Environmental Accounting

Aiming to establish an environmental accounting system to support managerial decision making and evaluate sustainable management

The Ricoh Group regards its environmental accounting system as an important tool to evaluate and improve its sustainable management, which involves activities that help conserve the environment and, at the same time, are profitable. The Ricoh Group's environmental accounting system comprises corporate environmental accounting, which evaluates business activities as a whole, and segment environmental accounting, which examines the managerial status of projects and divisions. Since its environmental accounting system was disclosed for the first time in 1999, the Ricoh Group has enthusiastically updated the system and, as a result, has garnered a good enough reputation to, for example, be used as a benchmark by other companies. Nevertheless, there are still many problems to be solved using this as a managerial decision-making tool. The Ricoh Group is making special efforts to enhance its internal management functions, examine a new framework system, and develop indicators that more appropriately evaluate sustainable management.

■ Establishing an Environmental Accounting System

The Ricoh Group is making continuous efforts to establish a sustainable management that will help it to survive the current prolonged business competition. The Ricoh Group first reorganized and defined its idea of sustainable management and then examined indicators used to evaluate and analyze the level of sustainable management. At present, a new environmental accounting (environmental management accounting) framework is under consideration to be used as a tool to measure and manage environmental management indicators by product unit and function (division). All information obtained is consolidated under this environmental management information system.

Environmental Management Indicators

Environmental management indicators are needed to appropriately evaluate the level of sustainable management and facilitate further improvement. To this end, the indicators should be set based on the three factors shown below.

1) Economic Benefits of Environmental Conservation Activities

This factor shows how economically rational environmental conservation activities are.

$$\left(\frac{\text{Economic benefits}}{\text{Environmental conservation costs}}\right)$$

If the quotient is one or greater (i.e., the economic benefits are equal to or greater than the environmental costs), then sustainable management is considered valid.

$$\left(\frac{\text{Economic benefits + social cost reduction}}{\text{Environmental conservation costs}}\right)$$

If the quotient is one or greater (i.e., the sum of economic benefits and social cost reduction is equal to or greater than the environmental conservation costs), then environmental management is considered valid.

$$\left(\frac{\text{Environmental impact reduction}}{\text{Environmental conservation costs}}\right)$$

This equation is used to evaluate improvements in the efficiency of investments and other projects.

2) Environmental Efficiency of Business Activities

This factor shows whether the environmental impact of business activities is acceptable and whether those activities respond to social requests.

$$\left(\frac{\text{Sales}}{\text{Total environmental impact (physical or monetary amount)}}\right)$$

This equation is used to evaluate whether environmental impact corresponds to business size.

$$\left(\frac{\text{Value-added business activities}}{\text{Total environmental impact (physical or monetary amount)}}\right)$$

This equation is used to evaluate whether profit corresponds to environmental impact.

3) Environmental Management

This factor is used to determine whether the environmental management process is appropriate.

In-house audits, site reports, environmental technology development process, environmental labels, green purchasing, and other aspects are included.

Environmental accounting needs to work as a tool to measure the economic efficiency of environmental conservation activities and the environmental efficiency of business activities mentioned above. Corporate environmental accounting works as a tool to measure the economic efficiency of environmental conservation activities and environmental efficiency of business activities of the company as a whole.

■ Corporate Environmental Accounting

Corporate environmental accounting works as a management tool to evaluate the sustainable management of the business activities of a company as a whole. Once environmental accounting data is disclosed, it is necessary to have a framework that will hold the company accountable to society and allow it to be compared with other companies. Following the environmental accounting guidelines set forth by the Ministry of the Environment in Japan for general frameworks, the Ricoh Group established its own system through repeated trial and error in calculating economic benefits, integrating environmental impact, and creating indicators. The Ricoh Group continues its efforts to establish a decision making support tool that is as good as a business accounting system.

