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Study on the Global Market Strategies of the Big Six

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Introduction

The purpose of this study is to statistically analyze the global market strategies of major automotive makers and identify the implications for Japanese automotive makers suffering from sluggish growth.

As stated by Mr. Akio Toyota, president of Toyota Motor Corporation, the automotive industry is still a sunrise industry, particularly due to the booming growth of emerging markets[1]. Based on the database of Marklines, the average annual growth rate of the global automotive market for the past five years is 3.4%[2], while, that of the Chinese market is 21.7% and the Indian market is 14.1%. This simple calculation explicitly indicates that emerging markets are key factors affecting the survival of automotive makers engaged in global competition. Accordingly, we pay special attention to the sales performance of individual makers in emerging markets in this study.

With respect to previous studies, we refer to those that explored the automotive industry in emerging markets (Humphrey, 2000) (Kierzkowski, 2011) (Tsuchiya, Oshika and Inoue, 2006), or evaluated the competitive advantages of major automotive makers (Tsuchiya, Oshika and Inoue, 2007). A recent series of comprehensive research studies on emerging markets by Professor Shioji at Kyoto University also produced notable results (Shioji, 2011a, 2011b). However, few attempts have been made to statistically analyze global market strategies. One reason is that published, available freely automotive market data is difficult to use

1 Statement at a press conference of the Japan Automobile Manufacturers Association on June 4th, 2012.

2 “The average annual growth rate” is a simple arithmetic mean.

for this kind of empirical research. In this study, we rely on the non-free database of Marklines to overcome the data problem.

We present a concrete discussion as follows. The first section introduces our data and methodology. In the second section, we review trends in the global automotive market and present three points worthy of our attention. In the third section, based on the method introduced in the first section, we investigate the regional composition ratio of the global unit sales of major automotive makers, and identify their characteristics and agendas in terms of global market strategy. Finally, we summarize our discussion.

1. Data and Methodology

Generally, often quoted data when we study the automotive market are statistics published by the automotive manufacturing association or automotive dealers' association of individual countries. These provide the most authoritative data available and are convenient for analyzing a country in-depth. However, it would be very painstaking and time consuming to aggregate these data for more than one country, because the forms of statistics compiled by each automotive association often differ. When analyzing the global market, as in this study, we have to say it is almost impossible to collect the data required to identify global market trends.

In this case, we have no choice but to depend on a non-free database. Among the many existing non-free databases, we employ that of Marklines. The main feature of the database is that it provides data on global unit sales of major automotive makers and countries, which are useful for analyzing the global market strategies of individual automotive makers.

With respect to our methodology, it is reasonable to assume that business scope of major automotive makers such as GM, VW, and Toyota is not limited to a particular country or region, but is global. Therefore, we can get a picture of global market strategies by examining the regional composition of their global unit sales. The regions we refer to here can be classified basically into eight entities: North America, Japan, Western Europe, Oceania, Asia, Russia & Eastern Europe, Latin America, and Middle East & Africa. The former four regions are advanced countries and the latter four are emerging countries.

Based on the regional composition of global unit sales of each automotive maker, we evaluate the validity of their global market strategies. More concretely, we examine the deviation of a maker's regional composition ratio of global unit sales from the average regional composition ratio of the global automotive market. The calculation formula of this indicator is as follows.

Deviation = Regional composition ratio (i,j,) – Regional composition ratio (ga,j,)
i: automotive maker, j: region, ga: global average

The more positive the deviation is, the more the automotive maker is concentrating on a region and vice versa. Moreover, the greater the absolute deviation is, the more the market strategy of the maker differs from the average trend of the global automotive market. The following equation indicates the effective distribution of the business resources of an individual automotive maker.

Effective distribution of business resources (i) = SUM {ABS (Deviation [j])}
i: automotive maker, j:region, ABS: Absolute deviation for maker i in region j

It is clear that the smaller the above indicator is, the more effective the distribution of business resource is.

If a leading maker has a significantly large share of the global automotive market, this indicator is unlikely to make sense. Actually, however, as pointed out later, the share of GM, which had the largest global unit sales in 2011, is only 12%. Because this figure is enough small, we can evaluate the effectiveness of the distribution of business resources using the above indicator.

In addition, although we are concerned with the global market strategies of major automotive makers, we do not take up qualitative aspects here. In this study, we identify the characteristics and agendas of the global market strategies of major automotive makers exclusively through statistical analyses.

2. Trends of global automotive market

In this section, we will look at several statistics to overview current trends of the global automotive market.

