

Preliminary Strategic Review to the Malaysian Automotive Industry

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Abstract

The Malaysian automotive manufacturing industry has been an established industry in the country and has contributed to the country in various areas, especially in terms of economy, technology, and social upgrading. However, following the 1997 Southeast Asia currency crisis, the industry's growth has suffered immensely and this has affected its business operations. Still saddled with this historical issue, a recuperating Malaysian automotive manufacturing industry now faces a new threat in terms of domestic market liberation, which could shrink and erode market dominance of locally produced cars, especially the Malaysian national car, even before it can regain its once former glory. To make things even worse, the global automotive industry is also undergoing one of its biggest challenges, and this too affects the Malaysian automotive manufacturing industry. This study examines the issues faced by the Malaysian automotive manufacturing industry, steps taken to address these issues, and how will it affect Malaysia's competitiveness in the global automotive market.

Keywords: Malaysian Automotive Industry, National Automotive Policy 2014

1. INTRODUCTION

The Malaysian automotive manufacturing industry started off with modest beginnings in the early 80s. Then, Malaysia was part of a select few developing countries globally that dared to venture into the complex automotive industry, but has since grew from strength to strength and it now has the capability not only to assemble and manufacture, but to design a complete vehicle (MAI, 2011). The spin-off effects of the automotive manufacturing industry were very significant in nation building, especially affecting the fields of engineering, education, finance, and design. It has also influenced the working culture and lifestyle of the Malaysian society, through management system promotions such as Total Quality Management (TQM), and Lean Production. However, having been originally planned to spearhead the Malaysian government's industrialization program, the automotive manufacturing industry has not lived up to its expectations as being the catalyst in ensuring the country achieve developed nation status by 2020.

This is partly due to the 1997 Southeast Asia currency crisis, which has altered the overall economic performance of the nation, more so in the automotive industry. Coupled with the devaluation of the Malaysian Ringgit (RM), prices of imported critical automotive components (i.e. powertrain, brake system), and imported molds and dies skyrocketed (MIDA 2009). This begins to affect the manufacturing competitiveness of locally produced automotive components and vehicles. Not only that, financial scarcity meant Malaysia's first and largest national car manufacturer PROTON's product development, research programs, factory automation, and human capital development expenses and plans were put on hold or scrapped (Economic Planning Unit, 2009) The aftereffects of the financial crisis has increased the cost to develop and manufacture vehicles in Malaysia, and the automotive industry remained unstable for the next few years following it, rendering it to be low in

competitive ability (MITI 2009). Such conditions also translate into a serious retrenchment threat amongst its workforce.

Nevertheless, the crisis has also spurred the Malaysian automotive industry to remain agile in order for it to continue coming up with survival solutions, to remain significant both in the world and domestic markets. The introduction of the National Automotive Policy (NAP) in March 2006 was a step towards achieving this, as it regulate measures to help sustain the Malaysian automotive players, and integrates them into the more liberal and competitive regional and global automotive industry network. This includes outlining measures to create a conducive investment environment towards enhancing high value added automotive manufacturing locally utilizing latest advanced technology (National Automotive Policy, 2009). Moving forward, the Malaysian automotive industry needs to revitalize, especially in today's global situation where the global automotive industry is experiencing the effects of yet another global financial turmoil and market liberalization. Having outlined the contributions of the automotive industry, Malaysia has no other alternatives, but to persevere and continuously ensuring the survival of its automotive industry. In light of this predicament, an Automotive Institute was set up by the Malaysian government to serve as focal point amongst automotive communities in order to come to a common ground in seeking solutions to the many complex, interconnected problems currently faced by the automotive industry (3rd Industrial Master Plan IMP3, 2006) This paper compares the challenges faced by the Malaysian automotive manufacturing industry against global trends, and whether the latest revision of the National Automotive Policy addresses these challenges.

2. CHALLENGES TO THE MALAYSIAN AUTOMOTIVE MANUFACTURING INDUSTRY

Maxton and Wormald (2004) reported that vehicle manufacturing countries are divided into 4 groups: (1) Core (i.e. US, Japan); (2) Peripheral; (3) Autarchic – trying to be core, developing their own auto industry (i.e. Russia, Iran, Malaysia); and (4) Networked-In (i.e. Thailand, South Africa). In 2007 the global automotive industry is estimated to have a turnover of USD 2.52 trillion whilst employing an estimated of 8.4 million employees (OICA, 2007). To put it in perspective, it almost doubles the turnover for Microsoft, Google, Cisco, Apple, Intel, and IBM for the same period combined (Hansel, 2007). A 2014 report by Financial Times lists 33 motor vehicles and part manufacturers in its Global 500 Companies with its two best performers, Volkswagen and Toyota Motors only managed to rank 8th and 9th respectively, well below Wal-Mart Stores (1st), Royal Dutch Shell (2nd), Sinopec Group (3rd), China National Petroleum (4th), Exxon Mobil (5th), BP (6th), and State Grid (7th) (Financial Times, 2015). Malaysia's national car manufacturers PROTON and PERODUA are not in the list, with only Petronas the only Malaysian company listed (69th).

