International Journal of Advanced Culture Technology Vol.12 No.2 51-61 (2024)
DOI https://doi.org/10.17703/IJACT.2024.12.2.51

IJACT 24-6-7

Role of Large Firms in Countries on the Road to High-income Countries and Avoiding the High-income Trap

Shanji Xin[1*], Xu Jin[2*], Furong Jin[3]

[1*]*Research Fellow, Center for Economic Catch-up*
[2*]*Associate Professor, Konkuk University*
[3] *Associate Professor, Incheon National University*

Abstract

This study analyzes and compares the roles and significance of large firms in economic growth by differentiating developmental stages. The focus is on both the role of big businesses on the road from middle- to high-income countries and the performance in their economies. By classifying the top 30 nonfinancial firms into their origin countries, we have constructed a country-level data basis covering 33 countries ranging from middle- to high-income economies for the 2001 to 2017 period. We conduct fixed effect estimation. Empirical results show that capital-intensive big businesses would be more predominant in developed economies. In terms of policy implications, the results suggest that if policymakers want to optimize the role of big businesses in economic growth, policymakers need to distinguish the income level. Policymakers also need to adjust the size distribution of firms moderately ahead of time to create the size distribution of firms needed to take the economy to the next level.

Keywords: *Big Business, Economic Growth, Stage of Economic Development, Comparative Advantage*

1. Introduction

After the Second World War, most developing countries began post-war reconstruction. By the end of the 20th century, a small number of developing countries had achieved long-term high growth, catching up with or significantly narrowing the gap with developed economies [15]. Moreover, most developing countries suffered from a long period of uninterrupted growth weakness. Despite the rising weight of middle-income countries in supporting global growth, many of them have been stuck in the middle-income trap. Some economies in Latin America are often cited as prime examples. Brazil, for example, grew as fast in the late 1950s and 1960s as some of the Asian Tiger Economies, but its expansion then failed. Mexico's per capita income peaked in the early 1980s, and it took more than two decades to recover lost ground. By contrast, the Asian Tigers have gone through growth shocks over the years but quickly bounced back to attain high-income status. Moreover, the risk of the high-income trap is missing in the discussion. Like Brazil and Mexico over past decades, some high-income economies have recently seen their per capita incomes stall relative to the U.S. For example, Japan and Italy have encountered challenges, with their per capita income barely rising since the turn of the millennium. What is the logical nexus behind these phenomena? This study aims to identify the "binding constraints" on growth proposed by [19].

Many studies have tried to identify the "binding constraints" on economic growth. In the economic literature, the economic growth determinants are considered in different dimensions, such as institutions [1, 2,

Manuscript received: March 12, 2024 / revised: April 20, 2024 / accepted: May 1, 2024
Corresponding Author: sunny06126@snu.ac.kr; jinxv@konkuk.ac.kr
Research Fellow, Center for Economic Catch-up, Korea; Associate Professor, Konkuk University, Korea

22], entrepreneurship [20, 22], and education [7]. At present, studies on the effects of the digital economy [4, 24] and artificial intelligence [3] on economic growth have been conducted. Compared with the literature, this study focuses on the role of big businesses in economic growth. [13] posited that big business is a critical "binding constraint" on economic growth, particularly economic growth beyond the middle-income trap.

However, taken as a whole, the existing research has not reached an agreement on the strengths and weaknesses of large firms in economic growth. One strand of the debate focuses on the merits of big businesses [6, 13]. The other strand focuses on the negative role of big businesses in economic growth [5, 12]. We argue that the divergence between the two streams derives from focusing on the specific developmental stage or not distinguishing the stages of economic development.

We thus investigate the changing role of big businesses in economic growth by differentiating developmental stages. [11] posited that some factors are more important, depending on the stage of economic development. This approach is also aligned with that by [15], who posited that the role of big businesses in an economy varies significantly not only across countries but also within countries over time. Understanding the differences and how they are related to economic development has policy implications for many countries, especially for developing countries [15]. Therefore, this study focuses on the changing role of big businesses covering middle- to high-income economies. The focus is on both the role of big businesses on the road to high-income countries and the performance in their economies.