Figure 1 describes recent time series data of global automotive unit sales. As shown here, it decreased two years in a row from 2007 following of the so-called Lehman Brothers Shock. The economic crisis we refer to as the Lehman Brothers Shock is a financial crisis that occurred in the United States in the second half of 2008[3]. This kind of crisis is transmissible worldwide as we had already experienced with the Asian currency crisis (Jose, 1998). However, what differs from the Asian currency crisis is that the United States was not only the epicenter of the shock but is also the center of world trade. The United States has established trade networks with most countries in the world. Therefore, many countries were more or less impacted by the Lehman Brothers Shock, and were forced to experience an economic recession after the crisis[4].

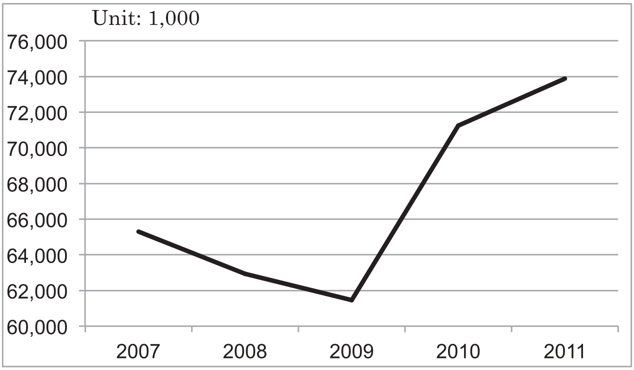
In terms of the automotive market, the crisis had a significantly negative

3 Andrew (2009) describes the process of Lehman Brothers shock in detail.

4 Tulus (2012) explores the economic impacts on Southeast Asia not only of the Asian currency crisis but also the Lehman Brothers Shock.

impact, which was brought about mainly through a credit squeeze. As is well known, one of the solutions to recover from a financial crisis is a belt-tightening policy. However, this causes interest rates to rise with a subsequent credit squeeze. It is widely acknowledged that automotive loans play a significant role in car sales[5] as housing loans do for housing sales. Therefore, it is easy to imagine that people (especially middle-class people) were demotivated from purchasing cars during this economic turmoil[6].

Figure 1: Global automotive unit sales



Source: Marklines database

However, global automotive unit sales recovered in 2010 and surpassed unit sales before the Lehman Brothers Shock. Under this recovery process, we would like to emphasize that the growth center of the automotive market has changed. Table 1 shows the regional composition ratio of global automotive unit sales. We should note the reduced share of advanced countries and contrasting expansion of emerging countries, especially in Asia.

[5] It is known that use of auto loans becomes more prevalent as a financial system develops. In Japan, slightly more than 20% of purchasers use an auto loan when they purchase a new car. Also, the rate of use of auto loans increases in the small car segment (Furue, 2006).

[6] According to Takenaka (2009), the impact on automotive makers was more severe in Japan than in the United States. This is because the Japanese automotive industry depends highly on exports, which fell sharply due to the worldwide economic turmoil.

Table 1: Regional composition ratio of global automotive unit sales

	2007	2008	2009	2010	2011
North America	27.8%	24.1%	19.7%	18.7%	19.4%
Japan	8.2%	8.1%	7.5%	7.0%	5.7%
Western Europe	25.8%	24.6%	24.4%	20.1%	19.4%
Oceania	1.8%	1.8%	1.6%	1.6%	1.5%
Asia	21.8%	23.6%	31.6%	35.5%	35.3%
Russia & Eastern Europe	5.4%	6.1%	3.5%	3.9%	4.8%
Latin America	7.0%	7.9%	7.7%	7.9%	8.1%
Middle East & Africa	2.2%	3.9%	4.0%	5.4%	5.8%
Advanced countries	*63.6%*	*58.6%*	*53.2%*	*47.4%*	*46.0%*
Emerging countries	*36.4%*	*41.4%*	*46.8%*	*52.6%*	*54.0%*

Notes: Advanced countries: North America, Japan, Western Europe, and Oceania.
Emerging countries: Asia, Russia & Eastern Europe, Latin America, and Middle East & Africa

Source: Marklines database

Next, let us take a look at Figure 2 and Table 2, and examine the global automotive unit sales of major automotive makers. We see from Figure 2 that the top 10 makers are composed of Japanese, US, European, and Korean makers. Specifically GM, VW, and Hyundai seem to be strong competitors of Japanese makers such as Toyota, Nissan, and Honda.

