4. Financial Integration, Financial Inclusion, and Financial Stability
Fiscal Health	
Government Integrity	B.6. Good Governance
Government Spending	
Investment Freedom	A.3. Investment Environment
Judicial Effectiveness	B.7. Effective, Efficient, Coherent and Responsive Regulations, and Good Regulatory Practice
Labor Freedom	A.5. Facilitating Movement of Skilled Labor and Business Visitors
Monetary Freedom	
Property Rights	B.3. Strengthening Intellectual Property Rights Cooperation
Tax Burden	B.5. Taxation Cooperation
Trade Freedom	A.1. Trade in Goods

(Source: Author)

⁷⁵ “ASEAN Economic Community Blueprint 2025.”

⁷⁶ “Trade Freedom: Tariffs, Imports, Exports, and Economic Freedom,” accessed May 23, 2023, [//www.heritage.org/index/trade-freedom](http://www.heritage.org/index/trade-freedom).

2.2. Limitation of the data

However, we acknowledge the limits of IEF in its calculation method. IEF relies on the World Bank's Ease of Doing Business (EDB) in calculating one of its 12 elements: the business freedom scores⁷⁷. We understand that World Bank's data manipulation scandal discredits the legitimacy of this index, and we should find an alternative option⁷⁸. However, finding the best alternative has not been an easy task, as EDB has been used as the reference for all related indices measuring the business environment. However, we still decided to use IEF as it only uses one score in related to EDB. The other 11 elements have been transparently compiled without any issues.

4. The conceptual framework of business environment on development

Business environment has been discussed extensively in management studies and, more recently, entrepreneurship research as its role in innovation and economic growth has been recognized^{79 80}. Some researchers believe that governments, through public policies, should cultivate a sustainable and healthy business environment as this will help countries reach long-term economic development⁸¹.

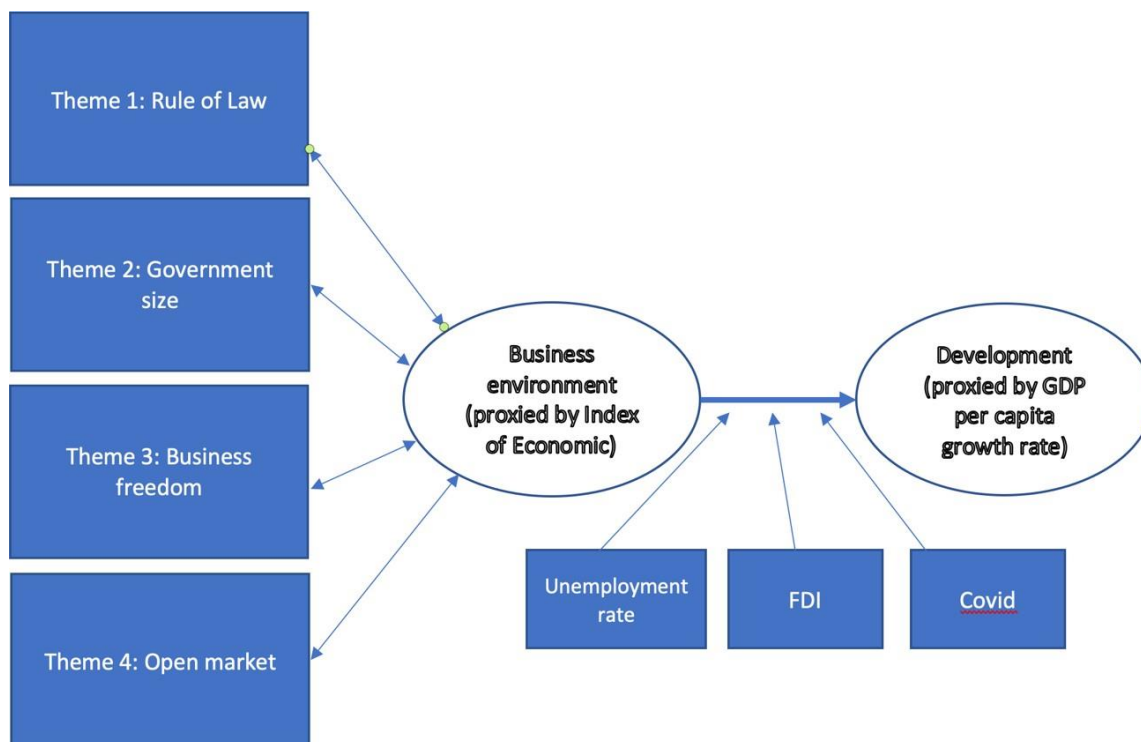
⁷⁷ "Trade Freedom: Tariffs, Imports, Exports, and Economic Freedom," accessed May 23, 2023, [//www.heritage.org/index/trade-freedom](https://www.heritage.org/index/trade-freedom).

⁷⁸ "Assessing Performance on the Access to Credit, Business Start-Up, and Land Rights and Access Indicators | Millennium Challenge Corporation," accessed May 21, 2023, <https://www.mcc.gov/who-we-select/indicators/doing-business-indicators-fy21>.

⁷⁹ Vlachou et al., "The Entrepreneurial Environment in Greek Rural Areas."

⁸⁰ David L. Barkley, Mark Henry, and Doohee Lee, "Innovative Activity in Rural Areas: The Importance of Local and Regional Characteristics," *Community Development Innovation Review*, no. 3 (2006): 1–14.

⁸¹ Vlachou et al., "The Entrepreneurial Environment in Greek Rural Areas."



(Source: Author)

5. Theoretical framework and empirical evidence.

This paper aims to highlight the significance of the business environment on growth. To realize this goal, we have established concrete definitions of the business environment and growth with quantifiable elements. A theoretical framework will now be developed to test this relationship, its direction, and its strength, followed by empirical evidence.

5.1. Business environment and development using Ease of Business (EOB)

In recent years, the application of the World Bank's ease of doing business (EOB) has been found in research with important findings, especially in the field of economic development. Even though we acknowledge their most recent problems and discontinuity, it is vital we

critically analyze papers that have adopted this index in the past to fully understand the current stage of the theoretical framework within this topic.

EOB has shown a consistent pattern and effect on two major proxies for growth, namely Foreign Direct Investment (FDI) and GDP per capita growth rate. While Vogiatzoglou emphasizes there exists such a relationship between the effectiveness of business regulations and FDI attraction ⁸², Adeoju states that EOB has an impact on the annual growth rate of GDP per capita, even though it is more statistically significant at the subsamples level ⁸³. Indeed, both papers iterate that future economic growth requires a more business-friendly framework and regulations. The channel through which EOB affects growth and FDI can be examined in a more detailed level of efficiency in regulating the starting and closing of a business, trade, and taxation system ⁸⁴. A more recent study by Datta & Verma finds that there are four pillars that generate the most impact on growth namely: starting a business, property rights, investor protection, and trading across borders ⁸⁵.

However, EOB also shows the mixed result when Moorthy examines its impact from a more macro perspective, and Adepoju separates countries into different groups with different level of income and development ⁸⁶⁸⁷. The robustness hence has been questioned.

In Asia, even though limited, attempts to test this relationship also show how EOB has significant effect on GDP per capita growth, in which more than eighty percent of economic growth variation can be explained simply by the changes in EOB's indicators. Indeed, the channel here is construction permits, credit access, property rights, and trading across border

⁸² Klimis Vogiatzoglou, "Ease of Doing Business and FDI Inflows in ASEAN," *Journal of Southeast Asian Economies* 33, no. 3 (2016): 343–63.

⁸³ Uthman K Adepoju, "Ease of Doing Business and Economic Growth," 2017.

⁸⁴ Vogiatzoglou, "Ease of Doing Business and FDI Inflows in ASEAN."

⁸⁵ Ankita Datta and Aastha Verma, "Understanding the Effects of Ease of Doing Business on Economic Growth and Development," 2020, <http://repository.iimb.ac.in/handle/2074/19420>.

⁸⁶ Vivek Moorthy, "Links between Ease of Doing Business and Growth," 2017, <http://repository.iimb.ac.in/handle/2074/14165>.

⁸⁷ Adepoju, "Ease of Doing Business and Economic Growth."

⁸⁸. Specifically, EOB can also be leveraged to identify countries' socioeconomic wealth, proving a causal relationship between the entrepreneurship environment and the wealth of nation ⁸⁹. In this paper, the role of free trade is further elaborated as being significant to a nation's wealth level. In the same vein, Islam proves that the increase in EOB will be translated to national competitiveness ⁹⁰. Further research into the country-specific level of the Philippines and Malaysia emphasizes how EOB can be an encouraging "tool" for the success of a nation's entrepreneurship environment. Overall, there are several channels and aspects through which EOB exercises its effect on development.

