

Cross-tabulation analysis of consumer questionnaires on digital advertising

<Analysis on Awareness of Opt-Out Configuration and the Terms of Service>

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Summary

In the following sections, we conducted a cross-tabulation of the perception of collected information and the perception of opt out configurations, and the perception of terms of service for each service and the perception of information collected or used in each service, in order to investigate in detail the perception of opt out configurations and to investigate the degree of perception of terms of service by reading terms of service based on questionnaire results ¹ for consumers made in Interim Report Regarding Digital Advertising (Attachment 2). We also conducted Chi-square test and Residual analysis on the cross-tabulation tables to analyze the correlations between responses.

As a result of the analyses, I. even the half of search service or social media users who are aware of the information gathered or used for the purpose of advertising don't know the detail of opt out configuration, and II. Among the users of search and social media services, those who answered that they "read" the terms of service had a higher percentage of awareness and understanding of each of the following six items at the 1% level of significance: (a) the fact that information is provided, (b) collection and use of information for the purpose of displaying advertisements, (c) content of information collected, (d) sharing of information with third parties, (e) use of information linked to personal information, and (f) consent after understanding the information collected and used.

Chi-square test for a cross-tabulation, also called the independence test, is a statistical technique that examines whether the answers to the multiplied questions are associated. If Chi-square test is found to be significant, the answers to the questions on the horizontal axis and the answers to the questions on the vertical axis are interpreted as having some association, rather than being independent. On the other hand, it is not clear from Chi-square test what linkages exist. We therefore analyze the correlations between Chi-square test and Residual analysis when it is determined to be significant.

1. See the Interim Report Regarding Digital Advertising (Attachment 2).

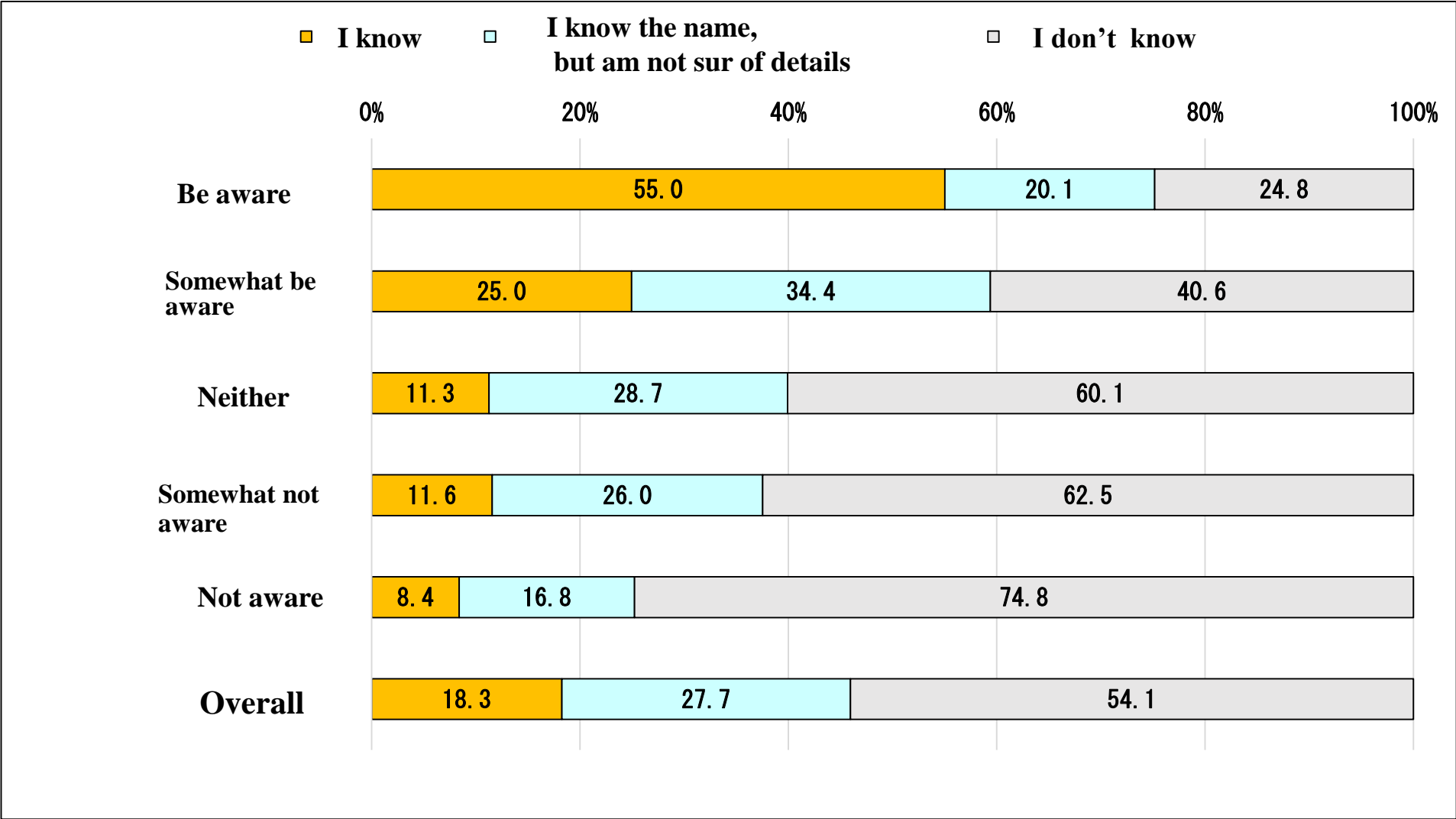
Residual analysis is a method to examine which of the cells in the cross-tabulation tables are significantly larger (or smaller) if it is determined to be significant (correlated) in Chi-square test. Residual analysis determines whether the difference (residual) between the values of the respective cells and the actual values, assuming no correlation, is statistically significant or not.² If Residual analysis determines that the values of some cells are significantly larger (or smaller), the Chi-square test can be interpreted as a result of the cross-tabulation being significant (correlated) because the values of those cells were biased. Even when Residual analysis indicates that the values of some cells are significantly larger (or smaller), they cannot have causality.

In some cross-tabulations, the reliability of the above results may not be assured due to biases in cell values and other factors. Therefore, in analyzing the cross-tabulation tables, Chi-square test and Residual analysis were conducted by adding up similar options (by adding the number of cells to be regarded as one option).

2. Actual analyses determine whether the adjusted residuals that replace the residuals with the same level are statistically significant or not.

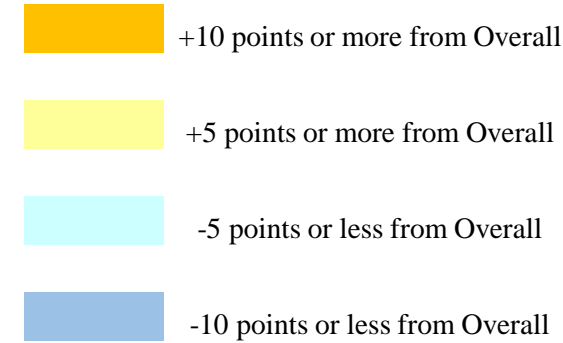
(Head) Q. Some social media offer configurations that do not allow collection and usage of your personal information (“opt out configurations”). Do you know about this function?

(Side) Q. Are you aware of what information is collected or used for displaying advertisements when using social media?



	I know	I know the name, but am not sure of details	I don't know	Horizontal total
Be aware	(n) *** 82	* 30	*** 37	149
	(%) 55.0	20.1	24.8	100.0
Somewhat be aware	*** 145	** 200	*** 236	581
	25.0	34.4	40.6	100.0
Neither	*** 62	158	*** 331	551
	11.3	28.7	60.1	100.0
Somewhat not aware	*** 57	128	*** 308	493
	11.6	26.0	62.5	100.0
Not aware	*** 19	** 38	*** 169	226
	8.4	16.8	74.8	100.0
Overall	365	554	1081	2000
	18.3	27.7	54.1	100.0

(To respondents belonging to the cell
In the case of 30 or more persons



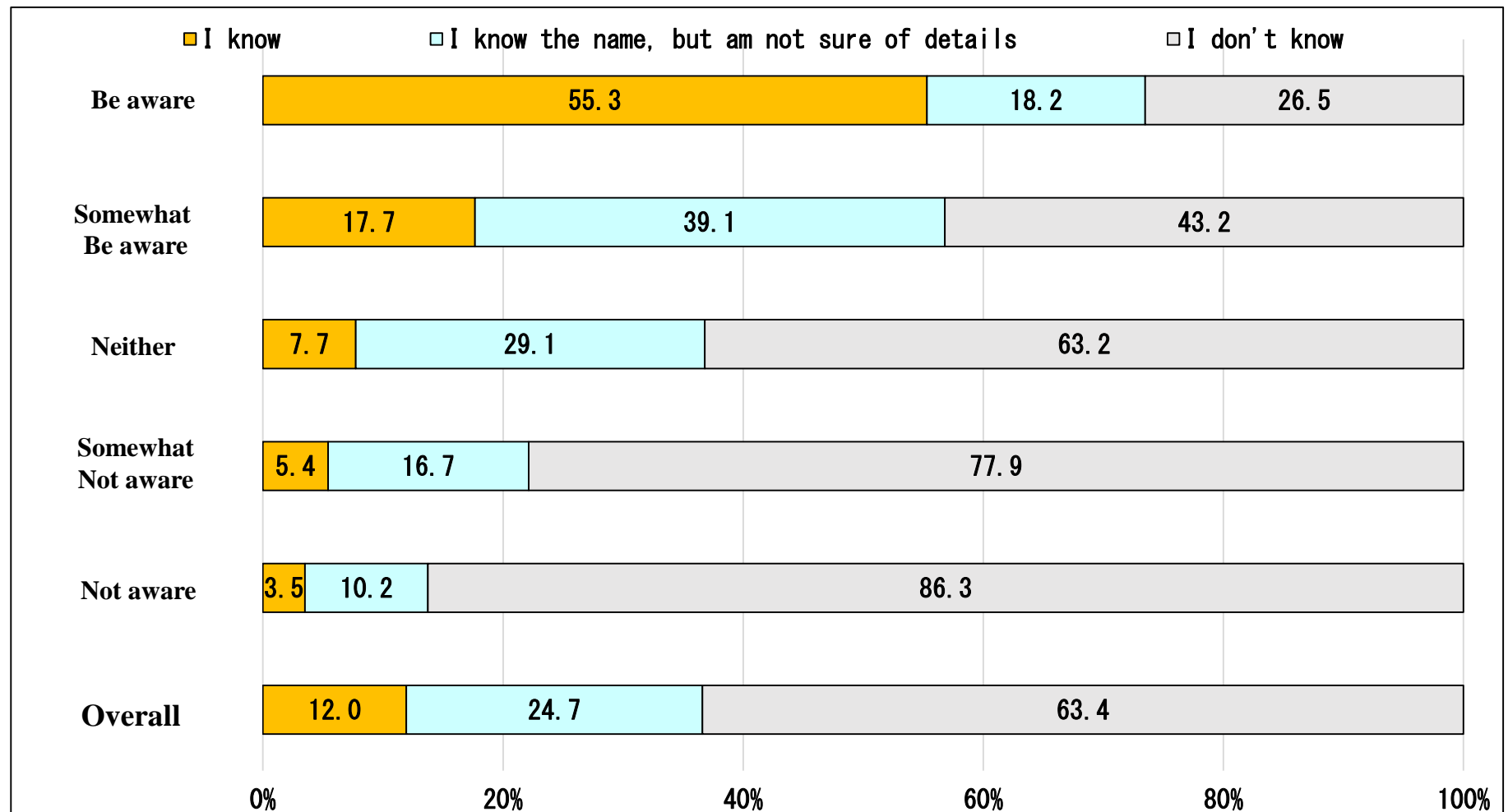
*** Positively significant at the 1% level
 ** Positively significant at the 5% level
 * Positively significant at the 10% level
 *** Negatively significant at the 1% level
 ** Negatively significant at the 5% level
 * Negatively significant at the 10% level

