

**Report on the Market Scale of  
Accessible Design Products  
FY2007**

**March, 2009**

**Accessible Design Foundation of Japan**



## **I. Purpose of the survey**

This survey is the only fixed-point observation in Japan on the market scale of accessible design (AD) products and is one of the core projects of Accessible Design Foundation of Japan (ADFJ). The survey, which marks 12th this year, started as a commissioned project supervised by the Ministry of Economy, Trade, and Industry (former Ministry of International Trade and Industry).

The main purposes of the survey are as follows:

- To understand social trend and needs regarding AD
- To raise awareness on AD in the manufacturing industry, and to provide basic information to the local governments and business sectors which are interested in developing AD products/services
- To provide basic information on AD products/services to the general public for dissemination purposes

## **II. Survey overview**

### **1. The concept of accessible design and the scope of the market scale**

#### **(1) The concept of accessible design**

The concept of accessible design (AD) can be understood by the following definition and principles.

##### ■ Definition

Products, facilities and services that as many people as possible can use easily regardless of their physical characteristics and disabilities.

##### ■ Principles

1. Easy to deal with various physical and perceptual characteristics of users.
2. Easily communicable by multiple means (e.g. visual, aural, and tactile aids).
3. Operation methods are intuitively understandable and require little psychological strain.
4. Materials, structures, functions, procedures, and environmental aspects are considered from the viewpoint Of safety.

\*Accessible design products/services include the following:

- Design that takes various users into consideration from the planning stage.
- Barrier-reducing design: the products whose inconvenience(s) has been resolved.
- Design originally for assistive purposes, but came into general use.

**(2) Differences and similarities of AD products with assistive products and general products**

Based on the definition and principles given in (1), AD and similar concepts can be understood as follows in terms of design intent.

[Table1: Concepts of assistive products, general products, and AD products]

	Category		Definition
From assistive products	I	Assistive products	Products designed for specific disabilities or for decreased function of older persons. Not used by "general" users without dysfunction.
	II	Accessible-assistive products	Products originally designed as assistive products, but came into public use without any modifications to the original design.
	III	Accessible design products	Products originally designed as assistive products, but modified to meet the needs of general use.
Products designed for easy operation by users including older persons and persons with disabilities.			
From general products	IV	Barrier-reducing products	General products partially modified to reduce the barrier which older persons and persons with disabilities experience.
	V	Useful products	Products which older persons and persons with disabilities can use easily, without such design intent.
	VI	Products for non-disabled	Products which are not accessible to older persons and persons with disabilities.

While the table divides products into six categories, shaded categories from II through V are regarded as notional category of "AD products."

**(3) Target products for the survey**

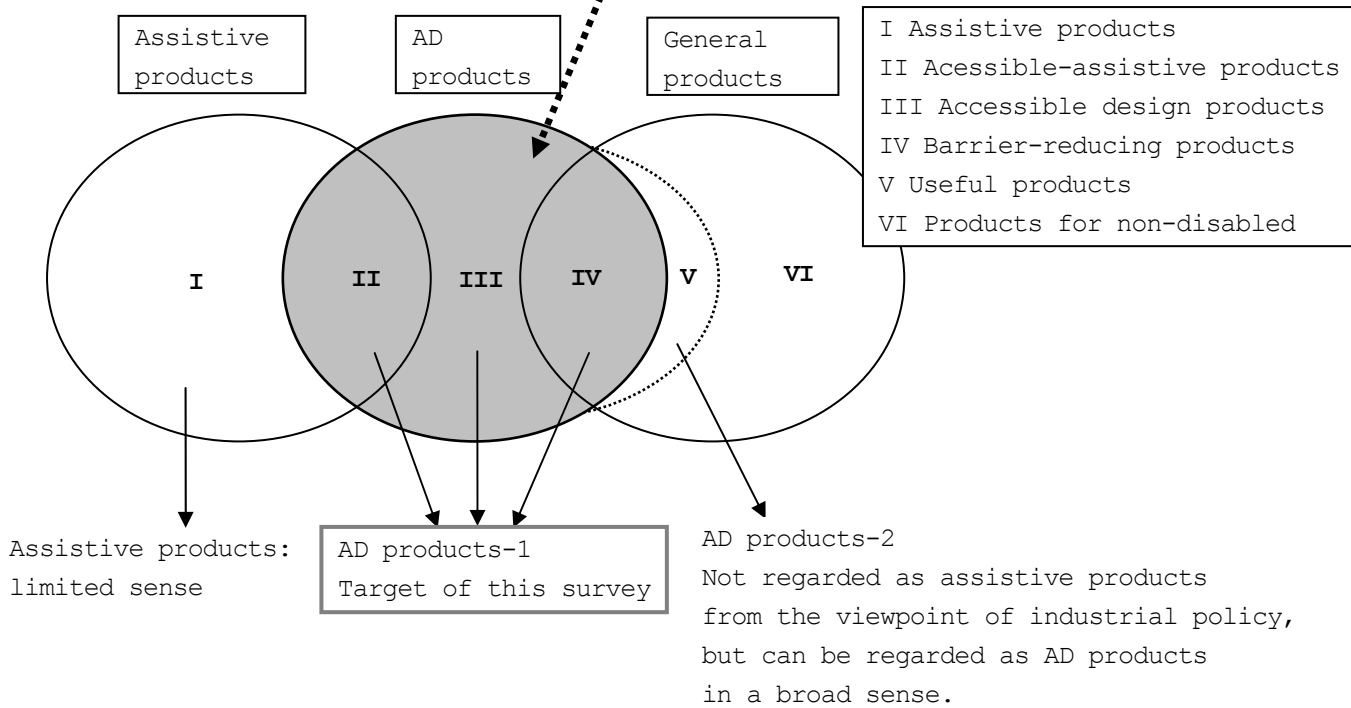
Based on concepts given in (1) and (2), target products for the survey are narrowed down from the following viewpoints:

