Why did the Malaysian automobile sector not achieve their described Look East targets in 1981?

Haruki Otaku
The International School of Kuala Lumpur (ISKL), Malaysia

Abstract

In the past decades, there was a growing demand in commodity vehicles that has contributed to the increase in market share of the automotive sector in many countries, including Japan and Korea. However, despite a lot of countries cherishing the significant sales in the automotive sector and also, Malaysia was not able to succeed. One example is Proton, which has failed with an immense decrease in market share and sales over the last two decades. The previous research has provided a dominant explanation for this failure as the lack of economies of scale, dependence at the home marketplace, technology development, Limited R&D, testing capabilities, compliance with worldwide standards, lack of professional workers, and poor linkages. I use the data from Tai and C.Y.Ku, Malaysian Investment Development Authority, Anazawa, and Ministry of International Trade and Industry to understand the organizational structure and industry performance. Similar to the previous findings, our findings indicated that the Malaysian automotive industry suffers from a lack of dynamics between state and private enterprises, a lack of scale efficiencies, and a reliance on domestic markets. Additionally, it made clear reference to the problems raised by Chang, Andreoni, and Rodrik. In contrast to Japan, where the automotive industry made a large contribution to the Gross domestic product, Malaysia's automotive industry, which includes companies like Proton, was unable to flourish and win the national championship.

Introduction

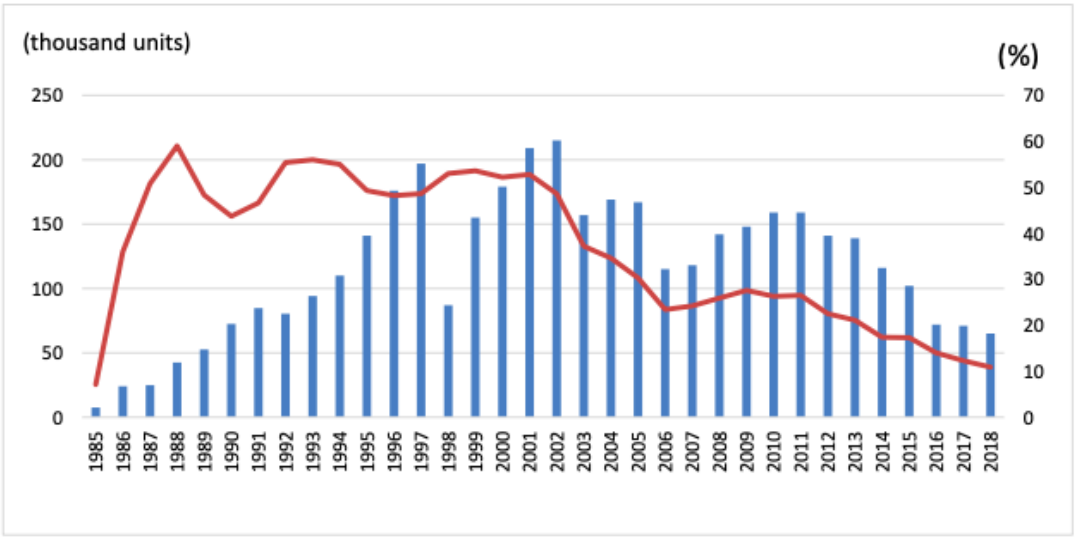
Malaysia does not have a smooth history regarding industry policy. And one of the biggest failures is the automotive sector. In Malaysia, after the 1970s, public firms significantly contributed to driving industrialization. In order to serve as a promoter of heavy industries, the Heavy Industry Corporation of Malaysia (HICOM) was specifically founded in 1980. Joint ventures were established by HICOM mostly with Japanese businesses. As a conglomerate, it held joint ventures for the production of cement, steel, and motorcycles in addition to Perusahaan Otomobil Nasional Bhd (Proton), the nation's first automobile manufacturer. The Look East Policy and the growing global presence of Japanese businesses in the heavy industry may have had an impact on the choice to form joint ventures with them. (Anazawa, 2021, p. 61)

Specifically in the Look East Policy, Prime Minister Dato' Seri Dr. Mahathir bin Mohamad took office as Malaysia's leader in July 1981. After serving in his position for six months, he declared a plan to use Malaysia's nation-building efforts to learn from Japan's and Korea's experiences. He believed that Japanese work ethics, morale, and management prowess are the key to the country's success and extraordinary progress. He believed that a programme allowing young Malaysians to study in Japan would help Malaysia thrive economically an

d socially. Malaysia made the decision to send students to Japan for this reason in order to teach them Japanese work ethics and discipline in addition to academics and technical knowledge. (Embassy of Japan in Malaysia, 2017). Therefore, in the structuring and the approach of the automotive sectors, Malaysia followed Honda, a Japanese automotive firm. In Japan, over the decades, Honda Motor worked to diversify its product offering, increase operations, and increase exports to several nations worldwide. To gain ground in the luxury automobile industry, Honda Motor introduced the popular Acura brand to the American market in 1986. By that time, they were the second-largest vehicle manufacturer in Japan and the eighth-largest in the world by 2001. (Muniandy and Kee 2020, pp. 67-68).

It wasn't only the Japanese that followed, they also followed the Korean automotive sector, which had been fundamentally successful too. In terms of production volume and export volume in 2010, the Korean automotive sector was the sixth-largest in the world. The automobile industry in South Korea has grown over the past three decades, starting in the 1970s, from a modest, government-controlled local industry to a key player in the international markets. Korea is presently regarded as one of the most developed and sophisticated nations in the world for the manufacture of automobiles. (Y.Lee, 2011, p428). Following from this, let's look at how Proton had failed to increase the sales and market. The following graph indicates the sales and market share of proton from 1985 to 2018.

