

## **Appendix 3:** **Statistical analysis**



This Appendix presents the statistical analysis conducted on the general and specific questions. It is articulated in two main parts: Part 1 illustrates the statistical elaboration of the responses relating to the general questions of the survey; whilst Part 2 showcases the statistical examination carried out on the survey responses inherent to specific intangibles.

As mentioned in the main body of the research, two testing methods were applied: Chi-square test for categorical responses and ANOVA test (analysis of variance) for numeric responses.

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### **Only case study 2**

Q.57: In the case of adoption by the company of an annual fair value determination for internally generated intangible assets (see previous question), what would be your preferred option for treating the yearly change/variation in these fair values? **46**

### **Only case study 3**

Q.51: In your opinion, to what extent would it be useful for your decision making and assessments to have more information available on company's stakeholder engagement? **47**

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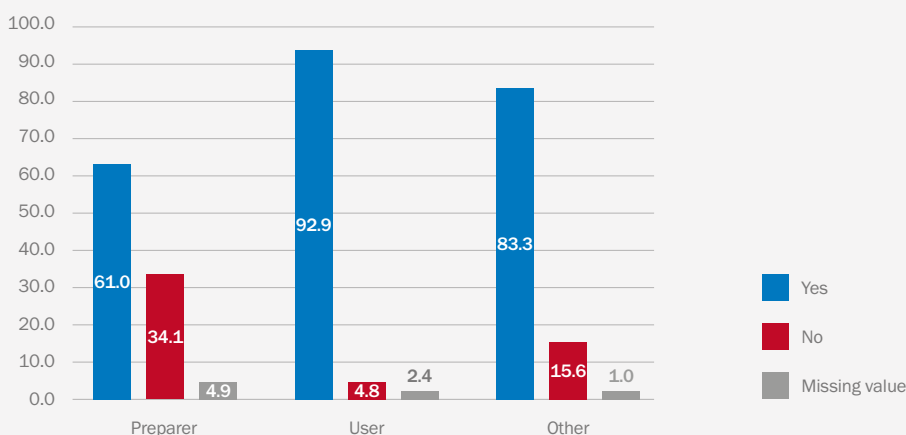
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# Part 1: General questions

In this part, each of the responses to questions from 10 to 21 is studied through a distribution graph by current professional occupation and an associated commentary. The related p-value is analysed by employing a Chi-square test. In some cases (questions 11, 13 and 14) the distribution of responses is further deepened by investigating its relationship with personal and professional variables other than professional occupation. For question 19, ANOVA test has been used to further explore the responses.

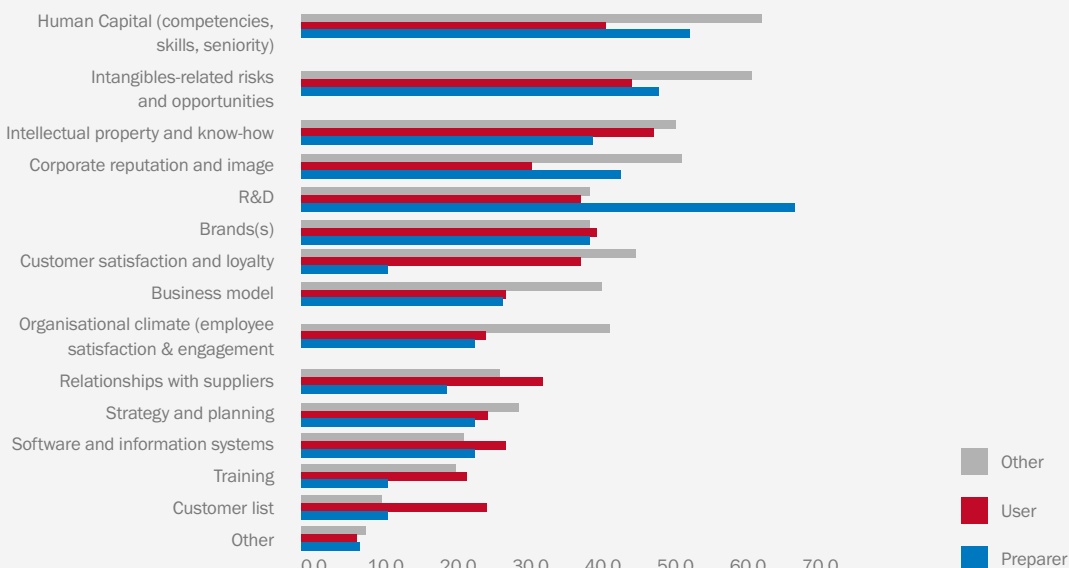
## Q10: In your opinion, is there any useful information on intangibles that is missing from today's financial reporting (reference to IAS 38)?

Percentage distribution of answers to question Q10 by current professional occupation.



'Users' are those manifesting more dissatisfaction in relation to information on intangibles perceived as useful not captured by financial reporting in accordance with IAS 38 (92.9%), followed by 'others' (83.3%) and 'preparers' (61.0%). This is confirmed by the result of the Chi-square test (p-value 0.001).

## Q.11: In your opinion, which is the most important information missing? Percentage distribution of answers to Q11 by current professional occupation.