In sum, this study attempts to empirically revisit the relationship between big businesses and economic growth by applying the latent comparative advantage theory. This dynamic comparative advantage modifications were first introduced by [23], then discussed by [15], and finally formalized by [9] and [16]. This argument posits that an economy's structure of factor endowments evolves from one level of development to another [15]. Therefore, we consider that big businesses matter but differently at different stages of development. We gather systematic, empirical evidence on big businesses' roles in middle- and high-income countries. To the best of our knowledge, this approach to gathering and applying empirical evidence has not been carried out before. Our empirical investigation uses comparable data on big businesses for 33 countries, comprising 9 middle-income and 24 high-income countries.

This study is organized as follows. Section 2 outlines the theoretical framework and develops testable hypotheses. Section 3 describes the research method and the primary data used to test ideas. Section 4 presents the main results from the empirical analysis. This section shows the role of large firms in the dynamics of structural change. Section 5 concludes.

2. Theoretical Background and Hypotheses

2.1. Factor Endowments, Optimal Industrial Structure, and Optimal Distribution of Firm Size

In this section, we employ the latent comparative advantage theory to interpret big businesses' contribution to economic growth at different stages of economic development. The endowment structure is the most important factor affecting firm size distribution in the economy [15, 17]. At each stage of development, a country has a specific combination of factor endowments. That combination determines factor prices, which determines the optimal industry structure and firm size distribution [14]. The distribution of firms of various sizes in the real economy at a particular development level can be systemically different from that of the same economy at other development levels. Only when the characteristics of firm size distribution fit those of the industrial structure in the economy can the firms efficiently perform their fundamental functions and contribute to sustainable economic development [15].

The endowment structure in developing economies is characterized by the relative abundance of unskilled labor and scarcity of capital. Labor-intensive industries and the labor-intensive sections of capital-intensive industries have comparative advantages and dominate the economy [17]. By contrast, in developed economies, where capital is relatively abundant and labor costs are relatively high, the comparative advantages and dominant industries are capital-intensive industries [17]. Firms in capital-intensive industries

are usually bigger, especially in terms of capital, compared with firms in labor-intensive industries [18]. [10] find that the average size of firms in capital-intensive industries across 15 European countries is larger than that of labor-intensive industries. In sum, in developed economies, big businesses will be more efficient in allocating resources; making large and capital-intensive firms the main engine for economic growth [17].

Therefore, we consider the following two hypotheses: First, the roles and significance of big businesses in economic growth are changing, depending on the stage of economic development. Second, capital-intensive big businesses would be more important in developed economies.

2.2. Comparison of the Performance of Big Businesses at Different Development Levels

As presented in the previous section, this study argues that the role of big businesses varies not only within countries over time but also across countries.

We first consider the experiences in Korea because Korea is one of the few economies that jumped from a middle- to high-income economy in a short period and thus offers potentially valuable lessons for other economies. For Korea, the period that marked the remarkable transition from a typical struggling developing country to a high-income economy was from the 1960s to the 1990s. From the late-1990s to the present, Korea matured into a full-fledged high-income economy.

Korea's industrial structure changed dramatically in a compressed period. In particular, its core manufacturing industries have evolved in phases, from labor-intensive light industries to capital-intensive heavy-chemicals, to high-tech. In the 1960s, Korea lacked technology and capital and thus relied on labor-intensive light industries. In this era, Korea focused on export-oriented industrialization while fostering labor-intensive light industries (main export items included textiles, wigs, and paper). By the 1970s, Korea had moved to capital-intensive heavy-chemical industries (main exports at this time include chemicals, steel, automobiles and machinery). Korea focused on large firms when promoting the growth of the heavy-chemicals, machinery, and electronics industries. Based on the diverse technology and workforce secured during the growth of the heavy-chemicals industry, Korea prepared to foster advanced technologies and knowledge-intensive industries. Figure 1 shows that in the early 1970s, the share of light industries was as high as 70%, and then it kept declining to the level of 50% by the 1990s. The mirror image is the steady increase in the share of capital-intensive heavy-chemicals industries. As such, one of the success factors of the Korean economy is that the industrial structure has undergone a process of evolution from labor- to capital-intensive. In this process, big businesses matching comparative advantage in capital-intensive industries played an important role.