Figure 1. Sales and Market Share of Proton



Note: Blue bars denote the number of units; red lines the percentage of market share.
Source: Proton company data obtained by the author.

Source: Anazawa, 2021, p73

Proton is one example of a Malaysian automotive firm which had followed an east Asian approach. The potential demand for vehicles in Malaysia was revived when Perodua entered the market. Just before the Asian financial crisis, it boosted Proton's manufacturing and sales to about 200,000 vehicles in 1997. The 1998 Asian financial crisis briefly reduced the demand for cars. Following the recovery of the economy in 1999, Proton had record sales of 215,000 units in 2002. Unfortunately, this upswing was short-lived, and Proton's market shar

e eventually declined. The growing market share of Perodua might have been one of the prim ary causes.

With the announcement in 2003 that the import tariffs on fully completed vehicles would be reduced starting in 2004, the situation dramatically changed. Customers held off on purcha sing brand-new vehicles in order to take advantage of this strategy, which negatively impa cted Proton. Proton also suffered a loss of clients during that time. Customers began to e xamine alternatives to Proton automobiles more frequently as a result of Proton's inabilit y to release new models that met their needs. Proton's sales decreased despite the firm's goal to boost manufacturing capacity by constructing a second facility in Tanjong Malim, P erak, in March 2004. As a result, the company was unable to take advantage of the increase d production capacity. (Anazawa, 2021, p. 73)

From the late 1990s, Proton shifted to in-house development. It gradually reduced its depe ndency on Mitsubishi Motors for R&D. Proton's gradual reduction in dependency on Mitsubis hi Motors was deliberate since Proton made use of Lotus from the United Kingdom to remain active in R&D. Lotus was acquired by Proton in 1996 as a subsidiary and became a wholly ow ned subsidiary of Proton in 2002. Figure 1 indicates the downfall of Proton. You can see f rom 2001 to 2018, there is a decrease in sales from approximately 220 thousand units to 70 thousand, and the decrease in market share from about 60 to 20%.

Why did Proton fail despite following the approach of eastern automobile sectors, includin g Honda? The automobile sectors in Malaysia were not successful and did not manage to beco me the national champion due to the following reasons: Lack of economies of scale, depende nce at the home marketplace, technology development, Limited R&D, testing capabilities (la ck of skills, equipment, and technology to embrace) , compliance with worldwide standards, lack of professional workers, and poor linkages (in other words, lack of institutions to m anage the sector). (Anazawa, 2021, pp. 83-84). Therefore, Malaysia needs a structure in p lace conducive to enabling the automobile sectors to be successful and a national champio n. These aspects are provided by Mazucato, Rodrik, and so on. Therefore the research quest ion is: Why did the Malaysian automobile sector not achieve their described Look East targ ets in 1981?

First, why is this research question so important? Why should we care about the Malaysian automotive sector? Why is it important to promote a sector which had already failed befor e? Malaysia has recently been obtaining success in promoting exports in commodity sectors. Such as Petronas, it was able to work well in supporting industries up and down the suppl y chain, they were able to focus in direction towards getting the resource, ability to tie with local tire manufacturers and the semi conductive players, technological players.

But in order to sustain increases in productivity and per capita income, there is a necess ity for innovation which is the use of new ideas, methods, processes, and technologies in production, rather than imitation of things that have already been embraced. If they cling onto sectors that have already succeeded, such as the commodity sector in Malaysia in this case, they might be trapped in a "non-convergence trap" where they're not reaching the world technology frontier. And therefore, for Malaysia, the sector that would be the key f or sustaining increases in productivity might be the technology sector. (Cherif and Hasano

v, 2019, p. 21) . The most workable goals for industrial policy are technology developmen t, national security, economic advancement, and competitiveness, and, given the mixed reco rd of previous social engineering projects, a focus on applying technological advances to broad societal issues could prove to be a diversion from these economic fundamentals. (Che rif and Hasanov, 2019, p. 24). Furthermore, Mazzucato and his colleagues had asserted that technical innovation could also be used for societal purposes such as eliminating economic injustice and promoting sustainable development, and thus would be contributing to the enh ancement of quality of living for the people too. (Mazzucato, 2013; cited in Cherif and H asanov, 2019, p. 24). Why am I specifically dismantling the automotive sector? The automob ile industry has the most innovation in its production. The automotive industry's economic success is dependent on innovation. And therefore, investment in the automobile sector wou ld be fundamental conducive to achieving innovation.

Methodology

The approach would include more desk based work. To solidify our ideas on this research qu estion, I will actively look at secondary literature that is published in academic journal s. Acquiring the summary statistics from the statistics office would be a key part of our approach to quantify our idea and consequently enhance the credibility. I will use MIDA to acquire historical and political context. MITI would be a helpful source to acquire policy documents.