## Distribution of responses by some professional and personal variables

	Customer satisfaction and loyalty	Customer list
preparer (e.g., CFO, CAO)	11,5	11,5
user (financial analyst/investor)	42,9	28,6
other (e.g., auditor, professional, academic, member of an institution)	43,4	10,5

	R&D	Strategy and planning	Business Model	Customer satisfaction and loyalty
less than 30 years	0,0	0,0	0,0	0,0
30-39	56,5	17,4	30,4	13,0
40-49	46,7	10,0	16,7	30,0
50-59	48,9	36,2	46,8	48,9
60-69	34,8	39,1	47,8	47,8
70 and over	9,1	45,5	18,2	45,5

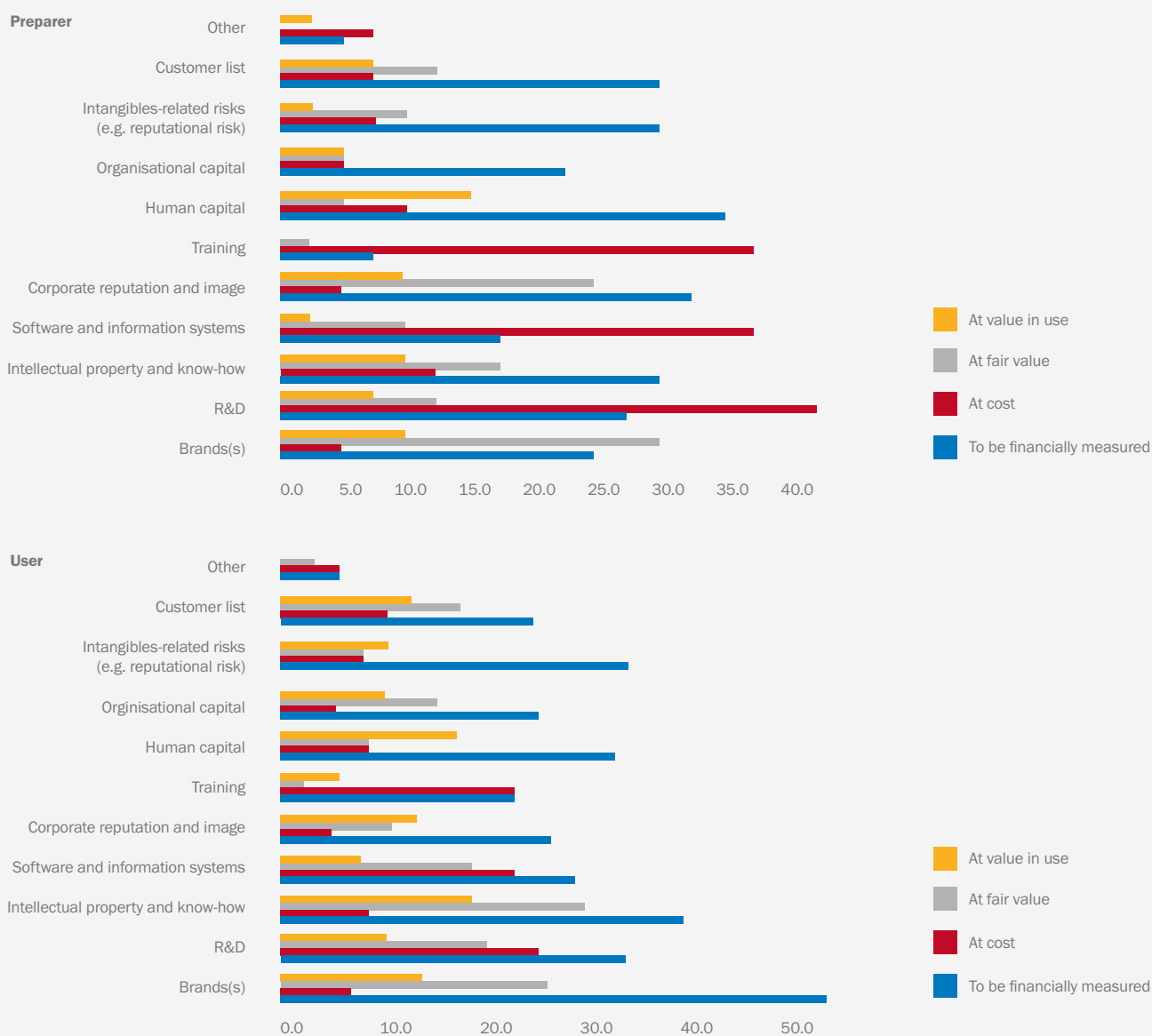
	Relationships with suppliers
Americans	33,3
Eu	21,4
Other	71,4

	Brand(s)	Organisational climate (satisfaction & engagement)	Intangibles-related risks and opportunities
Accounting	56,3	75,0	81,3
Business Economics and Finance	28,0	34,7	46,7
Other	38,5	19,2	50,0

According to preparers, the most relevant information (more than 50% of responses) relates to 'R&D' and 'human capital', followed by 'intangibles-related risks and opportunities' and 'corporate reputation and image'. Users tend to privilege information on 'IP and know-how', but they also agree with preparers on the relevance of 'intangibles-related risks and opportunities' and 'human capital'. Moreover, the Chi-square tests carried out on the type of respondents and their other characteristics show that there could be an effect of the current professional occupation on the propensity to select "Customer satisfaction and loyalty" (from the distribution test it is noted that users tend to be more in favour of this information than preparers), an effect of the country of work on the propensity to answer "Relationships with suppliers" ('respondents belonging to other countries' tend to privilege this information, followed by the Americas and the EU), and an effect of the educational background on the propensity to respond "Organisational climate" (especially from respondents with an educational background in Accounting, followed by Business Economics and Finance), where all the p-values are less than 0.01. In all the other intersections of variables, we did not find any effects.