As Figure 1 shows, among AD products shown in category II through V, products in II through IV (excluding V) are considered as AD products in a limited sense. Conceptual target for this survey are the items in the categories from II to IV, excluding products that are incorporated in other product or a facility (e.g. door handles and faucets) and products inappropriate as survey subjects (e.g. prepaid cards and bills).

[Figure 2: Concept of AD products and the range of the survey target]

**Items of exclusion**

- Mainstreamed considerations: a tactile dot on "5" button of telephones, lighters, etc.
- Parts incorporated into a product or a facility: door handles, handrails, faucets, etc.
- Inappropriate as survey subjects: prepaid cards, bills, etc.



**\*Assistive products in a broad sense: I+II+III+IV+V**

**2. Details of this year's survey**

**(1) Target products and AD considerations**

Based on the idea shown in Clause 1, domestic shipping amounts of 28 items shown in Table 2 were surveyed. The items are the same from last year's survey. Table 2 also shows specific AD considerations in each product.

In order to avoid doubling up of shipping amounts, data analysis regarding OEM has been also conducted. While this report targets shipping in FY2007, data of FY2006 is also taken as a reference for analysis and estimates of the trend.

[Table 2 : Products in the survey and their AD considerations]

Category	Items	AD considerations	Year surveyed(●)					
			95	96	97	98	99~07	
AD considerations for main units	General apparatus and equipment	Elevators	- Braille signs on operation buttons for floors - Audio guidance for floors - Switches operable by wheelchair users	●	→	→	→	...→
		Escalators	- Steps can be made flat for the benefit of wheelchair users	●	→	→	→	...→
		Home elevators	- Vertical move by stairs are unnecessary		●	→	→	...→
		Vending machines	- Coin slots placed in a lower position for wheelchair users - Braille signs	●	→	→	→	...→
		Automatic doors for train platforms/ticket gates	- Automatic doors adjusted to the locations of train doors - Ticket gates wide enough for wheelchairs	●	→	→	→	...→
		ATM/ CD machines	- Operable by mechanical buttons not by/along with liquid crystal panels - Audio feedback available - Braille signs	●	→	→	→	...→
		Toilets with washing equipment	- Washable after use: Hygienic use made possible for persons with disabilities in upper limbs		●	→	→	...→
	Copy machines	Display part positioned in a lower place with inclination for wheelchair users				●	...→	
	Electric machines	Home appliances	- Braille signs and tactile symbols available - Braille/ cassette instruction manuals available	●	→	→	→	...→
		Audio equipment	- Audio feedback on operations available - Teletext broadcasting available	●	→	→	→	...→
		Visual equipment	- Others	●	→	→	→	...→
		ICT/telecommunication		●	→	→	→	...→
		Lighting	- Equipment movable up and down, for easy change of light bulbs		●	→	→	...→
transportation	Passenger cars	- passenger seats/backseats turnable/movable for easy ride of wheelchair users	●	→	→	→	...→	
	Buses (low-floor)	- Floors lowered for easy getting on/off of wheelchair users and older persons	●	→	→	→	...→	