Results

From the above cross-tabulation tables, it was found that even among social media users who responded “Be aware” of the information collected or used for the purpose of advertising display, 45% of them responded “I don’t know” or “I don’t know for details” on opt out configurations. In addition, Chi-square test showed these two responses have correlation (1% significant level, $\chi^2 = 257.67$, 8 degrees of freedom). A Residual analysis showed that a high proportion of respondents selected “Be aware” answered “I know” in terms of opt out configuration for social media services (1% significant level) and conversely a high proportion of respondents selected “Not aware” answered “I don’t know” in terms of opt out configuration for social media services (1% significant level).

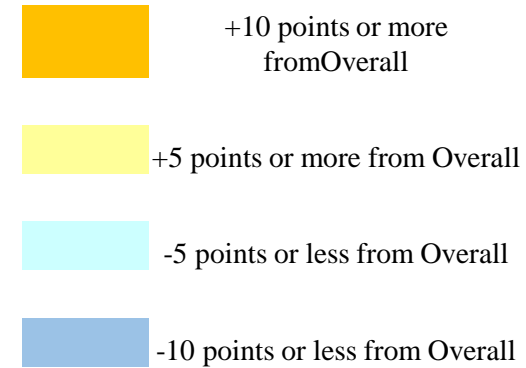
(Head) Q. Some search services offer configurations that do not allow collection and usage of your personal information (“opt out configurations”). Do you know about this function?

(Side) Q. Are you aware of what information is collected or used for displaying advertisements when using search services?



	I know	I know the name, but am not sure of details	I don't know	Horizontal total
Be aware	*** 73 55.3	* 24 18.2	*** 35 26.5	132 100.0
Somewhat be aware	*** 83 17.7	*** 184 39.1	*** 203 43.2	470 100.0
Neither	*** 46 7.7	*** 173 29.1	376 63.2	595 100.0
Somewhat not aware	*** 25 5.4	*** 77 16.7	*** 359 77.9	461 100.0
Not aware	*** 12 3.5	*** 35 10.2	*** 295 86.3	342 100.0
Overall	239 12.0	493 24.7	1268 63.4	2000 100.0

(To respondents belonging to the cell
In the case of 30 or more persons



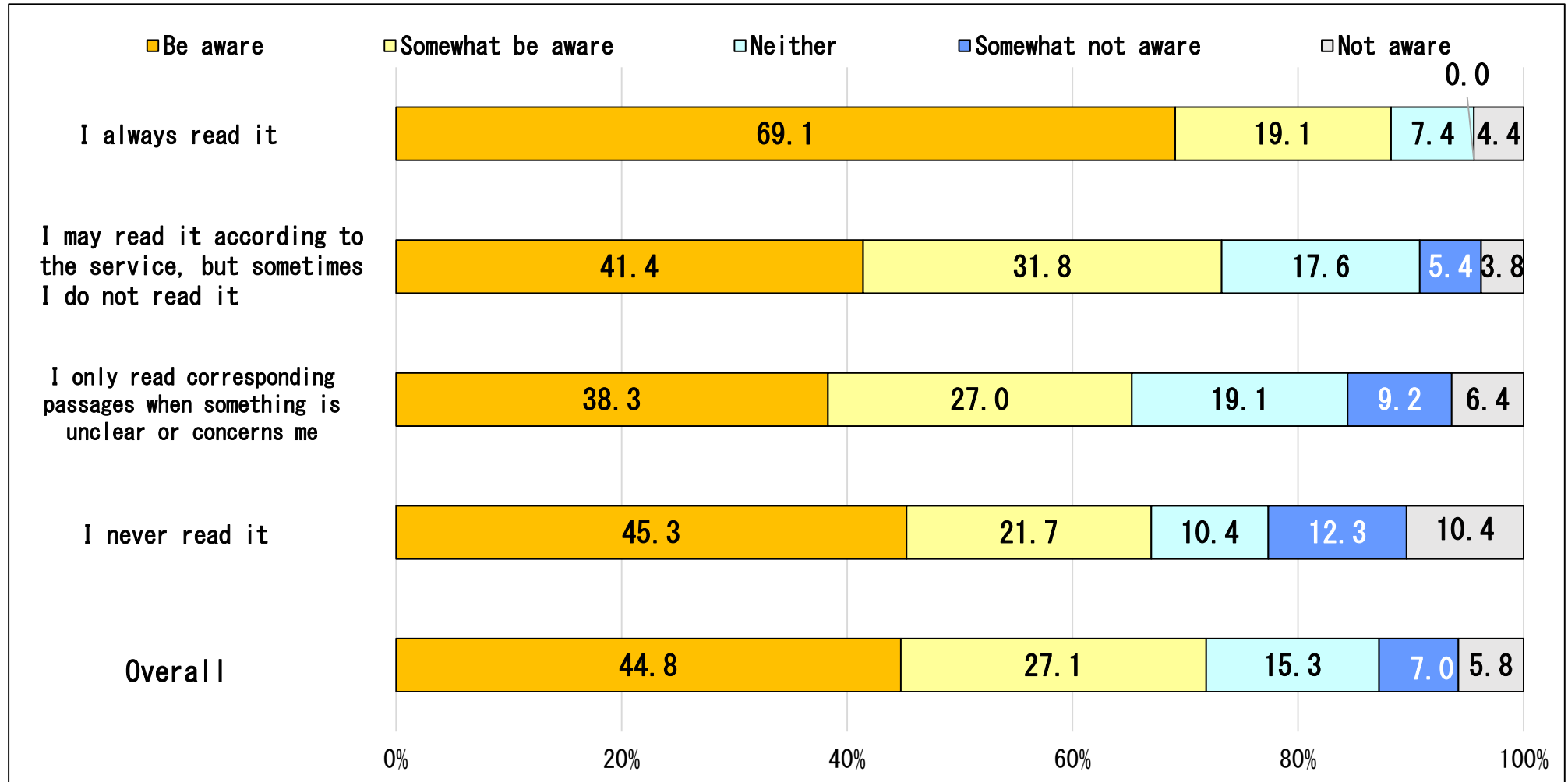
*** Positively significant at the 1% level
 ** Positively significant at the 5% level
 * Positively significant at the 10% level
 *** Negatively significant at the 1% level
 ** Negatively significant at the 5% level
 * Negatively significant at the 10% level

Results

According to the above cross-tabulation tables, even among search service users who responded “Be aware” in terms of the collecting or using information for advertising, about 45% of them responded “I don’t know” or “I am not sure of the details” on opt out configurations. In addition, Chi-square test showed these two responses have correlation (1% significant level, $\chi^2 = 455.84$, 8 degrees of freedom). Residual analysis revealed that a high proportion of respondents selected "Be aware" as the type of information used for advertising answered “I know” in terms of opt out configuration (1% significant level), and conversely, a high proportion of respondents selected "not aware" answered “I don't know” (1% significant level).



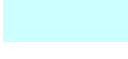

(Head) Q. It is said that although search services are free, they gather user information. Are you aware of the fact that you are offering information to the said service providers when using search services?

(Side) Q. Do you read the terms of service when using search services?



(To respondents belonging to the cell
In the case of 30 or more persons)

	Be aware	Somewhat be aware	Neither	Somewhat not aware	Not aware	Horizontal total
I always read it	*** 47 69.1	13 19.1	* 5 7.4	** 0 0.0	** 3 4.4	68 100.0
I may read it according to the service, but sometimes I do not read it	99 41.4	** 76 31.8	42 17.6	** 13 5.4	** 9 3.8	239 100.0
I only read corresponding passages when something is unclear or concerns me	** 54 38.3	38 27.0	27 19.1	13 9.2	9 6.4	141 100.0
I never read it	48 45.3	23 21.7	11 10.4	*** 13 12.3	*** 11 10.4	106 100.0
Overall	248 44.8	150 27.1	85 15.3	39 7.0	32 5.8	554 100.0