## Q.12: In your opinion, which of the following unaccounted/internally generated intangibles should be financially measured and included in the balance sheet as an asset and on which measurement basis?

Percentage distribution of answers to Q12 by current professional occupation.



A consensus between preparers and users was found when asked which of the unaccounted/internally generated intangibles information present in the survey should be financially measured (i.e., expressed according to the financial currency unit of the company) and included in the balance sheet as an asset and on which measurement basis (480 preferences for financially measured, as compared to 300 for 'at fair value', 247 for 'at cost' and 243 for 'at value in use' across all respondent categories).

Preparers tend to favour financial measurement for information on 'human capital' and 'intangibles-related risks and opportunities', 'corporate reputation and image', 'customer list', and 'intellectual property (IP) and know-how'. Specifically, 'cost' is the preparers preferred measurement basis for 'R&D', 'software and information systems', and 'training'; 'fair value' for 'brand(s)', 'corporate reputation and image', 'IP and know-how', 'customer list' and 'intangibles-related risks'; and 'value in use' for 'human capital'. Finally, there was no clear preference expressed as to the measurement basis for organisational capital (all the three options have received equal number of preferences).



**Users** indicate that ‘IP and know-how’, ‘brand(s)’ followed by ‘intangibles-related risks’, ‘human capital’ and ‘R&D’ is the information that should be financially measured. Specifically, ‘cost’ is the favourite measurement basis for ‘R&D’, ‘software and information systems’ and ‘training’, ‘fair value’ for ‘brand(s)’ and ‘IP and know-how’, ‘organisational capital’ and ‘customer list’ and ‘value in use’ for ‘human capital’, ‘corporate reputation and image’ and ‘intangibles-related risks’.

It is interesting to observe that most of the views as to the preferred measurement basis by preparers and users overlap, with the exception of ‘organisational capital’ (which for users should be at fair value, whilst no preferred view has been recorded for preparers), ‘corporate reputation and image’ (at fair value for preparers and at value in use for users), and ‘intangibles-related risks’ (at fair value for preparers and at value in use for users).

**Q.13: If for you it is relevant to be able to assess/predict future cash outflows (timing and amount, for decision making and cash budgeting/financial planning) related to the replacement of intangible assets that are recognised in financial statements and not automatically replaced, which of the following information would in your view be most useful for that purpose?**

*(A customer list is an example of an intangible asset that is generally considered to be replaced automatically through business’ operations. On the other hand, a patent or a brand is generally not replaced automatically.)*

**Percentage distribution of answers to Q13 by current professional occupation.**



**Distribution of responses by some professional and personal variables**

	Information on the types of intangible assets (e.g., customer list, patents, brands) and related amounts included in the item 'intangible assets'	Information on the management's assessment of when the most significant (non-automatically replaced) intangible assets would have to be substituted to maintain the contribution to the company's cash generation that these assets currently provide	Other (please specify)
Preparer (e.g., CFO, CAO)	86,1	30,6	2,8
User (financial analyst/investor)	81,1	59,5	16,2
Other (e.g., auditor, professional, academic, member of an institution)	67,5	46,3	3,8

	<b>Information on the management's assessment of when the most significant (non-automatically replaced) intangible assets would have to be substituted to maintain the contribution to the company's cash generation that these assets currently provide</b>
Male	41,5
Female	57,8
Prefer not to say	0,0

	<b>Information on the management's assessment of the period over which the most significant recognised intangible assets (that are not non-automatically replaced) would contribute to the company's cash generation</b>
less than 30 years	16,7
30-39	41,7
40-49	51,4
50-59	55,6
60-69	75,0
70 and over	70,0

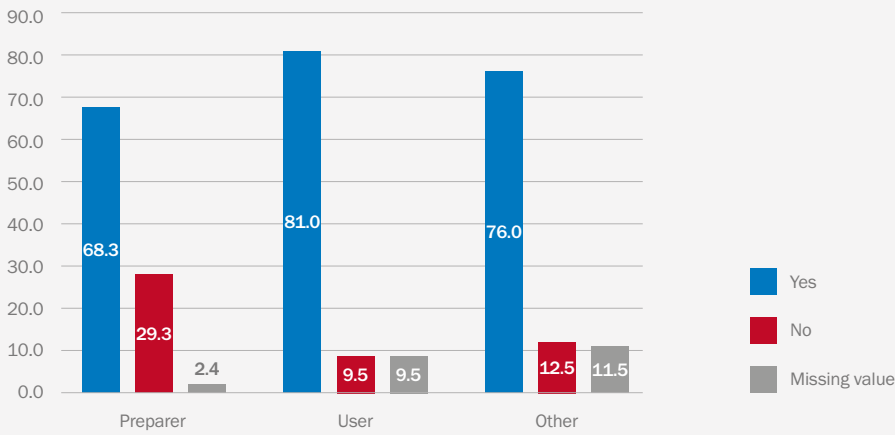
	<b>Information on the types of intangible assets (e.g., customer list, patents, brands) and related amounts included in the item 'intangible assets'</b>	<b>Information on the amount of acquired intangible assets that are included in the item 'intangible assets'</b>	<b>Information on the expected useful life of the categories of intangible assets</b>	<b>Information on the management's assessment of the period over which the most significant recognised intangible assets (that are not non-automatically replaced) would contribute to the company's cash generation</b>	<b>Other (please specify)</b>
Americans	100,0	100,0	100,0	57,1	0,0
Eu	71,8	41,2	58,8	51,1	5,3
Other	93,3	73,3	100,0	86,7	20,0