5.2. Business environment, economic freedom, economic freedom indexes and development

The challenge to define and find a proxy for the business environment while replacing the EOB index led this study to carefully scrutinize indexes and literature in the sphere of economic freedom. While IEF shows optimal relevancy to our study as the general definition of economic and business environment are closely related, it is imperative we acknowledge the depth and intertwinement of literature in the sphere of economic and business freedom and all other indexes of the same umbrella. The concept of economic freedom and business environment has several definitions and a huge body of research with major efforts dedicated to quantifying exactly what constitutes of it. With different philosophical groundings, constructions, angles, and mediators being carefully examined, this very concept has shown robust result on growth in the last decade.

One of the earliest attempts to quantify economic freedom and business environment was of Easton and Walker in 1992. Utilizing this index, Islam tested the relationship between scoring

⁸⁸ G. Ani Teodorica, "Effect of Ease of Doing Business to Economic Growth among Selected Countries in Asia," *Asia Pacific Journal of Multidisciplinary Research*, January 1, 2015, https://www.academia.edu/41968943/Effect_of_Ease_of_Doing_Business_to_Economic_Growth_among_Selected_Countries_in_Asia.

⁸⁹ Antonio L. Leal-Rodríguez and Carlos Sanchís-Pedregosa, "Could the Ease of Doing Business Be Considered a Predictor of Countries' Socio-Economic Wealth? An Empirical Analysis Using PLS-SEM," *Journal of International Studies* 12, no. 4 (2019): 229–43.

⁹⁰ Azwardi Azwardi and Wahyu Aji Wijaya, "CORRUPTION, EASE OF DOING BUSINESS, FOREIGN DIRECT INVESTMENT, AND COMPETITIVENESS IN ASEAN COUNTRIES," *Integrated Journal of Business and Economics* 6, no. 3 (October 31, 2022): 185–97, <https://doi.org/10.33019/ijbe.v6i3.492>.

high with this index and the national growth rate ⁹¹. The result shows there exists a direct relationship between them in high-income and all countries in the sample. This is not the only paper confirming a positive relationship of the economic freedom index. In fact, a majority of them stated how there is a direct link between the economic and business environment (and its indexes) with the annual per capita growth rate ^{92 93 94}.

The second prominent and commonly applied quantitative measure for economic and business freedom is the Fraser Institute's Economic Freedom of the World (EFW) index. Asking the question of "Does Really Economic Freedom Matter for Growth in South Asia, Nadeem et al. found concrete empirical evidence and positive direction from economic freedom and GDP per capita growth ⁹⁵. Akin et al. argued that while there exists a statistically significant and positive correlation between economic freedom and economic growth, the strength of this effect varies as the lower-middle income group receives more contribution from a free environment ⁹⁶. Nevertheless, all levels of economic freedom still benefit from this openness. Discovering the relationship in-depth, Faria & Montesinos found a robust pathway from economic openness to prosperity and proposed the least risky way to economic development should be ignited through better policies to cater to these findings ⁹⁷. Kacprzyk further explored the relationship by testing each indicator from the index and found property rights, monetary policy quality,

⁹¹ Sadequl Islam, "Economic Freedom, per Capita Income and Economic Growth," *Applied Economics Letters* 3, no. 9 (September 1, 1996): 595–97, <https://doi.org/10.1080/135048596356032>.

⁹² Islam.

⁹³ Saima Sarwar and Noor ul Haq, "Re-Assessing Political, Social and Economic Determinants of Economic Growth: An Analysis from Selected Asian Developing Economies," *Journal of Emerging Economies and Islamic Research* 5, no. 1 (January 31, 2017): 82–92, <https://doi.org/10.24191/jeeir.v5i1.8798>.

⁹⁴ Kandi Dwi Pratiwi and Ika Yuni Wulansari, "Economic Globalization in Asean Countries: A Panel Cointegration Analysis," *Economics Development Analysis Journal* 11, no. 4 (December 18, 2022): 425–41, <https://doi.org/10.15294/edaj.v11i4.56323>.

⁹⁵ Muhammad Nadeem et al., "Does Really Economic Freedom Matter for Growth in South Asia? Empirical Evidences from Pre-Economic Crises and Post-Economic Crises Period," *Asian Economic and Financial Review* 9, no. 1 (January 2, 2019): 52–63, <https://doi.org/10.18488/journal.aefr.2019.91.52.63>.

⁹⁶ Cemil Serhat Akin, Cengiz Aytun, and Başak Gül Aktakas, "The Impact of Economic Freedom upon Economic Growth: An Application on Different Income Groups," *Asian Economic and Financial Review* 4, no. 8 (2014): 2.

⁹⁷ Hugo J. Faria and Hugo M. Montesinos, "Does Economic Freedom Cause Prosperity? An IV Approach," *Public Choice* 141, no. 1 (October 1, 2009): 103–27, <https://doi.org/10.1007/s11127-009-9440-0>.

freedom to trade, and regulatory framework as the four key aspects of economic freedom that translate into growth. From this finding, the author confirms the significant and positive impact that a free environment has on European economic development, highlighting the biggest impact found in enhancing property rights protection ⁹⁸.

However, the application of EFW also reveals intriguing findings by Weede that there might be underlying characteristics that direct the strength of this relationship ⁹⁹. The level of prior economic development and the existing human capital of the nation itself might play into the mechanism. The author also proposed a new lens to dissect the matter within a global context: economic freedom has a massive spillover effect, as all countries are indirectly taking advantage of it, not only those directly benefiting.

Last but not least, using Heritage Foundation's IEF, several authors have presented interesting results on the relationship between economic and business environment on growth. Heckel explored whether there is a causal relationship between them and found that the level of freedom measured by the index can be a good predictor for growth ¹⁰⁰. The Granger-causality tests certainly suggest Capital Flows, Property Rights, and Regulation precede growth and not the other way around. However, researchers also found that this effect might also be seen in the long term. As a recent paper by Pratiwi & Wulansari suggests, several factors must first be met for this impact to be visible ¹⁰¹. Applying panel data cointegration analysis on ASEAN, this study tested the effect of globalization proxied by ICT, economic freedom, and economic openness. While ICT and economic openness showed immediate results in growth, economic freedom required zooming out of the timeline to fully be accounted for. Similar results can be found in a paper by ¹⁰² with a sample of European countries in panel data. Increases in

⁹⁸ Andrzej Kacprzyk, "Economic Freedom–Growth Nexus in European Union Countries," *Applied Economics Letters* 23, no. 7 (May 2, 2016): 494–97, <https://doi.org/10.1080/13504851.2015.1083076>.

⁹⁹ Erich Weede, "Economic Freedom and Development: New Calculations and Interpretations," *Cato Journal* 26 (2006): 511.

¹⁰⁰ Jac C. Heckelman, "Economic Freedom and Economic Growth: A Short-Run Causal Investigation," *Journal of Applied Economics* 3, no. 1 (May 1, 2000): 71–91, <https://doi.org/10.1080/15140326.2000.12040546>.

¹⁰¹ Pratiwi and Wulansari, "Economic Globalization in Asean Countries."

¹⁰² Ivana Brkić, Nikola Gradojević, and Svetlana Ignjatijević, "The Impact of Economic Freedom on Economic Growth? New European Dynamic Panel Evidence," *Journal of Risk and Financial Management* 13, no. 2 (February 2020): 26, <https://doi.org/10.3390/jrfm13020026>.

economic freedom proxied by Heritage Foundation's Index are correlated with growth regardless of its level. In the same vein, results from BRICS and Latin America Countries samples also showed concrete evidence. Explaining the relationship's mediator in the BRICS sample, Haydaroglu found that economically free governments and institutions undertake opportunities to enhance the national quality of life and reduce poverty in emerging economies ¹⁰³. The aggregate effect of IEF on growth once again confirms its vitality to any developing country. In the Latin American countries sample, Bengoa & Sanchez-Robles entangled the relationship with panel data analysis and found that the channel through which economic freedom manifested its effect on growth is FDI ¹⁰⁴. The quality of FDI that a country attracts will be vital to its developing stage. Indeed, the case study from Vietnam confirms this relationship at 5% significant level while the case study from the ASEAN sample also shows a significant relationship ^{105, 106}.

Another prominent paper using Heritage Foundation's Index is "A Study on the Impact of economic freedom on economic growth in ASEAN Countries". While testing for the relationship between economic and business freedom indicators and growth, the author found several insights into the mechanism that underlies it. Which, higher financial liberalization is seen to have a positive effect on the growth of its association with direct money transfer and foreign investment. These streams of capital, in turn, will stimulate economic growth and translate into long-term development. The author also found that labor freedom increases growth, as lower regulation frameworks on wages, working hours, and labor force participation give employers and employees a window of flexibility. Aligning with AEC Blueprint on

¹⁰³ Ceyhun Haydaroglu, "The Effect of Foreign Direct Investment and Economic Freedom on Economic Growth: The Case of BRICS Countries," *Research in World Economy* 7 (March 7, 2016), <https://doi.org/10.5430/rwe.v7n1p1>.