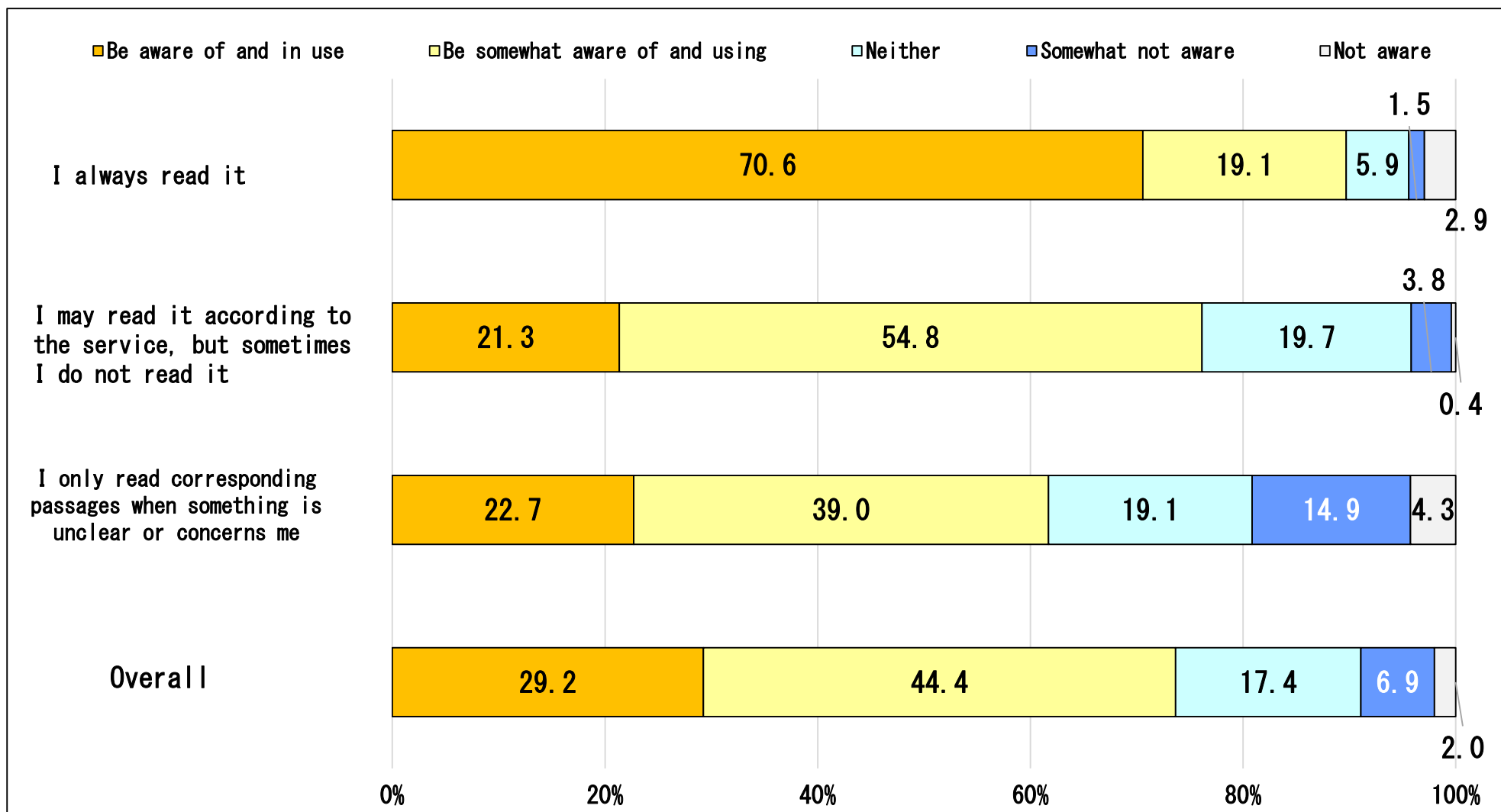
	+10 points or more from Overall
	+5 points or more from Overall
	-5 points or less from Overall
	-10 points or less from Overall
***	Positively significant at the 1% level
**	Positively significant at the 5% level
*	Positively significant at the 10% level
***	Negatively significant at the 1% level
**	Negatively significant at the 5% level
*	Negatively significant at the 10% level

Results

From Chi-square test, it showed these two responses have correlation (1% significant level, $\chi^2 = 37.279$, 9 degrees of freedom). In addition, Residual analysis revealed that many respondents in search service who “always read it (the terms of service)” answered “Be aware” about their provision of information (1% significant level), conversely those who answered “I never read it (the terms of service)” answered "Somewhat not aware" or "not aware" about their provision of information (1% significant level).

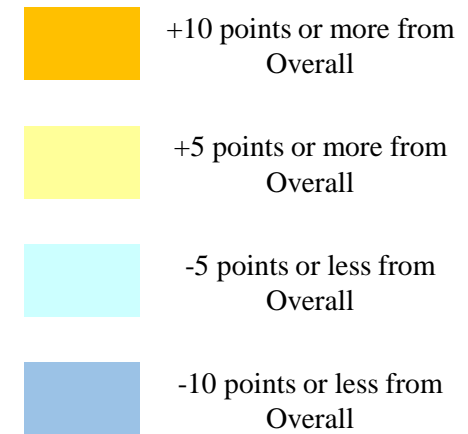
(Head) Q. The terms of service of search services contain the collection and use of a certain amount of user information for the purpose of advertisement display. Are you aware of this when using search services?

(Side) Q. Do you read the terms of service when using search services?



Aggregated

(To respondents belonging to the cell
In the case of 30 or more persons)



*** Positively significant at the 1% level
 ** Positively significant at the 5% level
 * Positively significant at the 10% level
 *** Negatively significant at the 1% level
 ** Negatively significant at the 5% level
 * Negatively significant at the 10% level

	Be aware of and in use	Be somewhat aware of and using	Neither	Somewhat not aware	Not aware	Horizontal total
I always read it	*** 48 70.6	*** 13 19.1	*** 4 5.9	1 1.5	2 2.9	68 100.0
I may read it according to the service, but sometimes I do not read it	*** 51 21.3	*** 131 54.8	47 19.7	*** 9 3.8	*** 1 0.4	239 100.0
I only read corresponding passages when something is unclear or concerns me	** 32 22.7	55 39.0	27 19.1	*** 21 14.9	*** 6 4.3	141 100.0
Overall	131 29.2	199 44.4	78 17.4	31 6.9	9 2.0	448 100.0

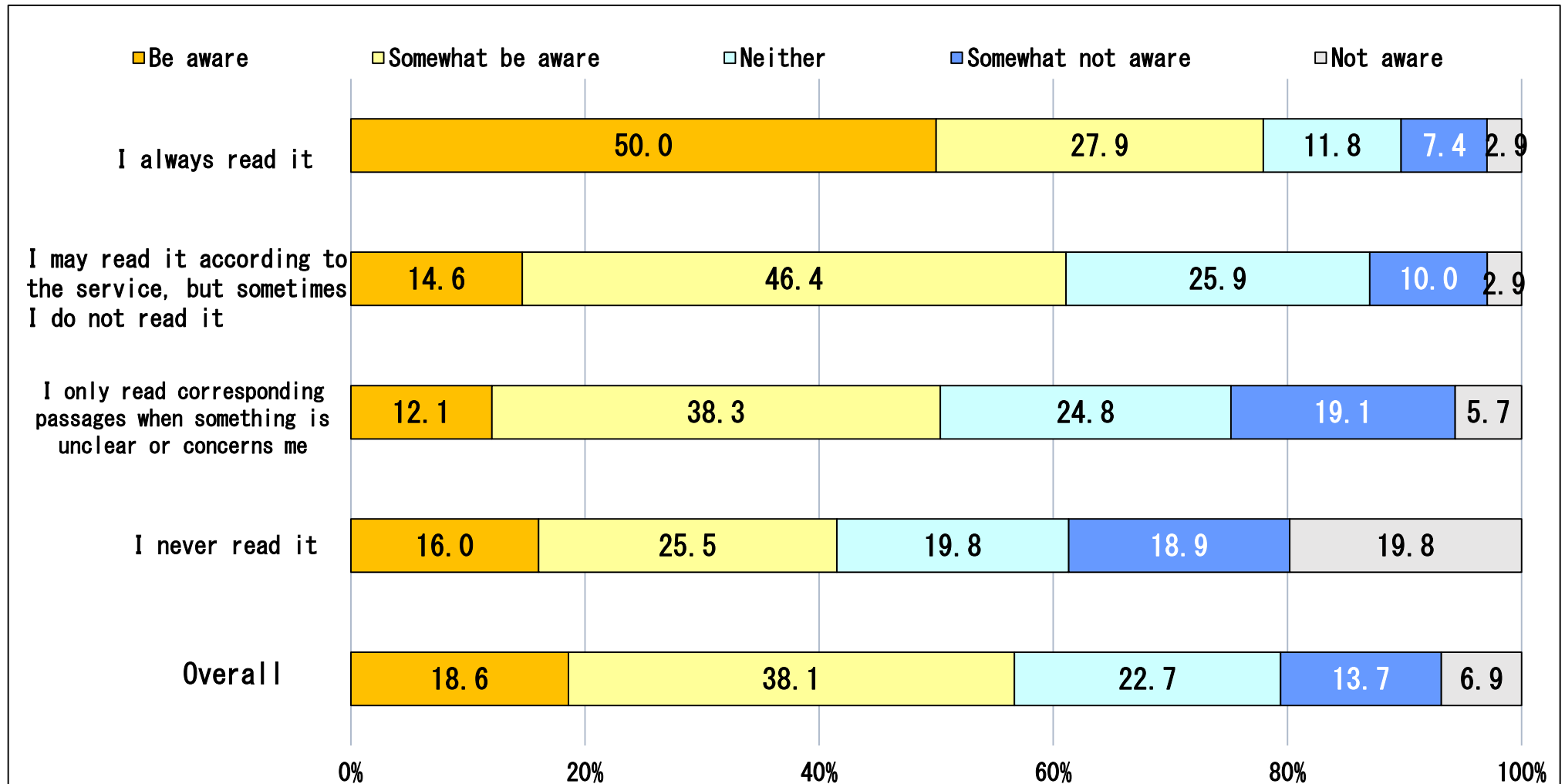
※ Respondents who answered “I never read it (the terms of service)” on the vertical axis do not have the right to answer the questions on the horizontal axis, so the column "I never read it" has been removed from the vertical axis.

Results

Chi-square test showed these two responses have correlation (1% significant level, $\chi^2 = 93.676$, 6 degrees of freedom). A Residual analysis revealed that a high proportion of respondents in search service who selected “I always read it (the terms of service)” answered “Be aware and using” in terms of collection and use of information for advertising (1% significant level). Conversely, a high proportion of respondents who chose “I only read corresponding passages when something is unclear or concerns me” answered “Somewhat not aware” or “not aware” (1% significant level).

(Head) Q. Are you aware of what information is collected or used for displaying advertisements when using search services?





(Side) Q. Do you read the terms of service when using search services?



