

Automobile KPI (Interim Version 1.0)  
As of June 10, 2010

No.	KPI	Description	KPI formula	Practice Example	Application Date	Relation with Financials	Merit/Need																		
1	Research and development cost for next generation technologies	To understand the competitiveness of next generation sustainable energy technologies	Total cost of development of next generation technologies out of research and development cost for the current year	Sample Business Case: ABC company <table border="1"> <tr> <th>Areas</th> <th>Amount of capital investment (JPY: millions)</th> </tr> <tr> <td>R&amp;D for next generation technologies</td> <td>12,000</td> </tr> </table>	Areas	Amount of capital investment (JPY: millions)	R&D for next generation technologies	12,000	Provided once a year according to the fiscal term.	Research and development costs, (Future) sales	It enables users to predict future competitiveness by making clear the company's efforts, behaviors and strategies to develop new technologies.														
Areas	Amount of capital investment (JPY: millions)																								
R&D for next generation technologies	12,000																								
2	Number of new models of eco cars and their sales performance	To understand the development capability of eco cars which are important vehicle models of a company's environmental strategies	Number of new models of eco cars and their sales performance	Sample Business Case: ABC company <table border="1"> <tr> <th></th> <th>Number of new models</th> </tr> <tr> <td>New models of eco cars</td> <td>3</td> </tr> </table> <table border="1"> <tr> <th></th> <th>Number of sales (y/y)</th> </tr> <tr> <td>Sales performance of eco cars</td> <td>5,500,000 (+85%)</td> </tr> </table>		Number of new models	New models of eco cars	3		Number of sales (y/y)	Sales performance of eco cars	5,500,000 (+85%)	Provided once a year according to the fiscal term.	Sales	It shows the company's efforts to develop eco vehicles and its actual achievement.										
	Number of new models																								
New models of eco cars	3																								
	Number of sales (y/y)																								
Sales performance of eco cars	5,500,000 (+85%)																								
3	Rate for qualifying low emissions vehicles	To understand a company's achievement of regulations regarding environmental risk reduction.	(Number of low and ultra low emission vehicles / Sales volume)×100 <u>Ex.</u> Super Ultra Low Emission Vehicle (SULEV) is a U.S. classification for conventionally powered or gasoline-electric hybrid vehicle designed to produce minimal air pollution at their point of use, typically 90% less than that of an equivalent ordinary full gasoline vehicle.	Sample Business Case: ABC company <table border="1"> <tr> <th>Country</th> <th>Regulation</th> <th>Year 2009 (%)</th> </tr> <tr> <td>Japan</td> <td>Super Ultra Low Emission Vehicle (SULEV) / Ultra Low Emission Vehicle (ULEV)</td> <td>96.2</td> </tr> <tr> <td>US</td> <td>Tier2/LEV2</td> <td>xx.x</td> </tr> <tr> <td>Europe</td> <td>Euro4/Euro5</td> <td>xx.x</td> </tr> </table>	Country	Regulation	Year 2009 (%)	Japan	Super Ultra Low Emission Vehicle (SULEV) / Ultra Low Emission Vehicle (ULEV)	96.2	US	Tier2/LEV2	xx.x	Europe	Euro4/Euro5	xx.x	Provided once a year according to the fiscal term.	None	It shows a company's technical strength and ability to cope with regulation changes.						
Country	Regulation	Year 2009 (%)																							
Japan	Super Ultra Low Emission Vehicle (SULEV) / Ultra Low Emission Vehicle (ULEV)	96.2																							
US	Tier2/LEV2	xx.x																							
Europe	Euro4/Euro5	xx.x																							
4	Average gas mileage (by major types of vehicles)	To understand a company's research and development (R&D) capability and technical strength	Average gas mileage (km/l)	Sample Business Case: ABC company <table border="1"> <tr> <th></th> <th>Average gas mileage</th> </tr> <tr> <td>Sedan</td> <td>8.4 km/l</td> </tr> </table>		Average gas mileage	Sedan	8.4 km/l	Provided once a year according to the fiscal term.	None	We can see the running efficiency by vehicle types.														