First, there is a necessity to understand what a literature review is. It is where there i s an indication of conducting scholarly analysis based on what one has read and comprehend about other people's work in the same field. In addition, making an argument regarding the significance of your research and where it goes can be done by consulting the body of prev ious research on the subject. (Bryman, 2012, p. 97) Also, this would be a case study, whic h is defined as the fundamental study comprising a thorough and in-depth examination of a particular instance. The complexity and uniqueness of the subject in question are the focu s of case study research. (Bryman, 2012, p. 66)

There are several types of Case study: critical case, extreme case, typical case, relevent ory case, and longitudinal case. The critical case is when the researcher has a well devel oped theory, and a case is chosen on the grounds that it will allow a better understanding of the circumstances in which the hypothesis will and will not hold. The extreme or unique case has a common focus in clinical studies. Typical case has the objective to capture the circumstances and conditions of an everyday or commonplace situation. The revelatory case is when an investigator has an opportunity to observe and analyze a phenomenon previously inaccessible to scientific investigation. The longitudinal case affords the opportunity to be investigated at two or more junctures. (Bryman, 2012, p. 70)

This journal would be a Secondary analysis, which is the examination of data for objective s that were most likely not anticipated by people in charge of its collection by researche rs who were not likely involved in its collection. (Bryman, 2012, p. 311). What are the ad vantages of doing a secondary analysis? Students conducting research projects might benefi t greatly from secondary analysis in a number of ways. Cost and time come first. Secondary analysis offers the chance to get high-quality data for a minuscule fraction of the costs

associated with conducting your own data gathering. Many of the most popular data sets used for secondary analysis are of exceptionally high quality. (Bryman, 2012, pp. 312-315)

However, it also has limitations. One is lack of familiarity with data. With data gathered by others, familiarization time is required. You need to understand the variety of variables, the numerous ways in which the variables have been coded, and different facets of the data organization. With huge, complicated data sets, the period of familiarization might be rather long, thus it shouldn't be taken for granted. Additionally, it's possible that the data is complicated. Some of the best known data such as BHPS has large sample sizes in terms of both respondents and variables. A period of acclimation may be necessary in cases where the sheer volume of data causes issues with managing the information at hand. (Bryman, 2012, pp. 315-316)

Through these approaches, I'll dismantle the mechanism and pursue a comparison between the commodity and technological sectors. Also, I would compare the automobile sector in Malaysia to different countries such as Japan, so that I could understand its specialities as well as the mechanism behind it. Since many existing literature about Malaysian industries have a specific focus on commodity sectors, due to its success in recent years, our research essay on the technology sector would provide a new insight and its vital importance for achieving growth in the distant future.

Literature Review

Over the couple of decades, there have been debates regarding industrial policy. Why are there debates on industrial policy and what are these debates about? The three main defenses of industrial strategy have drawn the most interest. One results from the presence of dynamic scale economies and knowledge spillovers, another from coordination failures, and a third from informational externalities. Because the infant industry argument for trade protection is a forerunner of contemporary arguments for industrial policy, it is helpful to start there before going into greater depth about these arguments. This market skepticism limits industrial policy and makes this concept somewhat debatable. (Cherif and Hasanov, 2019, p. 27)

For instance, one should be skeptical of the claim that financial intermediaries have complete knowledge. It is evident that financial actors are frequently ineffective, as seen in early bubbles like the tulip frenzy of the seventeenth century and the Internet boom of the late 1990s. The banking industry in the Asian nations that repressed the financial sector and used industrial policy to direct loans to specific industries and businesses needed significant operational procedure improvements, just like industrial firms did. As a result, Baldwin's claim that investors would take advantage of opportunities if they existed may be somewhat of a weak link. (Pack and Saggi, 2006, p. 240)

Failing to understand the coordination would lead to the downfall. Private enterprises have often been effective in following learning tactics that earlier experts had advocated, according to experience in numerous nations during the last two decades. Private-sector agents drove the rise of the Indian software sector, Bangladesh's clothing industry, and China's special economic zones. The government's major role in Bangladesh and India was benign

indifference. There was no government policy that singled out individual enterprises or in dustries with high learning potential. There also has been a shift in focus away from the new industrial policy and toward negotiations with international corporations on topics su ch as environmental regulation and taxes, as well as measures to assure local learning. (Pack and Saggi, 2006, p. 286)

None of these situations had a government policy that singled out specific businesses or s ectors with a high potential for learning and potential spillover effects. Foreign busines ses introduced standardized technology, but also significant, broad marketing networks, to Bangladesh and China. The pattern of sector choice can be explained by standard comparativ e advantage. Allowing foreign companies to assist in cost reduction in the host economy se ems much more efficient in the current state of intensifying global competition and the gr owing importance of extensive and complex supply networks compared to the extraordinarily complex process of either picking sectors or allowing firms to identify their own competit ive advantage. In regards to coordination theory, we acknowledge that these things happen but we don't advocate for it. It's almost coincidental. Pack and Saggi are both relative ly skeptical of industrial policy due to the reasons above. (Pack and Saggi, 2006, p. 292)

Tariffs are neither required nor sufficient for success, and export emphasis precludes giv ing in to the delusion of economic "independence." The divergent routes taken by Hyundai i n Korea and Proton in Malaysia serve as illustrations of the disparity between ISI and exp ort focus. While Proton is a less integrated automaker that relies on essential imported i nputs with negligible exports and a domestic market that is undercut by foreign automakers despite tariffs and subsidies, Hyundai has become a global brand and a highly successful a nd innovative car maker, creating demand for a dense network of suppliers. (Cherif and Has anov, 2019, p. 60)

In both nations, the 1970s saw the development of new capacities in the automobile sector as a result of vigorous state intervention. The earliest automakers in both countries were established with the aid of a combination of subsidies, tariffs to preserve the domestic m arket, joint ventures, and license agreements with Japanese and American automakers. Howev er, there were significant variances in the laws that were adhered to.
Proton was never subjected to the same level of intense export promotion and Korean market competitiveness as Hyundai. (Cherif and Hasanov, 2019, p. 60)