¹⁰⁴ Marta Bengoa and Blanca Sanchez-Robles, "Foreign Direct Investment, Economic Freedom and Growth: New Evidence from Latin America," *European Journal of Political Economy* 19, no. 3 (September 2003): 529–45, [https://doi.org/10.1016/S0176-2680\(03\)00011-9](https://doi.org/10.1016/S0176-2680(03)00011-9).

¹⁰⁵ Nguyen Huu Cung and Nguyen Thi Hong Nhung, "Impact of Economic Freedom and Corruption Perceptions Index on Foreign Direct Investment in Vietnam," *European Scientific Journal ESJ* 16, no. 10 (April 30, 2020), <https://doi.org/10.19044/esj.2020.v16n10p25>.

¹⁰⁶ Tran, "A Study on the Impact of Economic Freedom on Economic Growth in ASEAN Countries."

lowering the trade barriers through the reduction of tariffs and nontariff, the result also shows a positive effect of trade freedom in the region.

However, this paper by Tran also records worth-noting insights: financial freedom and credit to the private sector do not necessarily hold a positive relationship on economic development in ASEAN¹⁰⁷. This can be explained through the lens of risk management: credit to the private sector might have an unwanted linkage to the increase in overall risk within an economy.

The idea to combine both Heritage Foundation and Fraser Institute Indexes for a more objective outlook on the matter has been realized by Mimoun & Essaggay¹⁰⁸. The authors also explored both the aggregate and disaggregated versions of these indexes, as this implementation will provide insights into the most efficient policy recommendation for assured growth. Indeed, property rights, efficiency in government spending, flexible regulations, business freedom, and investment are once again confirmed as major sources for growth, proxied by the total factor of production. In fact, the index itself can explain up to 72 percent difference across regions for GDP per worker and up to 65 percent of the total factor of production. This finding confirms the weight of the economic and institutional environment's influence on cross-countries different levels of development.

Further research into economic and business freedom influence also shows a strong nexus of economic freedom-FDI and growth. In ASEAN, Ansari & Sensarma found that economic freedom can, in fact, be the channel through which FDI fully exercises its effect on growth, alongside improvement in human capital quality and financial institutions¹⁰⁹. A bigger sample of South Asia, East Asia, Latin America, and North and West Europe contributes to the robustness of this result. This mechanism can also be explained as macroeconomic factors from economic freedom help attract FDI, and this liberalization further enhances the FDI inflow in

¹⁰⁷ Tran.

¹⁰⁸ Mohamed Mimoun and Ali Essaggay, "Economic Freedom, TFP and Growth: Comparative Analysis of GCC and East Asian Newly Industrialized Economies (NIEs)," *INTERNATIONAL JOURNAL OF RESEARCH IN LAW ECONOMIC AND SOCIAL SCIENCES* 4 (March 1, 2018).

¹⁰⁹ Md. Gyasuddin Ansari and Rudra Sensarma, "Does Economic Freedom Influence the FDI–Growth Nexus in ASEAN Economies?," *Journal of Asian Economic Integration* 4, no. 2 (September 1, 2022): 144–59, <https://doi.org/10.1177/26316846221112228>.

the long run. Once again, a trade openness policy with relaxed tariff and export procedures create an investment-friendly environment that directly boosts the FDI inflow ¹¹⁰. Another paper by Azman-Saini et al. helps explain the mechanism on which this relationship fully expands: the degree of effect from FDI is based upon the level of economic freedom in the country as countries with a higher level of freedom also gain more when multinational cooperations enter ¹¹¹. This means FDI itself does not directly cause growth but a country's own characteristics. The authors, thus, emphasized the significance of policies that help mediate the full effect of FDI. Since the effect of economic freedom is both direct and indirect, the government is encouraged to fully account for positive spillovers of foreign investment.

In summary, economic freedom indexes and their key constituents of property rights, legal framework, regulations, trade freedom, and investment freedom show a robust and positive result on growth regardless of the index being used.

However, economic freedom on growth receives massive criticism by Singh & Gal ¹¹². The author argued how literature had been tainted strongly in favor of economic freedom with massive publication bias, making it challenging to decipher their true effect. Echoing this view is Doucouliagos & Ulubasoglu applied meta-analysis and panel data analysis and found a specification bias when controlling for physical capital ¹¹³.

¹¹⁰ Devesh Singh and Zoltán Gal, "Economic Freedom and Its Impact on Foreign Direct Investment: Global Overview," *Review of Economic Perspectives* 20, no. 1 (March 1, 2020): 73–90, <https://doi.org/10.2478/revecp-2020-0004>.

¹¹¹ W. N. W. Azman-Saini, Ahmad Zubaidi Baharumshah, and Siong Hook Law, "Foreign Direct Investment, Economic Freedom and Economic Growth: International Evidence," *Economic Modelling* 27, no. 5 (September 1, 2010): 1079–89, <https://doi.org/10.1016/j.econmod.2010.04.001>.

¹¹² Devesh Singh and Zoltán Gal, "Economic Freedom and Its Impact on Foreign Direct Investment: Global Overview," *Review of Economic Perspectives* 20, no. 1 (March 1, 2020): 73–90, <https://doi.org/10.2478/revecp-2020-0004>.

¹¹³ Chris Doucouliagos and Mehmet Ali Ulubasoglu, "Economic Freedom and Economic Growth: Does Specification Make a Difference?," *European Journal of Political Economy* 22, no. 1 (March 1, 2006): 60–81, <https://doi.org/10.1016/j.ejpoleco.2005.06.003>.

6. Research gap

Sourcing through the literature, we understand there is a lack of literature on the ASEAN business environment and growth. This is alarming, especially given the new Blueprint that requires in-depth policy aligning with the long-term vision of the regions.

7. Conclusion

This chapter has established a foundation of definitions, scope, and theoretical relationship of the business environment and growth. A panel data of 8 ASEAN countries with a span of 23 years (from 1998 to 2021) has been collected to leverage both the cross-sectional and time-series dimensions. The following chapter on Data and Methodology will help us clarify the strength and limitations of this choice.

III. Data & Methodology

1. Data

1.1. Data description

This study uses a panel data with unbalanced observations, in which 8 Member States of ASEAN will be followed from 1998 until 2021. There, are two reasons we choose these countries and time periods: data availability and the timeline legitimacy of the region. While ASEAN consists of 10 Member States, there is limited data availability for Brunei Darussalam and Myanmar. 1998 was chosen as the start of the timeline so that the effect of the 1997 Asian financial crisis would not be included and confound the result.

We want to include credit to the private sector and literacy rate as control variables. However, due to data missing problems, we cannot include them in the model.

Table 2 Description of variables

Abbreviation	Unit	Description	Source
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		Dependent variable	
gdppcgrowth	annual %	GDP per capita growth	World Bank national accounts data, and OECD National Accounts data files.
		Variable of interest	
overallscore	Estimate	The degree of economic freedom in the world's nations	The Heritage Foundation and Wall Street Journal
		Control variables	
unemployment~e	% of total labor force	Unemployment, total (modeled ILO estimate)	International Labor Organization
fdi	% of GDP	Foreign direct investment, net inflows	International Monetary Fund, International Financial Statistics and Balance of Payments databases, World Bank, International Debt Statistics, and World Bank and OECD GDP estimates.
export	% of GDP	Exports of goods and services	World Bank national accounts data, and OECD National Accounts data files.
covid	dummy variable	Time when ASEAN receives effect from the global pandemic	Self-constructed

	= 1 in 2020 and 2021 = 0 otherwise		
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(Source: author)

1.2. Data limitations

The data is unbalanced and requires econometric techniques to account for it.

2. Constructing variables and theoretical background

2.1. Dependent variable

GDP per capita growth rate: “Annual percentage growth rate of GDP per capita based on constant local currency. GDP per capita is gross domestic product divided by midyear population. GDP at purchaser's prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources.”

2.2. Variable of interest

“Overallscore” is the Index of Economic Freedom (IEF) discussed during the conceptual framework of our literature review. We now take a more detail-oriented analysis with and ask: why is this index suitable for the measuring of the environment of business activities? By critically examining each theme within this index and their relevant literature, we will be able to confirm that this index is the most optimal measurement of our notion of the “business environment.”

The first theme of IEF is the Rule of Law, which consists of Property Rights, Judicial Effectiveness, and Government Integrity. This theme will be discussed in depth as inconclusive

findings in literature paved the way for major discussion. The second, third, and fourth themes receive more consensus and will be touched upon with the most prominent points.