	Average gas mileage																								
Sedan	8.4 km/l																								
5	Number of patents applied for and obtained	To understand a company's current technical strength and innovative power	Number of patent applications / patents obtained at the end of period	Sample Business Case: ABC company <table border="1"> <tr> <th></th> <th>Number of patents applied for</th> <th>Number of patents held</th> <th>Number of patents obtained in current year</th> </tr> <tr> <td>Year 2009</td> <td>328</td> <td>1,461</td> <td>(156)</td> </tr> </table>		Number of patents applied for	Number of patents held	Number of patents obtained in current year	Year 2009	328	1,461	(156)	Provided once a year according to the fiscal term.	(Future) sales, Research and development costs	It shows a company's research and development (R&D) capability.										
	Number of patents applied for	Number of patents held	Number of patents obtained in current year																						
Year 2009	328	1,461	(156)																						
6	Capital expenditures (by region)	To understand a company's manufacturing capability in the future	Number of implemented cases / Total cases = Implementation ratio for top 10 items	Sample Business Case: <table border="1"> <tr> <th>Region</th> <th>Capital expenditures (JPY: millions)</th> </tr> <tr> <td>North America</td> <td>100,000</td> </tr> </table>	Region	Capital expenditures (JPY: millions)	North America	100,000	Provided once a year according to the fiscal term.	Capital expenditures, Depreciation, (Future) sales	It is useful to plan a company's regional strategy and to assess its strategic fit .														
Region	Capital expenditures (JPY: millions)																								
North America	100,000																								
7	Number of sales and manufacturing bases (by region)	To understand a company's value chain development and also to analyze the efficiency of sales by region etc.	Number of business and manufacturing bases by region	Sample Business Case: ABC company <table border="1"> <tr> <th></th> <th>Japan</th> <th>North America</th> <th>Europe</th> <th>Asia</th> <th>Others</th> </tr> <tr> <td>Manufacturing bases</td> <td>3</td> <td>3</td> <td>2</td> <td>1</td> <td>5</td> </tr> <tr> <td>Sales bases</td> <td>978</td> <td>886</td> <td>2,453</td> <td>345</td> <td>978</td> </tr> </table>		Japan	North America	Europe	Asia	Others	Manufacturing bases	3	3	2	1	5	Sales bases	978	886	2,453	345	978	Provided once a year according to the fiscal term.	Sales	It shows global business deployment.
	Japan	North America	Europe	Asia	Others																				
Manufacturing bases	3	3	2	1	5																				
Sales bases	978	886	2,453	345	978																				
8	Vehicle production and sales (by region)	To understand the global competitiveness	Production and sales volume of vehicles for each business type (4 wheels/2 wheels vehicles) by region	Sample Business Case: ABC company <table border="1"> <tr> <th>Business</th> <th>Region</th> <th>Production</th> <th>Rate</th> </tr> <tr> <td>4 wheels</td> <td>Japan</td> <td>1,200,000</td> <td>0.3</td> </tr> </table>	Business	Region	Production	Rate	4 wheels	Japan	1,200,000	0.3	Provided once a year according to the fiscal term.	Sales	It is useful to plan a company's regional strategy and to assess its strategic fit .										
Business	Region	Production	Rate																						
4 wheels	Japan	1,200,000	0.3																						
9	Market share (by region)	To understand a company's market share by region	Market share (sales volume) by region	Sample Business Case: ABC company (passenger cars) <table border="1"> <tr> <th></th> <th>Total sales volume in a market</th> <th>Year-to-year rise (%)</th> <th>Sales volume</th> <th>Market share (%)</th> </tr> <tr> <td>Japan</td> <td>6,717</td> <td>+1.7</td> <td>678</td> <td>10.1</td> </tr> <tr> <td>North America</td> <td>x x x</td> <td>x x</td> <td>x x x</td> <td>x x</td> </tr> </table>		Total sales volume in a market	Year-to-year rise (%)	Sales volume	Market share (%)	Japan	6,717	+1.7	678	10.1	North America	x x x	x x	x x x	x x	Provided once a year according to the fiscal term.	Sales	It shows a company's regional positioning and its competitiveness.			