When looking at production volume, the global total production volume for vehicles for the year 2013 is 87,354,003, with the global average vehicle production growth since 2000 is around 3.32 per cent (OICA, 2014). Malaysia's vehicle production growth for the same period is 7.71 per cent, which is relatively small when compared against Thailand (16.86 per cent) and Indonesia (31.61 per cent). In terms of volume, Malaysia produces 601,407 vehicles (90.4 per cent cars) in 2013, also relatively small when compared to Thailand (2,163,338 vehicles with 49.5 per cent cars) and Indonesia (1,206,368 vehicles with 77 per cent cars). Malaysia too has the fifth highest volume of vehicle per kilometres of paved road, falling behind only to Japan, Republic of Korea, Germany and Mexico. Furthermore, even though Malaysia only has 73 per cent of its population living in urban areas, there are 341 passenger cars available to each 1,000 Malaysians, or roughly a car to every three Malaysians, with only Germany, Japan, United States and the Netherlands having higher cars per

citizen ratio (The World Bank, 2014). Therefore, it can be observed that Malaysia has a matured automotive market even though it produces a moderate volume of vehicles as opposed to its neighbours. However, when the production volume is scrutinized further, it can be observed that the volume produced by PROTON and PERODUA failed to reach the minimal volume required per model, as to manufacture a vehicle in any sort of economic quantities using current production technology requires an output volume of at least 250,000 per model per year, with a preferred volume of 400,000; whilst component manufacturers should be producing 1.2 million units a year (Maxton and Wormald, 2004).

Another challenge to the Malaysian automotive manufacturing industry is the effect of the multilateral, regional and bilateral trade agreements, which can further erode its already diminishing market share. So far, the Malaysian motorcycle manufacturing industry has been liberalized from 2008, whereas the ASEAN Free Trade Agreement (AFTA), and the partial implementation of the Japan-Malaysia Economic Partnership Agreement (JMEPA) has taken effect from 2010, with JMEPA in full effect from 2015. The introduction of AFTA has seen the domestic market open up to any manufacturers that opt to assemble their vehicle in other ASEAN countries such as Thailand and Indonesia, while JMEPA could see further reduction of import duty for vehicles and parts or components imported from Japan. Both treaties will see new challenges eyeing for a chunk of the domestic market share, something which the Malaysian car manufacturers have historically hold on to more than 50 per cent. In addition, Malaysia also has bilateral Free Trade Agreement (FTA) with India, Pakistan, Australia, Chile, New Zealand, and Korea; whilst also in negotiations with the United States and China.

Apart from not having the economic production volume and facing market share threats from an open and liberal domestic automotive market, the Malaysian automotive manufacturing industry is also facing issues in developing new models. At current capabilities, platform development takes 3 years minimum to complete. In order to compensate this, derivations from a single model is common and model life is usually extended beyond 5 years, with cosmetic and minor changes introduced at intervals. Most of the time, this fails to excite the market. Furthermore, the inability to produce large tooling, dies, and molds (TDM) locally translates into a higher development cost, thus limiting the number of new models developed. In addition, Malaysian small and medium enterprises (SME) still lack the capacity and capability needed to support the Malaysian automotive manufacturing industry, especially in highly technical areas such as Powertrain and Chassis development and production. It is also important to understand the relationship between these issues faced by the Malaysian automotive manufacturing industry with trends influencing the global automotive industry, as this will affect its competitiveness when the Malaysian market becomes liberalized. Table 1 shows this relationship.

3. EXISTING SOLUTION TO THE MALAYSIAN AUTOMOTIVE MANUFACTURING INDUSTRY

The National Automotive Policy (NAP) was first introduced by the Malaysian Government in 2006 to transform the domestic automotive industry and integrate it into the increasingly competitive regional and global industry network through six main objectives. The NAP was reviewed in 2009 in order to further enhance the capability and competitiveness of the Malaysian automotive industry, whilst aiming at creating a more conducive investment environment for the domestic automotive industry. The NAP was reviewed once again in 2014, in order for it to focus on green initiatives, market expansion and enhancement, technology development, and human capital development. In order to examine the effectiveness of the latest revision of NAP in addressing the issues faced by the Malaysian automotive manufacturing industry, a relationship matrix is developed and shown as

Table 2. Based on Table 2, it can be observed that almost all key issues faced by the Malaysian automotive manufacturing industry is being addressed by the 2014 NAP. The unaddressed issue of long product life is a factor of long development time, and costly development expenditures, which in turn is a factor of not having any local TDM maker. Therefore, by addressing these two underlying factors, new cars can be developed faster and introduced to the market more frequently, thus eliminating the issue of having long product life.