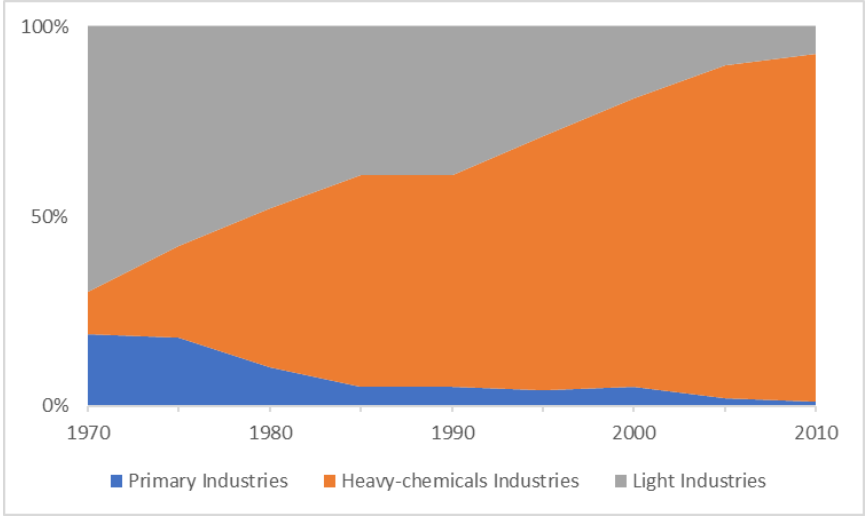

Figure 1. Changes in share of exports by type of industry in Korea (1970~2010)

Big businesses in different countries of different development stages play different roles in economic growth (measured by export contribution). We consider the export contribution of big businesses in Japan, Korea, China, and Taiwan. As shown in Figure 2, large firms from Japan, a traditional high-income country, have the highest contribution to exports, followed by Korea and Taiwan, which are newly industrialized economies, and China, a developing country, with the lowest contribution to exports. The interesting part is that the export contribution of mainland China's large enterprises is rising rapidly, but it is still at the bottom compared with other advanced economies. This is consistent with the framework that large corporations are in line with the comparative advantage of developed countries.

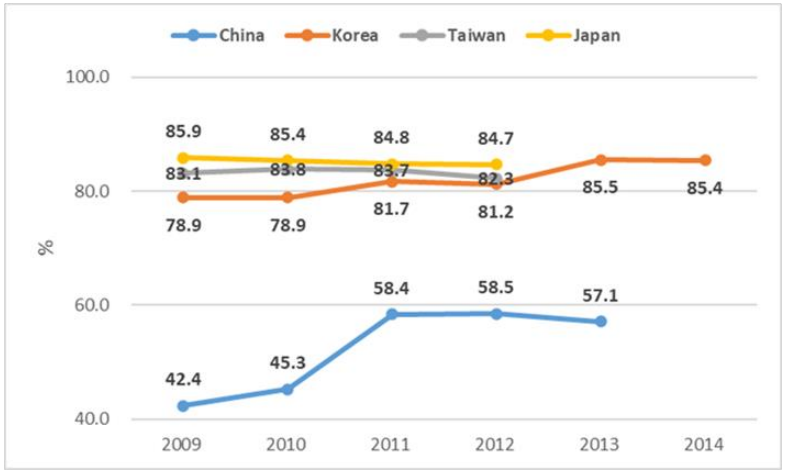

Figure 2. Big business export contribution comparison by regions

Note: Export contribution = (the export value of big businesses / the export value of all enterprises) × 100%.

Source: Author's creation based on various databases. Korean data collected by the Korean Statistical Information Service; Taiwan data from White Paper on SMEs in Taiwan; Japan data collected by the Japan Small and Medium Enterprise Agency.