Environmental Conservation Costs

Environmental conservation costs are those costs associated with environmental conservation, namely, capital investment, depreciation, personnel expenses, and overhead expenses. Cost items are coded by category in accordance with the *Ministry of the Environment's Guideline for Introducing an Environmental Accounting System (2002 Version)*. Accounting divisions add up the data using an accounting system. Costs related to multiple categories are divided proportionally among those related categories to be summed up.

Economic Benefits

In order to compare environmental conservation costs and come up with comprehensive results, economic benefits are calculated in some aspects, not only in terms of substantial effects but also expected and incidental effects. To improve the accuracy of determining expected effects, the "contribution to value-added research and development" item in this report was calculated based on actual sales results, and any profit gained is considered to be the result of environment-friendly functions.

Economic Benefits

Economic benefits are calculated as corporate effects (effects within the Ricoh Group) and social effects (effects outside the Ricoh Group).

Substantial effect:	Actual gains from cost and energy reduction as well as sales of recycled products
Expected effect:	Amount to which environmental measures contributed
Incidental effect:	Pollution- and lawsuit-related costs avoided
Social effect:	Reduction in electricity expenses due to the use of energy-saving products or reduction in waste disposal cost (Japan only)

Formula of Expected Effects

Contribution to value-added production:	(Production output - raw material costs) × business area costs/ manufacturing costs
Effects of media coverage:	Area of newspaper advertisement/newspaper page area × advertisement cost per page
Effects of environmental education:	Number of people attending internal environmental education seminars × seminar fee for outside participants
Contribution to value-added research and development:	Gross profit × contribution rate to gross margin using the green point (See page 78)
Publicity from environmental advertisements:	Number of visitors to environmental Web site × unit price of the environmental report

Formula of Incidental Effects

Amount of incidental effect:	Standard amount × occurrence coefficient × impact coefficient
Items to be calculated:	Areas of improvement to prevent pollution
Standard amount:	Amount set for lawsuits, suspension of operations, and restoration

Environmental Conservation Effects

For any given year, the environmental impact reduction amount can be used in calculating environmental conservation effects. There are six environmental impact items: CO_2, NOx, SOx, biochemical oxygen demand (BOD), final waste disposal amount, and Pollutant Release and Transfer Register (PRTR) substances.

Calculation of Social Cost

In the past, environmental conservation effects were calculated in terms of physical amount. For a clearer comparison with environmental conservation costs, environmental impact is now calculated in terms of monetary value. The monetary value of environmental impact is termed "social costs" (costs of external diseconomies). The conversion coefficient used is based on EPS* Indicator Ver. 2000, which is an impact assessment method in monetary value. The reference figure used is €108/t-CO_2 (¥11,945/t-CO_2). This figure is almost equal to the Ricoh Group's reference amount (¥16,000/t-CO_2), which is calculated from investments to reduce CO_2. This system received internal approval. At present, the conversion of environmental impact into monetary value is just one option, and it needs to be examined further in the future.

* EPS: Environmental priority strategies in product design

Development of Indicators

The Ricoh Group set indicators to evaluate, analyze, and disclose the environmental conservation efficiency of business activities individually and as a whole. Such indicators as the eco-efficiency (EE) value and eco-ratio were once used mainly to compare the cost effectiveness of investments and projects. Those indicators are therefore excluded from corporate environmental accounting and used only in segment environmental accounting in this report. The EE value and eco-efficiency index (EEI), which are indicators used to determine any improvements in environmental impact, are now called the eco-improvement (EI) value and eco-improvement index (EII), respectively, taking into consideration the original meaning of the terms. The definition of EEI was changed from "an index that represents improvements in environmental conservation activities" to "an index that compares the total environmental impact amount with sales." In addition to the indicators mentioned above, new ones were created for this report.