	Total sales volume in a market	Year-to-year rise (%)	Sales volume	Market share (%)																					
Japan	6,717	+1.7	678	10.1																					
North America	x x x	x x	x x x	x x																					
10	Local production rate	To understand a company's risk management for foreign currency change	Local production volume / Total volume	Sample Business Case: ABC company <table border="1"> <tr> <th></th> <th>North America</th> </tr> <tr> <td>Local production rate</td> <td>45%</td> </tr> </table>		North America	Local production rate	45%	Provided once a year according to the fiscal term.	(Future) business profit	It shows a company's risk management for foreign currency change in future.														
	North America																								
Local production rate	45%																								

No.	KPI	Description	KPI formula	Practice Example	Application Date	Relation with Financials	Merit/Need															
11	Local content rate	To understand a company's risk management for foreign currency change	(Local raw materials - other raw materials) / Total raw materials	Sample Business Case: ABC company <table border="1"> <tr> <td></td> <td>North America</td> </tr> <tr> <td>Local content rate</td> <td>63.5%</td> </tr> </table>		North America	Local content rate	63.5%	Provided once a year according to the fiscal term.	Manufacturing costs, (Future) business profit	It shows the cost competitiveness by global distributed factories of manufacturing enterprises.											
	North America																					
Local content rate	63.5%																					
12	Rate of ISO approvals obtained in supply chain	To understand if a company maintains a specific level of quality across the value chain	Number of suppliers who obtain ISO approvals / Total number of suppliers	Sample Business Case: ABC company <table border="1"> <tr> <td></td> <td>ISO9000 approvals obtained rate (%)</td> </tr> <tr> <td>Rate of suppliers who obtain ISO approvals</td> <td>85</td> </tr> </table>		ISO9000 approvals obtained rate (%)	Rate of suppliers who obtain ISO approvals	85	Provided once a year according to the fiscal term.	None	We can evaluate a company's quality management and pro-environmental behavior.											
	ISO9000 approvals obtained rate (%)																					
Rate of suppliers who obtain ISO approvals	85																					
13	Customer satisfaction degree	To understand the condition of the client's assets	Independent customer satisfaction rankings such as J.D. Power etc can be used. It is recommended to select one which is categorized by initial quality, sales, service and so on.	Sample Business Case: ABC company <table border="1"> <tr> <td>J.D. Power Asia pacific Japan vehicle sales customer satisfaction research</td> <td>Rank</td> <td>Points</td> </tr> <tr> <td>Year 200 x</td> <td>5</td> <td>632</td> </tr> <tr> <td>Industry average</td> <td>-</td> <td>603</td> </tr> </table>	J.D. Power Asia pacific Japan vehicle sales customer satisfaction research	Rank	Points	Year 200 x	5	632	Industry average	-	603	Provided once a year according to the fiscal term.	(Future) sales	It provides objective information to assess customer satisfaction.						
J.D. Power Asia pacific Japan vehicle sales customer satisfaction research	Rank	Points																				
Year 200 x	5	632																				
Industry average	-	603																				
14	Independent brand research and rankings	To understand the index of a company's brand value	Independent brand rankings etc.	Sample Business Case: ABC company <table border="1"> <tr> <td></td> <td>Rank 2009</td> </tr> <tr> <td>Nikkei brand value ranking</td> <td>1</td> </tr> </table>		Rank 2009	Nikkei brand value ranking	1	Provided once a year according to the fiscal term.	(Future) sales	It shows the marketing strategy and brand value of a company.											
	Rank 2009																					
Nikkei brand value ranking	1																					
15	Number of recalls and recalled vehicles	To understand a company's preventive risk management	Number of recalls and recalled vehicles	Sample Business Case: ABC company <table border="1"> <tr> <td>Car brands</td> <td>Date of the notification</td> <td>Number of recalled vehicles</td> </tr> <tr> <td>○○○</td> <td>5/24/2009</td> <td>1,638</td> </tr> <tr> <td>xxx</td> <td>9/2/2009</td> <td>35,593</td> </tr> <tr> <td>□□□</td> <td>10/12/2009</td> <td>459</td> </tr> <tr> <td colspan="3">Number of recalls: 3</td> </tr> </table>	Car brands	Date of the notification	Number of recalled vehicles	○○○	5/24/2009	1,638	xxx	9/2/2009	35,593	□□□	10/12/2009	459	Number of recalls: 3			Provided once a year according to the fiscal term.	Warranty reserve	It shows a company's efforts to ensure safety for not only consumers but also information users.