In sum, these phenomena are consistent with our hypothesis that capital-intensive big businesses would be more important in developed economies. Although we cannot be sure to what extent this pattern can be generalized, the role of big business in different developmental stages seems an interesting pattern.

3. Research Design

3.1. Model Design

To investigate the role of big businesses in economic growth, we run regressions to estimate economic growth equations, for which the form is as follows:

$$Economic\ Growth'_{it} = \alpha + \beta_0 Top\_30_{it} + \beta_1 Control'_{it} + \rho_{it}$$

Here, subscript i refers to the i-th country and subscript t refers to time. $Economic\ Growth_{it}$ is the annual growth rate of real GDP per capita in country i at time t. $Control'_{it}$ is a vector of control variables typically used in economic growth models, such as initial GDP per capita, investment ratio, population growth rate, and secondary school enrollment of country i at time t. Foreign direct investment (FDI) activity of country i at time t is also controlled to capture a country's integration into world markets. $Control'_{it}$ is assumed to increase the accuracy of the parameter estimates and decrease bias. Top_30_{it} denotes the big business variable in country i at time t. ρ_{it} is the error term.

We conduct fixed effect estimation. As noted by [8], the problem of an omitted variable bias can be alleviated by employing fixed effect panel estimation [13].

3.2 Data and Variables

The primary data used in this paper are drawn from the Osiris database. Osiris has highly comprehensive information on listed, major unlisted, and delisted companies worldwide. Osiris covers around 70,000 companies across the globe. One of Osiris's main strengths is that we can compare companies against each other using harmonized financial reports. The existing literature only deals with super large firms at the world-class level, such as the Fortune Global 500 and Forbes 2000 [13]. However, the role of smaller but still big firms at national levels, such as the hidden champions of Germany's Mittelstand or Italy's "fourth capitalism" may be equally essential and possibly have different characteristics from that of super large firms [13, 21]. Thus, for this study, the firms considered are nonfinancial firms that are ranked top 30 based on sales in each country.

By classifying the top 30 nonfinancial firms into their origin countries, we have constructed a country-level data basis covering 33 countries ranging from middle- to high-income economies for the 2001 to 2017 period. We conduct an econometric analysis that tracks down the possible different effects of big businesses in different income levels.

Table 1 presents the fundamental and positive relationship between big businesses and income levels. We can find that high-income countries have a higher absolute and relative presence of large firms than middle-income countries. Over time, compared with 2001, the absolute and relative presence of large enterprises in the two income groups increased in 2017. However, notably, this result shows a simple relationship between the two variables without controlling for other variables.

Table 1. Relationship between big businesses and income levels

	top30_ratio		*top30*	
Income Group	High	Middle	High	Middle
2001	41.2	17.9	385.6	83.4
2017	45.3	25.9	708.7	443.8

We divide the data into six three-year sub-periods (2001–2003, 2004–2006, 2007–2009, 2010–2012, 2013–2015, 2016-2017) and use the three-year average for all of them except the last sub-period. Such division is intended to generate enough sub-periods, which is necessary for making panel estimations without compromising too much on business cycle effects.

The descriptive statistics and data sources are reported in Table 2. Table 3 defines the variables, including the dependent variable, big business variables, and control variables.

Table 2. Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max	Data Source
top30_ratio	197	39.83	20.92	7.47	94.04	Osiris
top30	197	5.48	1.20	2.85	8.30	
gdpgr	198	0.02	0.02	-0.07	0.11	WDI
inigdp	198	10.39	0.56	8.22	11.42	
invt	198	23.46	5.11	11.97	46.48	
popgr	198	0.90	0.72	-0.68	4.17	
edu2	176	106.06	18.73	60.84	162.38	
fdi	198	4.89	7.35	-4.25	49.57	