Aggregated

(To respondents belonging to the cell
In the case of 30 or more persons

	Be aware	Somewhat be aware	Neither	Somewhat not aware	Not aware	Horizontal total
I always read it	*** 34 50.0	** 19 27.9	** 8 11.8	** 5 7.4	** 2 2.9	68 100.0
I may read it according to the service, but sometimes I do not read it	** 35 14.6	*** 111 46.4	62 25.9	*** 24 10.0	*** 7 2.9	239 100.0
I only read corresponding passages when something is unclear or concerns me	** 17 12.1	54 38.3	35 24.8	27 19.1	8 5.7	141 100.0
I never read it	17 16.0	*** 27 25.5	21 19.8	*** 20 18.9	*** 21 19.8	106 100.0
Overall	103 18.6	211 38.1	126 22.7	76 13.7	38 6.9	554 100.0

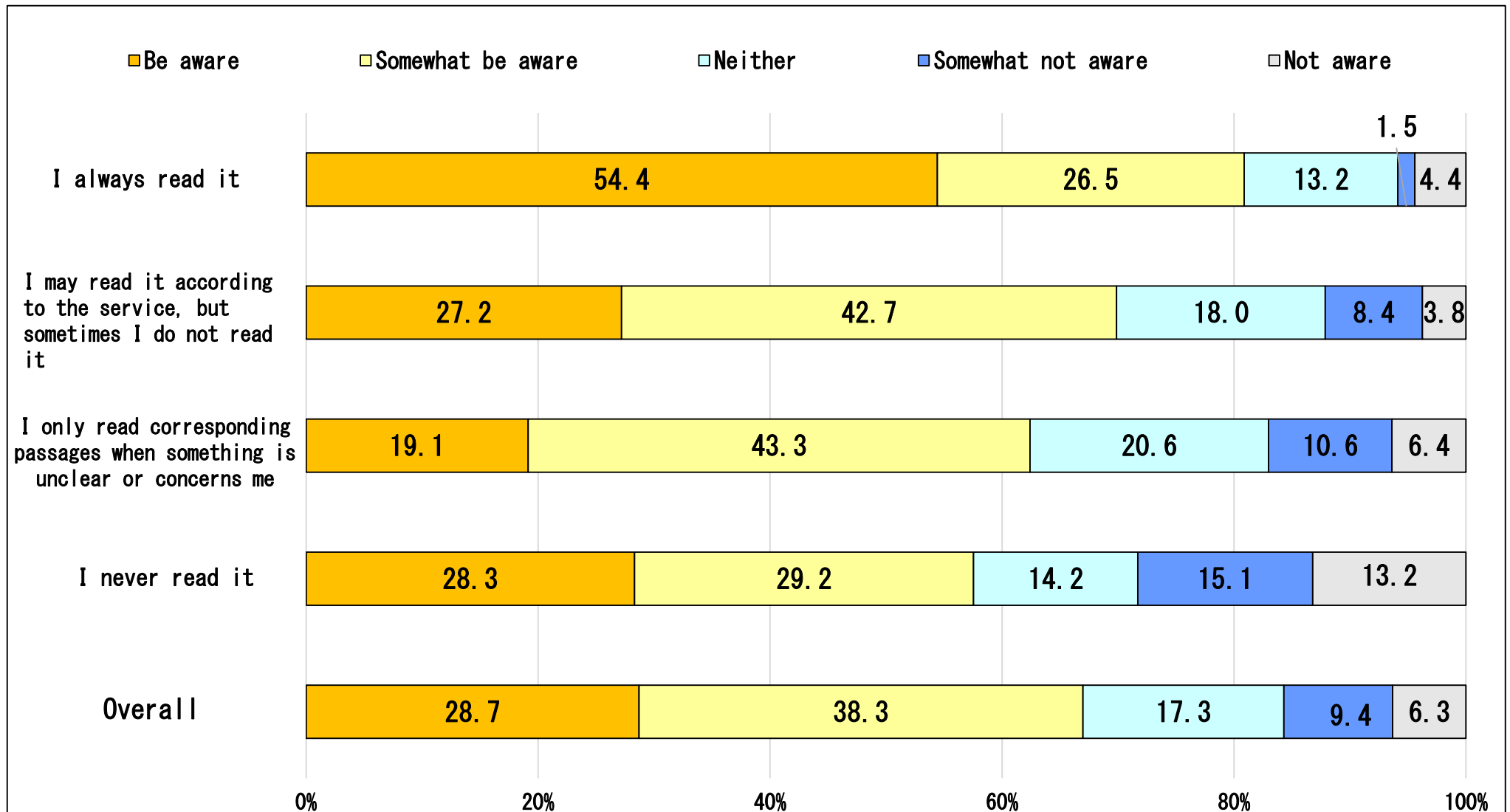
	+10 points or more from Overall
	+5 points or more from Overall
	-5 points or less from Overall
	-10 points or less from Overall
***	Positively significant at the 1% level
**	Positively significant at the 5% level
*	Positively significant at the 10% level
***	Negatively significant at the 1% level
**	Negatively significant at the 5% level
*	Negatively significant at the 10% level

Results

Chi-square test showed these two responses have correlation (1% significant level, $\chi^2 = 86.021$, 9 degrees of freedom). Residual analysis revealed that a high proportion of respondents who selected “I always read it (the terms of service)” answered “Be aware” of what kind of information was collected (1% significant level), and conversely, a high proportion of respondents who selected “I never read it (the terms of service)” answered “Somewhat not aware” or “not aware” of what kind of information was collected (1% significant level).

(Head) Q. Are you aware that the collected information and data are shared with third parties?

(Side) Q. Do you read the terms of service when using search services?



	Aggregated					Horizontal total
	Be aware	Somewhat be aware	Neither	Somewhat not aware	Not aware	
I always read it	*** 37 54.4	** 18 26.5	9 13.2	** 1 1.5	** 3 4.4	68 100.0
I may read it according to the service, but sometimes I do not read it	65 27.2	* 102 42.7	43 18.0	** 20 8.4	** 9 3.8	239 100.0
I only read corresponding passages when something is unclear or concerns me	*** 27 19.1	61 43.3	29 20.6	15 10.6	9 6.4	141 100.0
I never read it	30 28.3	** 31 29.2	15 14.2	*** 16 15.1	*** 14 13.2	106 100.0
Overall	159 28.7	212 38.3	96 17.3	52 9.4	35 6.3	554 100.0

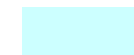
(To respondents belonging to the cell
In the case of 30 or more persons



+10 points or more from Overall



+5 points or more from Overall



-5 points or less from Overall



-10 points or less from Overall

*** Positively significant at the 1% level

** Positively significant at the 5% level

* Positively significant at the 10% level

*** Negatively significant at the 1% level

** Negatively significant at the 5% level

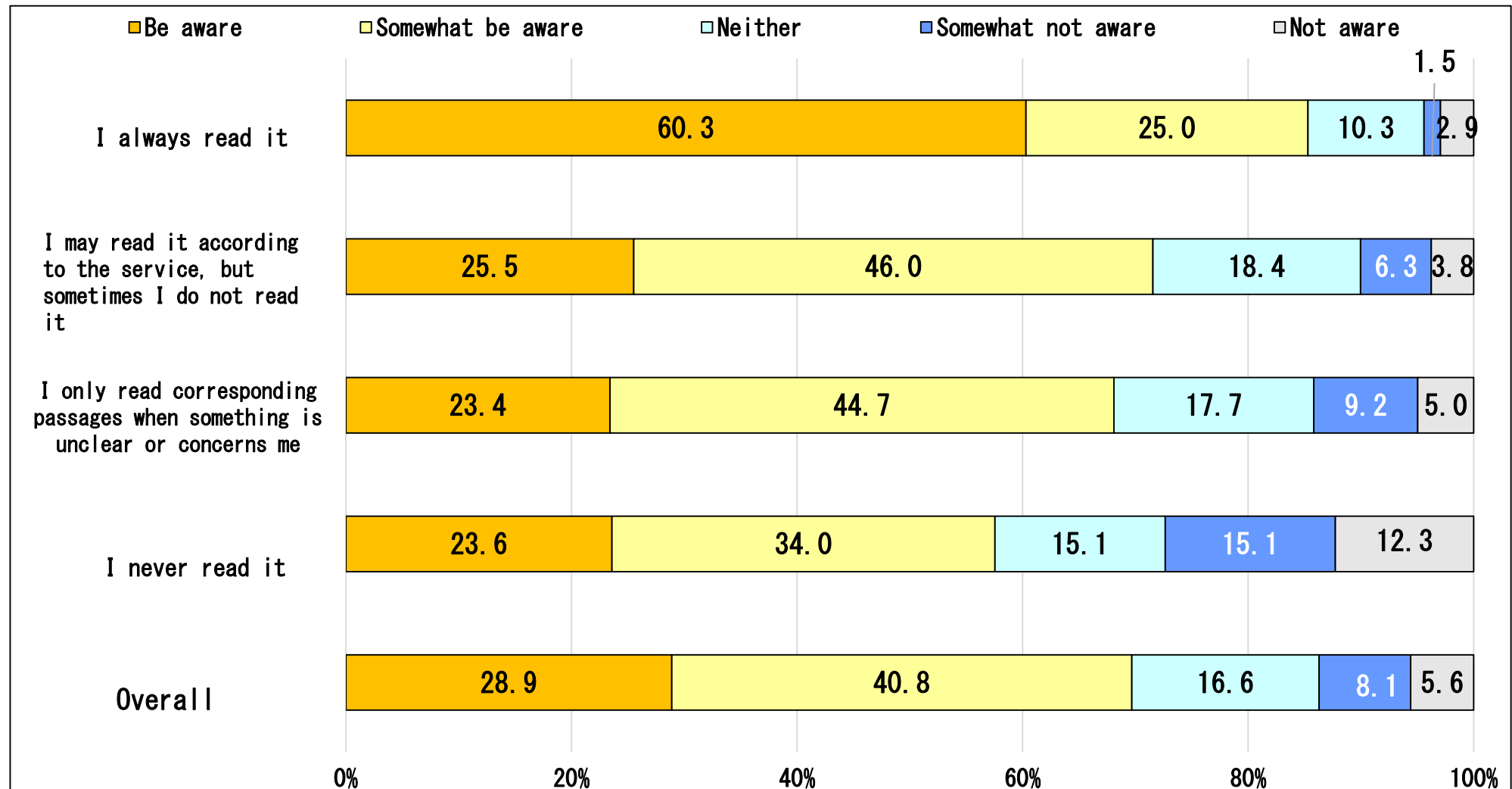
* Negatively significant at the 10% level

Results

Chi-square test showed these two responses have correlation (1% significant level, $\chi^2 = 46.375$, 9 degrees of freedom). A Residual analysis revealed that a high proportion of respondents who selected “I always read it (the terms of service)” in search service answered “Be aware” about the fact that their information was shared with third parties (1% significant level). Conversely, a high proportion of respondents who selected “I never read it (the terms of service)” answered “Somewhat not aware” or “not aware” about the fact that their information was shared with third parties (1% significant level).