The mechanism through which the rule of law and its components influence economic growth is the efficient structures that create a positive exogenous environment. Also, the rule of law increases the transparency and trust in society, which in turns multiply the reliability of an economy. Indeed, the rule of law has shown a positive effect in a sample of developed countries, in which any percentage increase in the rule of law will lead to an increase in income per capita ¹¹⁴. A strong foundation of the rule of law was proven to improve the healthcare sector, education and alleviate poverty. Governments around the globe have shown active efforts to increase their rankings within this subject matter ¹¹⁵.

However, the rule of law also receives the most criticism for the way it was formulated. While the rule of law is widely regarded as the key to development, researchers agree that this is a multidimensional concept that requires deliberate and delicate analysis. Indeed, Haggard & Tide found that a global sample might not be suitable for drawing inferences, as the correlation between indicators for developing countries and that of developed ones are a lot different ¹¹⁶. A study by Özpölat et al. found that within a group of developing countries, the rule of law effect is neither significant nor meaningful ¹¹⁷. Oman & Arndt, with first-principles thinking, questioned the legitimacy of the construction of these indicators, as they found how individual indicators told a much different picture from the final result of composite indexes ¹¹⁸. Also, they found how differences in econometric models and underlying assumptions can completely change the robustness of research concerning the rule of law. Haggard et al. tried to explain

¹¹⁴ Aslı Özpölat et al., “Does Rule of Law Affect Economic Growth Positively?,” *Research in World Economy* 7 (March 3, 2016), <https://doi.org/10.5430/rwe.v7n1p107>.

¹¹⁵ William H. Neukom, “The World Justice Project,” *Leadership and Management in Engineering* 9, no. 3 (July 2009): 129–30, [https://doi.org/10.1061/\(ASCE\)1532-6748\(2009\)9:3\(129\)](https://doi.org/10.1061/(ASCE)1532-6748(2009)9:3(129)).

¹¹⁶ Stephan Haggard and Lydia Tiede, “The Rule of Law and Economic Growth: Where Are We?,” *World Development* 39, no. 5 (May 2011): 673–85, <https://doi.org/10.1016/j.worlddev.2010.10.007>.

¹¹⁷ Aslı Özpölat et al., “Does Rule of Law Affect Economic Growth Positively?,” *Research in World Economy* 7 (March 3, 2016), <https://doi.org/10.5430/rwe.v7n1p107>.

¹¹⁸ Charles P. Oman and Christiane Arndt, *Uses and Abuses of Governance Indicators*, Development Centre Studies (OECD, 2006), <https://doi.org/10.1787/9789264026865-en>.

these results, as they acknowledged a fundamental difference between advanced economies and the rest: the role of formal institutions. For several developing countries, the informal economy and informal institutions can be considered as important as the formal ones ¹¹⁹.

We now look into the literature on indicators in the Rule of Law. Property rights is considered as one of the key elements for any economic development; however, literature shows mixed arguments on its effect and direction on growth. Using an index measuring property rights, ¹²⁰ analyzed the situation in EU and OECD countries from 2007 to 2014 and found that there is a positive relationship between these special rights and growth, as any improvement of this index directly leads to a positive growth rate. However, Haggard et al. argued that it is not the existence of the rule of law that helped establish property rights but a whole complex process of power struggle that has formed these rights in the first place ¹²¹. This argument has been confirmed by a study by Sattar & Mahmood in which a sample of high-income, middle-income, and low-income countries was used ¹²². The effect of intellectual property rights is strongest and most significant, as expected, in countries that promote the rule of law or developed and advanced countries. However, this effect cannot be found in other groups of countries.

In the same light, the effect of judicial systems on development is also ambiguous. Analyzing a sample of China provinces, Yuan et al. found the establishment of a court and strict enforcement of law can bring massive change to society without affecting economic growth ¹²³. Hayo & Voigy found three elements of procedural formalism that positively affect growth:

¹¹⁹ Stephan Haggard, Andrew MacIntyre, and Lydia Tiede, “The Rule of Law and Economic Development,” *Annual Review of Political Science* 11, no. 1 (2008): 205–34, <https://doi.org/10.1146/annurev.polisci.10.081205.100244>.

¹²⁰ Ceyhun Haydaroglu, “The Relationship between Property Rights and Economic Growth: An Analysis of OECD and EU Countries,” *DANUBE: Law and Economics Review* 6, no. 4 (December 1, 2015): 217–39, <https://doi.org/10.1515/danb-2015-0014>.

¹²¹ Haggard, MacIntyre, and Tiede, “The Rule of Law and Economic Development.”

¹²² Abdul Sattar and Tahir Mahmood, “Intellectual Property Rights and Economic Growth: Evidences from High, Middle and Low Income Countries,” *Pakistan Economic and Social Review* 49, no. 2 (2011): 163–86.

¹²³ Huaxi Yuan, Longhui Zou, and Yidai Feng, “How to Achieve Emission Reduction without Hindering Economic Growth? The Role of Judicial Quality,” *Ecological Economics* 209 (July 1, 2023): 107839, <https://doi.org/10.1016/j.ecolecon.2023.107839>.

written procedures, the right to counsel, and timeliness¹²⁴. While the quality of the judicial system can bring good results, the lengthy procedures might be at risk of corruption. Indeed, this argument was found in a paper by Djankov et. al as they constructed an index on judicial procedures¹²⁵. Results show higher formalism leads to less consistency, less honesty, and more corruption; overall, justice was compromised. As we see, the power of the court to enforce rights and orders does not always translate to development. They can completely use this stronghold for private firms that control the economy. The formality of constitutions and strict rules can be used by the court to protect the already established class in the society – whose voices are well heard and recorded into the system. As such, the interest of the leaders and citizens are not always in alignment with each other¹²⁶.

The second theme of IEF is government size, which includes tax burden, fiscal health, and government spending. According to OECD, government spending provides a look into the size of government around the world, in which different approaches to public goods provision are reflected¹²⁷. Government spending has long been found to have inconclusive results as the expansion of government can be harmful under various circumstances. While Wagner’s law stated that government spending grows with the development of economy, for low-income countries, results have been found to support more government spending does not lead to economic growth or development¹²⁸. Bergh & Karlsson found that there is a robust and negative correlation between government size and growth rate¹²⁹. However, they also concluded that big government could use their openness to their own advantage and mitigate

¹²⁴ Bernd Hayo and Stefan Voigt, “The Relevance of Judicial Procedure for Economic Growth,” *CESifo Economic Studies* 60, no. 3 (September 1, 2014): 490–524, <https://doi.org/10.1093/cesifo/ifs044>.

¹²⁵ Simeon Djankov et al., “Courts: The Lex Mundi Project,” SSRN Scholarly Paper (Rochester, NY, April 1, 2002), <https://papers.ssrn.com/abstract=307127>.

¹²⁶ Tom Ginsburg and Tamir Moustafa, eds., *Rule by Law: The Politics of Courts in Authoritarian Regimes* (Cambridge [UK] ; New York: Cambridge University Press, 2008).

¹²⁷ “General Government - General Government Spending - OECD Data,” theOECD, accessed May 29, 2023, <http://data.oecd.org/gga/general-government-spending.htm>.

¹²⁸ Shih-Ying Wu, Jenn-Hong Tang, and Eric S. Lin, “The Impact of Government Expenditure on Economic Growth: How Sensitive to the Level of Development?,” *Journal of Policy Modeling* 32, no. 6 (November 1, 2010): 804–17, <https://doi.org/10.1016/j.jpolmod.2010.05.011>.

¹²⁹ Andreas Bergh and Martin Karlsson, “Government Size and Growth: Accounting for Economic Freedom and Globalization,” *Public Choice* 142, no. 1/2 (2010): 195–213.

unwanted effects. Panel data from 108 countries were used to test how government size's effects also vary with different levels of political rights and civil freedom ¹³⁰.

The tax burden has had a conclusive base as several researchers found a negative relationship between a tax increase and development beyond a threshold of economic maximization. Of which, the case of Turkey further confirms this result ¹³¹. This paper also found Granger Causality between tax and growth, which holds strong policy implications for the country. Koatsa et al. found an insignificant result of tax in Lesotho applying a log-linear model ¹³². Meanwhile, IEF measures both government deficits and debt to GDP ratio that reflect the health of government management. Heritage Foundation argued that poor fiscal health would result in instability and uncertainty in the economy.

The third theme of business freedom relies on the World Bank's report on EOB, consisting of business freedom and labor freedom as indicators. As reviewed in our literature (part II.5.2), easy procedures for doing business show a robust relationship with economic growth. The mechanism can be easy to decipher, as we can see in the successful case of Singapore and the system in place. By attracting investors and entrepreneurs, positive externalities can be created for the whole society, even if these businesses fail ¹³³.