Table 3. Variable definitions

Variable	Description	Variable Definition
Dependent Variable		
gdpgr	GDP per capita growth rate	Annual GDP per capita growth rate (constant, year 2017 $)
Big Business Variables		
top30_ratio	Relative presence of large enterprises	Share of top30 nonfinancial firms' total sales to GDP (%)
top30	Absolute presence of large enterprises	Log value of top30 nonfinancial firms' total sales (constant, year 2004)
Control Variables		
inigdp	Initial GDP per capita	Log value of GDP per capita in the first year of each period (constant, year 2017 $)
invt	Investment ratio	Gross capital formation (% of GDP)
popgr	Population growth rate	Population growth (annual %)
edu2	Secondary school enrollment	School enrollment, secondary (% gross)
fdi	FDI	FDI, net inflows (% of GDP)

4. Empirical Results

4.1. Basic Relationship between Big Businesses and Economic Growth

First, the basic results verify the primary relationship between big businesses and economic growth. The relationship is as follows:

$$gdpgr = f(top30\_ratio/top30\ , inigdp, invt, popgr, edu2, invt\ )$$

where the dependent variable is the annual average growth rate of GDP per capita (*gdpgr*). Explanatory variables include the following: GDP per capita in the starting year of each period *(inigdp*), annual average of investment ratio (*invt*, as physical capital), population growth rate (*popgr*, as a proxy of the change in the labor force participation rate), and secondary school enrollment (*edu2*, to control for human capital) of each period. To capture a country's integration into world markets, which we refer to as globalization, we include the FDI (*fdi*) in the equation. We consider big business variables as key regressors. The results are represented by the estimates of two methods (*top30_ratio*, the ratio of top 30 nonfinancial firms' total sales to GDP; *top30*, the log value of top 30 nonfinancial firms' total sales in each country).

We find that the coefficient of *top30_ratio* is positive and significant, whereas that of *top30* is positive but insignificant. In Column (1) of Table 4, the result is represented by estimating the *top30_ratio* of big businesses based on an FE model. Column (2) shows the result with the estimate of the *top30* of big businesses based on the FE model. These results partly indicate that a basic and positive relationship exists between big businesses and economic growth, which is consistent with the results proposed by Lee et al. (2013). However, notably, this finding is obtained without considering each country's stage of economic development. The other control variables, such as the *inigdp*, *invt*, *popgr*, and *fdi*, tend to show typical signs and levels of significance.

Table 4. The basic relationship between big businesses and economic growth

	(1)	(2)
Model	FE	FE
Dependent variable	*gdpgr*	*gdpgr*
top30_ratio	**0.0005***	
	(1.936)	
top30		**0.012**
		(1.442)
inigdp	-0.055***	-0.064***
	(-3.139)	(-3.167)
invt	0.003***	0.003***
	(4.632)	(4.321)
popgr	-0.013**	-0.013**
	(-2.545)	(-2.522)
edu2	-0.0002	-0.0002
	(-1.118)	(-1.142)
fdi	0.001***	0.001***
	(3.702)	(3.606)
constant	0.527***	0.576***
	(3.063)	(3.168)
Year dummies	yes	yes
Observations	175	175
R^2(within)	0.461	0.454

T-values are in parenthesis. *** p<0.01, ** p<0.05, * p<0.1.

4.2. Role of Big Businesses at Different Developmental Stages

This section presents an analysis performed to determine whether big business's role in economic growth differs across countries in different income levels. We investigate the differences by conducting the regressions for high- and middle-income economies separately.

The results are shown in Table 5, which are based on the FE estimator. Regarding the middle-income economy, the coefficients of *top30_ratio* and *top30* are all negative and significant. By contrast, the coefficients of *top30_ratio* and *top30* of the high-income economy are all positive and significant. Moreover, the magnitude of the effect of *top30_ratio* on growth rates, according to the FE results, is approximately 0.001. This result suggests that if the ratio of sales volume of big businesses to GDP increases by 1% point (e.g., from 25% to 26%), then the growth rate of GDP per capita increases by approximately 0.1% point (e.g., from a growth rate of 10 to 10.1%). Thus far, the regression results support our hypothesis that capital-intensive big businesses would be more critical in high-income economies.