(Head) Q. Although the collected information and data is anonymous (such as location information, search history, purchase history), are you aware that this information may be used in connection with your personal information ?

(Side) Q. Do you read the terms of service when using search services?



	Be aware	Somewhat be aware	Neither	Aggregated		Horizontal total
				Somewhat not aware	Not aware	
I always read it	*** 41 60.3	*** 17 25.0	7 10.3	** 1 1.5	** 2 2.9	68 100.0
I may read it according to the service, but sometimes I do not read it	61 25.5	** 110 46.0	44 18.4	** 15 6.3	** 9 3.8	239 100.0
I only read corresponding passages when something is unclear or concerns me	33 23.4	63 44.7	25 17.7	13 9.2	7 5.0	141 100.0
I never read it	25 23.6	36 34.0	16 15.1	*** 16 15.1	*** 13 12.3	106 100.0
Total	160 28.9	226 40.8	92 16.6	45 8.1	31 5.6	554 100.0

(To respondents belonging to the cell
In the case of 30 or more persons

+10 points or more from Overall

+5 points or more from Overall

-5 points or less from Overall

-10 points or less from Overall

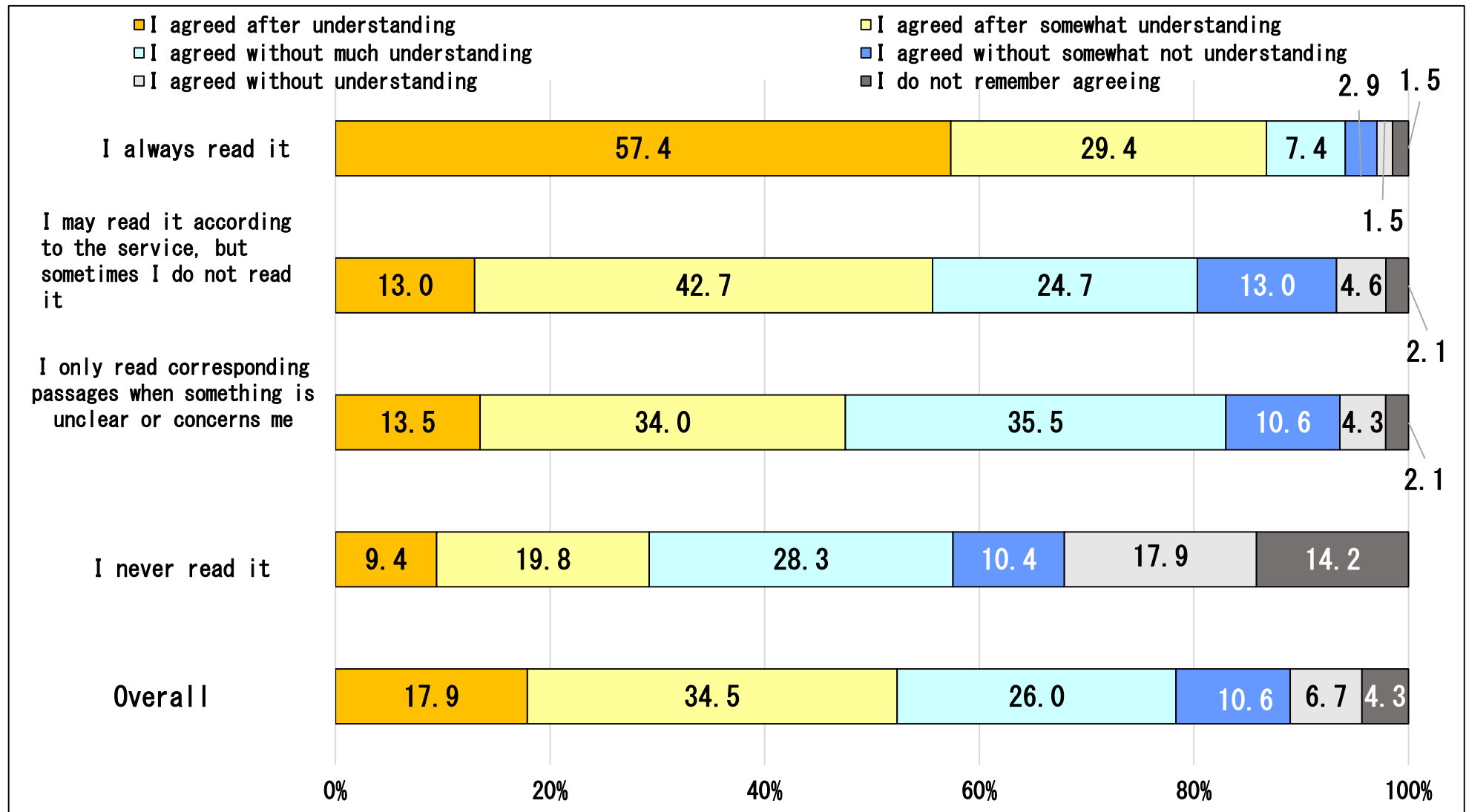
*** Positively significant at the 1% level
** Positively significant at the 5% level
* Positively significant at the 10% level
*** Negatively significant at the 1% level
** Negatively significant at the 5% level
* Negatively significant at the 10% level

Results

Chi-square test showed these two responses have correlation (1% significant level, $\chi^2 = 57.556$, 9 degrees of freedom). Residual analysis showed that search service users who selected “I always read it (the terms of service)” were more likely to answer “Be aware” that this information may be linked to your personal information (1% significant level), whereas users who selected “I never read it (the terms of service)” were more likely to answer “Somewhat not aware” or “Not aware” (1% significant level).

(Head) Q. When agreeing to terms of services for search services, are you aware of what type of information is collected or used for advertisement display?

(Side) Q. Do you read the terms of service when using search services?



Aggregated

(To respondents belonging to the cell
In the case of 30 or more persons

+10 points or more from Overall

+5 points or more from Overall

-5 points or less from Overall

-10 points or less from Overall

*** Positively significant at the 1% level

** Positively significant at the 5% level

* Positively significant at the 10% level

*** Negatively significant at the 1% level

** Negatively significant at the 5% level

* Negatively significant at the 10% level

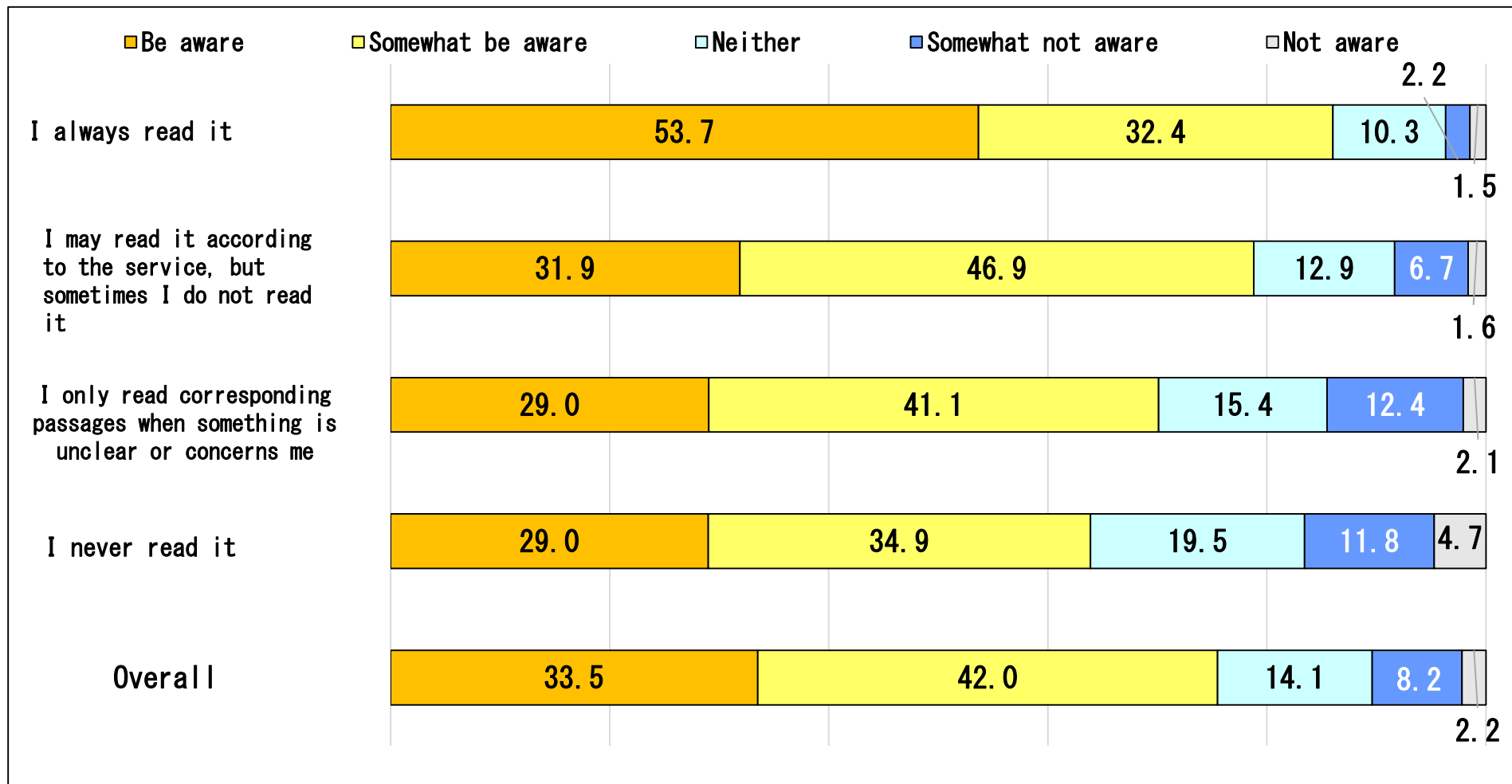
	I agreed after understanding	I agreed after somewhat understanding	I agreed without much understanding	I agreed without somewhat not understanding	I agreed without understanding	I do not remember agreeing	Horizontal total
I always read it	*** 39 57.4	20 29.4	*** 5 7.4	** 2 2.9	** 1 1.5	** 1 1.5	68 100.0
I may read it according to the service, but sometimes I do not read it	*** 31 13.0	*** 102 42.7	59 24.7	31 13.0	*** 11 4.6	*** 5 2.1	239 100.0
I only read corresponding passages when something is unclear or concerns me	19 13.5	48 34.0	*** 50 35.5	15 10.6	** 6 4.3	** 3 2.1	141 100.0
I never read it	** 10 9.4	*** 21 19.8	30 28.3	11 10.4	*** 19 17.9	*** 15 14.2	106 100.0
Total	99 17.9	191 34.5	144 26.0	59 10.6	37 6.7	24 4.3	554 100.0

Results

Chi-square test showed these two responses have correlation (1% significant level, $\chi^2 = 152.93$ and 12 degrees of freedom). A Residual analysis showed that a high proportion of search service users who answered “I always read it (the terms of service)” selected “I agreed after understanding” in terms of what type of information is collected or used for advertising (1% significant level). Conversely, a high proportion of respondents who selected “I never read it (the terms of service)” answered “I agreed without understanding” or “I do not remember agreeing”(1% significant level).