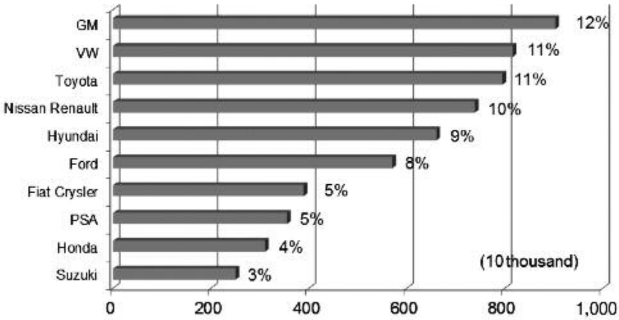
With respect to Figure 2, there is one more point we should note. The share of GM's sales of global automotive unit sales was only 12% in 2011. According to the Lanchester Strategy[7], this is a polyopoly where the market is unstable with a strong possibility of abrupt shifts in company rankings[8]. That is, the global automotive

[7] The Lanchester's strategy was originally a military theory and was applied to management science in Japan. A management adopting this strategy is called a Lanchester management.

[8] Taoka and Onoda employed "The Lanchester's strategic equation" of B.O. Koopman to develop market share targets (Koopman, 1943) (Taoka, 1971) (Onoda, 1980).

market is still quite competitive and there is no dominant maker acting as a leader.

Figure 2: Global unit sales of the top 10 makers in 2011



Source: Annual report of each company and Marklines database

Table 2 indicates that the top 10 makers can be divided into two groups, namely a growth group with a high expansion rate and a sluggish group with a low expansion rate. In particular, the dramatic growth of Hyundai and contrasting low growth of Toyota and Honda deserve careful attention. It is likely that Hyundai provides a good benchmark for Japanese makers suffering from sluggish growth after the Lehman Brothers Shock.

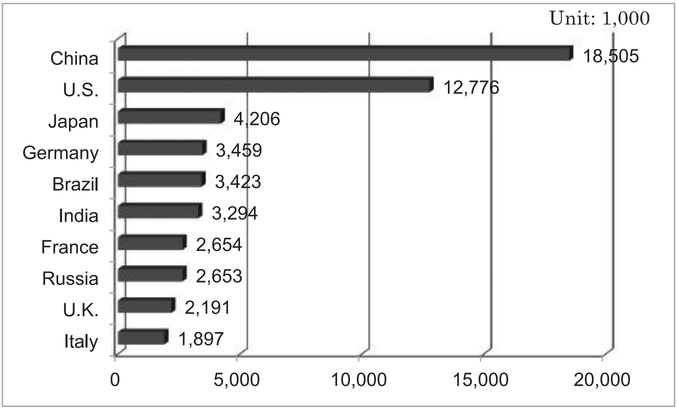
Table 2: Expansion rate of global unit sales of top 10 makers from 2007 to 2011

	2007→2011
VW	1.35
GM	0.89
Toyota	0.88
Nissan Renault	1.25
Hyundai	1.94
Ford	0.84
Fiat Chrysler	0.79
PSA	1.13
Honda	0.83
Suzuki	1.10

Source: Marklines database

On the other hand, Figure 3 shows the unit sales of the top 10 countries consisting of six advanced countries and four emerging countries, or the so-called BRICs. Furthermore, Table 3 presents the expansion rate of unit sales from 2007 to 2011 for the top 10 countries. We see here that the markets of China, Brazil, and India have grown comparatively rapidly during recent years[9]. The total share of BRICs to global automotive unit sales reached 38% in 2011. It is predicted that emerging countries such as BRICs will lead the global automotive market over the next several years, as long as past market trends continue.

Figure 3: Global unit sales of the top 10 countries in 2011



Source: Marklines database

[9] Meanwhile, the Russian market was relatively stagnant because it depends highly on natural resource prices, which were decreasing at that time (Hibi, 2012).

Table 3: Expansion rate of unit sales from 2007 to 2011 of the top 10 countries

	2007→2011
China	2.10
U.S.	0.78
Japan	0.79
Germany	1.01
Brazil	1.39
India	1.66
France	1.05
Russia	1.03
England	0.78
Italy	0.68

Source: Marklines database

To sum up the results of statistical analyses so far, basically we can present the following three points. The first is that GM, VW, and Hyundai are strong competitors of the Japanese Big Three, comprising Toyota, Nissan, and Honda. We collectively call these six makers “the Big Six”. The Big Six are analyzed in the next section. The second point is that no dominant maker stands out from the others in the global automotive market. This means that even the maker with top share has to distribute its business resources effectively, otherwise it cannot win in the global competition game. The third point is that the center of gravity of the global automotive market has been moving toward emerging countries at a rapid pace since the Lehman Brothers Shock. This indicates that one of the critical elements affecting survival in global competition is the extent to which an automotive maker penetrates emerging markets.