AD considerations for main units

Category	Items	AD considerations	Year surveyed				
			95	96	97	98	99~07
Precision instrument	Watches/scales	<ul style="list-style-type: none"> <li>- Tactile symbols or tactile letters available and recognizable with touch</li> <li>- Sound guidance available</li> <li>- Large letters for watch faces</li> </ul>	●	→	→	→	...→
Metal products	Gas appliances	<ul style="list-style-type: none"> <li>- Push buttons for easy operation</li> <li>- Braille signs, Braille instruction manuals</li> <li>- Sound/ light display for operation status</li> <li>- Fail-safe equipment</li> </ul>	●	→	→	→	...→
Housing apparatus	Housing apparatus	<ul style="list-style-type: none"> <li>- Elimination of difference in level, handrails available, bathing in a sitting position (Bathing unit)</li> <li>- Height of the washbasin adjustable for use of wheelchair users (washroom vanity)</li> <li>- Height of the counter adjustable, upper shelf can be lowered automatically/ manually (Kitchen unit)</li> </ul>		●	→	→	...→
Others	Desks/tables (table top)	<ul style="list-style-type: none"> <li>- Height of table top adjustable</li> </ul>		●	→	→	...→
	Toys	<ul style="list-style-type: none"> <li>- Tactile marks on controls</li> <li>- Colors identifiable by touch</li> <li>- Braille stickers attached</li> <li>- Toys with numerical buttons such as telephone toys have tactile mark on "5".</li> <li>- Alternative means to tell sounds are going off</li> <li>- Communication by writing available</li> <li>- Does not fall apart or go out of alignment even if touched accidentally</li> <li>(Toys with guide dog/ rabbit marks)</li> </ul>	●	→	→	→	...→
	Kettles	Whistling equipment at the time of boiling		●	→	→	...→
	Enlarged books/Talking books	Books with enlarged letters to enhance readability		●	→	→	...→
	Others (sewing machines, tactile information boards)	<ul style="list-style-type: none"> <li>- Easy operation e.g. threading, automated/ slow operation (Sewing machine)</li> <li>- Maps with tactile marks for recognition by touch (Tactile information board)</li> </ul>	●	→	→	→	...→

Category	Items	AD considerations	Year surveyed(●)					
			95	96	97	98	99~ 07	
AD considerations for packaging	Food	Beer, alcoholic beverages	- Display of "beer" or "alcohol" in braille on top - Distinction from non-alcoholic drinks	●	→	→	→	...→
	Chemical/Industrial products	Shampoo, hair conditioner	- Notches on the sides of shampoo bottles for distinction from hair conditioner bottles	●	→	→	→	...→
		Medicine	- Braille on the packages - Instructions in Braille	●	→	→	→	...→
		Plastic wrap	- Tactile marks on the package for distinction from aluminum foil				●	...→

## (2) Timing and method of the survey

The survey was conducted from November 2008 to February 2009. Manufacturers of AD products were the main respondents of the survey, while some industry organizations cooperated for the survey.

Situation on distribution and collection of questionnaires is shown in Table 3. In order to grasp overall scale of the market and the trend of targeted items (including non-AD products), bibliographical survey and interviews by phone were also conducted.