(Head) Q. Are you aware of the fact that you are offering information to the said service providers when using social media?

(Side) Q. Do you read the terms of service when using social media?



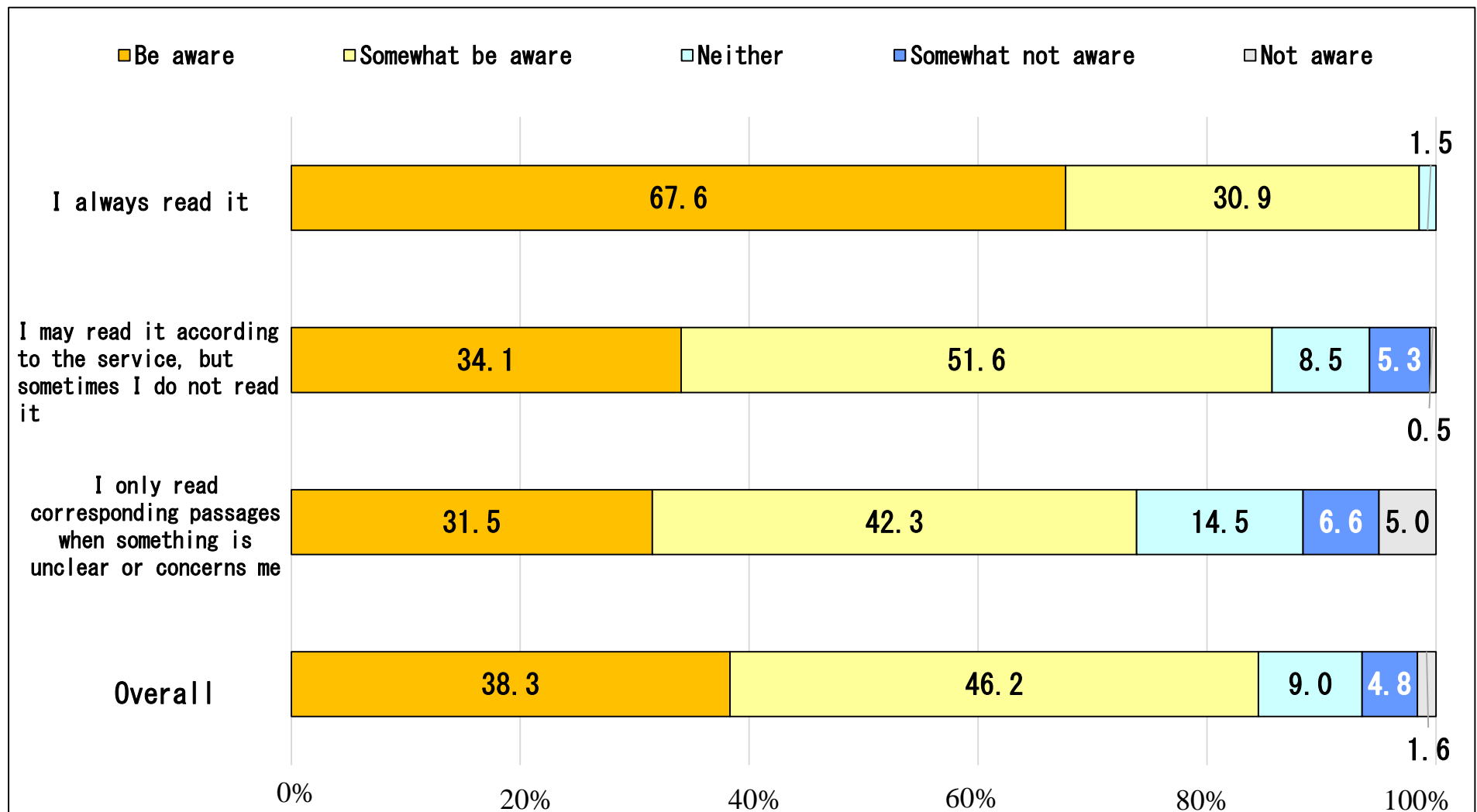
Aggregated							(To respondents belonging to the cell In the case of 30 or more persons
	Be aware	Somewhat be aware	Neither	Somewhat not aware	Not aware	Horizontal total	
I always read it	*** 73	** 44	14	*** 3	*** 2	136	<div>+10 points or more from Overall</div>
	53.7	32.4	10.3	2.2	1.5	100.0	
I may read it according to the service, but sometimes I do not read it	176	*** 259	71	** 37	** 9	552	<div>+5 points or more from Overall</div>
	31.9	46.9	12.9	6.7	1.6	100.0	
I only read corresponding passages when something is unclear or concerns me	* 70	99	37	** 30	** 5	241	<div>-5 points or less from Overall</div>
	29.0	41.1	15.4	12.4	2.1	100.0	
I never read it	49	** 59	** 33	*** 20	*** 8	169	<div>-10 points or less from Overall</div>
	29.0	34.9	19.5	11.8	4.7	100.0	
Overall	368	461	155	90	24	1098	<div>*** Positively significant at the 1% level</div> <div>** Positively significant at the 5% level</div> <div>* Positively significant at the 10% level</div> <div>*** Negatively significant at the 1% level</div> <div>** Negatively significant at the 5% level</div> <div>* Negatively significant at the 10% level</div>
	33.5	42.0	14.1	8.2	2.2	100.0	

Results

Chi-square test showed these two responses have correlation (1% significant level, $\chi^2 = 51.786$, 9 degrees of freedom). Residual analysis revealed that a high proportion of social media service users who selected “I always read it (the terms of service)” answered “Be aware” of their own information provision (1% significant level), while a high proportion of those who selected “I never read it (the terms of service)” answered “Somewhat not aware” or “Not aware” of their own information provision (1% significant level).

(Head) Q. The terms of service of social media contain the collection and use of a certain amount of user information for the purpose of advertisement display. Are you aware of this when creating an account on social media?

(Side) Q. Do you read the terms of service when using social media?



Aggregated							(To respondents belonging to the cell In the case of 30 or more persons
	Be aware	Somewhat be aware	Neither	Somewhat not aware	Not aware	Horizontal total	
I always read it	*** 92 67.6	*** 42 30.9	*** 2 1.5	*** 0 0.0	*** 0 0.0	136 100.0	+10 points or more from Overall
I may read it according to the service, but sometimes I do not read it	*** 188 34.1	*** 285 51.6	47 8.5	29 5.3	3 0.5	552 100.0	+5 points or more from Overall
I only read corresponding passages when something is unclear or concerns me	** 76 31.5	102 42.3	*** 35 14.5	*** 16 6.6	*** 12 5.0	241 100.0	-5 points or less from Overall
Overall	356 38.3	429 46.2	84 9.0	45 4.8	15 1.6	929 100.0	-10 points or less from Overall

*** Positively significant at the 1% level

** Positively significant at the 5% level

* Positively significant at the 10% level

*** Negatively significant at the 1% level

** Negatively significant at the 5% level

* Negatively significant at the 10% level

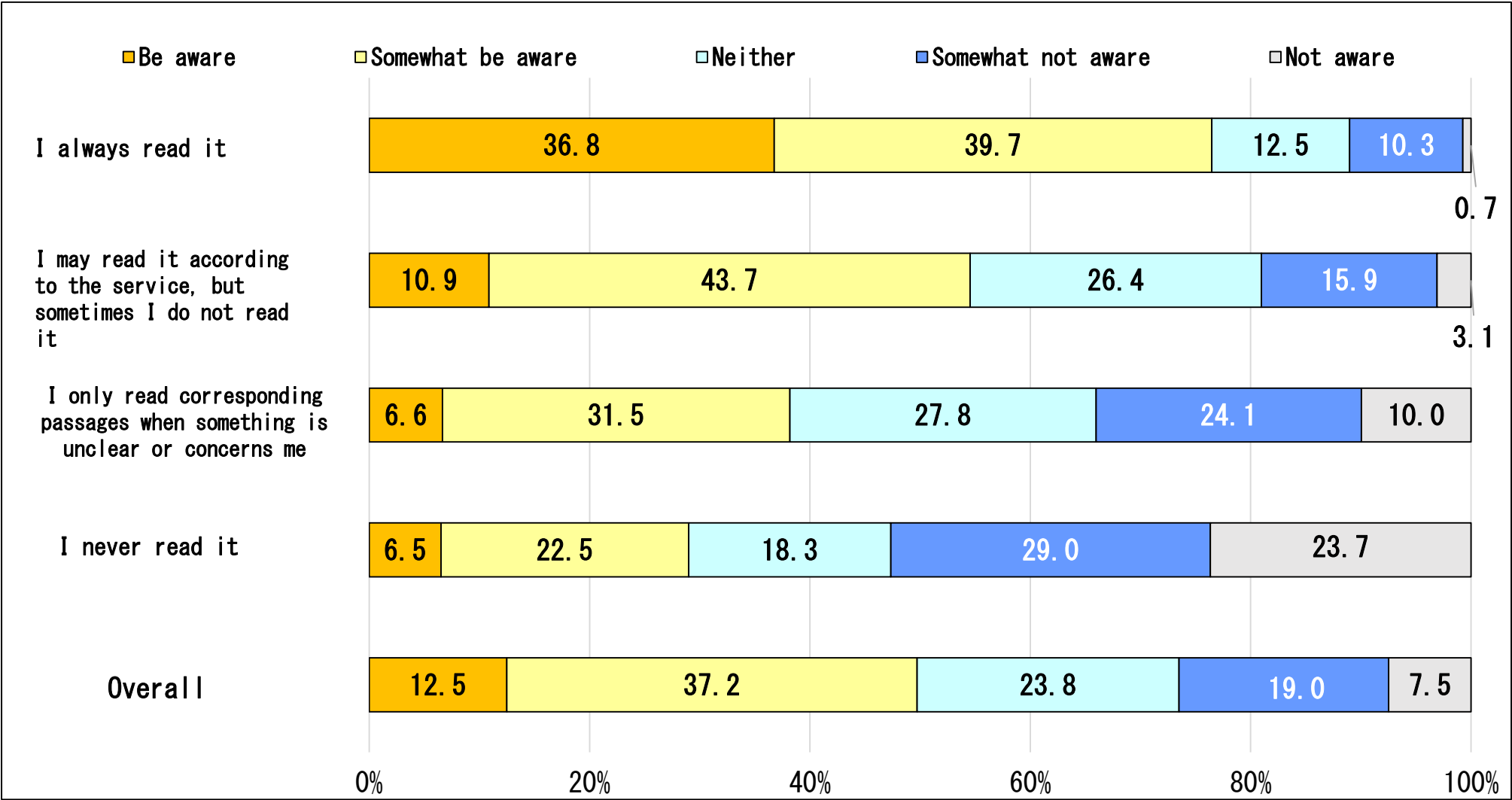
※ Respondents who answered "I never read it (the terms of service)" on the vertical axis do not have the right to answer the questions on the horizontal axis, so the column "I never read it" has been removed from the vertical axis.