One of the earliest factories constructed in the middle of the 1980s had a 300,000 annual capacity, exceeding the 250,000 annual domestic demand of Korea and being completely focus ed on the American market. It also established an early network of auto dealerships and ad vertising in the United States. Proton, in contrast, continued to be internally focused an d had a small production capacity in comparison to other major companies. Proton was unabl e to establish a strong brand since it was dependent on regional dealerships while seeking to export to the American market. Dealers allegedly used the affordable Proton cars as bai t to push other, more costly brands more aggressively. (Cherif and Hasanov, 2019, p. 61)

With this in mind, let's look at the debate between Lin and Chang. The paper is developed as a form of debate between Lin and Chang. It dismantles the concept of comparative advant age in simplified examples. Two countries make t-shirts. One is good at making. One is goo

d at other things. Here, special advantage is embedded in the country and this would be th e comparative advantage. Malaysia does not have the natural comparative advantage. They di dn' t have the embedded-ness, accountability either and thus it is challenging for them to succeed. The main point of disagreement is that while Chang believes comparative advantage is important, it is only the starting point, and a country needs to defy its comparative a dvantage in order to advance its industry, Justin believes that state intervention, while important, should primarily be about facilitating the exploitation of a country's comparat ive advantage.

Lin and Chang both believe that straying too far from one's comparative advantages should be avoided. Comparative advantage does provide a valuable benchmark for estimating the cos ts associated with preserving a nation's emerging sectors. You pay more to develop skills in new industries the further you stray from your comparative advantage.
However, as Justin points out, this does not imply that a nation should adapt to its compa rative advantage. Chang argues that it is simply not possible for a backward economy to ac cumulate capabilities in new industries without defying comparative advantage and actually entering the industry before it has the "right" factor endowments, given the nature of the process of factor accumulation and technological capability-building.
(Lin and Chang, 2009, p. 491)

With the comparative advantage and market skepticism in mind, let' s look at how Mazucato approaches to explain what industrial policies look like. Modern capitalism faces a conund rum that can be solved through innovation-led growth: how to produce steady and sustainabl e economic growth based on high-value, well-paying jobs. This is a worthwhile goal and it forms the basis of entrepreneurial societies. How to get there is the issue. Although many nations set the objective, just a handful have succeeded in doing so. (Mazucato, 2016, p. 1)

Mazucato presents an idea that an entrepreneurial society requires an entrepreneurial stat e, one that can instill animal spirits in private firms through creative and smart public investments scattered along the innovation chain. Then, as growth prospects are identified by entrepreneurs, business investment happens. Mazucato introduces an important aspect to tackle the challenges. And one of them is organizations. How do we create learning organiz ations in the public sector that are willing to take risks, learn from them, explore new i deas, and know when to shut off the water? In order to do this, one must view policy as a process in which failure is recognised and encouraged. Recruitment of the exceptional indi viduals that visionary public organizations require will also be aided by talking about pu blic organizations as mission-driven rather than just as conduits for others. (Mazucato, 2 016, p. 2). This aspect has been lacking in Malaysian automotive sectors which is closely related to lack of institutions and the idea of embeddedness by Rodrik. They need to have a structure in place conducive to aligning the incentives of public and private sectors.

Now we know what industrial policies look like, what problems arise? Rodrik' s paper is ma inly a criticism of Pack and Saggi. It mentions that it doesn't always work and it is a wr ong approach to try and unpack industrial policy. The market failures which industrial pol icies target have long been at the core of what development economists study. The conventi onal case against industrial policy rests on practical difficulties with its implementatio

n. The paper's main goal is to demonstrate how we might create institutions that consider and address the political and informational issues that concern opponents of industrial policy. Instead of viewing these issues as insurmountable challenges, we should start to consider them as challenges that every sane policy framework must address. Governments do not have to abandon social or macroeconomic policies because of political capture or knowledge gaps, even though these issues present similar challenges. They merely make it necessary for us to develop institutional responses to those agency issues. Furthermore, the incentive structure, "If you do good, you get this" is important to comprehend and this is not a localized thing.

It has been shown that the numerous critiques of industrial strategy are weaker than they Initially appear to be. They are predicated on untested hypotheses about the character of economic growth and the capabilities of governments. What the factual data actually reveals is misrepresented by them. They disregard the reality that many developing nations-if not the majority-are already implementing industrial strategies, even if they do not refer to them by that term. They also fail to recognise that many of these same arguments may be made for other aspects of government policy as well, not only industrial policy. It is ultimately impossible to comprehend why industrial strategy is regarded with such contempt. (Rodrik, 2008, p. 8)

The paper put out a strategy that acknowledges potential issues with how industrial policy is carried out but does not assume that rent-seeking and informational restrictions are unchangeable. Experience has proven that it is possible to build institutional arrangements that reasonably meet social objectives while controlling agency difficulties in many other domains, such as monetary policy, fiscal policy, or development banking. A similar perspective about the malleability of institutions is increasingly the basis for policy guidance in some of the most traditional areas of government responsibility, such as trade and financial reform. It advocates for these reforms as an essential complement to openness in trade and finance, acknowledging that doing so calls for a number of associated institutional reforms. (Rodrik, 2008, p. 26)

Rodrik's three categories, as briefly mentioned above, are closely related to the failed Malaysian automotive sector, bringing out a perspective for potential success in the future. Rodrik proposes the three key design attributes that industrial policy must possess are embeddedness, carrots-and-sticks, and accountability. These have to be met for a good industrial policy to be legislated.

Relation between Embeddedness and the malaysian automobile sector

Given that the agent has access to private information, the government creates a rule that gives the agent an incentive to behave in a way that is socially beneficial. This strategy ignores the private sector and accepts the informational asymmetry as a given. The regulations need only be published by the bureaucrats, who should then resign. It has the benefit of giving bureaucrats autonomy and enabling resistance to rent-seeking in the private sector.

