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## **DEVELOPMENT OF GENUINE CAR ACCESSORIES AND ITS CHALLENGE AGAINST COUNTERFEIT AFTER MARKET PRODUCT IN INDONESIA**

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**ABSTRACT** - Today in highly competitive automotive market, common vehicle platform and design would raise high efficiency in term of development and vehicle cost. But this decision brings bad impact to customer by not providing many choices for vehicle differentiation. One way to overcome this gap is through developing genuine car accessories which can fulfill customer preferences. In Indonesia, development of genuine car accessories facing very big challenge, especially in dealing with counterfeit products which soon reach the market after genuine product launched, with the same styling design but very poor quality. This condition in at some level can brings bad impact to car manufacturer in term of quality as customer did not realize that they are using poor quality of counterfeit after market product.

**TECHNICAL PAPER**

### **DEVELOPMENT OF THE INDONESIAN AUTOMOBILE INDUSTRY**

Automobile manufacturing in Indonesia already existed in 1927 when General Motors built a plant in Jakarta. Until 1969, imports of automobiles were not regulated and the industry consisted mainly of trading activities with very limited manufacturing operations. However, manufacturing activities were started in 1964 with semi knocked-down components, but then the process progressed into assembling of knocked-down parts in 1971. Automobile manufacturing production shows on the whole big fluctuations, it increased sharply from 22,118 units in 1972 to 212,669 units in 1981, but then dropped drastically to 139,438 units in 1985. Production increased again sharply to 271,712 units in 1990, then dropped to 172,234 units in 1992 and increased again rapidly to 387,541 units in 1995. But due to the financial crisis, which started in mid 1997, automobile production dropped drastically to only 16,110 units in 2000. Automobiles manufactured in Indonesia are differentiated between sedans for personal use and cars for commercial use. A greater portion of automobiles produced in Indonesia belongs to the commercial car category. In 1972, the proportion of commercial cars was 15,993 units or 72.3 percent of total automobile production versus sedans 6,125 units or 27.7 percent. For 1985 the figures were respectively 115,239 units for commercial cars or 82.6 percent versus only 24,199 unit sedans or 17.4 percent. In 1996, the proportion was respectively 290,191 units versus 35,304 units, but in 2000 due to the crisis, production of commercial cars dropped drastically to 8,870 units and production of sedans reached only 7,225 units. In 1995 there were as many as 32 automobile brands represented in Indonesia with 18 assembler firms with a total production capacity of 547,622 units per annum. But from these 18 firms only 14 assembler firms were active producing 18 car brands with a production capacity of 514,622 units per annum. In 1998, the

number of car brands increased to 20 with a production capacity of 700,000 units per annum. Japanese brands dominated by far automobile production in Indonesia. Among the sedan category, 75.4 percent of car production in 1983 was Japanese. But sales of Japanese brands in the sedan category declined relatively sharply from 34,781 units (76.2 percent) in 1991 to 21,445 units (48.9 percent) in 1996. In the commercial vehicle category, Japanese domination was almost complete. Of all commercial vehicle production, 91 percent were Japanese brands in 1983. The percentage increased to 94.9 percent in 1996 of all commercial vehicle sales. By 2000, there are 20 car manufactures operating in Indonesia, producing 22 brands of automobile. Total capacity of the assembling manufacturers is more than 750,000 units per year.

No	Assemblers/Manufacturers	Brand/Principal
1	P.T. Toyota Astra Motor	Toyota
2	P.T. Astra Daihatsu Motor	Daihatsu
3	P.T. Astra Nissan Diesel	Nissan (Diesel)
4	P.T. Gaya Motor	Isuzu Nissan Peugeot B M W Fiat
5	P.T. Kramayudha Ratu Motor	Mitsubishi
6	P.T. Krama Yudha Kusuma Motor	Mitsubishi
7	P.T. Indomobil Suzuki International	Suzuki
8	P.T. Honda Prospect Motor	Honda
9	P.T. National Assembler	Hino
10	P.T. Tri Citra Karya	Ford Hyundai
11	P.T. DaimlerChrysler Indonesia	Mercedez Benz Chrysler
12	P.T. Ningz Pacific Motor	-
13	P.T. General Motor Indonesia	Chevrolet Opel
14	P.T. Ismac Nissan Mfg	Volvo
15	P.T. Panca Motor	Isuzu
16	P.T. Alun Indah	Daewoo
17	P.T. Timor Putra Nasional	Timor/KIA
18	P.T. Proton Edar Indonesia	Proton
19	P.T. Hyundai Indonesia Motor	Hyundai
20	P.T. Hino Indonesia Manufacturing	Hino