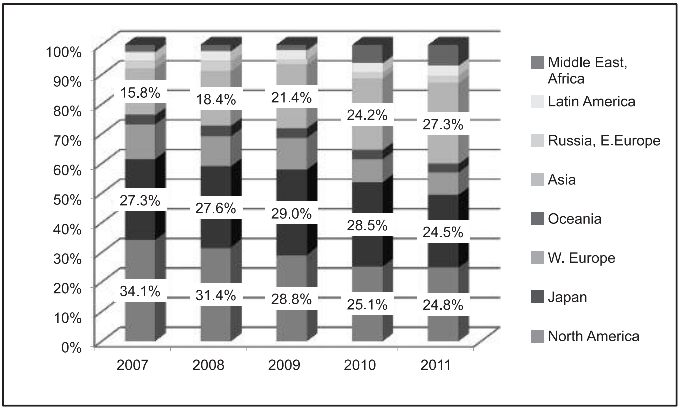
3. Global market strategies of the Big Six

In this section, we examine the global market strategies of the Big Six in the light of the results obtained in the previous section. First, we look at the regional composition ratio of global unit sales for the Big Six. Then, we check their deviations and indicators of the effective distribution of business resources.

1) Toyota

Figure 4 is a time series trend of the regional composition ratio of global unit sales for Toyota. In 2007, the share of North America was 34.1%, the largest share among the eight regions. However, it has been decreasing gradually and dropped to 24.8% in 2011. In contrast, the share of Asia, which was only 15.8% in 2007, has been increasing over time, and reached 27.3% in 2011. It is said that Toyota has given importance to the Asian market during the past five years. On the other hand, the share of Japan seems to be relatively stable. In consequence, Toyota currently has three main markets: Asia, North America, and Japan.

Figure 4: Regional composition ratio of global unit sales for Toyota



Source: Marklines database

Table 4 describes the deviations of each region. As shown here, Toyota's global market strategy concentrates more on North America and Japan, while concentrating less on Western Europe, Asia, Russia & Eastern Europe, and Latin America. Looking at the effective distribution of business resources, it deteriorated until 2009 and recovered after 2009. This trend coincides with the impact on Toyota of the Lehman Brothers Shock, and its recovery from it.

Table 4: Deviations of each region for Toyota

	2007	2008	2009	2010	2011
North America	6.3	7.3	9.1	6.4	5.4
Japan	19.1	19.5	21.5	21.6	18.8
Western Europe	-14.2	-14.3	-13.7	-12.3	-11.7
Oceania	1.5	1.8	1.7	1.6	1.4
Asia	-6.0	-5.2	-10.1	-11.2	-8.1
Russia & Eastern Europe	-2.8	-2.8	-1.9	-2.1	-2.4
Latin America	-4.3	-4.7	-4.7	-4.8	-4.8
Middle East & Africa	0.4	-1.5	-2.0	0.9	1.4
Effective distribution of business resources	55	57	65	61	54

Source: Marklines database

Table 5 shows deviations between advanced and emerging countries, which is obtained from Table 4 by adding the deviations of each region. We understand that Toyota's global market strategy is advanced country oriented, but also feel that Toyota has been making corrections since the Lehman Brothers Shock.

Table 5: Deviations between advanced and emerging countries for Toyota

	2007	2008	2009	2010	2011
Advanced countries	12.8	14.2	18.7	17.2	13.9
Emerging countries	-12.8	-14.2	-18.7	-17.2	-13.9

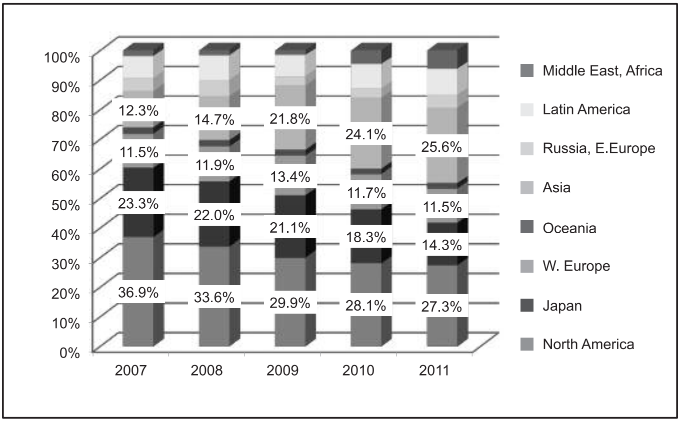
Source: Marklines database

2) Nissan

From Figure 5, we find that Nissan shares a similar trend with Toyota. That is, the share of North America is decreasing while that of Asia is increasing. On the other hand, it differs from Toyota in the following three points.

The first is that the share of Japan is also decreasing significantly. It was 23.3% in 2007, slightly lower than Toyota at 27.3%. However, it has fallen 9 points since 2007, and consequently is 10 points lower than Toyota's share of 24.5% in 2011. We can sense here the gap between the global market strategies of Toyota and Nissan. The second point is that the share of Western Europe occupies more than 10% constantly. This seems to be due to the alliance with Renault, which has dealer networks with a wide coverage in Western Europe. The third point is that Nissan's market portfolio seems to be more diversified. For example, the number of regions with more than a 10% share in 2011 was four for Nissan while it was three for Toyota, as shown in a comparison between Figure 4 and 5.