At the outset, the government has no clear concept as to whether a collection of activities warrants support or not, what tools to employ, or what sort of private-sector behavior to condition these tools on. In order for the government to make informed judgments about issues, the private sector must provide the government with a variety of facts that cannot be transparently transmitted through business actions alone. (Rodrik, 2008, pp. 19-21)

Therefore, for a government and the policy to be embedded in society, there needs to be institutions that monitor these firms and their information. There is a necessity for gathering data regarding the limitations that markets face, and consequently tight cooperation between the public and private sectors. The Malaysian automobile sector did not own this embeddedness due to the lack of institutions. They did not have the local network. On the other hand, Mitsubishi had a localized supply chain and Japan had institutions that monitored the private sector and developed a close interaction between the government and the sector. Therefore, they were successful as opposed to the Malaysian automobile sectors.

Hence, the procedure focuses on identifying the legally binding restrictions and gathering data on the private sector's investment readiness subject to the elimination of those road blocks. The selection of specific policy instruments by the government results from the process. Therefore, it is predominant to consider whether the government has established the institutions that include the bureaucrats in an ongoing interaction with the private sector. This would be a prominent step for the Malaysian automobile sector to be successful. (Rodrik, 2008, pp. 19-21)

Carrots and Sticks and the Malaysian automobile sector

Industrial policy must employ both of these strategies to be effective: it must both promote investments in unconventional areas (the stick) and filter out failed enterprises and investments (the stick). All incentive programmes should have conditionality, sunset provisions, built-in programme reviews, monitoring, benchmarking, and periodic evaluation. A harsh state is not necessary to enforce discipline on incentive programmes. In practice, relatively insignificant programme design features can have a significant impact.
To bring success for a Malaysian automobile sector, creating the ideal incentives for businesses to increase productivity by tying incentives to export performance would be effective, as well as following the steps of carrots and sticks which Rodrik had come up with. Since the Malaysian automobile sector had a "lack of professional workers" resulting in low productivity , boosting productivity by creating incentives would be prominent to cover up these issues in a different approach. Instead of asking if a government can always choose winners, we should ask whether it has the ability to let losers go. The key is having systems that can detect when things are going south and then gradually stop providing help. Even while it's still challenging, doing this requires far less of the government than omniscience in its entirety. This aspect would be significant to consider for an industrial policy to be effective for a Malaysian automotive sector. (Rodrik, 2008, pp. 21-22)

Accountability and the Malaysian automotive sectors

Righting the relationship between the private sector and the policy makers/bureaucrats has been the main focus of the current considerations. But who oversees the bureaucrats, assuming they are indeed monitoring business? Considering this aspect would be necessary for securing accountability. To tackle this issue, raising the political prominence of industrial policy initiatives and tying in a powerful advocate are two ways to approach this problem. This has the advantage of identifying a person who is in charge of explaining why the agenda is set up the way it is and who can be held politically accountable for things going well or not. The Bank would be able to monitor these in addition to the monetary policy. (Rodrik, 2008, p. 23)

Giving specific mandates to individual agencies and then demanding them to disclose and justify any deviations from the targets outlined in the mandate is another way to promote accountability at the agency level. The central bank independence and inflation targeting model should be used as a guide. In this approach, the central bank is expected to provide a reasonable accounting for missed targets while maintaining a fair amount of autonomy in the instruments it chooses to utilize to accomplish its inflation target. (Rodrik, 2008, p. 23) As I mentioned, Malaysia had a lack of finance and institutions and therefore could not secure a solidified system that would be effective for the automotive sectors. This aspect would be prominent for boosting accountability and the effectiveness of bureaucracy.

Since the middle of the 2000s, a number of significant theoretical justifications for industrial policy have returned to the discussion of economic policy. Many other issues, however, have largely gone unaddressed, mostly because they do not easily fit into the dominant perspective of the world. Tariffs are neither required nor sufficient for success, and export emphasis precludes giving in to the delusion of economic "independence." The divergent routes taken by Proton in Malaysia serve as illustrations of the disparity between ISI and export focus. Proton is a less integrated automaker that relies on critical imported inputs, with insignificant exports, and a domestic market that is challenged by foreign automakers despite tariffs and subsidies.In the 1970s, new capacities in the automotive industry were developed as a result of significant state intervention. (Rodrik, 2008, p. 23)

Neglected Issues

Uncertainty in the working environment

Although Rodrik addresses the fundamental elements and issues that make up a successful firm and sector, there are also neglected issues that should come into play that are not mentioned by Rodrik. First is that production demands irrevocable commitments, which is a key aspect of contemporary industrial economies. The majority of these include tangible assets that represent specific technology and cannot be significantly changed to represent different technologies. The commitments very frequently also have an organizational component, such as to specific internal organizational forms or specific types of long-term supplier partnerships. Employees frequently have to dedicate themselves to certain abilities that may only be useful in a small number of industries, or perhaps just one industry, or in the

most extreme instance, just one firm. Because they increase productivity, these irreversible promises are made, but the downside is that they make subsequent modifications expensive. As mentioned earlier, due to technology development, there were employees in the Malaysian automotive sector who couldn't adapt to the change, causing an uncertainty in the working environment. (Chang and Andreoni, 2020, pp. 4-6)

In order to lessen uncertainty, there are several things that individual businesses cannot do but industrial policy makers can. By lowering uncertainty for businesses, policymakers hope to spur commitments to investments that will boost productivity and direct innovation. Several industrial policy instruments lower uncertainty by ensuring demand. First, by restricting competition from superior foreign producers, who are much more able than domestic rivals to create market uncertainty through radical technological innovations, infant industry protection not only helps the infant firms survive and continue learning but also significantly lowers demand uncertainty for them. Second, by limiting rivalry among local businesses, the government can ensure demand. (Chang and Andreoni, 2020, pp. 4-6)