Table 5. The role of big businesses in middle-income economy vs. high-income economy

	Middle-income economy		High-income economy	
	(1)	(2)	(3)	(4)
Model	FE	FE	FE	FE
Dependent variable	*gdpgr*	*gdpgr*	*gdpgr*	*gdpgr*
top30_ratio	**-0.001***		**0.001*****	
	(-1.803)		**(2.754)**	
top30		**-0.034***		**0.023****
		(-1.963)		**(2.115)**
inigdp	-0.078**	-0.031	-0.068***	-0.085***
	(-2.321)	(-0.802)	(-2.986)	(-3.120)
invt	0.005**	0.004**	0.002***	0.002***
	(2.662)	(2.520)	(3.344)	(2.796)
popgr	-0.044***	-0.058***	-0.006	-0.007
	(-2.933)	(-3.186)	(-1.281)	(-1.436)
edu2	0.001	0.001	-0.0003	-0.0003*
	(1.680)	(1.271)	(-1.586)	(-1.721)
fdi	0.003	0.001	0.001***	0.001***
	(0.636)	(0.176)	(4.440)	(4.259)
constant	0.640**	0.388	0.696***	0.786***
	(2.169)	(1.269)	(2.934)	(3.055)
Year dummies	yes	yes	yes	yes
R2(within)	0.646	0.651	0.526	0.511
Observations	52	52	123	123

T-values are in parenthesis. *** p<0.01, ** p<0.05, * p<0.1.

4.3 Dynamics of Large Firms across a Range of Years

In this subsection, we further investigate that big business is one of the key "binding constraints" on the road to the high-income economy and not falling into the high-income trap. However, heavy dependence on large enterprises in developing countries, which do not meet their comparative advantages, plays a negative role in economic growth. For developed countries, the contribution of large enterprises to economic growth in line with their comparative advantages is self-evident, and large enterprises should be actively cultivated. However, due to their positive role in the overall stage, developing countries may need to allocate large enterprises moderately ahead of their comparative advantages to transition to developed countries.

In this section, we compare the dynamic positions of countries across a range of years. Fig. 3 illustrates the changing locations of each country over the period from 2001 to 2017 in terms of the residual from the regression of the sales volume of the top 30 firms on country size (in the vertical axis) and the relative presence of the top 30 firms in each country (in the horizontal axis). In the upper-right corner, where both the absolute and the relative presence of big businesses is high, we find the traditional high-income countries such as Germany and the UK, and the successfully catching-up high-income economies, such as Korea and Singapore. The underperforming high-income economies, such as Spain and Greece, and Latin American countries that are often pointed to falling into the middle-income trap, such as Argentina and Brazil, are still in the lower-left corner of the chart. As a middle-income country, although China is still located in the lower-left corner of the chart, the proportion of large enterprises in China has increased significantly compared with other developing countries. This observation indicates that economic growth may be

accompanied by a combination of upward and rightward movements on the graph. This result implies that the moderate growth of big businesses in an economy might be a key for middle-income countries as they seek to become higher-income countries and avoid the high-income trap.