Indicators

- Eco-improvement value (EI Value) = Environmental impact reduction amount/environmental conservation costs (ton/hundred million yen)
  - ▶ To determine how much environmental impact per ¥100 million in environmental conservation costs is reduced for each environmental impact item
- Eco-ratio = Gross profit/environmental impact amount (ton/hundred million yen)
  - ▶ To determine the amount of value-added from business activities obtained per one-ton equivalent of environmental impact discharged
- Eco-improvement index (EII) = Total environmental impact reduction amount (1)/Total environmental conservation cost amount (thousands of yen)
- Improvement ratio of social cost (IRS) = Total social cost reduction amount (2)/Total environmental conservation cost amount (thousands of yen)
  - ▶To determine whether the reduction in ((1) environmental impact/(2) social cost) is efficient
- Eco-index = Gross profit (thousands of yen)/total environmental impact amount (1)
- Ratio of profit to social cost (RPS) = Gross profit/total social cost (2)
  - ▶ To determine whether any profit is made when a company conducts business activities at the appropriate level ((1) environmental impact/(2) social cost)
- Eco-efficiency index (EEI) = Sales (thousands of yen)/total environmental impact amount (1)
- Ratio of sales to social cost (RSS) = Sales/total social cost (2)
  - ▶ To determine whether a business activity at the appropriate level ((1) environmental impact/(2) social cost) is suitable for its scale
- Ratio of eco effect (REE) = Environmental effect (total economic benefit + total social cost reduction amount)/total environmental conservation cost
- Ratio of eco profit (REP) = Total economic benefit/total environmental conservation cost
  - ▶ To determine whether an environmental conservation activity is conducted in an economically rational way

Fiscal 2001 Ricoh Group Corporate Environmental Accounting (Reviewed by BVQI [26])

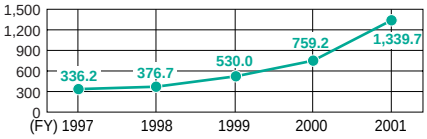
Cost unit: ¥100 million (Exchange rate: $1 = ¥125.1 €1 = ¥110.6)

Item	Costs			Economic Benefits		
	Environmental Investments	Environmental Costs	Main Costs	Monetary Effects	Category	Item
Business area costs	5.2	24.1	Pollution prevention cost..... ¥484 million Global environmental conservation cost ..... ¥374 million Resource circulation cost.... ¥1,557 million	11.8	a	Energy savings and improved waste processing efficiency
				44.4	b	Contribution to value-added production
				21.7	c	Avoidance of risk in restoring environments and avoidance of lawsuits
Upstream/ Downstream costs	0.0	48.7	Cost of collecting, disassembling, and recycling used products	33.4	a	Sales of recycled products, etc.
				[21.5]	S	Reduction in society's waste disposal cost
Managerial activity costs	0.5	30.8	Cost generated by the division in charge of environmental conservation; cost to establish and maintain an environmental management system	1.8	b	Effects of media coverage and environmental education
Research and development costs	0.0	18.8	Research and development costs for environmental impact reduction	38.1	b	Contribution to gross margin through research and development
				[8.4]	S	Reduction in user's electricity expenses thanks to an improved energy saving function and product performance
Social activity costs	0.0	4.5	Costs of preparing environmental reports and advertisements	4.4	b	Publicity from environmental advertisements, etc.
Environmental damage costs	0.0	1.3	Costs of restoring soil and environment-related reconciliation	—	—	None
Other costs	0.1	0.9	Other costs for environmental conservation			
Total	5.8	129.1		155.6	Sum of a, b, and c.	a: Substantial effect b: Expected effect c: Incidental effect S: Social effect
Total capital investment	252.8			[29.9]	Total S's	

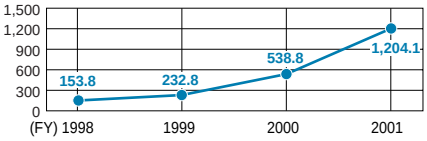
■ Fiscal 2001 Environmental Accounting System