	<b>Information on the amount of acquired intangible assets that are included in the item 'Intangible Assets'</b>
Accounting	50,0
Business Economics and Finance	39,3
Other	69,0

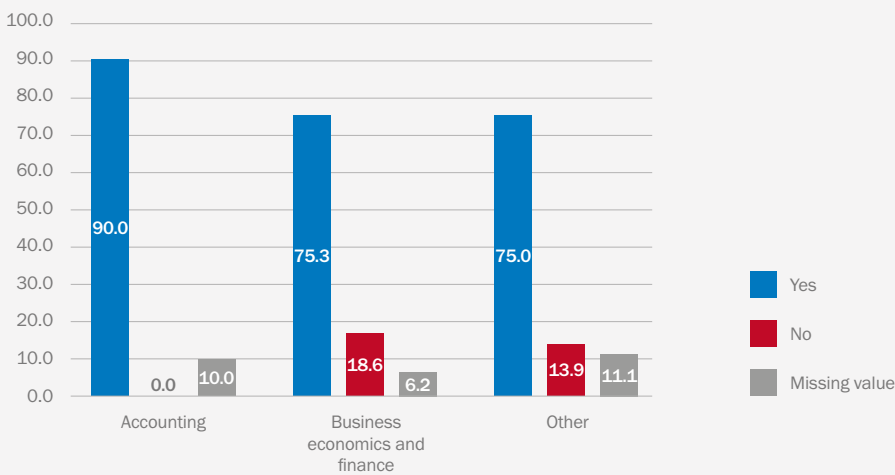
Regarding the results of the Chi-square tests that were carried out in relation to the two types of respondents and their other characteristics, the results show that there could be an effect only with the variable 'Country of work' as well as the two responses "Information on the amount of acquired intangible assets that are included in the balance sheet item 'Intangible Assets'" and "Information on the expected useful life of the categories of intangible assets" (respondents from the Americas tend to favour this information, followed by those in other countries and the EU), because their p-values are less than 0.01. In all the other intersections of variables, there is no statistical effect.

**Q.14: Would you consider it important that information can be provided to help your assessments on whether significant intangible assets - recognised in financial statements - are replaced “automatically” or not, as a result of the company’s operations?**

**Percentage distribution of responses to Q14 by current professional occupation**



**Percentage distribution of answers to Q14 by educational background**



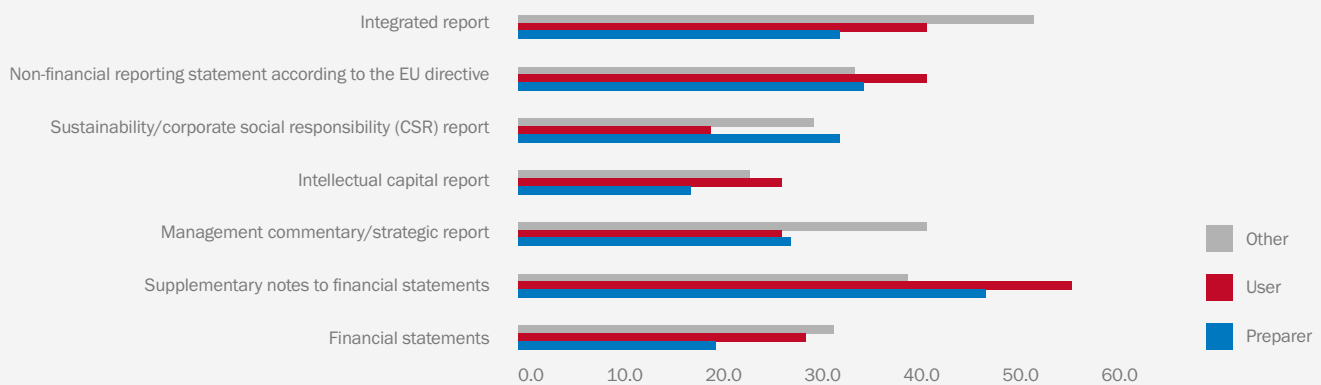
According to the Chi-square test, the dependence between answers and current professional occupation is significant because the p-value 0.092 is lower than the significance level 0.10. Hence, in regard to Q14, there is an effect of the current professional occupation on the propensity to answer “yes”. Since the p-value is greater than 0.05, we can say that the empirical evidence in favour of the hypothesis of dependence is weak.

The answer to question Q14 is also affected by the educational background. The percentages of affirmative answers are 100% (Accounting), 79.8% (Business Economics and Finance) and 86.2% (other). The p-value of the Chi-square test is 0.097 and this indicates (weak) empirical evidence in favour of the hypothesis that the answer to question Q14 depends on the educational background.

The other characteristics of the respondents, gender (p=0.360), age (p=0.333), country of work (p=0.509), seem to not affect the answer to question Q14.