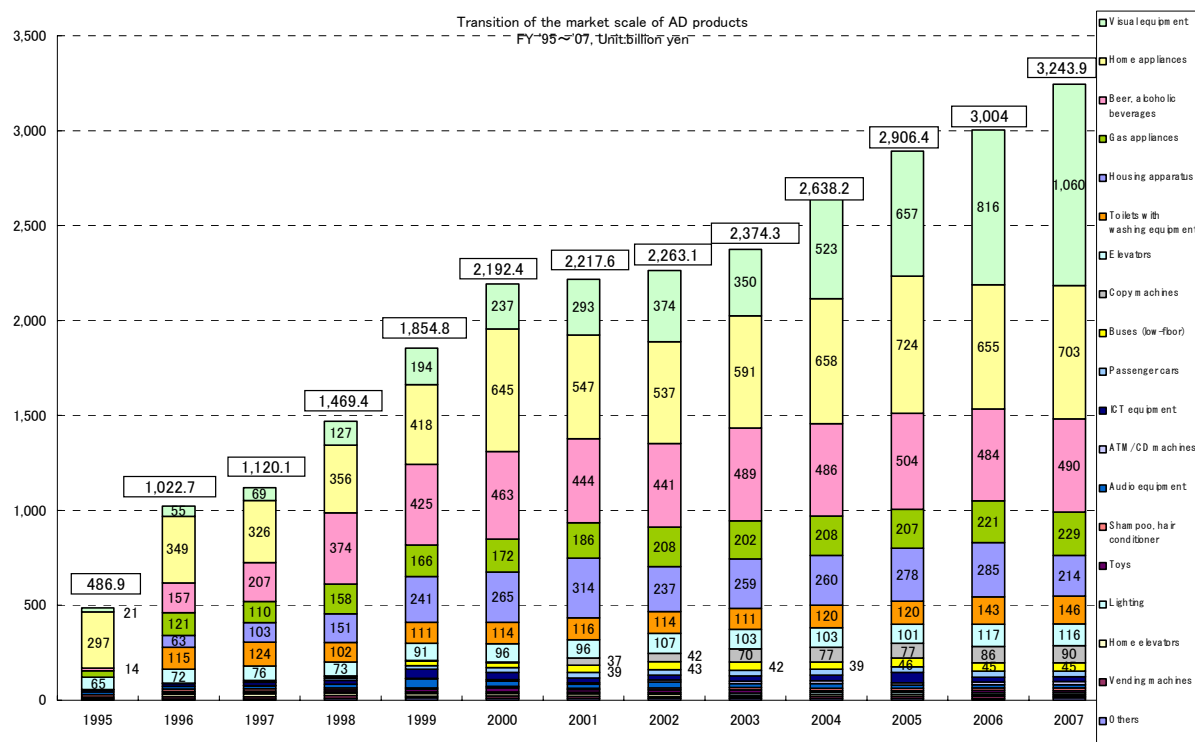
[Table 3: Situation on distribution and collection of questionnaires]

Target category	Details	# of distribution	# of collection	% of collection
Individual companies	---	168	83	49.4
Industry organizations	Association for Electric Home Appliances	16	14	87.5
	Japan Luminaires Association	14	14	100.0
	The Japan Toy Association	20	11	55.0
	Brewers Association of Japan	5	3	60.0
Total		223	125	56.0

### III. Survey results

The market scale of AD products in 2007 is estimated 3,243.9 billion yen, or 8.0% (239.9 billion yen) increase from the previous year. The scale exceeded three trillion yen for the first time since the start of the survey, and continues to expand steadily.

[Graph 1: Transition of the Market scale of AD products (Unit: billion yen) ]



When looking at the graph by items, high growth categories center on audio equipment, which is a continuous trend from previous years. This is the major reason for the steady growth of the total shipping amount.

Shipment value of audio equipment is 1,059.8 billion yen, which is 29.8% or 243.5 billion yen increase from the previous year. The increase is bigger than that of the total shipment value and exceeded one trillion yen. While the amount was less than 5% during the initial phase of the series of the surveys, it has come to occupy around 1/3 of the total amount.

While prices of plasma TVs and LCD TVs continue to fall since last year, shipping quantity increased greatly. While recording equipment of older generation decreased in number, new generation of the equipment, namely blue ray disk (BD) and HD-DVDs, came into market. The former became prevalent in the latter half of the year and increased in quantity dramatically, which explains increase in the shipment value.

“Electric home appliances”, whose shipment had decreased and ceded the top place

in the previous year's survey, increased this year by 7.3% or 47.9 billion yen, totaling 702.5 billion yen. Though refrigerators and washing machines are on the decreasing trend in shipment value, new high-value-added products such as products with energy saving and user-friendly functions contributed its increase in amount of sales. In the field of cooking equipment, bread making appliance was newly added to the list of items surveyed.

Category of "Beer and other alcoholic beverages", which had decreased in the last year's survey, increased slightly to 490.4 billion yen (1.4% or 6.8 billion yen increase from the previous year) . While sales of law-malt beer are going down, the third genre of alcoholic beverage continues to grow. This is a continuous phenomenon from last year. Though total shipment value of the category including the third genre is decreasing, sales of canned beverages especially beer tend to grow in comparison with previous years. The trend explains the total amount has been remaining on the same level.

On the other hand, under direct influence of sluggish housing start, shipment value of "house equipment", which had shown steady increase excluding certain period of time, decreased to 214.9 billion yen (24.8% or 70.7 billion yen decrease from the previous year) . The same reason applies to "lighting equipment" which decreased to 10 billion yen (9.1% or 1 billion yen decrease from the previous year) .

Some categories such as "automatic doors on platforms and ticket gates at stations" (total 2.7 billion yen : 440% or 2.2 billion yen increase from the previous year) and "vending machines" (total 8.3 billion yen : 27.8% or 3.2 billion yen decrease) show sharp increase and decrease which is considered to be because of cyclical fluctuations. Installing elevators instead of escalators as AD apparatus is one of the backgrounds of decrease in "Escalators" (total 0.1 billion yen : almost 80% decrease)

"Medicines", which had shown little changes presented sharp increase in this year's survey to 2.6 billion yen (271.4% or 1.9 billion yen increase) . This is because a major pharmaceutical company introduced products with AD considerations in the OTC section and cooperated with this year's survey.