Environmental conservation costs generally increased despite a decrease in environmental investments because the scope of environmental costs was extended. It is generally believed that product recycling costs and research and development costs, in particular, increased because product environmental impact was mainly reduced. Economic benefits doubled from the previous year due to an increase in sales of recycled products in overseas market. Social (customer) economic benefits also increased as a result of eco-friendly products well accepted by the market. As for environmental conservation effects, the Ricoh Group reduced CO_2 emissions 4.9%, more than five times that in the previous year, and it was determined that the investments worked well. As for the resource depletion issue, the final waste disposal amount was reduced more than 70% against the previous year, thanks to the global promotion of Zero-Waste-to-Landfill activities. Furthermore, PRTR substances were reduced almost 50%. In fiscal 2001, the Ricoh Group successfully and significantly reduced its overall environmental impact. The Group's corporate added value is also growing, along with a significant improvement in the eco-index. The ratio of eco profit (REP) exceeded 1.0 for all economic benefits, and the ratio revealed that the economic benefits obtained corresponded to environmental conservation costs. The estimated environmental income rate was calculated using the substantial effect and contribution to gross margin, which were believed to have contributed to actual corporate P/L. The estimation was calculated as 0.64, falling short of the original sustainable management goal of 1.0 or higher. By developing measures to achieve this goal, the Ricoh Group aims at further realizing sustainable management.

Changes in the Eco-Index (Ricoh only)



Changes in the Eco-Index (the Ricoh Group)



Collected data
- Source: 79 Ricoh Group companies. (See page 2.)
- Collection period: From April 1, 2001, to March 31, 2002 (for costs and total environmental impact)

* Environmental impact reduction shows the difference of the fiscal 2001 performance from the fiscal 2000 performance.

Effect on Environmental Conservation				Environmental Impact			
Environmental Impact Reduction (t)	Reduction Rate	Converted Quantity of Reduction	Social Cost Reduction Values	Total (t)	Converted Value of Reduction	Social Costs	Conversion Coefficient
Environmental impact reduction at business sites							
CO_2 14,850.5	5.0%	14,851	1.77	CO_2 281,186	281,186	33.59	1.0
NO_x 8.6	4.4%	169	0.02	NO_x 186	3,672	0.44	19.7
SO_x 0.7	2.9%	21	0.00	SO_x 24	712	0.09	30.3
BOD -8.1	-17.1%	-0	-0.00	BOD 56	1	0.00	0.02
Final waste disposal amount 4,310.0	72.5%	448,240	53.54	Final waste disposal amount 1,639	170,435	20.36	104.0
PRTR substance emissions		93,707	11.19	PRTR substance emissions	125,236	14.96	(Ricoh standards per substance)
Environmental impact reduction through products CO_2 13,043.8 (t) NO_x 10.7 (t) SO_x 8.5 (t) Final waste disposal amount 26,920.0 (t) Calculation for companies in Japan only							
1.21		556,988	66.52		581,242	69.44	
Ratio of eco profit							
1.95		0.0431	0.515		1,204.1	100.8	
Ratio of eco effect		Eco-improvement index	Improvement ratio of social cost		Eco-index	Ratio of profit to social cost	

Penalties and Fines

At the end of fiscal 2001, Ricoh Asia Industry Ltd. (RAI) in China constructed a wastewater disposal facility, which enables the company to dispose of wastewater itself. Prior to the building of the facility, RAI paid for the disposal of its wastewater even though such disposal did not entail any penalties.

Penalties and Fines for Noncompliance with Environmental Laws and Regulations (Ricoh Group)

	FY 1999	FY 2000	FY 2001
Number of cases	0	0	0
Amount	0	0	0

■ Segment Environmental Accounting

Corporate environmental accounting targets corporate environmental activities as a whole but can be used in decision making only in limited cases. However, segment environmental accounting, in which corporate environmental activities are conducted by project, can be used in decision making in many cases. Segment environmental accounting is especially useful in predicting the effects of environmental activities. The Ricoh Group announced its adoption of segment environmental accounting in 1999 and put it into practice by taking various measures. In fiscal 2001, the Group continues its efforts to promote sustainable management by conducting segment environmental accounting at various opportunities*.