**Q.15: In your opinion, where should information on unaccounted/internally generated intangibles be located/positioned in the corporate reporting system?**

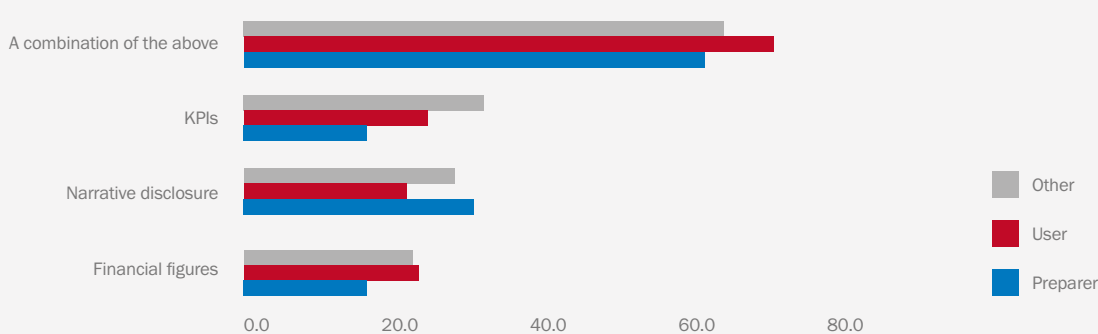
**Percentage distribution of answers to question Q15 by current professional occupation**



In statistical terms, the results of the Chi-square tests – carried out between the responses and the variables “type of respondents”, “age”, “gender”, “country of work” and “educational background” – show that the p-values are greater than 0.05, and therefore the empirical evidence in favour of the hypothesis of dependence is weak.

**Q.16: In your opinion, in which form should information on unaccounted/internally generated intangibles be disclosed?**

**Percentage distribution of answers to question Q16 by current professional occupation**

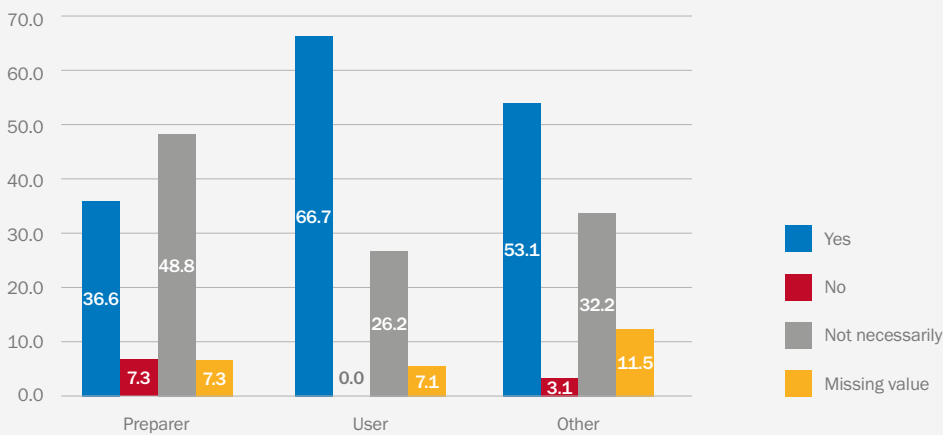


Information on unaccounted/internally generated intangibles should be disclosed – according to all the types of respondents – using a combination between KPIs, narrative disclosure and financial figures.

Regarding the results of the Chi-square tests that were carried out for the type of respondents and their other characteristics, in all the other intersections of variables we found no effect.

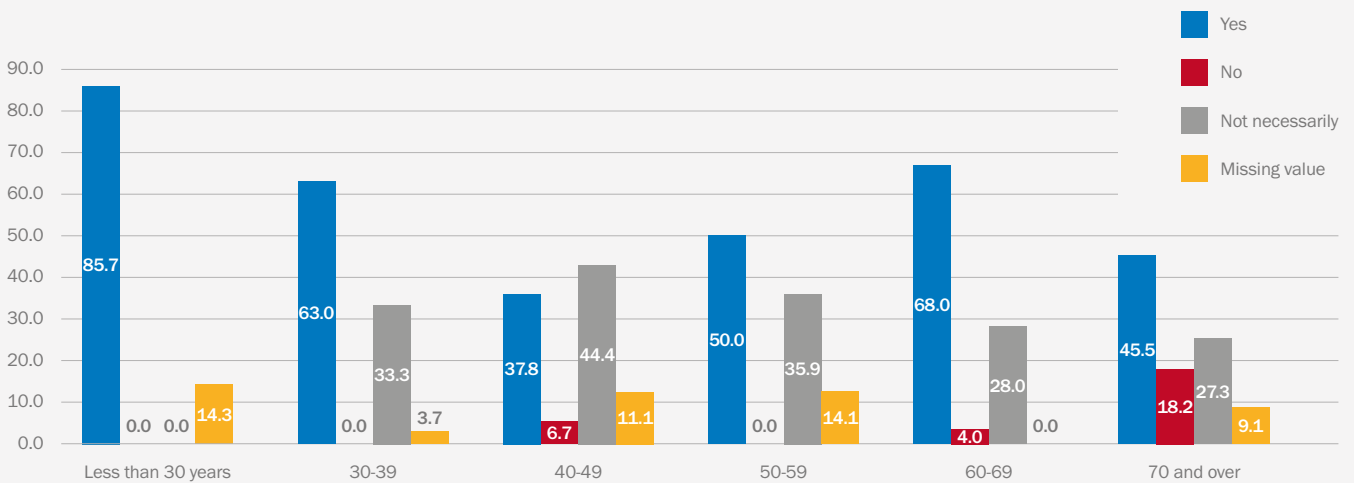
**Q.17: If you believe there is a general need for more information on unaccounted/internally generated intangibles, do you think that this extra information would successfully overcome a cost-benefit analysis?**

**Percentage distribution of answers to question Q17 by current professional occupation**



In general, the two most frequent answers are “yes” and “not necessarily”. Most of the users (66.7%) and others (53.1%) answered “yes”, while most of the preparers (48.8%) answered “not necessarily” as reported in Fig. 4.10. According to the Chi-square test, there is a significant relationship between responses to Q17 and current professional position ( $p=0.042$ ).