Results

Chi-square test showed these two responses have correlation (1% significant level, $\chi^2 = 83.145$, 6 degrees of freedom). A Residual analysis showed that high proportion of social media service users who selected "I always read it (the terms of service)" selected "Be aware" when creating an account on social media (1% significant level), and on the other hand, users who selected "I only read corresponding passages when something is unclear or concerns me" answered "Somewhat not aware" or "Not aware" (1% significant level).

(Head) Q. Are you aware of what information is collected or used for displaying advertisements when using social media?

(Side) Q. Do you read the terms of service when using social media?



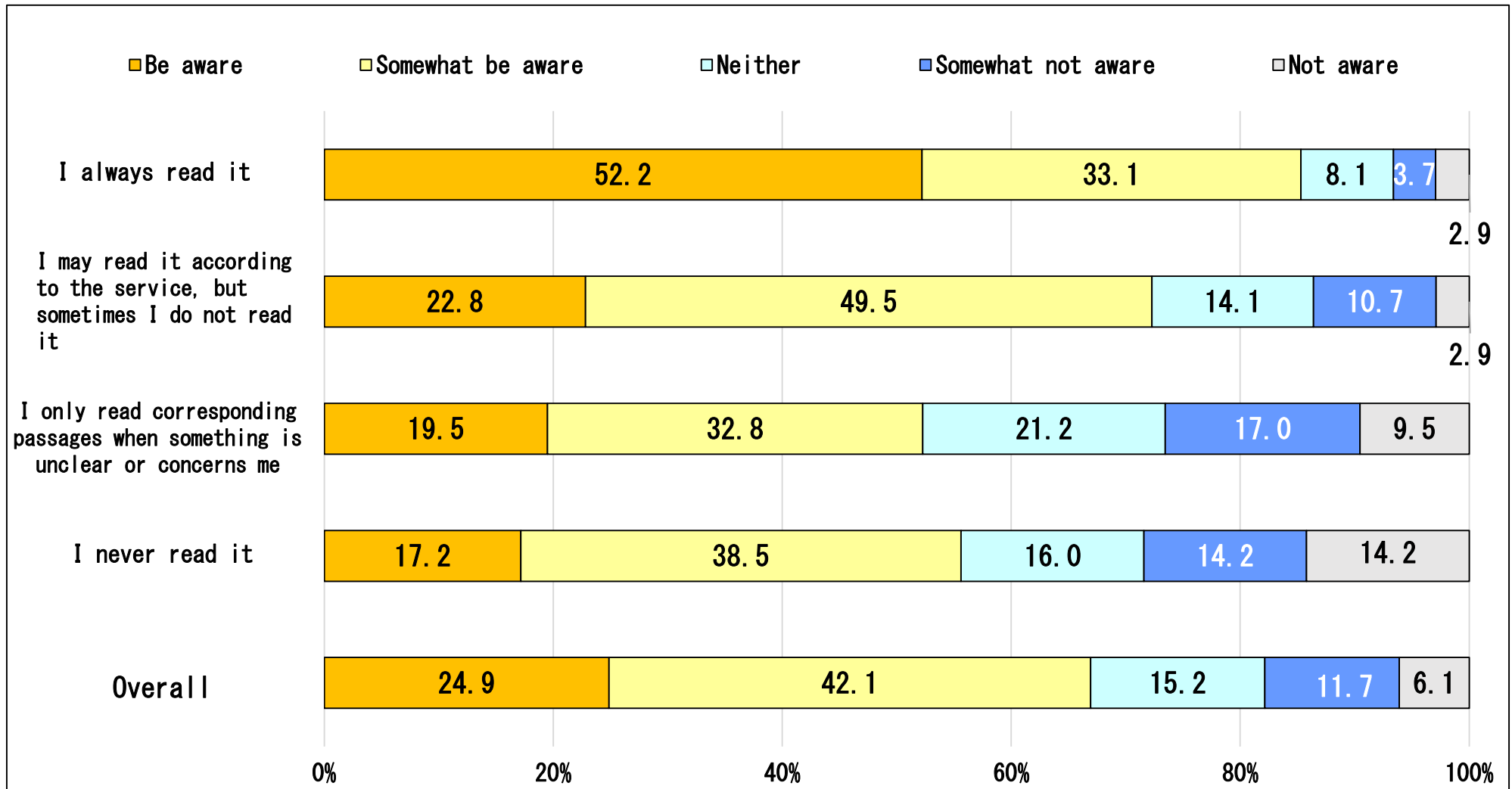
	Be aware	Somewhat be aware	Neither	Somewhat not aware	Not aware	Horizontal total	(To respondents belonging to the cell In the case of 30 or more persons
I always read it	*** 50 36.8	54 39.7	*** 17 12.5	*** 14 10.3	*** 1 0.7	136 100.0	+10 points or more from Overall
I may read it according to the service, but sometimes I do not read it	60 10.9	*** 241 43.7	** 146 26.4	** 88 15.9	*** 17 3.1	552 100.0	+5 points or more from Overall
I only read corresponding passages when something is unclear or concerns me	*** 16 6.6	** 76 31.5	* 67 27.8	** 58 24.1	* 24 10.0	241 100.0	-5 points or less from Overall
I never read it	** 11 6.5	*** 38 22.5	* 31 18.3	*** 49 29.0	*** 40 23.7	169 100.0	-10 points or less from Overall
Overall	137 12.5	409 37.2	261 23.8	209 19.0	82 7.5	1098 100.0	*** Positively significant at the 1% level ** Positively significant at the 5% level * Positively significant at the 10% level *** Negatively significant at the 1% level ** Negatively significant at the 5% level * Negatively significant at the 10% level

Results

Chi-square test showed these two responses have correlation (1% significant level, $\chi^2 = 211.96$ and 12 degrees of freedom). Residual analysis showed that high proportion of social media service users who selected “I always read it (the terms of service)” answered “Be aware” in terms of what information is collected and used for advertising display (1% significant level), while high proportion of social media service users who selected “I never read it (the terms of service)” answered “Somewhat not aware” or “Not aware” (1% significant level).



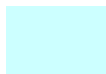

(Head) Q. Are you aware that the collected information and data is shared with third parties?

(Side) Q. Do you read the terms of service when using social media?



	Be aware	Somewhat be aware	Neither	Somewhat not aware	Not aware	Horizontal total
I always read it	*** 71 52.2	** 45 33.1	** 11 8.1	*** 5 3.7	* 4 2.9	136 100.0
I may read it according to the service, but sometimes I do not read it	126 22.8	*** 273 49.5	78 14.1	59 10.7	*** 16 2.9	552 100.0
I only read corresponding passages when something is unclear or concerns me	** 47 19.5	*** 79 32.8	*** 51 21.2	*** 41 17.0	** 23 9.5	241 100.0
I never read it	** 29 17.2	65 38.5	27 16.0	24 14.2	*** 24 14.2	169 100.0
Overall	273 24.9	462 42.1	167 15.2	129 11.7	67 6.1	1098 100.0

(To respondents belonging to the cell
In the case of 30 or more persons

	+10 points or more from Overall
	+5 points or more from Overall
	-5 points or less from Overall
	-10 points or less from Overall