Monetary policy, with inflation being measured and calculated into the equation, does show an impact on economic and development. This topic has been studied extensively with massive support for negative causal relationship results. According to Akinsola & Odhiambo, however, a consensus has not been fully reached, as a review of existing literature found there are four main categories into which this topic can be divided into: inflation does not have any effect on

¹³⁰ António Afonso and João Tovar Jalles, "Economic Performance and Government Size," SSRN Scholarly Paper (Rochester, NY, October 28, 2011), <https://doi.org/10.2139/ssrn.1950570>.

¹³¹ Ozay Ozpence and Nedim Mercan, "THE RELATIONSHIP BETWEEN TAX BURDEN AND ECONOMIC GROWTH: TURKEY CASE," *Journal of Business Economics and Finance* 9, no. 2 (June 30, 2020): 143–54, <https://doi.org/10.17261/Pressacademia.2020.1220>.

¹³² N. Koatsa, C. Paramaiah, and M. Scona, "Tax Burden and Economic Growth in Lesotho: An Estimate of the Optimal Tax Burden," *Accounting* 7, no. 3 (2021): 525–34.

¹³³ Seung-Hyun Lee, Mike W. Peng, and Sangcheol Song, "Governments, Entrepreneurs, and Positive Externalities: A Real Options Perspective," *European Management Journal* 31, no. 4 (August 1, 2013): 333–47, <https://doi.org/10.1016/j.emj.2013.01.006>.

growth, inflation has a positive effect on economic development, inflation only affects economy after certain thresholds and negative relationship between them ¹³⁴. If we dive into the topic by region, the South Asia case showed a positive relationship between two variables ¹³⁵. The authors concluded that attempts to eliminate inflation might lead to unwanted consequences. If we dissect this effect by countries, the study by Jayathileke et al. found that there is a long-term negative and significant effect in Sri Lanka ¹³⁶. In contrast, both China and India do not have any strong relationship between economic growth and inflation. In Tanzania, a negative impact has been found, though no long-run relationship is visible ¹³⁷. Another angle to look at inflation has been developed by ¹³⁸. According to the authors, low inflation is important, but the authors reemphasize how it is not sufficient for healthy economic growth. For the case of Latin America, Bittencourt found a harmful impact of the two variables applying time-series analysis ¹³⁹. In Malaysia, a causality from inflation to growth was discovered in the short-run ¹⁴⁰. However, in the long run, it is economic growth that has Granger causality on inflation.

The fourth theme of an open market with trade freedom, investment freedom, and financial freedom falls under the nexus of economic freedom and growth, which was reviewed in Section II, part 5.3. Depending on researchers and studies, economic freedom and open markets are

¹³⁴ Foluso A. Akinsola and Nicholas M. Odhiambo, "Inflation and Economic Growth: A Review of The International Literature," *Comparative Economic Research. Central and Eastern Europe* 20, no. 3 (September 30, 2017): 41–56, <https://doi.org/10.1515/cer-2017-0019>.

¹³⁵ Girijasankar Mallik and Anis Chowdhury, "INFLATION AND ECONOMIC GROWTH: EVIDENCE FROM FOUR SOUTH ASIAN COUNTRIES" 8, no. 1 (2001).

¹³⁶ Pradana M. Bandula Jayathileke and Rathnayaka M. Kapila Tharanga Rathnayake, "Testing the Link between Inflation and Economic Growth: Evidence from Asia," *Modern Economy* 04, no. 02 (2013): 87–92, <https://doi.org/10.4236/me.2013.42011>.

¹³⁷ Faraji Kasidi and Kenani Mwakanemela, "Impact of Inflation on Economic Growth: A Case Study of Tanzania," *Asian Journal of Empirical Research* 3, no. 4 (April 17, 2013): 363–80.

¹³⁸ Mario Švigir and Josipa Miloš, "Relationship between Inflation and Economic Growth; Comparative Experience of Italy and Austria," *FIP - Financije i Pravo* 5, no. 2 (December 21, 2017): 91–101.

¹³⁹ Manoel Bittencourt, "Inflation and Economic Growth in Latin America: Some Panel Time-Series Evidence," *Economic Modelling* 29, no. 2 (March 1, 2012): 333–40, <https://doi.org/10.1016/j.econmod.2011.10.018>.

¹⁴⁰ Dr Kanchan Datta and Dr Chandan Kumar Mukhopadhyay, "Relationship between Inflation and Economic Growth in Malaysia - An Econometric Review," 2011.

used

interchangeably.

2.2. Control variables

The field of development studies has long been focusing on the determinants of economic growth; however, little consensus on an over-encompassing model has been found. Prominent findings, thus far, include government efficiency, labor market, financial system, fiscal policies, saving, and investment ¹⁴¹. A paper from Nawz et al. used a total of five variables to capture economic growth, including inflation, interest rate, and exchange rate as proxies for government monetary policy, literacy rate as a proxy for human capital, and FDI as a proxy for investment ¹⁴². To the best of our knowledge and data availability, we have included the unemployment rate, foreign direct investment, and a dummy variable as potentially confounding factors to control for their effects on economic growth. We wanted to include both literacy rate and credit to the private sector in the model; however, we encountered several missing values and had to leave them out.

World Bank defined unemployment as “the share of the labor force that is without work but available for and seeking employment.” We need to control for the effect of unemployment on growth as this relationship has received consensus in economic literature, proposed by Okun’s law. As Oner from International Monetary Fund stated: “Growth and unemployment can be thought of as two sides of the same coin.” Indeed, unemployment has been seen as countercyclical as it reduces if the economy does well and vice versa. There are several empirical pieces of evidence supporting this relationship, of which the case study from South Africa showed a long-term effect between the unemployment rate and output growth while confirming the statistical significance of it ¹⁴³. Li & Liu also found a negative correlation between economic development (GDP) and the rate of unemployment in the case of China

¹⁴¹ Florin Teodor Boldeanu and Liliana Constantinescu, “The Main Determinants Affecting Economic Growth,” n.d.

¹⁴² Muhammad Nawaz et al., “Which Factors Influence the Economic Growth of the Country? Evidence with Reference to Pakistan,” 2014.

¹⁴³ Sibusiso Clement Makaringe and Hlalefang Khobai, “The Effect of Unemployment on Economic Growth in South Africa (1994-2016),” MPRA Paper, March 19, 2018, <https://mpra.ub.uni-muenchen.de/85305/>.

¹⁴⁴. In India, Okun's law is further confirmed with a significant result: 1% increase in GDP will negatively affect the unemployment rate by nearly 0.5 percentage points ¹⁴⁵. A panel data analysis from European Union also reached the same conclusion as they demonstrated how a higher unemployment rate has negative impact on GDP per capita ¹⁴⁶. In Malaysia, this impact is also confirmed, with Okun's coefficient stands at 3.5 percent. This means 1 percent decrease in the unemployment rate will lead 3.5 percent increase in GDP growth ¹⁴⁷. Jordan, despite being a small country, also contributed to the robustness of literature with an existence of an inverse linkage between output and unemployment ¹⁴⁸.

Hussain & Haque found that the effects of FDI on economic growth have mostly been positive ¹⁴⁹. Developing countries often have low capital accumulation rates, and therefore, FDI is considered an important source of capital to supplement domestic investment for economic growth. It contributes by increasing capital account surplus, improving the balance of payments in general, and stabilizing the macro-economy. FDI also creates opportunities for poor countries to access more advanced technologies, facilitate technology transfer, promote knowledge dissemination, and improve management skills and labor qualifications. This effect is known as the productivity spillover of FDI, which contributes to the productivity of domestic firms and ultimately to economic growth in general ¹⁵⁰. However,

¹⁴⁴ Changshuai Li and Zi-juan Liu, "Study on the Relationship among Chinese Unemployment Rate, Economic Growth and Inflation" 1 (March 31, 2012).

¹⁴⁵ Tariq Ahmad Bhat and Tariq Ahmad Lone, "The Validity of Okun's Law: Evidences from Indian Economy," n.d.

¹⁴⁶ Qamar Uz Zaman, Zhang Donghui, and Muhammad Imran, "Unemployment and Economic Growth of European Union: A Panel Data Analysis," *European Journal of Economic Studies* 15 (March 1, 2016), <https://doi.org/10.13187/es.2016.15.292>.

¹⁴⁷ Irpan Hamidah Muhd and Saad Rosfadzimi Mat, "Investigating Relationship between Unemployment Rate and GDP Growth in Malaysia," ProQuest, 2016, <https://www.proquest.com/openview/d10900adee22ddce5e8c27f0464d9822/1?pq-origsite=gscholar&cbl=936334>.

¹⁴⁸ Hala Hjazeen, Mehdi Seraj, and Huseyin Ozdeser, "The Nexus between the Economic Growth and Unemployment in Jordan," *Future Business Journal* 7, no. 1 (December 26, 2021): 42, <https://doi.org/10.1186/s43093-021-00088-3>.