Figure 5: Regional composition ratio of global unit sales for Nissan



Source: Marklines database

Looking at Table 5, the difference between Nissan and Toyota becomes more prominent. Although Nissan's global market strategy concentrates more on North America and Japan and less on Western Europe, the absolute deviation for these regions has been decreasing for the past five years. As a result, the effective distribution of business resources has improved dramatically. It dropped to 36 in 2011, which is 18 points lower (better) than Toyota.

Table 5: Deviation of each region for Nissan

	2007	2008	2009	2010	2011
North America	9.1	9.5	10.2	9.3	7.9
Japan	15.1	14.0	13.6	11.3	8.7
Western Europe	-14.3	-12.7	-11.0	-8.4	-7.9
Oceania	0.4	0.4	0.4	0.4	0.3
Asia	-9.5	-8.9	-9.8	-11.4	-9.7
Russia & Eastern Europe	-0.9	-0.6	-0.5	-0.9	-0.5
Latin America	0.5	0.6	-0.6	0.3	0.7
Middle East & Africa	-0.3	-2.2	-2.2	-0.7	0.6
Effective distribution of business resources	50	49	48	43	36

Source: Marklines database

We see from Table 6 that Nissan's global market strategy is relatively advanced country oriented, but the deviation has been shrinking since the Lehman Brothers Shock. As expected, the absolute value in 2011 was 9.0, which is smaller than that of Toyota at 13.9.

Table 6: Deviation between advanced and emerging countries for Nissan

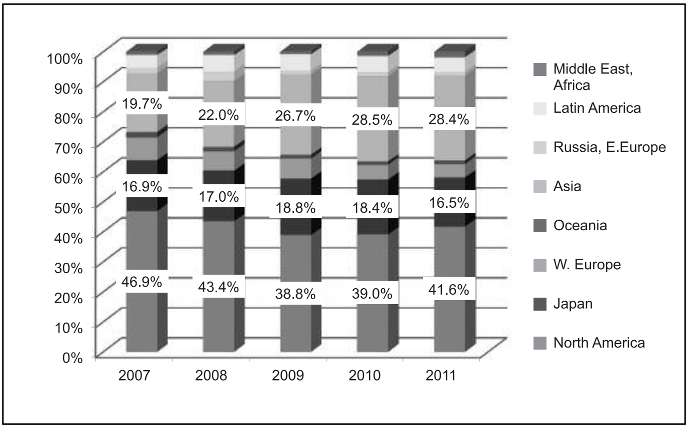
	2007	2008	2009	2010	2011
Advanced countries	10.3	11.1	13.1	12.6	9.0
Emerging countries	-10.3	-11.1	-13.1	-12.6	-9.0

Source: Marklines database

3) Honda

Figure 6 shows the regional composition ratio of global unit sales for Honda. Here, we can observe first that Honda depends significantly on the North American market. The share of North America reached 41.6% in 2011, which is higher than GM, whose home country is the United States. Although the share of Japan is lower than that of Toyota, there seems to be a rather stable trend. Honda shares this trend with Toyota. As in the case of Toyota, Honda had three main markets in 2011: North America, Asia, and Japan.

Figure 6: Regional composition ratio of global unit sales for Honda



Source: Marklines database

Table 7 tells us the characteristics of Honda more eloquently. Honda's global market strategy is basically dominated by North America and Japan. All deviations for the other regions are negative, which means market strategy concentrates less on these regions. It is even more worth noting that the absolute deviation is not becoming smaller, but is bigger for all regions except Western Europe. Accordingly, the effective distribution of business resources seems to be deteriorating every year.

It expanded to 66 in 2011, the biggest (the worst) among the Big Six. In terms of deviations between advanced and emerging countries, we also find from Table 8 that Honda is becoming more and more advanced country oriented.

Table 7: Deviations of each region for Honda

	2007	2008	2009	2010	2011
North America	19.0	19.3	19.1	20.3	22.2
Japan	8.7	8.9	11.3	11.4	10.8
Western Europe	-18.3	-18.3	-17.7	-15.4	-15.0
Oceania	0.1	-0.2	-0.3	-0.4	-0.4
Asia	-2.1	-1.6	-4.9	-6.9	-7.0
Russia & Eastern Europe	-3.8	-3.2	-2.4	-2.9	-3.7
Latin America	-2.7	-2.3	-2.2	-2.3	-3.1
Middle East & Africa	-0.9	-2.6	-3.0	-3.9	-3.8
Effective distribution of business resources	56	56	61	63	66