[Table 4: Amount details of AD items]

	Category	Items	Surveyed since	Amount (Unit: billion yen)						
				1995	1996	1997	1998	1999	2000	2001
Consideration on main units	General apparatus and equipment	Elevator	1995	#1 65.0	72.1	75.9	73.4	90.7	95.8	96.0
		Escalator	1996	—	2.8	2.8	2.7	3.3	2.3	2.0
		Home elevator	1996	—	13.0	13.4	12.0	13.3	13.1	12.4
		Vending machine	1995	8.5	11.4	12.4	13.7	9.1	13.3	10.7
		Automatic door for train platforms/ ticket gates	1995	0.7	1.0	1.5	1.2	1.4	0.5	1.4
		ATM/ CD machine	1995	0.3	0.3	0.4	0.5	1.6	10.0	9.4
		Toilet with washing equipment	1996	—	115.2	124.4	102.4	111.0	113.7	115.8
		Copy machine	1998	—	—	—	4.4	4.4	4.9	37.0
	Electric machines	Home appliance	1995	296.6	349.1	325.5	355.9	418.0	645.4	546.7
		Audio equipment	1995	15.2	14.3	15.3	19.3	48.0	27.5	19.7
		Visual equipment	1995	21.3	54.9	69.0	126.7	193.6	236.6	293.0
		ICT/ telecommunication	1995	9.9	15.1	18.1	20.0	49.6	36.6	25.6
		Lighting	1996	—	6.4	7.1	7.9	8.1	8.7	9.1
	Transportation	Passenger car (sheats)	1995	0.2	0.9	1.7	12.2	18.1	24.9	28.5
		(low-floor)	1995	1.4	2.2	8.6	7.6	#2 22.2	24.8	38.5
	Precision instrument	Watches/ scale	1995	0.1	0.3	0.2	0.1	0.1	0.3	0.6
	Metal products	Gas appliances	1995	33.4	120.6	110.1	158.3	166.2	172.1	185.9
	Housing apparatus	Housing apparatus	1996	—	63.0	103.3	150.9	241.3	265.2	314.3
	Others	Desks/tables (table top)	1996	—	0.3	0.3	0.5	0.7	0.6	0.6
		Toys	1995	7.7	8.4	9.3	9.0	16.3	20.5	13.5
Kettles		1996	—	1.3	1.2	1.1	0.9	0.9	0.8	
Enlarged books/ Talking books		1996	—	0.4	0.5	0.4	0.3	0.4	0.2	
Others (sewing machines, tactile information board, etc)		1995	0.2	0.2	0.2	0.1	0.1	0.2	0.1	
Consideration on packages	Food	Beer, alcoholic beverages	1995	14.4	156.7	206.8	373.8	424.9	462.6	443.9
		Shampoo, hair conditioner	1995	11.9	12.6	11.9	10.5	6.0	7.2	7.5
	Chemical/ Industrial products	Medicine	1995	0.1	0.2	0.2	0.4	0.2	0.4	0.5
		Plastic wrap	1998	—	—	—	4.6	5.5	4.1	3.9
Total 1: Based on items surveyed in 1997 (Since 1995)				486.9	823.1	869.9	1,185.3	1,469.2	1,781.0	1723.5
Total 2: Based on items surveyed in 1998 (Since 1996)					1,022.7	1,120.1	1,460.5	1,844.9	2,183.5	2176.7
Total 3: Based on items surveyed in 1999, 2000, and 2001 (Since 1998)							1,469.5	1,854.8	2,192.4	2217.6

[Table 4: Amount details of AD items (Continued)]