¹⁴⁹ Mohammed Ershad Hussain and Mahfuzul Haque, "Foreign Direct Investment, Trade, and Economic Growth: An Empirical Analysis of Bangladesh," *Economies* 4, no. 2 (June 2016): 7, <https://doi.org/10.3390/economies4020007>.

¹⁵⁰ Le Le Doan Hong Quan, "TÁC ĐỘNG CỦA FDI TỚI TĂNG TRƯỞNG KINH TẾ Ở VIỆT NAM Dự Án SIDA," accessed May 31, 2023, https://www.academia.edu/32387423/T%C3%81C_%C4%90%E1%BB%98NG_C%E1%BB%A6A_FDI_T%E

while having a positive initial impact on growth, in the long run, dependence on foreign investment has a negative impact on growth, causing problems of unemployment, over-urbanization, persistent levels, and inequality ¹⁵¹.

According to World Bank, “foreign direct investment (FDI) are the net inflows of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor. It is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments. This series shows net inflows (new investment inflows less disinvestment) in the reporting economy from foreign investors, and is divided by GDP.” Dabour argued that FDI is an important part of private investment that drives economic growth around the world ¹⁵². FDI is seen as a channel to supplement the level of domestic investment, as well as to ensure efficiency across the economy with appropriate technology, management knowledge, and business culture transfer. The author also argued that FDI encourages access to foreign markets, increases employment opportunities, and improves living standards.

World Bank defined export as: “Exports of goods and services represent the value of all goods and other market services provided to the rest of the world. They include the value of merchandise, freight, insurance, transport, travel, royalties, license fees, and other services, such as communication, construction, financial, information, business, personal, and government services. They exclude compensation of employees and investment income (formerly called factor services) and transfer payments” ¹⁵³. While we initially want to control for this variable, they do not pass the correlation test, and we need to eliminate them from the model.

1%BB%9AI_T%C4%82NG_TR%C6%AF%E1%BB%9ENG_KINH_T%E1%BA%BE_%E1%BB%9E_VI%E1%BB%86T_NAM_D%E1%BB%B1_%C3%A1n_SIDA.

¹⁵¹ Jeffrey Kentor and Terry Boswell, “Foreign Capital Dependence and Development: A New Direction,” *American Sociological Review* 68 (April 1, 2003): 301, <https://doi.org/10.2307/1519770>.

¹⁵² Nabil Dabour, “THE ROLE OF FOREIGN DIRECT INVESTMENT (FDI) IN DEVELOPMENT AND GROWTH IN OIC MEMBER COUNTRIES,” 2000.

¹⁵³ “Glossary | DataBank,” accessed May 31, Jeffrey Kentor and Terry Boswell, “Foreign Capital Dependence and Development: A New Direction,” *American Sociological Review* 68 (April 1, 2003): 301, <https://doi.org/10.2307/1519770.2023>, <https://databank.worldbank.org/metadata/glossary/jobs/series/NE.EXP.GNFS.ZS>.

The Covid dummy variable was also included to account for the unwanted effect of this pandemic on development.

3. Empirical Strategy: Panel Data Regression

Does economic freedom as defined by the standard of Heritage affect the growth rate of ASEAN Member States? Is it better for ASEAN to push for a more open business environment, or is some level of control required for emerging state economies? The correlation between our dependent variable with variables of interest will be tested, while we control for some potentially confounding variables. Our econometric regression of the panel dataset will be performed by the following model:

$$gdppcgrowth_{it} = \alpha + \beta_1 overallscore_{it} + \beta_2 unemployment_{it} + \beta_5 fdi_{it} + \beta_7 covid_{it} + \mu_i + \varepsilon_{it}$$

in which: i is the Member State and t is the time period. We care about the effect of the independent variable of interest on the dependent variable while controlling for other variables. The dependent variable $gdppcgrowth_{it}$ or the growth rate of GDP per capita within a nation at each point of observation (in this study, we observe it annually). The independent variable of interest in the $overallscore_{it}$ also known as the Index of Economic Freedom that we discussed. We control for the effect of the unemployment rate with $unemployment_{it}$, Foreign Direct Investment (FDI) with fdi_{it} . We also control for the effect of Covid as the dataset runs through 2020 and 2021 and might potentially distort the result.

We choose panel data to record our sample and this empirical strategy since it can record and track many individuals across time. This decision relies on the fact that a time-series model of one individual (in our case, country) will not be able to fully capture and explain the complex insights of our variables' relationship. Panel data, thus, is seen as a tool to help isolate the effect of policies on our dependent outcome ¹⁵⁴. Other reasons for the application of panel data include controlling for omitted variable bias. As the economic model can never fully account for every element, this method helps reduce the effect of unobserved variable bias. The

¹⁵⁴ Cheng Hsiao, "WHY PANEL DATA?," *The Singapore Economic Review* 50, no. 02 (October 2005): 143–54, <https://doi.org/10.1142/S0217590805001937>.

consistent internal patterns of all individuals make it easier for researchers to eliminate unwanted effects on dependent variables.

IV. Result and Discussion

This chapter presents the results and the main findings from the regression model. While the model controls for several variables to obtain a confoundedness assumption, the causal relationship should not be interpreted without caution. Coefficients, thus, should be seen as correlations first and foremost.

1. Result

1.1. Summary of statistics

Table 3 Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Gdp	192	0.04997	0.03623	-0.13126	0.145197
gdppcgrowth	192	0.0353	0.03635	-0.1448	0.12509
overallscore	192	0.61768	0.12543	0.335	0.897
unemployment rate	192	0.0281	0.01715	0.0014	0.0806
fdi	192	0.05861	0.06421	-0.0276	0.2969
export	187	0.71967	0.51911	0.17271	2.28994
covid	192	0.08333	0.27711	0	1

We first look at descriptive statistics to understand the overview of this dataset. ASEAN has an average GDP per capita growth rate of 3.5% while having a negative growth rate of 1.4% as a minimum value. The maximum rate of 12.5% was observed in Singapore in 2010. Indeed, this country was the fastest-growing Asian nation during this time.

Overall, at 0.61, ASEAN has a lower-end ranking in terms of economic freedom score, with an exception being Singapore. This nation has long led the ASEAN bloc in all aspects, standing

at 0.897 for its great policy and freedom. This also puts them at the top of the world consistently. The lowest index of 0.335 belongs to Indonesia in 1999, which can be explained by the political chaos between Indonesia and East Timor. Violence after violence led one of the promising Asian tigers into deep turbulence that also translated to its economic aspect ¹⁵⁵.

Onto the unemployment rate, ASEAN can maintain a rather healthy one at 2.8%. The lowest rate is of Cambodia at less than 1% in 2017, while the highest one is at 8% and belongs to Indonesia in 2007. This is a record-high number for a country like Indonesia, as they stand at 3.83% in 2021, nearly 5 percentage points lower than that of the world ¹⁵⁶.

FDI witnessed a decline in Indonesia in 2000, at -2%. This year's economy was partially affected by the turbulence caused by an earthquake and tsunami ¹⁵⁷. However, researchers found that 2000 marked a start of a new political system for Indonesia after several decades of struggle. However, the turmoil from the new presidency of Gus Dur has stirred national concerns ¹⁵⁸. In contrast, 2000 saw the highest inflow of FDI into Singapore. This is not unanticipated as this economy was receiving attention from foreign investors with an impressive growth rate of 9.5 percent in 2000. While this growth was recorded right before the storm of the internet bust, Singapore's economy did have its peak after the Asian financial crisis ¹⁵⁹.

With regards to export, Indonesia was recorded with the lowest rate in 2020 from our sample. Meanwhile, Vietnam reached a record high in 1998. This is a rather difficult phase for Vietnam as they were still trying to recover from the financial crisis. Though not fully integrated into

¹⁵⁵ Minh Quang Dao, "Exports, Imports, Government Consumption and Economic Growth in Upper-Middle Income Countries," *Progress in Development Studies* 14, no. 2 (April 2014): 197–204, <https://doi.org/10.1177/1464993413517791>.

¹⁵⁶ "Indonesia Unemployment Rate - Data, Chart," TheGlobalEconomy.com, accessed May 16, 2023, https://www.theglobaleconomy.com/Indonesia/unemployment_rate/.

¹⁵⁷ "Indonesia: Earthquake - May 2000 | ReliefWeb," September 4, 2020, <https://reliefweb.int/disaster/eq-2000-000230-idn>.

¹⁵⁸ "INDONESIA IN 2000 A Shaky Start for Democracy on JSTOR," accessed May 31, 2023, <https://www.jstor.org/stable/10.1525/as.2001.41.1.208>.