It may, for instance, provide a specific company monopoly rights, require government license for entry into certain industries, or even enable cartels in particular industries to set pricing and segment the market. Third, the government can stabilize domestic companies' demand by providing them preference in government contracts. This will help alleviate demand uncertainty. Some of the most notable examples of businesses that have greatly profited from such treatment include the US aviation industry, the Japanese mainframe computer industry, and the Finnish electronics industry. In recent years, a number of nations have developed green energy technologies like solar and wind power in large part due to government procurement. (Chang and Andreoni, 2020, pp. 4-6)

At a more dynamic level, industrial policy makers can implement policies that lessen uncertainty about how technology will develop in the future, as opposed to lessening uncertainty about market demand, input supply, and rivals' business strategy in light of the technology. First off, by taking the initiative in the creation of fundamental technologies, the government may offer a defined framework for an industry's technical evolution. The US government serves as the best illustration in this regard, having initially used public R&D financing to support the development of technologies such as the computer, internet, semiconductor, and so on. Second, the government can encourage businesses to join research consortiums to create fundamental technologies, which they will pool and use to create more advanced technologies, which they will then use to compete with one another. Such a setup helped Japanese mainframe computer development as well as US semiconductor development. Third, by enforcing a technological standard, the government might lessen ambiguity regarding the direction of future technological growth during the early stages of the development of an emerging industry, where several technological standards compete with one another. (Chang and Andreoni, 2020, pp. 4-6)

Vitality of learning in production

Chang and Andreoni also discussed the neglect issue of failure to realize the vitality of learning in production. The ultimate objective of industrial strategy may be the encouragement of learning, defined as a process of growth and accumulation of productive skills. Th

e level of various collective productive capabilities that are ingrained in the institutio ns and productive organizations in the two types of economies differs between industrializ ed and non-industrialized economies, according to our analysis. The growth of these commun al talents through learning is what propels productivity, generates employment, and suppor ts institutions that distribute wealth, like the welfare state. However, the Malaysian aut omotive sector lacked testing capabilities, including productive skills, consequently limi ting the growth of employment and institutions that distribute wealth. (Chang and Andreon i, 2020, p. 7)

Data and Analysis

Now that we have all these theories, it is important for us to look at quantitative and qu alitative data of the Malaysian automotive sector to see whether it could be understood in the framing of the theories and ideas proposed in the literature review. In this section, I will use the analysis of different automotive industry development approaches by Tai and C.Y.Ku, data of exports and imports of passenger cars by Malaysian Investment Development Authority, data of automotive production volumes of passenger cars and commercial vehicles in Malaysia by Anazawa, data of Proton ownership structure in 2005 by Tai and C.Y.Ku, deta ils of approved projects by Ministry of International Trade and Industry, and dismantle th ese data based on the theoretical framework of Rodrik's three categories, Anazawa's prop osed issues of the Malaysian automotive sector, and Chang and Andreoni's neglected issue s.

Figure 2: Analysis of different automotive industry development approaches

Approach	Advantages	Disadvantages
Dependency development	• Smaller financial burden on the government • Less pressure on the open market	• The automotive industry is dominated by foreign capital • More difficult to develop the economic scale of mass production • Cannot bring about the growth of related industries
Independent development	• Protection brings mass production • More likely to support the growth of related industries • Can use the home country's resources	• Greater financial burden on the government • Over-protection cannot respond to pressure from trade liberalization

Source: Organized and rewritten by the author, based on Rashid, 2006.

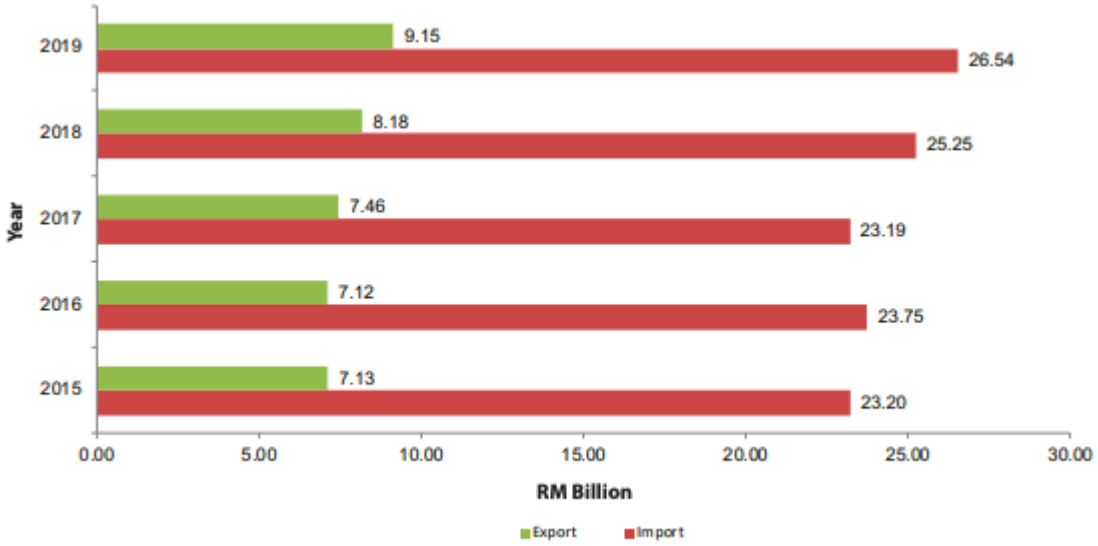
Source: Tai and C.Y.Ku, 2013, p. 60

As shown in figure 2, Malaysia developed a more active type of national capitalism based o n the New Economic Policy and Economic Nationalism following the 1970s. This style of nati

onal capitalism saw the automotive sector regarded as a national industry that should pursue independent development. However, the sector missed the chance to synchronize with the global market due to the policy of maintaining a national brand, in this case Proton. The Proton project gradually dwindled as a result of the limited domestic market's inability to generate economies of scale and the state's continued market-leading rather than market-following strategy. This demonstrates how challenging it is for developing country industries to pursue independent development within the framework of the global system.