	Category	Items	Surveyed since	Amount (Unit: billion yen)						Increase 06-07
				2002	2003	2004	2005	2006	2007	
Consideration on main units	General apparatus and equipment	Elevator	1995	#1 106.6	103.1	102.7	101.3	116.9	115.6	-1.1%
		Escalator	1996	1.1	0.4	0.3	0.5	0.5	0.1	-80.0%
		Home elevator	1996	11.5	9.3	9.3	9.7	9.2	#4 8.5	-7.6%
		Vending machine	1995	9.8	8.5	11.1	12.4	11.5	8.3	-27.8%
		Automatic door for train platforms/ ticket gates	1995	1.2	2.3	2.6	0.9	0.5	2.7	440.0%
		ATM/ CD machine	1995	9.9	12.8	13.8	13.7	16.3	17.4	6.7%
		Toilet with washing equipment	1996	113.9	111.1	120.3	134.0	143.4	#4 145.7	1.6%
		Copy machine	1998	42.2	70.2	76.7	77.2	86.1	90.1	4.6%
	Electric machines	Home appliance	1995	536.8	591.0	658.3	723.7	654.6	702.5	7.3%
		Audio equipment	1995	32.4	21.6	24.7	15.0	16.6	16.1	-3.0%
		Visual equipment	1995	373.9	349.5	523.4	657.4	816.3	1,059.8	29.8%
		ICT/ telecommunication	1995	24.4	26.3	30.6	53.5	25.3	26.2	3.6%
		Lighting	1996	9.1	9.7	9.8	10.3	11.0	10.0	-9.1%
	Transportation	Passenger car (seats)	1995	29.6	31.1	31.2	31.4	30.1	#4 27.6	-8.3%
		(low-floor)	1995	#2 42.9	42.4	38.6	46.4	45.3	44.8	-1.1%
	Precision instrument	Watches/ scale	1995	0.5	0.4	0.5	0.6	0.6	0.5	-16.7%
	Metal products	Gas appliances	1995	207.8	201.5	208.4	206.6	220.5	228.6	3.7%
	Housing apparatus	Housing apparatus	1996	236.7	258.9	260.3	278.1	284.9	214.2	-24.8%
	Others	Desks/tables (table top)	1996	0.6	0.5	0.5	0.8	0.8	0.9	12.5%
		Toys	1995	13.9	16.7	10.2	9.8	10.7	11.1	3.7%
Kettles		1996	0.6	0.5	0.5	0.3	0.2	0.2	0.0%	
Enlarged books/ Talking books		1996	0.2	#3 -	-	-	-	-	-	
Others (sewing machines, tactile information board, etc)		1995	0.7	#3 0.9	1.1	0.9	0.7	0.7	0.0%	
Consideration on packages	Food	Beer, alcoholic beverages	1995	441.1	488.5	486.0	503.8	483.6	490.4	1.4%
	Chemical/ Industrial products	Shampoo, hair conditioner	1995	10.7	11.8	12.0	12.6	12.7	14.0	10.2%
		Medicine	1995	0.5	0.7	0.7	0.7	0.7	2.6	271.4%
		Plastic wrap	1998	4.5	4.6	4.6	4.8	5.0	5.3	6.0%
Total 1: Based on items surveyed in 1997 (Since 1995)				1,843.8	1,909.5	2153.2	2,388.2	2,460.4	2,766.0	12.4%
Total 2: Based on items surveyed in 1998 (Since 1996)				2,216.4	2,299.5	2556.9	2,824.4	2,912.9	3,148.5	8.1%
Total 3: Based on items surveyed in 1999, 2000, and 2001 (Since 1998)				2,263.1	2,374.3	2638.2	2,906.4	3,004.0	3,243.9	8.0%