**Table 1. Car Manufacturer in Indonesia**

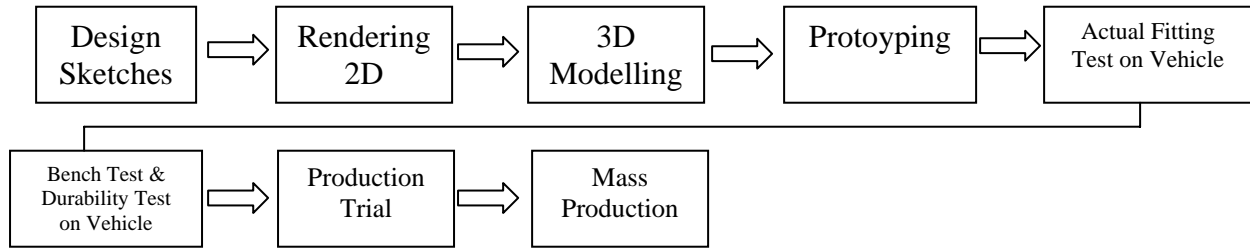
## **TRANSFER TECHNOLOGY, TOYOTA IMV PROJECT AND OPPORTUNITY**

A way to assess the extent of technology transfer in the automobile manufacturing industry, is to look at the development of the automobile component production and exports in the country. It can be inferred that the higher the local content proportion in the final product of a car, the more successful would be the technology transfer from abroad.

In developing countries like Indonesia, there is practically no development or inventions in automotive technologies and hence developing countries depend entirely on foreign car producers and foreign technology. As Market Leader in Indonesia, Toyota - in the past, also tended to be to build manufacturing facilities in Indonesia mainly owing to their cheap labor costs. However, in developing and producing cars for this region, Toyota used to stay reliant on Japanese designers and engineers, rather than exploiting local talent. The problem is obvious. People who are not familiar with local tastes and local unique customer needs are probably not the best to develop and produce cars which will satisfy unique local customer needs! Growth rates in emerging markets are significant and a growing number of companies are trying to gain and sustain competitive advantage. The victors in this tough competition are likely to be those companies able to satisfy unique customer needs efficiently and effectively - and to achieve this, a new way of developing business in emerging markets might be necessary. Innovation in the business model for such emerging markets has emerged as an important agenda point for Toyota. IMV project is the answer come from Toyota in order to provide Indonesian market with competitive pricing and fulfill unique local tastes product. But as IMV also set by Toyota as Global Model which not only sold in Indonesia, some specific design which needed by Indonesian customer cannot provided in this model. This condition provides big opportunity for local designer and engineer, to design genuine accessories product which can improve styling design of IMV cars more suitable with local Indonesian customer preferences. This process is big step take by Toyota's local designer to applied their know how and capability which gained through training in Toyota mother company in Japan, by designing genuine accessories with same quality as other OEM parts. Before this project, local engineers do not have such opportunity to experience such design process and mainly act as window engineer for localization process. Transfer technology and foster local talent for future project really promote through this genuine accessories project. And related to IMV as Global model, this genuine accessories also projected to be exported to other country which produce and sell IMV model.

## **DEVELOPMENT OF GENUINE ACCESSORIES**

As development process mainly done in Japan, it is kind of big challenge to do simultaneous development. Fortunately with the advanced of digital technology, local engineer can access digital data made in Japan and do engineering studies locally in Indonesia. There are some processes must be studied, start from 2D sketch drawing up to durability test, to make sure the quality of the final product. These process really challenge local designer and engineers to implement their know how on product development, start from the scratch up to finished product which maintain high quality as OEM product.



**Picture 2. Genuine Accessories Development Flow**

Due to limited experience of local designer and engineer, this genuine accessories development mainly focuses to produce exterior and interior parts which can provide customization of the vehicle. As global model, the designer also has to study the preferences of other market than Indonesia, for example Thailand, Malaysia, Philippines and Middle East Countries. This activities bring new experience and excitement for local designer and engineer, as they have to study and analyze other market preference as well.