And therefore, as mentioned by Anazawa, the Malaysian automotive sector faced a lack of economies of scale as well as dependence on domestic markets. In essence, the small domestic market prevents automakers from achieving scale efficiencies. Since Malaysia has long protected its own automakers and Bumiputera suppliers, even in the era of trade liberalization, they are less competitive and globally minded. To coincide with the economic integration and trade liberalization in ASEAN, some local component manufacturers have already established their branches abroad.

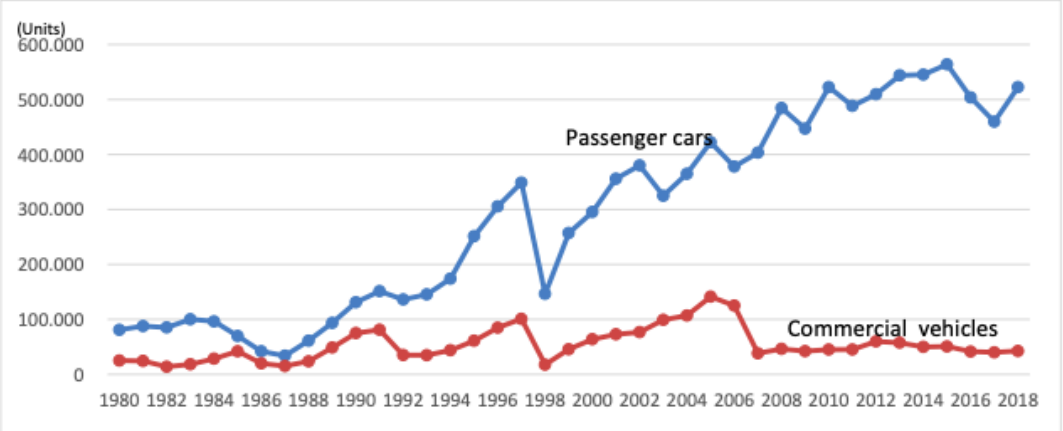
Figure 3: Exports and Imports of Passenger Cars



Source: Malaysian Investment Development Authority (MIDA), 2020

As shown in figure 3, the imports of passenger cars, parts and components are way beyond the exports. As Anazawa proposed, this would indicate a limitation to domestic markets. Commercial vehicle trade patterns resemble those of passenger automobile trade patterns. Once more, we may see a huge trade deficit. Due to the relatively tiny domestic market, however, import volumes are much lower than those for passenger cars, and commercial vehicle exports were hardly noticeable.

Figure 4: Automotive Production Volumes of Passenger Cars and Commercial Vehicles in Malaysia



Source: Data from 1980 to 1985 is from Malaysia Industrial Development Authority (MIDA). Data from 1986 to 2004 is from Fourin (2006). Data from 2004 onwards are from Fourin (2017) and the Malaysia Automotive Association (MAA) (2019).

Source: Anazawa, 2021, p. 64

As shown in figure 4, there is a huge gap in the units of production between passenger and commercial vehicles. Since passenger automobiles are given preference in Malaysia's automotive sector, both production and sales are mostly uncertain on these vehicles. The demand for vehicles other than passenger automobiles has increased due to the diversification of customer wants and rising wages. This issue in production closely relates to one of the issues presented by Chang and Andreoni's - failure to realize the vitality of learning in production.

The promotion of learning, which is a process of development and accumulation of useful abilities, may be the ultimate goal of industrial strategy. Industrialized and non-industrialized economies differ in the degree of various collective productive skills that are embedded in the institutions and productive organizations in the two types of economies. It is through the development of these collective abilities that production is boosted, jobs are created, and institutions that support wealth distribution, such as the welfare state, are supported. The Malaysian automobile industry lacked testing capabilities, including practical skills, which restrained the development of employment and wealth distribution organizations.

Figure 5: Proton ownership structure in 2005

Table 8: Proton ownership structure in 2005

Ranking	Shareholder	Number of shares	%	Political and economic background
1	KHAZANAH NASIONAL BERHAD	210,484,693	38.32 %	State-controlled
2	EMPLOYEES PROVIDENT FUND BOARD	60,017,000	10.93 %	Government controlled fund
3	RHB NOMINEES (TEMPATAN) SDN. BHD. PERTROLIAM NASIONAL BERHAD	35,676,680	6.50%	National Petroleum Holdings
4	CIMSEC NOMINEES (TEMPATAN) SDN. BHD. SECURITY TRUSTEE (KCW ISSUE 2)	24,250,000	4.42%	Indigenous government-led investment bank
5	LEMBAGA TABUNG HAJI	16,820,427	3.06%	Islamic funds, based on a vast rubber plantation
6	CARTABAN NOMINEES (ASING) SDN. BHD. GOVERNMENT OF SINGAPORE INVESTMENT CORPORATION PTE.LTD. FOR GOVERMENT OF SINGAPORE (C)	14,185,300	2.58%	Singapore's state-controlled fund (foreign capital)
7	PERMODALAN NASIONAL BERHAD	8,838,000	1.61%	Indigenous Education Development Fund
8	CARTABAN NOMINEES (TEMPATAN) SDN. BHD. AMANAH SSCM NOMINEES (TEMPATAN) SDN. BHD. FOR EMPLOYEES PROVIDENT FUND BOARD (JF404)	8,094,900	1.47%	Malaysia Employment Fund
9	PERECOM INDUSTRIES SDN. BHD.	7,444,000	1.36%	Malaysia Technology Group
10	HSBC NOMINEES (ASING) SDN. BHD. TNTC FOR SAUDI ARABIAN MONETARY AGENCY	6,835,998	1.24%	HSBC, Foreign Capital

Source: Proton Holdings Berhad, Annual Report 2006.