**Percentage distribution of answers to Q17 by age group**



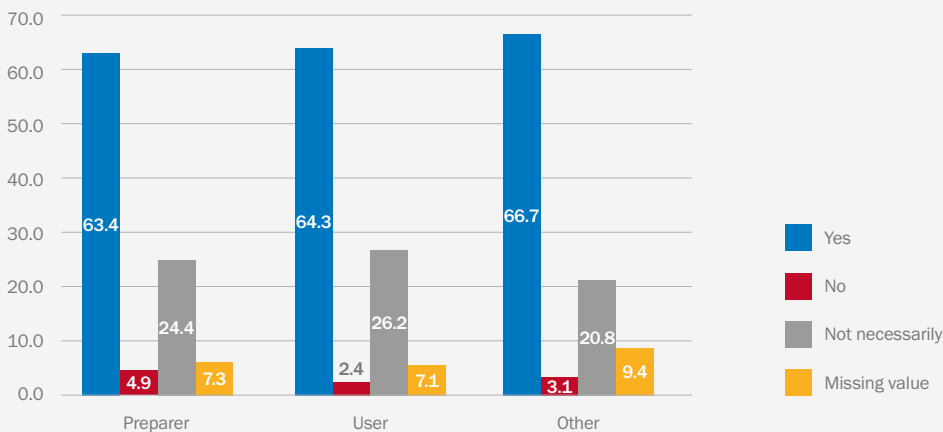
Age group also seems to have an important influence on answers to Q17. In particular, all the youngest respondents (less than 30 years old) say “yes”, while the same answer is selected by most of respondents in the age groups 30-39 (65.4%), 50-59 (58.2%), 60-69 (68.0%) and 70-over (50.0%). An exception is provided by the age group 40-49. For this group, the percentage of “yes” is just 42.5% and the most popular response is “not necessarily” (50%).

The p-value of the Chi-square test (0.020) confirms the dependence between answers to Q17 and age group.

With regards to the other respondents’ characteristics, gender ( $p=0.463$ ), country of work ( $p=0.108$ ) and educational background ( $p=0.540$ ), they do not significantly affect the answer to Q17.

### Q.18: Should this extra information on intangibles necessarily be audited by a third party?

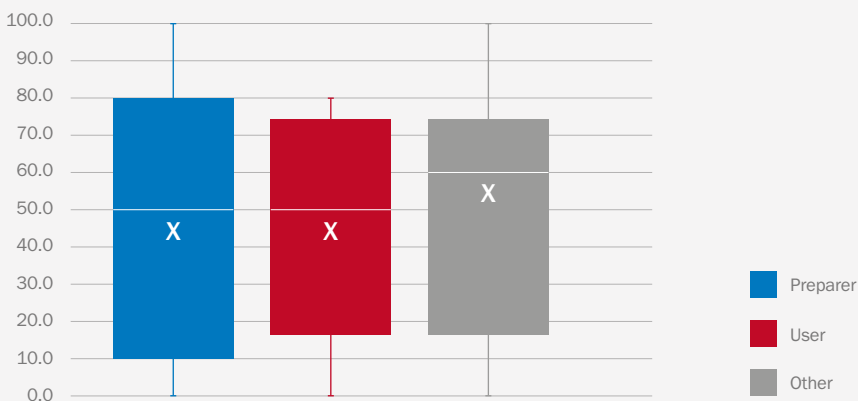
Percentage distribution of answers to Q18 by current professional occupation



Statistically, the results of the Chi-square tests show that in almost all the intersections of variables there are no effects. There is only a minor effect between the age of the respondents and the responses to this question. An exception is provided by the age groups 40-49 and 50-59. For these groups, the percentages of “yes” are, respectively, 28.5% and 40%, whilst the most popular response is “not necessarily” (50%) with a p-value equal to 0.005.

### Q.19: In your opinion, to what extent is there an overlap between intangibles-related information and Environmental, Social and Governance (ESG) information?