Source: Marklines database

Table 8: Deviations between advanced and emerging countries for Honda

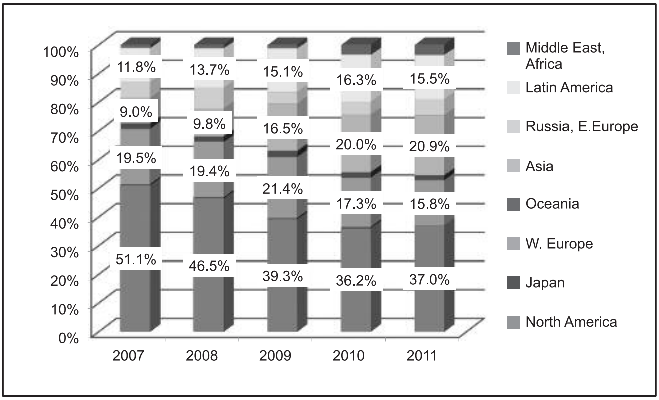
	2007	2008	2009	2010	2011
Advanced countries	9.5	9.7	12.4	16.0	17.6
Emerging countries	-9.5	-9.7	-12.4	-16.0	-17.6

Source: Marklines database

4) GM

Let us look at the situations of competitors. Figure 7 shows the regional composition ratio of global unit sales for GM. First, we become aware that the share of North America is decreasing, while that of Asia and Latin America is expanding. At the same time, it is also remarkable that Western Europe occupies a constant share. In consequence, GM has four main markets: North America, Asia, Western Europe, and Latin America in 2011. What differs from the Japanese Big Three is that the share of Japan is negligible for GM.

Figure 7: Regional composition ratio of global unit sales for Honda



Source: Marklines database

From Table 9, we may sense one of the problems GM has been facing during the past five years. As shown in Figure 7, we have no doubt that GM gives importance to the Asian market. However, the absolute deviation for Asia seems to be increasing slightly in Table 9. This implies that the strategic shift of GM towards Asia has not been catching up with the rapid change of the global market trend. As a result, the effective distribution of business resources is improving slightly.

Table 9: Deviation of each region for GM

	2007	2008	2009	2010	2011
North America	23.2	22.4	19.6	17.5	17.5
Japan	-8.1	-7.9	-7.3	-6.8	-5.6
Western Europe	-6.3	-5.2	-3.0	-2.8	-3.6
Oceania	0.1	0.2	0.4	0.5	0.3
Asia	-12.8	-13.8	-15.0	-15.4	-14.4
Russia & Eastern Europe	-0.1	1.0	0.5	0.5	0.6
Latin America	4.7	5.9	7.4	8.4	7.4
Middle East & Africa	-0.8	-2.5	-2.7	-1.8	-2.2
Effective distribution of business resources	56	59	56	54	52

Source: Marklines database

On the other hand, Table 10 indicates that GM is slightly advanced country oriented and the absolute deviation in 2011 was smaller than all of the Japanese Big Three. This is partly because GM has succeeded in exploiting the Latin American market where the sales performance of the Japanese Big Three is generally poor. We can say that penetration in the Latin American market partly offsets GM's delay in advancing into the Asian market.

Table 10: Deviation between advanced and emerging countries for GM

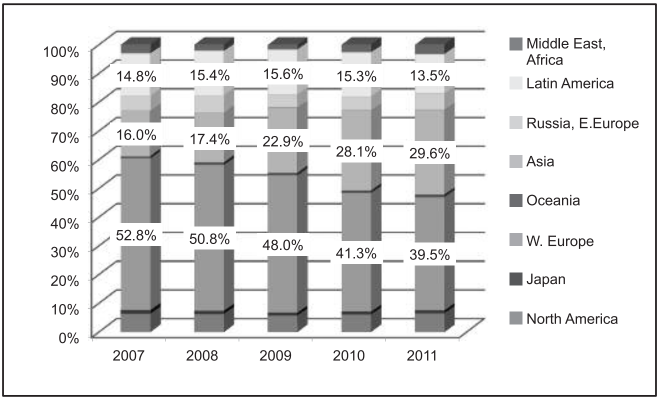
	2007	2008	2009	2010	2011
Advanced countries	8.9	9.4	9.8	8.3	8.6
Emerging countries	-8.9	-9.4	-9.8	-8.3	-8.6

Source: Marklines database

5) VW

Figure 8 shows the regional composition ratio of global unit sales for VW. We observe here that the share of Western Europe is decreasing, while that of Asia is expanding. Moreover, the share of Latin America is around 15% and is stable over time. In 2011, VW has three main markets: Western Europe, Asia, and Latin America. The share of Japan is negligible, as is the case with GM.