¹⁵⁹ Jeffrey Hays, "SINGAPOREAN ECONOMY IN THE 2000s AND 2010s | Facts and Details," accessed May 31, 2023, https://factsanddetails.com/southeast-asia/Singapore/sub5_7c/entry-3783.html.

the global economy, the Vietnam market was opened since the Doi Moi reform, thus a challenging consequence of such events ¹⁶⁰.

1.2. Correlation Matrix

Table 4 Correlation Matrix

	gdppcg~h	overal~e	unempl~e	fdi	export	covid
gdppcgrowth	1					
overallscore	-0.214	1				
Unemployment rate	-0.2081	0.2899	1			
fdi	0.1325	0.6122	0.0137	1		
export	-0.0587	0.7946	0.1976	0.7685	1	
covid	-0.3291	0.1299	-0.0125	0.0522	-0.003	1

(Source: Author)

Next, we move to correlation matrix to drop any value that exceeds the correlation coefficient's cut-off of 0.7. In this case, we need to drop the variable of export as it stands at 0.7946. The logic behind eliminating variables is to drop either of those that are highly correlated with each other. In this case, overallscore and export are correlated. However, overallscore is our variable of interest so we need to eliminate the variable of export instead.

1.3. Multicollinearity Matrix

Table 5 Multicollinearity matrix

Variable	VIF	1/VIF
overallscore	3.12	0.320588
fdi	2.60	0.385132

¹⁶⁰ Mark Sidel, "Vietnam in 1998: Reform Confronts the Regional Crisis," *Asian Survey* 39, no. 1 (1999): 89–98, <https://doi.org/10.2307/2645598>.

unemployme~e	1.17	0.853964
covid	1.09	0.916835
Mean VIF	2.46	

Next, we test for multicollinearity with a universal cut off of 5. There is no problem with our variables in this test, as all of them have coefficients below 5.

1.4. Hausman Test

Table 6 Hausman Test result

	— Coefficients —		(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
	(b) fe	(B) re		
overallscore	-.0038179	-.1089886	.1051707	.0551177
unemployme~e	-.1698442	-.2289571	.0591129	.2677019
fdi	.2165955	.2150488	.0015466	.0615215
covid	-.0456884	-.0395337	-.0061547	.003479

b = consistent under Ho and Ha; obtained from xtreg
 B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

$\chi^2(4) = (b-B)' [(V_b-V_B)^{-1}] (b-B)$
 = **3.81**
 Prob>chi2 = **0.4329**

(Source: author)

Hausman Test is executed to decide between the Fixed Effect Model and Random Effect Model. While panel data requires the application of the Fixed Effect Model normally, this result of insignificance leads us to choose Random Effect Model, in which we assume differences in coefficients are not systematic.

1.5. Heteroskedasticity and Serial correlation test

Figure 4 Heteroskedasticity and serial correlation test

Tests:

Random Effects, Two Sided:

ALM(Var(u)=0) = 4.27 Pr>chi2(1) = 0.0389

Random Effects, One Sided:

ALM(Var(u)=0) = -2.07 Pr>N(0,1) = 0.9806

Serial Correlation:

ALM(lambda=0) = 4.38 Pr>chi2(1) = 0.0364

Joint Test:

LM(Var(u)=0, lambda=0) = 6.71 Pr>chi2(2) = 0.0349

Serial correlation coefficient does not show statistically significant results while the heteroskedasticity test has a significant result at 5% level, leading us to implement a strategy to account for it in the next section.

1.6. FGLS

Table 7 Two specifications

	(1)	(2)
	Model RE	Model GLS
VARIABLES	GDPPCGROWTH	GDPPCGROWTH
OVERALLSCORE	-0.109*** (-4.35)	-0.0637*** (-3.45)
UNEMPLOYMENTRATE	-0.229 (-0.580)	-0.467*** (-1.496)
FDI	0.215*** (4.63)	0.161*** (3.50)

COVID	-0.0395*** (-4.71)	-0.0374*** (-6.43)
Constant	0.0997*** (7.60)	0.0838*** (9.72)
Observations	192	192
Number of id	8	8

z-statistics in parentheses

*** p<0.01, ** p<0.05, * p<0.1

(Source: author)

Model (2) or Model GLS is being used to fix the problem of heteroskedasticity that we encountered in the previous section.

The juxtaposition of the Random Effect (RE) specification and the Feasible Generalized Least Squares (FGLS) specification reflects the robustness of the model. Our main result is the second specification; however, seeing both show consistent results without major differences in values proved the model's correct direction. For future research, the same model's framework can be considered, while changing and accounting for more control variables.

First, we analyze control variables and their significance in two specifications. The unemployment rate is the only variable without a consistent effect on GDP per capita growth. While the main specification finds a significant coefficient, Random Effect Model does not produce a similar finding. However, both specifications show how the unemployment rate has negative consequences on growth, as expected with literature in the field and the Okun law. This was also confirmed by studies done by several other researchers^{161 162 163 164}.

¹⁶¹ Makaringe and Khobai, "The Effect of Unemployment on Economic Growth in South Africa (1994-2016)."

¹⁶² Li and Liu, "Study on the Relationship among Chinese Unemployment Rate, Economic Growth and Inflation."

¹⁶³ Bhat and Lone, "The Validity of Okun's Law: Evidences from Indian Economy."

¹⁶⁴ Uz Zaman, Donghui, and Imran, "Unemployment and Economic Growth of European Union."

FDI has a strong and statistically positive result on growth, which is confirmed by literature in the field from Dabour; Hussian; Quan ¹⁶⁵ ¹⁶⁶ ¹⁶⁷. COVID has a statistically negative consequence on growth, which can be confirmed also with literature on ASEAN's growth rate during the pandemic.

2. Main discussion

From our model, the variable of interest or the IEF's overall score for the economic and entrepreneurial environment has shown a statistically significant and negative result on development. This is alarming, given how we discussed the similarity between AEC Blueprint and IEF's main themes toward a more liberalized external environment for businesses. Indeed, of four major pillars, AEC included globalization and integration into the world economy as an outlook towards the future. This plan has ASEAN planned to sign trade agreements and join economic partnerships. Furthermore, several ASEAN countries are preparing to improve their position in the global supply chain ¹⁶⁸.

Though alarming, this result is anticipated, whilst contradicting the current state of research in the field. To our knowledge, this is the second paper on the topic of business and economic environment with an exclusive focus on ASEAN as a region. Previous papers, with bigger panel data and more countries, had never grouped ASEAN countries together. This is exactly where this study fills in the gap, as we understand the underlying homogeneity of this region will act as a background for real effects to emerge.

Based on our careful analysis and close scrutiny, the most plausible explanation to explain this negative relationship between our variables lie in the informal economy of ASEAN.

¹⁶⁵ Dabour, "THE ROLE OF FOREIGN DIRECT INVESTMENT (FDI) IN DEVELOPMENT AND GROWTH IN OIC MEMBER COUNTRIES."

¹⁶⁶ Hussain and Haque, "Foreign Direct Investment, Trade, and Economic Growth."

¹⁶⁷ Quan, "TÁC ĐỘNG CỦA FDI TỚI TĂNG TRƯỞNG KINH TẾ Ở VIỆT NAM Dự Án SIDA."

¹⁶⁸ "ASEAN Economic Community Blueprint 2025."

Our observation follows the logic that one-fourth of IEF scores rely on the rule of law, which has been criticized for its inconclusive impact on development. Concurrently, countries that depend on the informal sector receive negative short-term impacts from economic freedom, especially from the rule of law, and ASEAN is such a region. The informal sector is currently at the heart of the ASEAN economy, and while it might be beneficial to eliminate them for future growth, visions to reform the whole economy towards economic and business freedom might need certain adjustments to match the current state of development.

Economic and business freedom and the informal economy have been proven to have a strong negative relationship. In the recent research by Sweidan the informal economy was studied by analyzing a balanced panel of 112 countries over 7 years period ¹⁶⁹. Characteristics that help the informal economy grow will greatly be affected by the current concept of economic and business freedom. The author also suggested that countries with the informal sector to carefully understand their own situation, as implementing economic freedom policies will seize the life of their informal sector. This argument is also confirmed by ¹⁷⁰ as they found how an increase in economic freedom measurement results in the reduction of the shadow economy in countries with high corruption and low democracy. Furthermore, evidence found how the rule of law only matched countries that encourage the concept and not necessarily countries of different structures ¹⁷¹. Property rights, which are usually regarded as the key component of economic integration, rely on the assumption that it is established due to the existence of the rule of law. However, it is worth noting how the struggle for power comes into play. Property rights existed because the institution that benefits from it wanted it in the first place ¹⁷². Another study by Berdiev et al. also found evidence of underground economy mitigation as five aspects of economic freedom increase ¹⁷³.

¹⁶⁹ Osama Sweidan, "Economic Freedom and the Informal Economy," *Global Economy Journal* 17, no. 4 (December 2017): 20170002, <https://doi.org/10.1515/gej-2017-0002>.