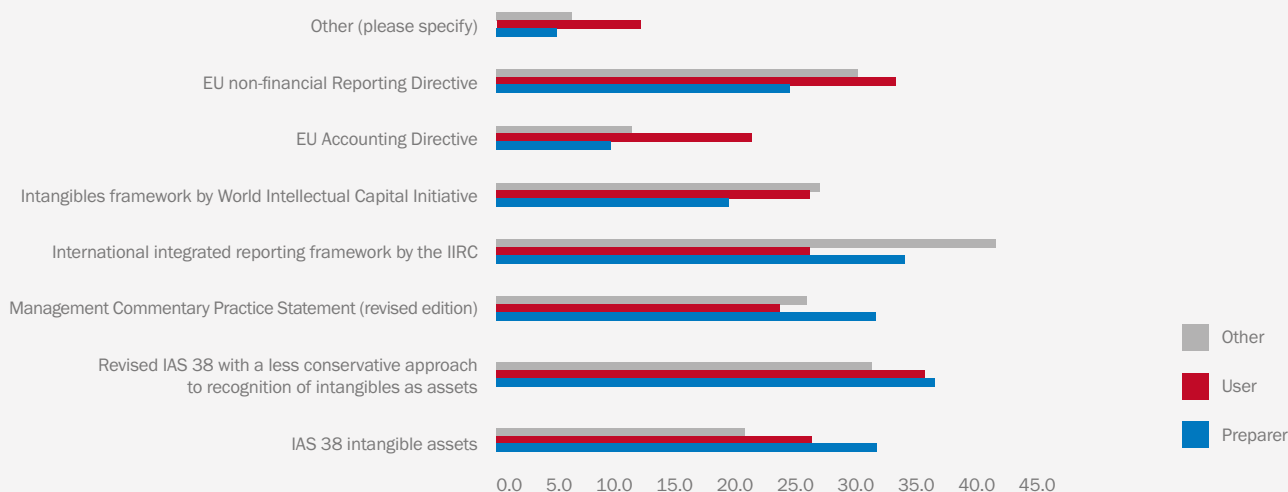
Sample means of answers to Q19 by current professional occupation



Given that the answer consists of a numeric score from 0 to 10, in order to evaluate differences between groups of respondents, we compared the sample means of the groups. In the bar diagram, the mean values by current professional occupation are represented: 4.3 for preparers, 4.9 for users and 5.6 for others. The F test of the one-way ANOVA provides a p-value equal to 0.027, denoting a significant effect of the current professional occupation on the answers to Q19. According to the ANOVA concerning the other characteristics, gender (p=0.671), age group (0.572), country of work (p=0.863) and educational background (p=0.858) do not affect the answer.

**Q.20: In your opinion, which could be the most relevant current framework(s)/standard(s) for the measurement and disclosure of information on intangibles? (Please specify at least the 3 most relevant options)**

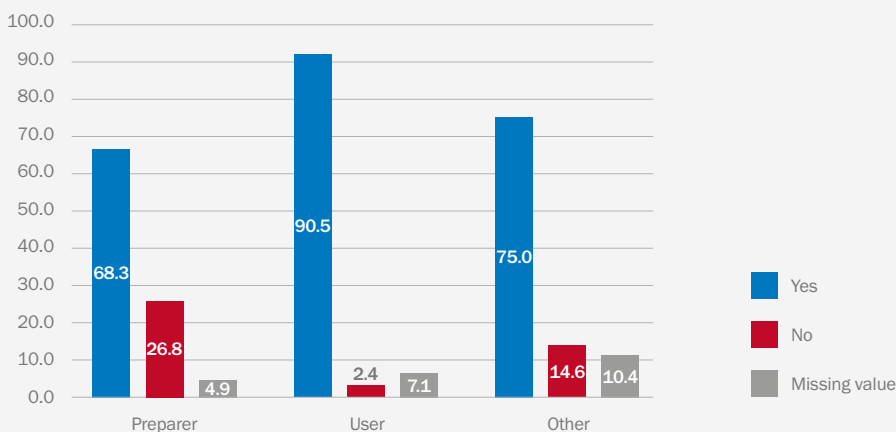
**Percentage distribution of answers to Q20 by current professional occupation**



From a statistical viewpoint, the results of the Chi-square tests point out that there are no effects in almost all the intersections of variables. There is only a slight relational effect between the age of the respondents and the response “IAS 38 on Intangible Assets” (p-value=0.019).

**Q.21: In your opinion, should intangibles-related information that is currently outside financial statements be subject to standardisation and/or mandatory guidance?**

**Percentage distribution of answers to Q21 by current professional occupation**



In this case, the most frequent answer is positive for all the groups as defined by their current professional positions. However, the propensity to the affirmative response is not the same in all the groups. Fig.4.15 shows that the percentages of “yes” are 90.5% for users, 68.3% for preparers, and 75% for ‘Others’. These differences can be considered strongly significant because the p-value of the Chi-square test is 0.008.

The effect of gender (p=0.791), age group (0.244), country of work (p=0.205) and educational background (p=0.323) cannot be considered significant.

# Part 2: Specific questions and effects of current professional occupation and case study

## Section A – Summary table of the responses on specific intangibles

The table below summarises the responses referring to the perceived usefulness of information on detailed intangibles available in the annual report presented in the case studies and, by consequence, the level of need for this information for decision making and assessment purposes. The intangible items are highlighted in different colours to indicate their belonging to the diverse categories of intangibles according to WICI (2016), namely human (red), relational (green) and organisational capitals (blue).