Car brands	Date of the notification	Number of recalled vehicles																				
○○○	5/24/2009	1,638																				
xxx	9/2/2009	35,593																				
□□□	10/12/2009	459																				
Number of recalls: 3																						
16	Sales of flagship type of vehicles	To understand a company's brand value indirectly	Sales volume of flagship vehicles and its amount	Sample Business Case: ABC company <table border="1"> <tr> <td>Car brands</td> <td>Sales volume</td> <td>Sales amount (JPY: millions)</td> </tr> <tr> <td>○○○</td> <td>435,997</td> <td>xxx</td> </tr> <tr> <td>xxx</td> <td>304,759</td> <td>xxx</td> </tr> <tr> <td>□□□</td> <td>299,952</td> <td>xxx</td> </tr> </table>	Car brands	Sales volume	Sales amount (JPY: millions)	○○○	435,997	xxx	xxx	304,759	xxx	□□□	299,952	xxx	Provided once a year according to the fiscal term.	Sales	It shows a company's competitiveness.			
Car brands	Sales volume	Sales amount (JPY: millions)																				
○○○	435,997	xxx																				
xxx	304,759	xxx																				
□□□	299,952	xxx																				
17	Production capacity by region	To understand a company's performance level	Production capacity and operating ratio	Sample Business Case: ABC company <table border="1"> <tr> <td>Region</td> <td>Main plants</td> <td>Production capacity of vehicles</td> <td>Capacity utilization (%)</td> </tr> <tr> <td rowspan="2">Japan</td> <td>Head plants</td> <td>678</td> <td>108</td> </tr> <tr> <td>○○ plants</td> <td>348</td> <td>102</td> </tr> <tr> <td>North America</td> <td>xx plants</td> <td>278</td> <td>98</td> </tr> </table>	Region	Main plants	Production capacity of vehicles	Capacity utilization (%)	Japan	Head plants	678	108	○○ plants	348	102	North America	xx plants	278	98	Provided once a year according to the fiscal term.	Manufacturing costs, (Future) capital expenditures	It provides the evidence of a company's object and plan of its production or sales.
Region	Main plants	Production capacity of vehicles	Capacity utilization (%)																			
Japan	Head plants	678	108																			
	○○ plants	348	102																			
North America	xx plants	278	98																			
18	Number of employees and average years of service by region	To understand the dispersion degree of a company's human resources as well as level of skills, loyalty, and business conventions	Number of group companies' regular employees and their average years of service	Sample Business Case: ABC company <table border="1"> <tr> <td>Region</td> <td>Number of employees</td> <td>Average length of service (years)</td> </tr> <tr> <td>Japan</td> <td>435,997</td> <td>xxx</td> </tr> <tr> <td>U.S.</td> <td>204,759</td> <td>xxx</td> </tr> <tr> <td>Asia</td> <td>299,952</td> <td>xxx</td> </tr> </table>	Region	Number of employees	Average length of service (years)	Japan	435,997	xxx	U.S.	204,759	xxx	Asia	299,952	xxx	Provided once a year according to the fiscal term.	Sales	It provides data to measure quantity and quality of human resources.			
Region	Number of employees	Average length of service (years)																				
Japan	435,997	xxx																				
U.S.	204,759	xxx																				
Asia	299,952	xxx																				
19	Advertising expenditures and selling, general, and administrative expenses (by vehicle types)	To understand a company's brand value indirectly	This year's Advertising expenditures and selling, general, and administrative expenses broken down into vehicle types	Sample Business Case: ABC company <table border="1"> <tr> <td></td> <td>Advertising expenditures and selling, general, and administrative expenses (JPY: Millions)</td> </tr> <tr> <td>Minivan</td> <td>30,000</td> </tr> </table>		Advertising expenditures and selling, general, and administrative expenses (JPY: Millions)	Minivan	30,000	Provided once a year according to the fiscal term.	Selling, general, and administrative expenses, (Future) sales	It measures the effect of the marketing strategy by vehicle types.											