#### IV. Dissemination of AD considerations

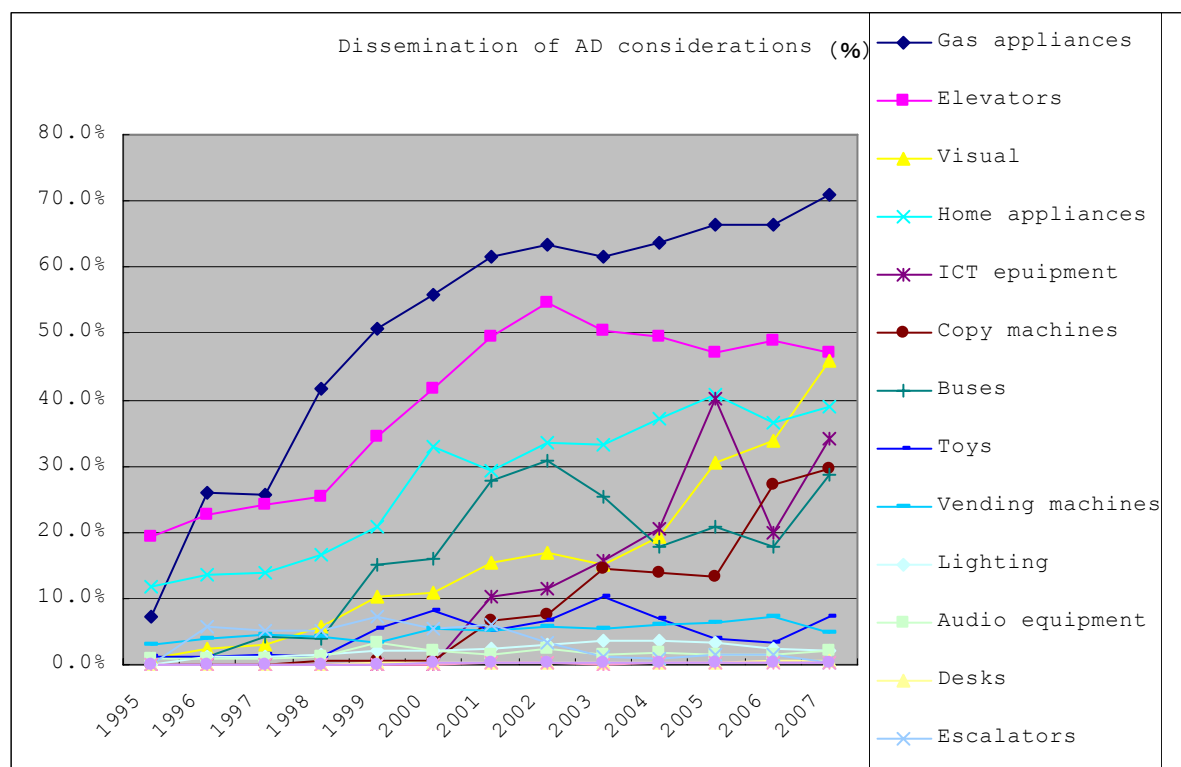
For items which have AD considerations in a part of main units' function, Table 5 and Graph 2 show the dissemination ratio of AD considerations by comparing with total amount of shipment of specific items. (Ratio of AD shipping amount in total shipping amount (%))

[Table 5 : Dissemination of AD considerations by shipping amount]

	Shipping amount of AD (FY2007) (Unit:billion yen)	Total shipping amount (FY2007) (Unit:billion yen)	AD ratio (%)
Gas appliances	228.6	322.4	70.9
Elevators	115.6	246.2	47.0
Visual equipment	1059.8	2,304.6	46.0
Home appliances	702.5	1,797.2	39.1
ICT/telecommunication	26.2	76.6	34.2
Copy machines	90.1	303.6	29.7
Buses	44.8	156.2	28.7
Toys	11.1	151.5	7.3
Vending machines	8.3	177.0	4.7
Lighting	10.0	470.5	2.1
Audio equipment	16.1	799.0	2.0
Desks/Tables	0.9	158.7	0.6
Escalators	0.1	35.5	0.3
Watches/Scales	0.5	292.8	0.2
Passenger cars	27.6	14,655.1	0.2

※Source: Industrial statistical survey (2007)

[Graph 2 : Transition of Dissemination of AD considerations by shipping amount (FY '95~'07)]



[Supplementary data for Graph 2 (Dissemination of AD considerations '95~'07)]

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Gas appliances	7.2%	26.0%	25.6%	41.6%	50.7%	55.8%	61.6%	63.3%	61.6%	63.7%	66.4%	66.3%	70.9%
Elevators	19.3%	22.7%	24.3%	25.2%	34.6%	41.8%	49.6%	54.8%	50.5%	49.4%	47.2%	48.9%	47.0%
Visual equipment	0.8%	2.4%	3.0%	5.7%	10.2%	10.9%	15.3%	16.9%	15.0%	19.3%	30.3%	34.0%	46.0%
Home appliances	11.6%	13.7%	13.7%	16.6%	20.9%	32.8%	29.3%	33.6%	33.3%	37.2%	40.8%	36.5%	39.1%
ICT/ Telecommunication	—	—	—	—	—	—	10.2%	11.5%	15.6%	20.6%	40.2%	20.1%	34.2%
Copy machines	—	—	—	0.6%	0.6%	0.7%	6.6%	7.5%	14.6%	13.9%	13.4%	27.2%	29.7%
Buses	0.9%	1.1%	4.3%	4.0%	15.1%	16.0%	27.9%	30.9%	25.4%	17.7%	20.8%	17.8%	28.7%
Toys	1.2%	1.3%	1.6%	1.3%	5.3%	8.2%	5.2%	6.6%	10.2%	7.0%	4.0%	3.2%	7.3%
Vending machines	3.2%	3.8%	4.5%	4.3%	3.4%	5.5%	5.2%	5.8%	5.3%	6.0%	6.3%	7.1%	4.7%
Lighting	—	1.1%	1.2%	1.5%	2.1%	2.2%	2.6%	3.0%	3.5%	3.5%	3.4%	2.5%	2.1%
Audio equipment	0.9%	1.0%	1.0%	1.3%	3.4%	2.1%	1.6%	2.6%	1.5%	1.9%	1.5%	1.6%	2.0%
Desks/Tables	—	0.1%	0.1%	0.1%	0.3%	0.2%	0.3%	0.3%	0.3%	0.3%	0.4%	0.5%	0.6%
Escalators	—	5.7%	5.3%	5.1%	7.2%	5.3%	5.9%	3.4%	1.2%	0.8%	1.6%	1.4%	0.3%
Watches/Scales	0.0%	0.1%	0.0%	0.0%	0.0%	0.1%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Passenger cars	0.0%	0.0%	0.0%	0.1%	0.1%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%