Table 1. Relationship between key issues for the Malaysian automotive manufacturing industry and key trends affecting the global automotive industry

Year Cited as Key Trend ¹													Key Trends Affecting the Global Automotive Industry ¹	Key Issues for the Malaysian Automotive Manufacturing Industry					
														Low production volume	Long development time	Long product life	No local TDM	Lack of highly technical capable SMEs, vendors	Liberal and open market
2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015								
x	x	x	x	x	x	x	x	x	x	x	x	Fuel Efficiency		-	-		-		
								x	x	x	x	Alternate Fuel Tech (i.e. Battery tech)		-	-		-		
							x	x	x	x	x	ICE ² downsizing		-			-		
x	x						x				x	Safety Innovations		-	-		-		
								x	x	x	x	Car Connectivity Solutions and ICT		-	-		-		
								x	x	x	x	Urban mobility, solution provider			-				
								x	x	x	x	Service Quality			+		+		
									x	x		Brand Performance		-			+		
				x	x	x	x	x	x	x	x	Hybrid vehicles		-		-	-		
		x	x	x	x	x	x	x	x	x	x	Small, basic, entry-level cars		-	-	-	-		
					x	x	x	x	x	x	x	Overcapacity	+						
								x		x	x	Modularization		+	+	+			

Note: (+) represents positive relationship, (-) represents negative relationship.

¹KPMG International (2011, 2012, 2013, 2014, 2015)

²Internal Combustion Engine

4. CONCLUSION

The automotive manufacturing industry has been a key industry for Malaysia not only in terms of international trade, but it has also provided employment to the local community, accelerated the development and implementation of automotive and manufacturing related technology in the country, and has provided the opportunity for local entrepreneurs to grow their businesses especially in the areas of auto parts and components manufacturing, and engineering related services. The industry has a big potential to grow and expand its capacities and capabilities within the region, and across the huge market of developing countries. In order to achieve this and considering the key challenges that has been discussed earlier, it is crucial for the industry to resolve the structural issues within the automotive manufacturing industry whilst exploring measures to further develop itself. In this regard, the 2014 NAP has already been observed to be able to address the key issues affecting the industry, but a more in depth look at the related policies, its mechanism, and the related roadmaps is needed. Furthermore, the 2014 NAP has set the vision for Malaysia as a regional hub for Energy-Efficient Vehicle (EEV) manufacturing by the year 2020. The steps taken to achieve this goal too must also be reviewed thoroughly, as to ensure the correct policies and strategies are in place to ensure that the Malaysian automotive manufacturing industry finally fulfills its destined potential.

Table 2. Relationship between relevant policies of the 2014 NAP with key issues affecting the Malaysian automotive manufacturing industry

National Automotive Policy 2014 ¹		Key Issues for the Malaysian Automotive Manufacturing Industry					
Direction and Strategy	Relevant Policy	Low production volume	Long development time	Long product life	No local TDM	Lack of highly technical capable SMEs, vendors	Liberal and open market
A. Investment (4 policies)	i. Incentive to attract strategic investment including JV		x				x
	ii. Incentive to develop key strategic areas (i.e. power train, TDM)				x	x	x
B. Technology and Engineering (3 policies)	i. Incentive to develop EEV infrastructure and EEV technology pre-commercialization activities					p	
	ii. Establishment of Industry Center of Excellence (ICOE)		x			x	
C. Market Expansion (3 policies)	i. Organizing the Automotive Parts and Components International Market Expansion program	x					
	ii. Establish the Distribution Infrastructure Network (DIN)	x					
	iii. Enhance existing bilateral FTA	x					
D. Supply Chain Development (2 policies)	i. Soft loans to develop new tooling				p		
	ii. Soft loans to develop competitiveness					x	
E. Human Capital Development (2 policies)	i. Funding to develop human capital in 9 areas					x	
F. Safety, Security and Environment (4 policies)	i. Develop new standard for new and used components						x
	ii. Develop Reduce, Reuse, and Recycle standard						x

Note: (x) represents direct relationship, (p) represents partial relationship.

¹Ministry of International Trade and Industry (2014)

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