* Estimated costs and effects of CO_2 reduction at business sites (page 17)
Estimated costs and effects of CO_2 reduction with energy-saving products (page 17)
Estimated costs and effects of chemical substance reduction at business sites (page 17)
Estimated costs and effects of an ice thermal storage/chilled water system as a part of environmental conservation (page 36)
Estimated costs and effects of a semiconductor plant (Yashiro Plant) as a part of environmental conservation (page 40)
Environmental conservation costs and effects of a cleaning process (Ricoh Industrie France) (page 40)
Environmental conservation costs and effects in the QSU product development (page 48)
Environmental conservation costs and effects in product recycling in fiscal 2001 (page 50)

The Ricoh Group's Corporate Environmental Accounting in Fiscal 2001 (Eco-Balance Environmental Accounting)

Collected data
- Source: 79 Ricoh Group companies. (See page 2.)
- Collection period: From April 1, 2001, to March 31, 2002

					Procurement of Materials and Parts	Manufacturing Process			Trans-portation	Marketing	Use	
						Production Site		Manage-ment			Electric Power	Paper
						Japan	Regions other than Japan					
Input	Energy consumption	Electric power, heavy oil, etc.	[TJ]		4,006	3,391	1,384	567	418	796	12,472	28,037
Input	Resource consumption	Crude oil	[thousands of tons]		21							
Input		Iron ore	[thousands of tons]		53							
Input		Manganese ore	[thousands of tons]		2							
Input		Nickel ore	[thousands of tons]		2							
Input		Chromium ore	[thousands of tons]		1							
Input		Coal	[thousands of tons]		30							
Input		Other	[thousands of tons]		11							4,187
Input	Water consumption	Tap water/well water/industrial water	[thousands of tons]			3,098	3,290	192				
Input	Chemical substances	Arsenic (As) and its compounds	[t]		0.23							
Input		Cadmium (Cd) and its compounds	[t]		0.04							
Input		Lead (Pb) and its compounds	[t]		45.04							
Input		Trivalent/hexavalent chromium and their compounds	[t]		0.31							
Input		Polyaromatic hydrocarbons	[t]		0.37							
Output		Toluene	[t]			271.57	0.46					
Output		Dichloromethane	[t]			51.06	25.40					
Output		HFC-134A	[t]									
Output		Sulfur hexafluoride	[t]			0.23						
Output		Other	[t]			133.60	33.30			46.90		
Output	Environmental impact emission	NO_x	[t]			34	15	4	58	46	390	6,007
Output		SO_x	[t]			18			25	18	310	21,681
Output		CO_2	[thousands of tons]		228	147	170	23	25	44	471	3,460
Output		CH_4	[t]		3,039	356	391	35	131		817	
Output		BOD	[t]			14	44					
Output		COD	[t]			22	84					11,029
Environmental accounting	Influence on the environment	Resources	Fossil fuel		4.84E+07	4.10E+07	1.59E+07	7.10E+06	4.64E+06	8.79E+06	1.40E+08	2.11E+08
Environmental accounting			Mineral resources		3.75E+08	—	—	—	—	—	—	—
Environmental accounting			Total		4.24E+08	4.10E+07	1.59E+07	7.10E+06	4.64E+06	8.79E+06	1.40E+08	2.11E+08
Environmental accounting		Influence on human health			1.88E+08	1.83E+07	1.97E+07	2.64E+06	3.25E+06	4.98E+06	5.55E+07	4.62E+08
Environmental accounting		Influence on the ecosystem			-3.27E+05	9.28E+07	9.84E+07	5.73E+06	-3.86E+04	-6.83E+04	-7.20E+05	-5.46E+06
Environmental accounting		Influence on biodiversity			4.20E+05	2.28E+05	2.50E+05	3.34E+04	3.83E+04	6.10E+04	6.73E+05	4.15E+06
Environmental accounting		Total ELU (Environmental Load Unit)			6.12E+08	1.52E+08	1.34E+08	1.55E+07	7.89E+06	1.38E+07	1.96E+08	6.72E+08
Environmental accounting	Converted amount	Social cost		[millions of yen]	67,639	16,841	14,851	1,715	872	1,522	21,624	74,294
Environmental accounting		Percentage			33.65%	8.38%	7.39%	0.85%	0.43%	0.76%	10.76%	36.95%
Environmental accounting	Costs	Resource and energy cost		[millions of yen]	394,642	4,142	1,307	969	197	782	—	—
Environmental accounting		Environmental conservation cost		[millions of yen]	782	3,586	734	817	140	1,157	932	
Environmental accounting	Effects	Economic benefits		[millions of yen]	—	614	1,089	12	44	1,989	—	—
Environmental accounting		Effect on environmental conservation (to reduce social costs)		[millions of yen]	—	1,055	3,861	1,054	644	—	489	—
Environmental accounting	Indicators	Environmental effect rate ((Economic benefits + social costs reduced)/environmental conservation costs)			—	0.47	6.74	1.31	4.93	1.72	0.52	—
Environmental accounting		Environmental profit rate (Economic benefits/ environmental conservation costs)			—	0.17	1.48	0.02	0.32	1.72	—	—
Environmental accounting		Sales per social costs (Sales/social costs)			12.91							