According to the tables and graph, categories such as "Gas equipment", "Elevators", "Audio-visual equipment" have grown greatly over the 13 years since the start of the survey. When combined with the fact that "Plastic wrap", "Beer and other alcoholic beverages", and "Shampoo and hair conditioner" are excluded from the table 5 as these items are concluded to have achieved 100% of AD considerations, it can be safely said that AD considerations have steadily advanced.

On the other hand, some items show little change in regard to AD considerations since the start of the survey. This is partly because method for estimation of shipping amount is based on accumulation of responses from companies. As for items whose manufacturers are not eager to cooperate in the survey, the estimates inevitably become lower than reality. Therefore, dissemination rate in real terms is not necessarily low, and the surveyed AD considerations need to be reviewed if they are relevant for these categories. At the same time, other index to grasp dissemination situation should be employed in future surveys.

## V. New considerations

Some innovative considerations and AD related information were collected by the survey and hearings, which have not been listed as AD considerations in the survey. Specific considerations are shown in Table 6 and they will be considered as possible question items for the future surveys.

[Table 6 :New ideas of AD considerations for some products (example)]

Item	Original considerations	New considerations
ATM/CD machines	<ul style="list-style-type: none"> <li>- Operable by mechanical buttons not by/along with liquid crystal panels</li> <li>- Audio feedback available</li> <li>- Braille signs</li> </ul>	<ul style="list-style-type: none"> <li>• to provide a space (opening) for a wheelchair footrest in lower front of vending machines</li> <li>• to provide a small shelf just below the card/bank book slot for easy insert. (It serves as a location indicator as well.)</li> </ul>
Desks/Tables	<ul style="list-style-type: none"> <li>- Height of table top adjustable</li> </ul>	<ul style="list-style-type: none"> <li>• Drawer that can be opened by both pushing and pulling. Height is set for easy reaching from lower postures.</li> </ul>
Ticket gates at stations	<ul style="list-style-type: none"> <li>- Ticket gates wide enough for wheelchairs</li> </ul>	<ul style="list-style-type: none"> <li>• New ticket gates for IC card users: entrance/exits are indicated clearly for discrimination from existing ones</li> </ul>

#### VI. For future surveys -- proposal for revision of the survey format

As stated in the first section, this series of surveys have been conducted for the following objectives: to understand social trend and needs regarding AD: to promote awareness on AD in the industry sectors, and to provide basic information to the local governments and business sectors that are interested in developing AD products/services: and to provide basic information on AD products/services to the general public for dissemination purposes.

To achieve the objectives, the survey has put its focus on shipping amount. This year's survey is 12th of the series, and the total shipping exceeded three trillion yen in 2006 and continues to grow steadily in 2007 as is shown in this year's survey. It can be said the survey achieved its initial objectives to a respectable degree.

On the other hand, the limitation has been also realized in using growth of shipping amount to grasp social trend of AD dissemination. As for this year's survey, for example, the sharp increase in audio-visual equipment had great impact on total increase in overall shipping amount.

While discrepancies between items with AD considerations and items without AD considerations still remain, sales of items in which AD consideration is taken for granted is directly linked to the increase/decrease of shipping amount of the item as a whole and subject to change depending on economic situations; shipping amount no longer can serve as a major index to measure the progress and dissemination of AD products/considerations.

In addition to shipping amount, other measurement indicators which focus on

prevalence of AD consideration in individual items are also necessary to grasp the reality of AD dissemination. When items with little progress in terms of AD are identified by new index, it should be examined what measures would be effective to promote AD for the specific items. At the same time, as for items already with AD, other considerations to further promote usability should be examined. These steps are effective to disseminate AD considerations. This survey is now to be reviewed from this viewpoint.