Figure 8: Regional composition ratio of global unit sales for VW



Source: Marklines database

Table 10 has important implications for the global market strategy of VW. First, we would like to emphasize that the deviation of North America is significantly negative, but the amount is shrinking at a rapid pace. This means VW has started to focus on the North American market. Furthermore, we find that the absolute deviation is becoming small for most regions. The indicator of the effective distribution of business resources dropped to 53 in 2011, an improvement of 18 points from 71 in 2007. Moreover, what can be read from Table 11 is that the adjustment to the global market trends had already started before the Lehman Brothers Shock. VW shares this trend with Nissan, while Toyota and GM seemed to start this adjustment or correction after the Lehman Brothers Shock.

Table 11: Deviation of each region for VW

	2007	2008	2009	2010	2011
North America	-21.5	-17.9	-14.1	-12.7	-12.9
Japan	-7.0	-7.0	-6.6	-6.0	-4.8
Western Europe	27.0	26.1	23.6	21.2	20.1
Oceania	-1.1	-1.0	-0.9	-0.7	-0.6
Asia	-5.8	-6.1	-8.6	-7.4	-5.7
Russia & Eastern Europe	-0.3	-0.2	0.8	0.8	0.9
Latin America	7.7	7.6	7.9	7.4	5.4
Middle East & Africa	0.9	-1.5	-2.1	-2.6	-2.3
Effective distribution of business resources	71	67	65	59	53

Source: Marklines database

In terms of the deviation between advanced and emerging countries, VW is well-balanced as shown in Table 12. Regarding advanced countries, we see from Table 11 that the tremendous positive deviation for Western Europe, which is the home field of VW, offsets the negative deviations of the other regions. On the other hand, among emerging countries, VW is still well-balanced in terms of each region.

Table 12: Deviation between advanced and emerging countries for VW

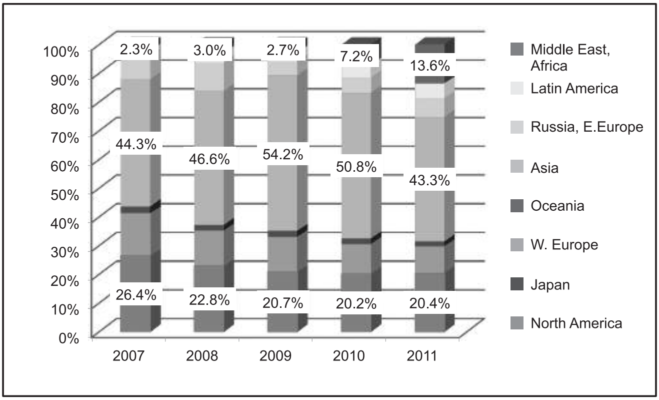
	2007	2008	2009	2010	2011
Advanced countries	-2.6	0.3	2.0	1.8	1.8
Emerging countries	2.6	-0.3	-2.0	-1.8	-1.8

Source: Marklines database

6) Hyundai

As for Hyundai, we find a unique trend that differs from all the other makers. The share of Asia occupied more than 50% in 2009, but then started decreasing, dropping to 43.3% in 2011. On the other hand, the share of North America decreased from 2007 to 2009 and remained unchanged at around 20% after 2009. What is remarkable for Hyundai is the share of Middle East and Africa. It expanded after 2009 and reached 13.6 % in 2011. This is the biggest share among the Big Six in 2011.

Figure 9: Regional composition ratio of global unit sales for Hyundai



Source: Marklines database

From Table 13, we can understand the market strategy of Hyundai more clearly. It is said that Hyundai has increased sales in emerging countries in recent years. More concretely, we can see that Hyundai has been focusing more on emerging countries in Latin America and Middle East & Africa. Although Asia is still the main market for Hyundai, its positive deviation is getting smaller over time. This implies that Hyundai has modified its disproportionate market strategy in Asia. Consequently, the indicator of the effective distribution of business resources dropped to 38 in 2011, an improvement of 14 points from 2007 and the second smallest following 36 of Nissan.

Table 13: Deviation of each region for Hyundai

	2007	2008	2009	2010	2011
North America	-1.5	-1.3	1.0	1.5	1.0
Japan	-8.2	-8.1	-7.5	-6.9	-5.7
Western Europe	-11.0	-12.3	-12.2	-10.0	-10.2
Oceania	0.6	0.3	0.5	0.6	0.4
Asia	22.5	23.0	22.6	15.3	8.0
Russia & Eastern Europe	2.7	3.7	1.3	1.2	1.6
Latin America	-5.4	-4.5	-4.5	-3.4	-2.9
Middle East & Africa	0.1	-0.9	-1.2	1.8	7.9
Effective distribution of business resources	52	54	51	41	38

Source: Marklines database

Looking at the deviation between advanced and emerging countries in Table 14, Hyundai is the only emerging country-oriented maker among the Big Six. However, the positive deviation for emerging countries is getting smaller. We also sense here that Hyundai has made an adjustment to its global market strategy.