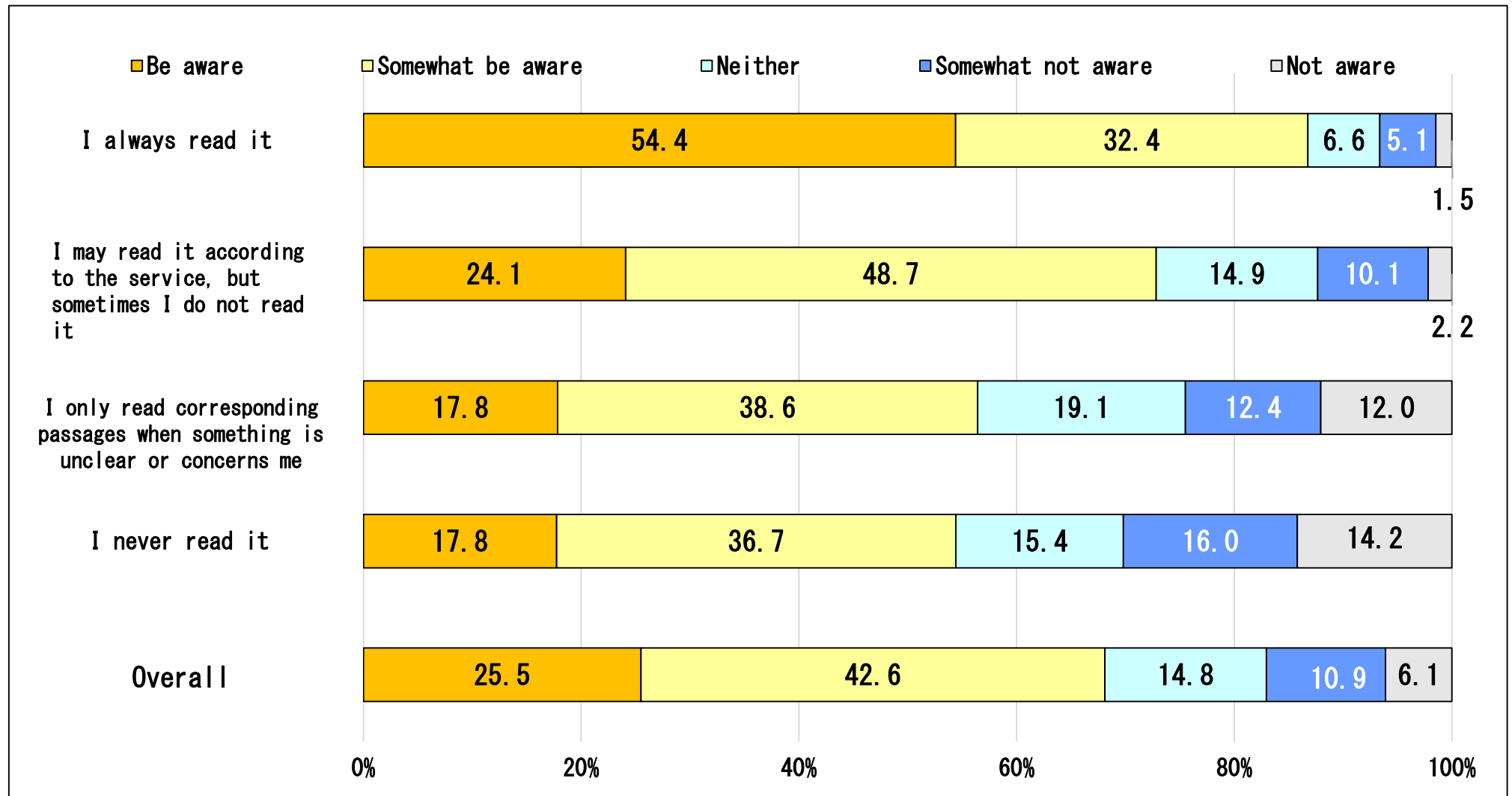
***	Positively significant at the 1% level
**	Positively significant at the 5% level
*	Positively significant at the 10% level
***	Negatively significant at the 1% level
**	Negatively significant at the 5% level
*	Negatively significant at the 10% level

Results


Chi-square test showed these two responses have correlation (1% significant level, $\chi^2 = 123.48$, 12 degrees of freedom). Residual analysis revealed that high proportion of social media service users who selected “I always read it (the terms of service)” answered “Be aware” in terms of information sharing with third parties (1% significant level). Conversely, high proportion of users who selected “I never read it (the terms of service)” answered “Somewhat not aware” or “Not aware” (1% significant level).


(Head) Q. Although the collected information and data is anonymous, are you aware that this information may be linked to your personal information ?


(Side) Q. Do you read the terms of service when using social media?




(To respondents belonging to the cell
In the case of 30 or more persons

 +10 points or more from Overall

 +5 points or more from Overall

 -5 points or less from Overall

 -10 points or less from Overall

*** Positively significant at the 1% level

** Positively significant at the 5% level

* Positively significant at the 10% level

*** Negatively significant at the 1% level

** Negatively significant at the 5% level

* Negatively significant at the 10% level

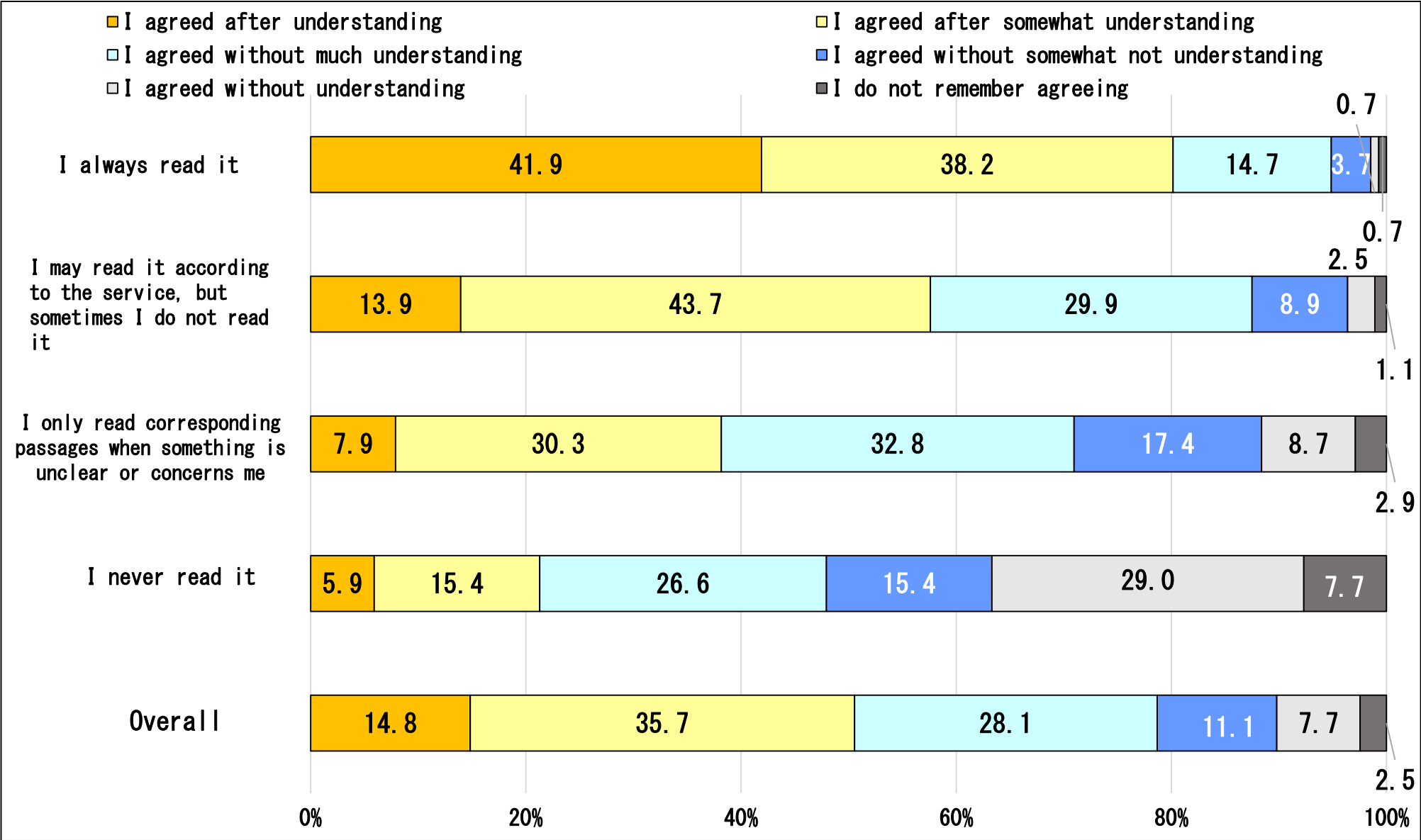
	Be aware	Somewhat be aware	Neither	Somewhat not aware	Not aware	Horizontal total
I always read it	*** 74 54.4	*** 44 32.4	*** 9 6.6	** 7 5.1	** 2 1.5	136 100.0
I may read it according to the service, but sometimes I do not read it	133 24.1	*** 269 48.7	82 14.9	56 10.1	*** 12 2.2	552 100.0
I only read corresponding passages when something is unclear or concerns me	*** 43 17.8	93 38.6	** 46 19.1	30 12.4	*** 29 12.0	241 100.0
I never read it	** 30 17.8	* 62 36.7	26 15.4	** 27 16.0	*** 24 14.2	169 100.0
Overall	280 25.5	468 42.6	163 14.8	120 10.9	67 6.1	1098 100.0

Results

Chi-square test showed these two responses have correlation (1% significant level, $\chi^2 = 133.92$, 12 degrees of freedom). Residual analysis showed that high proportion of social media users who selected “I always read it (the terms of service)” answered “Be aware” (1% significant level). Conversely, high proportion of social media users who selected “I never read it (the terms of service)” answered “Not aware” (1% significant level).

(Head) Q. When agreeing to terms of services for social media, are you aware of what type of information is collected and used for advertisement display?

(Side) Q. Do you read the terms of service when using social media?



	I agreed after understanding	I agreed after somewhat understanding	I agreed without much understanding	I agreed without somewhat not understanding	Aggregated		Horizontal total	
					I agreed without understanding	I do not remember agreeing		
I always read it	*** 57 41.9	52 38.2	*** 20 14.7	*** 5 3.7	*** 1 0.7	*** 1 0.7	136 100.0	+10 points or more from Overall
I may read it according to the service, but sometimes I do not read it	77 13.9	*** 241 43.7	165 29.9	** 49 8.9	*** 14 2.5	*** 6 1.1	552 100.0	+5 points or more from Overall
I only read corresponding passages when something is unclear or concerns me	*** 19 7.9	** 73 30.3	* 79 32.8	*** 42 17.4	21 8.7	7 2.9	241 100.0	-5 points or less from Overall
I never read it	*** 10 5.9	*** 26 15.4	45 26.6	* 26 15.4	*** 49 29.0	*** 13 7.7	169 100.0	-10 points or less from Overall
Overall	163 14.8	392 35.7	309 28.1	122 11.1	85 7.7	27 2.5	1098 100.0	

(To respondents belonging to the cell
In the case of 30 or more persons

*** Positively significant at the 1% level
(Large number of people)

** Positively significant at the 5% level

* Positively significant at the 10% level

*** Negatively significant at the 1% level
(the number of people is small)

** Negatively significant at the 5% level

* Negatively significant at the 10% level

Results

Chi-square test showed these two responses have correlation (1% significant level, $\chi^2 = 298.16$, 12 degrees of freedom). Residual analysis showed that a high proportion of social media service users who selected “I always read it (the terms of service)” answered “I agreed after understanding” in terms of information which is collected or used for advertising (1% significant level). Conversely, a high proportion of social media service users who selected “I never read it (the terms of service)” answered “I agreed without understanding” or “I do not remember agreeing” (1% significant level).