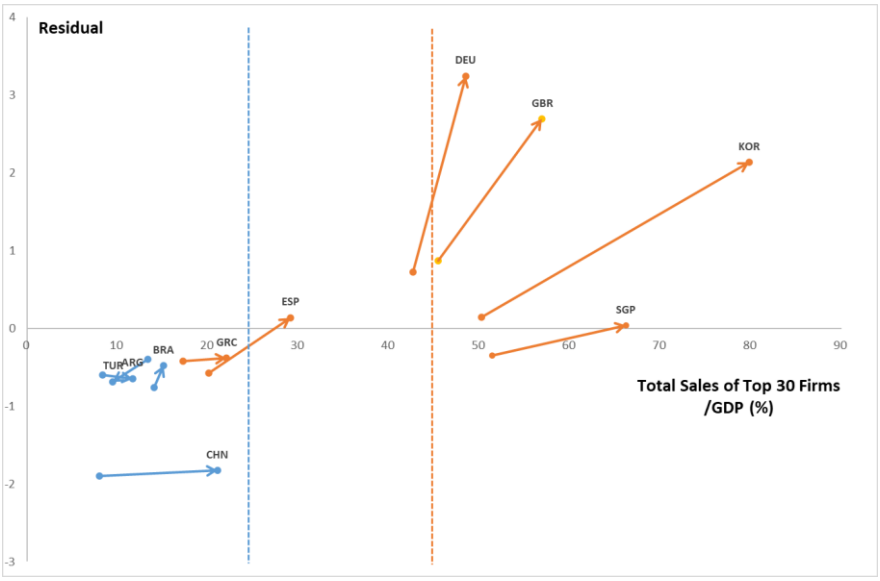

Figure 3. Changing locations of countries in the residuals and the sale-GDP ratio space (2001–2017)

Note: 1. 'blue' for high-income economy, 'orange' for middle-income economy.

2. The vertical axis shows the residuals in the regression with the sum of the top30 firms' sales in each country. In this method, the sales volume of the top 30 companies in each country is regressed on constant GDP with the pooled ordinary least squares (OLS) method. The rationale for this procedure is that constant GDP represents the economic size, and the volume of large companies in any nation is expected to increase along with economy size. Accordingly, the residuals in the regression can be interpreted as the portion that is explained not by economic size but by other factors.

5. Summary and Concluding Remarks

This study investigated the role of large firms in the dynamics of structural change. This study provides some empirical evidence on the linkages between large firms and the economic growth of middle- and high-income economies. The absolute and relative presence of big firms are all negative and significant for the middle-income economy, whereas those of big firms are positive and significant for high-income economies. These results prove the hypothesis that large firms should be more predominant in developed economies than in developing economies. Structural growth also requires far-reaching reforms to foster new sources of growth. If a middle-income country is to transition to a high-income country, upgrading the distribution of firm sizes that have moderately advanced their comparative advantage will be necessary. In other words, this can be seen as a preparatory stage for large enterprises in high-income countries to make a positive contribution to economic development.

Our findings also provide helpful policy insights into scholars and policymakers. If scholars want to clarify the role of big businesses on economic growth, scholars need to distinguish the income level. At the same time, policymakers need to adjust the size distribution of firms moderately ahead of time to the size distribution of firms needed to take the economy to the next level.

This study has some limitations. If data are sufficient, future studies can subdivide middle-income countries into lower-middle- and upper-middle-income countries. Second, we deal with nonfinancial big businesses only. The role of large financial firms, such as banks or securities companies, may be different from that of nonfinancial ones. These limitations can be taken into account in future research directions.

Acknowledgment

This paper was supported by Konkuk University in 2024.