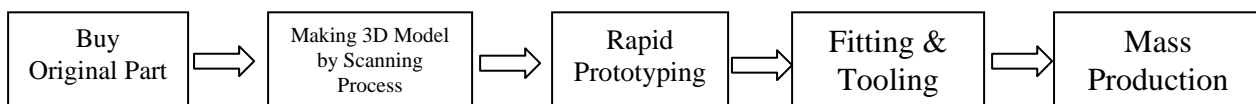
No	Exterior Accessories	Interior Accessories
1	Chrome Door Housing	Metal Panel Set
2	Side Visor	Wooden Panel Set
3	Leather Steering Wheel	Carbon Panel Set
4	Roof Tray	
5	Chrome Back Door List & Rear License Ornament	
6	Outer Mirror Chrome Cover	
7	HMSL (High Mount Stop Lamp)	
8	Outer Mirror Lamp	
9	Front Spoiler Bumper	
10	Front Grille Ornament	
11	Body Stripe, Small	
12	Side Skirt	
13	Rear Lamp Chrome Cover	
14	Front Bumper Ornament	
15	Muffler Cutter	

**Picture 3. IMV Accessories Sample Image and List.**

Other big constraint that designer and engineer have to face in accessories project is the development lead time. With only one year available to develop all of those products, engineers have to rush with detail design issues and marketing preparation for launching the final product to customer. All sample product must be available to support marketing events, such as photo shooting, dealer training, etc. From marketing point of view, the best timing to market genuine accessories product is start from launching period up to following 3-4 months. It is because by the fifth months after launching, market soon fills with counterfeit product which has similar design as they copied the genuine accessories. This condition push local designer to try their best to producing high quality product with very limited development time.

## COUNTERFEIT PRODUCT CONDITION IN INDONESIA

Indonesian customer is very sensitive to price, especially when dealing with car accessories product. With very low quality awareness for accessories product, it is very easy for them to utilize other cheap aftermarket product as long the design similar with original one. This condition provides big opportunity for counterfeiter to produce copy product and sell it to market. Counterfeit process only required 3 months for development time and required no strict evaluation process in order to make sure the quality.



**Picture 4. Counterfeit Development Flow and Sample Picture of Counterfeit product**

By doing this kind of process, counterfeit product can sell with very low price as they don't have to deal with huge development cost and long time for durability test. Other factor that support fast penetration of counterfeit product is some authorized dealer also sale this product to customer by telling them that they are using genuine accessories product. This condition really brings bad impact to manufacturing company, as final product will not achieve sales forecast and finally cannot bring any profit to the company. If this situation continues to happen, in the future

project, management will review the decision to develop genuine accessories and local designers and engineers chance to apply their skilled will be eliminate.

## **FUTURE CHALLENGE FOR ACCESSORIES DEVELOPMENT**

Through this genuine accessories development, local designers and engineer can learn a lot of product development process. It is realize that only by doing such project, transfer technology and man power skilled up, can be achieved. But, if counterfeit product accessibility to the market still runs in the same way as current, soon this opportunity will be lost. One way to minimize market penetration of counterfeit product is by closing the possibility counterfeit product can be sale through authorized dealer. Another ways are to design accessories product with has difficulties to counterfeit and educate local market with product quality awareness.

## **References**

- (1) Association of Indonesian Automotive Industries (GAIKINDO). 2001. GAIKINDO Profile 2001.
- (2) CIC. 1996. "Developments of Automobile Industry and Market in Indonesia", in: Indo-commercial, No.150, 4 April 1996, pp. 3-28.
- (3) Dodwell Marketing Consultants. The Structure of the Japanese Auto Parts Industry, 4th ed., 1990.
- (4) Furqonny, R. "Proses Alih Teknologi Otomotif" (The Process of Automotive Technology Transfer), in: Kompas daily, August 7, p. 20,1997.
- (5) Hansen, J.R. "The Motor Vehicle Industry", in: Bulletin of Indonesian Economic Studies, Canberra: Australian National University, Vol. VII No. 2, July, pp. 38-69,1971.
- (6)Hill, H.. "Indonesia's Great Leap Forward? Technology Development and Policy Issues", in: Bulletin, of Indonesian Economic Studies, Canberra: Australian National University, Vol. 31 No. 2, August, pp. 83-123. 1995.
- (7)Kazuo, Ichijo. "Rapid Penetration Into the Emerging Markets- The Toyota Way", in:www.critical-eye.net,Volume September – November, 2005.