* Upstream and downstream environmental impact is calculated based on the data of a specific product. (Blanks mean almost zero or n/a.)
* The figures for influences on environment or converted amount are calculated based on the EPS Indicator Ver. 2000.

■ New Framework for Internal Environmental Accounting

In the past, environmental accounting systems were used as a tool to evaluate and disclose environmental impact reduction effects to environmental conservation costs. For the purpose of supporting decision-making processes in sustainable management, it is, however, necessary for this tool to internally measure and evaluate the profit obtained from business activities and the environmental impact appropriate for a company's business size. It is also necessary to measure and identify the environmental impact generated in all relevant processes (environmental impact potential). The Ricoh Group identifies the environmental impact potential and environmental influences in each process of the Comet Circle[1] and measures and evaluates the managerial resources appropriately allocated to the environmental influences. The Group also measures and evaluates environmental conservation costs paid by product line and process, whether the costs work toward advancing social effects and corporate profits, and whether the environmental impact of

	Maintenance		Disposal and Recycling	Total
	Maintenance Works	Manufacturing Maintenance Parts		
	287	443	46	51,847
				21
				53
				2
				2
				1
				30
				4,198
		18		6,598
				0.23
				0.04
				45.04
		0.01		0.32
				0.37
				272.03
				76.46
	4.46			4.46
				0.23
		0.02		213.82
	17	3	1	6,575
	7	7		22,066
	16	29	1	4,614
	72			4,841
		1		59
		1		11,136
	3.17E+06	4.81E+06	5.12E+05	4.85E+08
	—	—	—	3.75E+08
	3.17E+06	4.81E+06	5.12E+05	8.60E+08
	2.59E+06	3.25E+06	1.38E+05	7.60E+08
	-2.34E+04	4.89E+05	-1.89E+03	1.91E+08
	3.21E+04	4.06E+04	1.71E+03	5.93E+06
	5.78E+06	8.59E+06	6.50E+05	1.82E+09
	639	950	72	201,019
	0.32%	0.47%	0.04%	100.00%
	761		96	402,896
	139		4,627	12,914
	17		755	4,520
	43		6,688	13,834
	0.43		1.61	1.42
	0.12		0.16	0.35