References

[1] Acemoglu, D., Johnson, S., & Robinson, J. A. (2001). The colonial origins of comparative development: An empirical investigation. American economic review, 91(5), 1369-1401.DOI: 10.1257/aer.102.6.3059
[2] Acemoglu, D., Johnson, S., & Robinson, J. A. (2002). Reversal of fortune: Geography and institutions in the making of the modern world income distribution. The Quarterly journal of economics, 117(4), 1231-1294. https://doi.org/10.1162/003355302320935025
[3] Aghion, P., Jones, B. F., & Jones, C. I. (2018). Artificial intelligence and economic growth. In The economics of artificial intelligence: An agenda (pp. 237-282). University of Chicago Press.
[4] Bulturbayevich, M. B., & Jurayevich, M. B. (2020). The impact of the digital economy on economic growth. International Journal of Business, Law, and Education, 1(1), 4-7. https://doi.org/10.1590/1678-6971/eRAMD220029.en
[5] Carree, M. A., & Thurik, A. R. (1998). Small firms and economic growth in Europe. Atlantic Economic Journal, 26(2), 137-146. https://doi.org/10.1007/BF02299356
[6] Fogel, K., Morck, R., & Yeung, B. (2008). Big business stability and economic growth: Is what's good for General Motors good for America?. Journal of Financial Economics, 89(1), 83-108. https://doi.org/10.1016/j.jfineco.2007.06.004
[7] Hanushek, E. A., & Woessmann, L. (2020). Education, knowledge capital, and economic growth. The economics of education, 171-182. https://doi.org/10.1016/B978-0-12-815391-8.00014-8
[8] Islam, N. (1995). Growth empirics: a panel data approach. The quarterly journal of economics, 110(4), 1127-1170. https://doi.org/10.2307/2946651
[9] Ju, J., Lin, J. Y., and Wang, Y. (2015). Endowment structures, industrial dynamics, and economic growth. Journal of Monetary Economics, 76, 244-263. https://doi.org/10.1016/j.jmoneco.2015.09.006
[10] Kumar, K., Rajan, R., & Zingales, L. (1999). What determines firm size?. http://dx.doi.org/10.2139/ssrn.170349
[11] Lee, K., & Kim, B. Y. (2009). Both institutions and policies matter but differently for different income groups of countries: Determinants of long-run economic growth revisited. World development, 37(3), 533-549. https://doi.org/10.1016/j.worlddev.2008.07.004
[12] Lee, K., & Xin, S. (2015). Firm size and economic growth in China. Journal of International and Area Studies, 93-112.
[13] Lee, K., Kim, B. Y., Park, Y. Y., & Sanidas, E. (2013). Big businesses and economic growth: Identifying a binding constraint for growth with country panel analysis. Journal of Comparative Economics, 41(2), 561-582. DOI: 10.1016/j.jce.2012.07.006
[14] Lin, J. Y. (2009). Economic development and transition: thought, strategy, and viability. Cambridge university press. https://doi.org/10.1017/CBO9780511805622
[15] Lin, J. Y. (2011). New structural economics: A framework for rethinking development. The World Bank Research Observer, 26(2), 193-221. https://doi.org/10.1093/wbro/lkr007
[16] Lin, J. Y., and Wang, Y. (2020). Structural change, industrial upgrading, and middle-income trap. Journal of Industry, Competition and Trade, 1-36. DOI: 10.1007/s10842-019-00330-3
[17] Lin, J. Y., Sun, X., & Jiang, Y. (2013). Endowment, industrial structure, and appropriate financial structure: a new structural economics perspective. Journal of Economic Policy Reform, 16(2), 109-122. https://doi.org/10.1080/17487870.2013.799035
[18] Lin, J. Y., Sun, X., & Wu, H. X. (2015). Banking structure and industrial growth: Evidence from China. Journal of banking & Finance, 58, 131-143. https://doi.org/10.1016/j.jbankfin.2015.02.012
[19] Rodrik, D. (2006). Goodbye Washington consensus, hello Washington confusion? A review of the World Bank's economic growth in the 1990s: learning from a decade of reform. Journal of Economic literature, 44(4), 973-987. DOI: 10.1257/jel.44.4.973

[20] Sergi, B. S., Popkova, E. G., Bogoviz, A. V., & Ragulina, J. V. (2019). Entrepreneurship and economic growth: the experience of developed and developing countries. In Entrepreneurship and Development in the 21st Century. Emerald publishing limited. https://doi.org/10.1108/978-1-78973-233-720191002

[21] Simon, H. (2009). Hidden champions of the twenty-first century: Success strategies of unknown world market leaders (pp. 1-402). New York: Springer.

[22] Urbano, D., Aparicio, S., & Audretsch, D. (2019). Twenty-five years of research on institutions, entrepreneurship, and economic growth: what has been learned?. Small Business Economics, 53(1), 21-49. DOI: 10.1007/s11187-018-0038-0

[23] Viner, J. (1958). Stability and progress: The poorer countries' problem. In Stability and Progress in the World Economy (pp. 41-65). Palgrave Macmillan, London.

[24] Xiaoyu, M., & Jaewoo, L. (2024). Innovation and Challenges of Urban Creative Products in Digital Media Art-Tourist cities in China for example. International Journal of Advanced Culture Technology (IJACT), 12(1), 175-181.