Source : Tai and C.Y.Ku, 2013, p. 74

Figure 5 indicates that the proton ownership structure did not have the dynamics between private and public firms. This closely relates to one of Rodrik's three categories, embeddedness. The government makes a rule that offers the agent an incentive to act in a way that is socially beneficial given that the agent has access to private information. With this approach, the private sector is disregarded, and information asymmetry is taken for granted. The officials merely need to publish the regulations, after which they should step down. Giving bureaucrats autonomy and permitting resistance to rent-seeking in the private sector are two advantages.

The government lacks a clear understanding of how to decide whether to assist a group of activities, what instruments to use, or what kind of private-sector conduct to condition these tools on. The private sector must offer the government with a variety of facts that ca

nnot be transparently relayed through company actions alone in order for the government to make educated decisions about issues. Therefore, organizations that oversee these businesses and their data are necessary for a government and its policies to become ingrained in society. Data collection on the constraints that markets encounter is essential, and as a result, the public and private sectors must work closely together. Due to a lack of institutions, the Malaysian automobile industry did not possess its embeddedness. The local network wasn't available to them, as the non-dynamic organizational structure shown in figure 6.

Figure 6: Details of Approved Projects

INDUSTRY PERFORMANCE

i. Details of Approved Projects

Automotive Industry	2009 (RM mill.)	2010 (RM mill.)	% Change	2011 (RM mill.)
Total investments	702.6	2,223.8	216.5	3,320.1
Domestic investment	405.6	1,807.6	345.7	2,536.4
Foreign investment	297.0	416.2	40.1	783.7

Source: Ministry of International Trade and Industry (MITI), 2015

As shown in figure 6, there is a huge gap in domestic and foreign investment from 2009 to 2011 in the Malaysian automotive sector. Despite the fact that the % change in domestic investment is over 300%, there is only 40% change in the foreign investment. This highlights the issues presented by Anazawa, the dependence on the home marketplace. As the graph explicitly shows, the Malaysian automotive sector values domestic investment over foreign investment. In order to succeed significantly, the firm has to expand its customer base to a wider area otherwise they will be stuck in a domestic market that is small in proportion to other markets around the world. Malaysia was too dependent on the domestic market, limiting them from succeeding to a higher level.

By looking at the quantitative data, it is clear that the Malaysian automotive sector lacks dynamics between public and private firms, and that they have a lack of economies of scale as well as dependence on domestic markets. It also explicitly highlighted the issues proposed by Rodrik, Chang and Andreoni. As the statistics indicate, due to these foundational issues, the Malaysian automotive sector, including firms like Proton, was not able to succeed and become the national champion as opposed to Japan, where the automotive sector contributed significantly to the Gross domestic product.

Conclusion

Due to the look east policy, legislated by Prime Minister Dato' Seri Dr. Mahathir bin Mohamad, the Malaysian that used Malaysia's nation-building efforts to learn from Japan's and

Korea's experiences. Primary example of this was the automotive sector. Including Proton, Malaysian automotive firms had followed an east Asian approach such as Honda, which had significantly succeeded in Japan. However, they were unsuccessful and couldn't become the national champion. Sales and market share of Proton had dropped by a huge margin from the start of the 21st century to now.

This failure was due to Malaysia's foundational matter that couldn't be solved just by copying the East Asian approach of the automotive sector. These issues include lack of economies of scale, dependence at the home marketplace, technology development, Limited R&D, testing capabilities (lack of skills, equipment, and technology to embrace) , compliance with worldwide standards, lack of professional workers, and poor linkages (in other words, lack of institutions to manage the sector).

The paper's aim was to investigate how and why the Malaysian automobile sector and the related institutions did not achieve their described Look East targets in 1981, and potential pathways for improvement. The methodology involved more desk work. I actively used the secondary literature that has been written up in scholarly journals to help us cement our thoughts on this research subject. A crucial component of our strategy to quantify our proposal and therefore increase the credibility would be to obtain the summary data from the statistics sources. To get historical and political perspective, I have used MIDA and MITI.

I have found that the issues presented by Anazawa could also be related to categories that Rodrik has proposed. Rodrik proposed that the three key design attributes that industrial policy must possess are embeddedness, carrots-and-sticks, and accountability. These have to be met for a good industrial policy to be legislated. There are also neglected issues proposed by Chang and Andreoni including uncertainty in the working environment and vitality of learning in production.

In the data and analysis section, I found that Malaysia clearly lacks dynamics between public and private firms, and that they have a lack of economies of scale as well as dependence on domestic markets. There explicitly seems to be a foundational issue in Malaysia, that led them to a huge failure to become the national champion in the automotive sector. By looking at quantitative and qualitative aspects of Malaysia and the automotive sector, I could examine the issue more objectively. By taking this approach, I was able to evaluate areas in the Malaysian automotive sector and Malaysia's industrial foundation that needs improvement to succeed in the future.

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