Table 14: Deviation between advanced and emerging countries for Hyundai

	2007	2008	2009	2010	2011
Advanced countries	-20.0	-21.3	-18.1	-14.9	-14.5
Emerging countries	20.0	21.3	18.1	14.9	14.5

Source: Marklines database

7) Comparative analysis

Table 15 shows comparisons of the main markets of the Big Six with the share to the global automotive unit sales in 2011. Only regions with more than a 10% share are picked up here. We understand that Nissan and GM have more diversified market structures than the other makers. We would like to call the structure of the former two makers a tetrapod structure and that of the others a tripod structure.

Among the four makers with a tripod structure, we find the following differences. The top three regions of Toyota and Honda are the same, of which two regions are advanced countries, namely US and Japan. In contrast, of the top three regions of VW and Hyundai, two regions are emerging countries. This implies that VW and Hyundai have made positive strategic moves into emerging markets that have great potential, while Toyota and Honda cling to conventional markets where they already have a built-in base.

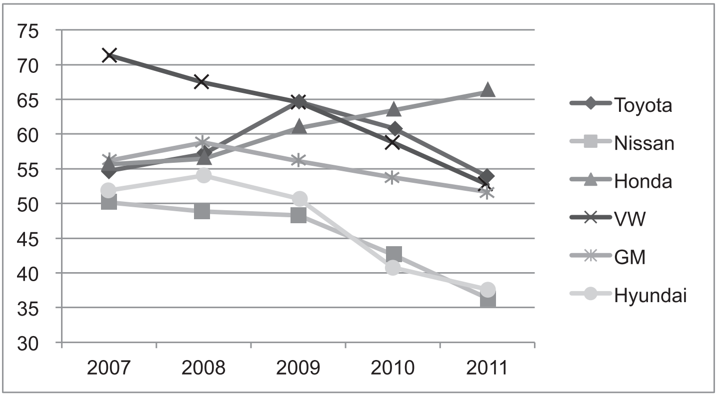
Table 15: Comparisons of main markets of the Big Six in 2011

Toyota	Asia (27.3%), North America (24.8%), Japan (24.5%)
Nissan	North America (27.3%), Asia (25.6%), Japan (14.3%), Western Europe (11.5%)
Honda	North America (41.6%), Asia (28.4%), Japan (16.5%)
GM	North America (37.0%), Asia (20.9%), Western Europe (15.8%), Latin America (15.5%)
VW	Western Europe (39.5%), Asia (29.6%), Latin America (13.5%)
Hyundai	Asia (43.3%), North America (20.4%), Middle East & Africa (13.6%)

Source: Marklines database

On the other hand, Figure 10 compares the effective distribution of business resources. There are three types here. The first type includes the automotive makers Nissan, VW, and Hyundai, which continue to adjust the regional composition of unit sales to be in line with global market trends. The second type includes the automotive makers Toyota and GM, which started adjusting after the Lehman Brothers Shock. The third type is the automotive maker Honda, which is not adjusting to global market trends.

Figure 10: Comparison of effective distribution of business resources



Source: Marklines database

4. Concluding remarks

Finally, let us sum up our discussion. Our analyses reveal that, in relative terms, Toyota and Honda delayed in shifting to emerging markets and consequently have suffered from sluggish growth recently. Although GM faces a similar agenda, GM's market structure is more diversified. In particular, its penetration of the Latin American market seems to have given GM a competitive advantage in global competition. VW has improved its disproportionate market structure rapidly, resulting in an expansion of unit sales. Moreover, we should note that has VW established a built-in base in emerging markets while beginning to give importance to the North American market. It is expected that VW's market portfolio will become more robust in the near future. Overall, Nissan and Hyundai share similar trends, namely both succeeded in modifying their global market strategies in line with trends of the global automotive market. The market structure of Nissan is more diversified, meanwhile Hyundai already has a foothold in the Middle East & African market.

The structure of the global automotive market has changed dramatically since the Lehman Brothers Shock. Accordingly, whether automotive makers can respond rapidly or not seems to be a key factor to winning in the global competition. It has been pointed out that the Great East Japan Earthquake and floods in Thailand were the main reasons why Toyota and Honda have suffered recently from sluggish growth. It is definitely true that these disasters severely damaged their operations in various regions. However, based on our analytical results, these two Japanese makers have not been able to catch up with global market trends, at least during the past five years. In other words, the disasters were just secondary reasons accounting in part for their sluggish growth.

Our study calls for further qualitative research. In particular, we are concerned about what strategic thinking or business philosophy exists behind the statistical features observed in this study. Because space is limited, we would like to explore this issue in another setting.

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