¹⁷⁰ Elena D'Agostino, Marco Alberto De Benedetto, and Giuseppe Sobbrino, "Does the Economic Freedom Hinder the Underground Economy? Evidence from a Cross-Country Analysis," *Economia Politica (Bologna, Italy)* 40, no. 1 (2023): 319–41, <https://doi.org/10.1007/s40888-022-00288-2>.

¹⁷¹ Sattar and Mahmood, "Intellectual Property Rights and Economic Growth."

¹⁷² Haggard and Tiede, "The Rule of Law and Economic Growth."

¹⁷³ Aziz N. Berdiev, James W. Saunoris, and Friedrich Schneider, "Give Me Liberty, or I Will Produce Underground: Effects of Economic Freedom on the Shadow Economy," *Southern Economic Journal* 85, no. 2 (2018): 537–62.

As such, countries and regions with huge informal sectors will be at risk of trying to abruptly implement their policies toward economic and business freedom. ASEAN has been struggling to build its economy from the grassroots with a completely different set of values and institutions. With half of the region’s population or 244 million of people relying on the informal economy for living, amounting to almost 80 percent of the workforce, the ASEAN situation requires careful consideration ¹⁷⁴. This situation was pronounced during Covid as no protection was formally provided for these workers. Any policy targeting this group of vulnerable people, thus, should be carefully considered. Given this context, a paper by ¹⁷⁵ suggested a gradual path toward growth as countries resort to their own informal strengths and build themselves while reforming their environment.

V. Robustness test

While this research does not aim to establish a causal link between economic and business environment and development, this robustness test is still executed to further improve the reliability and direction of the model that the study is trying to argue for. We try to replace the GDP per capita growth rate with the real GDP growth rate to see if the model and its results still hold. By replicating the exact process with the previous section, we see how our model is grounded and consistent throughout all specifications.

1. Correlation Matrix

Table 8 Correlation Matrix

	gdppcg~h	overall~e	unempl~e	fdi	export	covid
gdpgrowth	1					

¹⁷⁴ “Promoting Decent Work and Protecting Informal Workers | The ASEAN,” accessed May 31, 2023, <https://theaseanmagazine.asean.org/edition/promoting-decent-work-and-protecting-informal-workers/>.

¹⁷⁵ Wilson, “Does Governance Cause Growth?”

overallscore	-0.2179	1				
Unemployment rate	-0.1785	0.2899	1			
fdi	0.1133	0.6122	0.0137	1		
export	-0.0344	0.7946	0.1976	0.7685	1	
covid	-0.4036	0.1299	-0.0125	0.0522	-0.003	1

(Source: Author)

Next, we find two variables exceeding coefficient's cut-off of 0.7 as our main model. Standing at 0.7946, this variable is highly correlated with our variable of interest, which is IEF's "overallscore" variable. We again need to eliminate export variables to keep our variable of interest. However, this high correlation can be a source of future direction for our subsequent research.

2. Multicollinearity

Matrix

Table 9 Multicollinearity Matrix

Variable	VIF	1/VIF
overallscore	3.12	0.320588
fdi	2.60	0.385132
unemploye~e	1.17	0.853964
covid	1.09	0.916835
Mean VIF	2.46	

(Source: author)

All variables pass multicollinearity test as they do not exceed the threshold of 5. This means our model does not have any multicollinearity problem, and we can proceed to the next step.

3. Hausman Test

Figure 5 Hausman Test result

	Coefficients		(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
	(b) fe	(B) re		
overallscore	-.0096805	-.1004695	.090789	.0521797
unemployment	-.1334203	-.1841593	.050739	.2512043
fdi	.1517128	.1941334	-.0424206	.0568489
covid	-.0541329	-.0493487	-.0047842	.003136

b = consistent under Ho and Ha; obtained from xtreg
B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

chi2(4) = (b-B)'[(V_b-V_B)^(-1)](b-B)
= **4.26**
Prob>chi2 = **0.3720**
(V_b-V_B is not positive definite)

(Source: author)

With a p-value > 0.1, the hypothesis was not rejected; thus, we will choose the Random Effect model for our robustness check.

4. Serial correlation and heteroskedasticity

Figure 6 Serial correlation and heteroskedasticity result

Tests:

Random Effects, Two Sided:

$$\text{ALM}(\text{Var}(u)=0) = 1.15 \text{ Pr}>\text{chi2}(1) = 0.2826$$

Random Effects, One Sided:

$$\text{ALM}(\text{Var}(u)=0) = -1.07 \text{ Pr}>\text{N}(0,1) = 0.8587$$

Serial Correlation:

$$\text{ALM}(\text{lambda}=0) = 6.16 \text{ Pr}>\text{chi2}(1) = 0.0131$$

Joint Test:

$$\text{LM}(\text{Var}(u)=0, \text{lambda}=0) = 6.30 \text{ Pr}>\text{chi2}(2) = 0.0429$$

(Source: author)

Given this result, we will proceed to the next step to account for both specifications.

Table 10 Two specifications

	(1)	(2)
	Model RE	Model GLS
VARIABLES	GDPPCGROWTH	GDPPCGROWTH
OVERALLSCORE	-0.100*** (-3.87)	-0.0637*** (-3.52)
UNEMPLOYMENTRATE	-0.184 (-1.23)	-0.381*** (-2.80)
FDI	0.194*** (4.07)	0.151*** (3.46)
COVID	-0.0493*** (-6.05)	-0.0420*** (-7.36)

Constant	0.110*** (7.98)	0.0967*** (11.77)
Observations	192	192
Number of id	8	8

z-statistics in parentheses

*** p<0.01, ** p<0.05, * p<0.1

The result shows consistency with our main model, proving that our model is robust and we can draw lessons and analysis from the coefficient in our model.

VI. Limitations

Since there is a very limited research for the ASEAN sample specifically, this paper contributed by asking the question of whether or not the current approach to the business environment is the most helpful for the region as a whole. We also found a way to replace the EOB index, which was manipulated and distorted, with a transparent index of the Heritage Foundation and Wall Street Journal. This helps our research be unique while taking advantage of the great foundation of studies before us.

However, this paper is yet to answer which is the same element to be focused on. We have not dissected the index into smaller indicators to preserve the essence of our research question. As we would like to answer the question on the general direction of the ASEAN business environment topic, we believe saving this idea for future research will be the most ideal.

We also could not include all data from ASEAN, as Myanmar and Brunei lack a significant portion of quantitative measurements. We understand that this might cause unwanted bias and would like to acknowledge this limitation for future reference.

A more holistic model, which accounts for more variables that might affect development, can include an index on human capital and infrastructure. We wanted to include Human Development Index in our research; however, one of its indicators for economic living standards correlates directly with our dependent variable. We also want to include the

infrastructure index given its significant role in developing countries. However, the infrastructure index does not cover the period of our research, thus can lead to unbalanced panel data.

VII. Conclusion

In conclusion, this paper has reviewed the theoretical literature on the relationship between the business environment and economic development in ASEAN. To the best of our knowledge, this is the first paper using IEF as the main focus to analyze the business environment in the region. While this relationship has many layers, we tried to entangle them from different perspectives. Our model shows the negative and significant effect of reforming the business environment towards the global trajectory of freedom, suggesting how ASEAN might have underlying characteristics unready for this reform.

This paper aims to answer whether it is optimal for ASEAN as a region to open its business environment and continue its path toward global integration. We examine a panel data from 1998 to 2021 of 8 ASEAN Member States, applying Random Effect Model and correction from Feasible Generalized Least Squares (FGLS). We also tested for robustness by replacing our dependent variable with a more restricted one. While we control for possible confounding factors, we are aware of model limitations and do not establish a causal link between two variables.

This finding leads us to question the current stage of ASEAN development and realize region's distinct characteristic lies in its informal economy. Policy implications drawn from this finding might help researchers and policy-makers reflect on the region's trajectory toward economic development. A more vibrant and sustainable business environment might be beneficial for ASEAN, yet approaching them takes massive efforts and strategic risk management. In the case of China, a process of capital and experience accumulation contributes to this process, creating a strong, grounded, and anchored reform. Our result robustness, while contradicting with papers on the same topic, can act as a foundation more future research direction.

We also realize how concepts of economic or business freedom do not fully account for global differences. While several researchers have questioned the underlying philosophy of this concept with inconclusive results, little effort has been executed to create another index that

can factor in unique traits among nations. At the moment, there is also no concrete definition for ‘business environment.’ Manipulation of data is another topic to be discussed, as the termination of the World Bank EOB project has been a challenge for researchers to test their theories fully. While there are other indexes in the field, there is yet to be a perfect substitution for EOB, especially regarding business environment research.

However, we acknowledge all the challenges and look forward to the future trajectory of the ASEAN business environment and development.

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