■ Economic Benefits from the Development of Eco-Friendly Products

It used to be difficult for the research and development of eco-friendly products to estimate costs and effects. The Ricoh Group calculated the contribution rates of eco-friendly copiers to profit based on a customer satisfaction survey of customers who buy major products in Japan. Special attention was paid to questions asking customers the reason for their purchases. Among business sites, products are given green points that correspond to the levels they contribute to environmental impact reduction. Contribution rates responding to those green points were calculated by product type. The amount of contribution to gross margin due to a product's eco-friendly functions is calculated from annual performance as contribution rates by product type. The total calculated amount is regarded as an annual economic benefit for research and development.

Responses to a Customer Satisfaction Survey (Number of samples=138, multiple answers)

Item	Number of responses	Response rate
1. Functions and performance of copiers are good.	75	54%
2. Time it takes for the machine to warm up is short.	36	26%
3. Time it takes for the machine to turn on from standby is short.	24	17%
4. Machine is small.	18	13%
5. Machine looks user-friendly.	42	30%
6. Machine has the functions I want.	8	6%
7. Machine adopts a low-noise design.	4	3%
8. Machine adopts an energy-saving design.	21	15%
9. Machine is eco-friendly (e.g., the machine is equipped with recyclable toner cartridges, adopts a recyclable design, and reduces environmentally harmful substances).	8	6%
10. Design (color or style) is good.	2	1%
11. Price is reasonable.	32	23%
12. A sales representative recommended the machine.	60	43%
13. Well established maintenance system.	34	25%
14. Patronizing your products for long time	64	46%
15. Other	14	10%

* The rate of environment-friendly functions contributing to gross margin = 6.56% (the percentage of the total number of responses in items 8 and 9 to the total number of responses)

The table on the right shows the results of a survey of our customers in Japan. Another examination conducted was for contribution rates from the viewpoint of customers' willingness to pay (WTP). The table below shows the results of a conjoint analysis, which is a marketing evaluation method. The WTP for 1 kg of CO_2 is ¥1,247.5.

Green Points of Products and Their Contribution Rates to Gross Margin (Specified products only)

Product Type	Green Point	Contribution Rate
imagio Neo 350	25	6.56%
Spirio 5000 RM	24	6.30%
Spirio 7010F	18	4.72%
Spirio 7210F RM	26	6.82%
FT 4500FK	16	4.20%
imagio MF4570	19	4.99%
imagio Neo 450	25	6.56%
imagio MF5570	19	4.99%
imagio MF7070	21	5.51%
imagio MF8570	18	4.72%
imagio MF105 Pro	18	4.72%

Customer's WTP Evaluation Results from a Conjoint Analysis

Item	Evaluation Weight of Efficiency Index	Evaluation Weight of Product Price Unit
Speed (sheets/minute)	0.0013844 (effect/sheet)	2,567.7 (yen/sheet)
Time to start from standby mode (seconds)	0.0023333 (effect/second)	4,327.7 (yen/second)
Electricity bill (thousands of yen/year)	0.0746933 (effect/thousand yen)	138.5 (yen/yen)
Sound while on standby (dB)	0.0027242 (effect/dB)	5,052.8 (yen/dB)
Greenhouse gas (kg-CO_2)	0.0006726 (effect/kg)	1,247.5 (yen/kg)
Price (ten thousands of yen)	0.0053915 (effect/ten thousand yen)	1.0 (yen/yen)

From the results obtained in the table above, it was found that the contribution rate for product types given in the customer satisfaction survey was 7.89%.

The appropriateness of the contribution rate according to the survey is considered verified in terms of WTP.

business activities as a whole suits the company's business size. Thus, the Group is establishing a framework for environmental management accounting[2]. Efficient sustainable management is promoted by identifying the divisions responsible for each product and process as well as measuring and evaluating the effects in those areas.

1. See page 13.
2. See table above.