	Advertising expenditures and selling, general, and administrative expenses (JPY: Millions)																					
Minivan	30,000																					
20	Number of winning awards	To understand a company's technical strength and development capability.	Number of winning awards from the third party and external evaluation institute	Sample Business Case: ABC company <table border="1"> <tr> <td>Region</td> <td>2000-2004</td> <td>2005-2009</td> </tr> <tr> <td>Japan</td> <td>-</td> <td>△△ award winning</td> </tr> <tr> <td>U.S.</td> <td>○○ award winning</td> <td>-</td> </tr> <tr> <td>Europe</td> <td>-</td> <td>-</td> </tr> </table>	Region	2000-2004	2005-2009	Japan	-	△△ award winning	U.S.	○○ award winning	-	Europe	-	-	Provided once a year according to the fiscal term.	None	It provides the evidence that differentiated products are accepted in the market.			
Region	2000-2004	2005-2009																				
Japan	-	△△ award winning																				
U.S.	○○ award winning	-																				
Europe	-	-																				

No.	KPI	Description	KPI formula	Practice Example	Application Date	Relation with Financials	Merit/Need						
21	Number of retiree's reemployment and reemployment rates	To understand a company's value of intellectual assets based on reemployees' technical experiences	Reemployees / Retirees	Sample Business Case: ABC company <table border="1"> <tr> <td></td> <td>Number of reemployees</td> <td>Reemployment rate (%)</td> </tr> <tr> <td>2009</td> <td>145</td> <td>10</td> </tr> </table>		Number of reemployees	Reemployment rate (%)	2009	145	10	Provided once a year according to the fiscal term.	None	It shows the progress of technical succession to the next generation employees.
	Number of reemployees	Reemployment rate (%)											
2009	145	10											
22	Overall Equipment Efficiency	To understand the market readiness for a company to shorten the lead time	Availability Ratio <sup>*1</sup> x Performance Ratio <sup>*2</sup> x Quality Ratio  Ex) <sup>*1</sup> : (loading time - down time) / loading time (=operating time - non-operating time) <sup>*2</sup> : (Ideal Cycle Time x Actual Amount Produced) / Available Time (=loading time - non-operating time)	Sample Business Case: ABC company <table border="1"> <tr> <td></td> <td>2009</td> </tr> <tr> <td>Overall Equipment Efficiency (OEE)</td> <td>86.5%</td> </tr> </table>		2009	Overall Equipment Efficiency (OEE)	86.5%	Provided once a year according to the fiscal term.	Manufacturing costs	It simply shows a company's productivity and quality in production process.		
	2009												
Overall Equipment Efficiency (OEE)	86.5%												
23	First-pass rate	To understand the market readiness for a company to provide vehicles of stable quality in the process	A measure of what percentage of products were produced right the first time without off-line rework.	Sample Business Case: ABC company <table border="1"> <tr> <td></td> <td>2009</td> </tr> <tr> <td>First-pass rate</td> <td>99%</td> </tr> </table>		2009	First-pass rate	99%	Provided once a year according to the fiscal term.	Manufacturing costs	It shows the efficiency of production line.		
	2009												
First-pass rate	99%												
24	Carbon emissions	To understand a company's capacity to address environmental issues	Emissions = Activity data x Emissions factor	Sample Business Case: ABC company <table border="1"> <tr> <td></td> <td>Year 2009</td> </tr> <tr> <td>Carbon emissions</td> <td>2,3158 million tons of CO2</td> </tr> </table>		Year 2009	Carbon emissions	2,3158 million tons of CO2	Provided once a year according to the fiscal term.	None	It shows a company's efforts to curb global warming .		
	Year 2009												
Carbon emissions	2,3158 million tons of CO2												