Question No.	Detailed Intangible Asset analysed	Statistical significance of the current professional occupation and average answer score for Preparers (P), Users (U) and Others (O)	Statistical significance of the case study	Shape of the relationship with case study	Statistical significance of the interaction effect
23	Brands	Yes (P: 5.5; U: 7.1; O: 7.4)	No	Type 1	No
25	R&D	No (P: 7.2; U: 7.9; O: 7.8)	No	Type 1	No
27	IP & know-how	Yes (P: 6.2; U: 7.8; O: 7.8)	No	Type 1	No
29	Software and information systems	No (P: 6.9; U: 7.3; O: 6.8)	Yes	Type 1	No
31	Strategy and planning	Yes (P: 6.9; U: 7.3; O: 8.1)	No	Type 1	No
33	Business model	Yes (P: 7.2; U: 7.8; O: 8.1)	No	Type 4	No
35	Customer satisfaction and loyalty	Yes (P: 6.0; U: 7.8; O: 8.2)	No	Type 4	No
37	Customer list	Yes (P: 4.0; U: 6.3; O: 6.8)	No	Type 4	No
39	Corporate reputation and image	Yes (P: 5.6; U: 6.4; O: 7.9)	No	Type 4	No
41	Relationships with suppliers	Yes (P: 5.7; U: 7.3; O: 7.7)	No	Type 1	No
43	Training	Yes (P: 5.2; U: 6.9; O: 7.3)	No	Type 3	No
45	Human capital (skills, competencies)	Yes (P: 6.6; U: 7.8; O: 8.1)	No	Type 2	No
47	Organisational culture/ climate	Yes (P: 6.5; U: 7.1; O: 8.0)	No	Type 2	No
49	Intangibles-related risks and opportunities	Yes (P: 6.5; U: 7.7; O: 8.3)	No	Type 1	Yes

### Notes

- Responses could vary on a scale from 0 to 10.
- Type 1 is a V-shape line where the average score of CS1 (case study 1) is higher than the average score of CS3 (case study 3)
- Type 2 is a V-shape line where the average score of CS3 is higher than the average score of CS1
- Type 3 is a line with monotonic-increasing shape
- Type 4 is a line with monotonic-decreasing shape



## Section B – Analysis of the responses on specific intangibles

In this section of Part 2, the survey responses on the specific categories of intangibles are examined in detail.

Each category of intangible is investigated in terms of both usefulness of the related information by type of respondents and case study, and the specific metrics (e.g., KPIs) that can be used to represent and measure that intangible. Relevant commentaries are also provided.

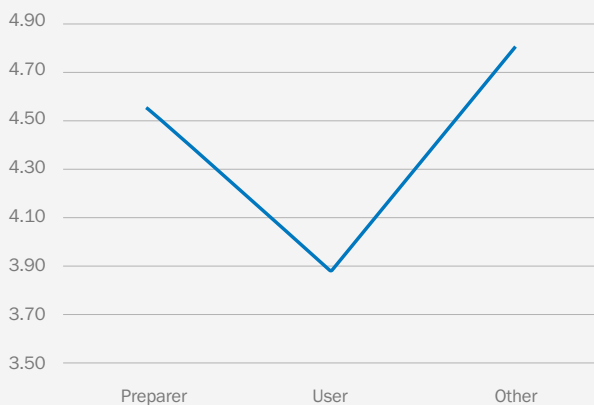
As to the usefulness of information, each numeric response is analysed via a graph that illustrates the effects of professional occupation and case study. Specifically, we focused on the main effect of professional occupation, the main effect of case study, and the interaction effect on the usefulness of information on specific intangibles.

A two-way ANOVA test was run for all the cases, but only the questions where the null hypothesis was refused with a probability  $<0.05$  and  $<0.01$  are reported in tables. The ANOVA analysis was carried out only in relation to the variable “Type of respondent”, and therefore these tables merely indicate for these questions if there are statistically significant differences between the means.

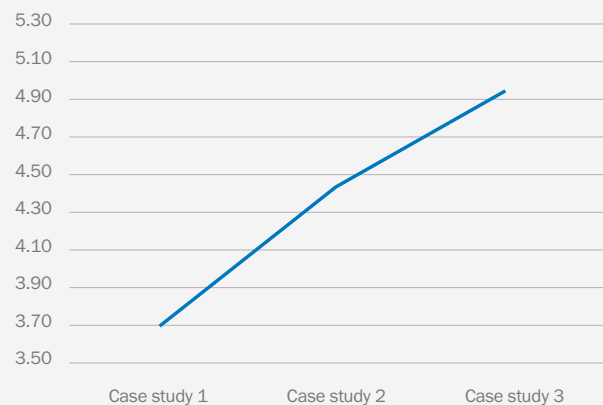
As to the analysis of specific metrics associated to each intangible, we have calculated the mean results by type of respondents and case studies. Similarly to the usefulness of information, a two-way ANOVA test was run for all the cases, but only the questions where the null hypothesis was refused with a probability  $<0.05$  and  $<0.01$  are reported in tables.

### Q.22: Overall, how would you assess the level of information on intangibles available in the above annual report?

#### Effects of current professional occupation and case study on the answers to Q22

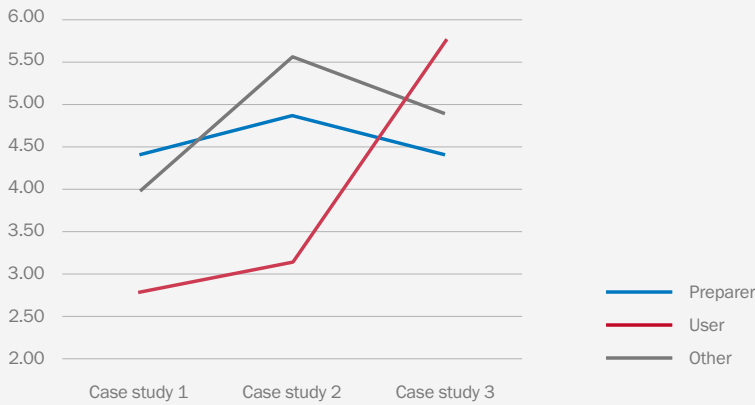


Main effect of current professional occupation



Main effect of case study

### Interaction between current professional occupation and case study

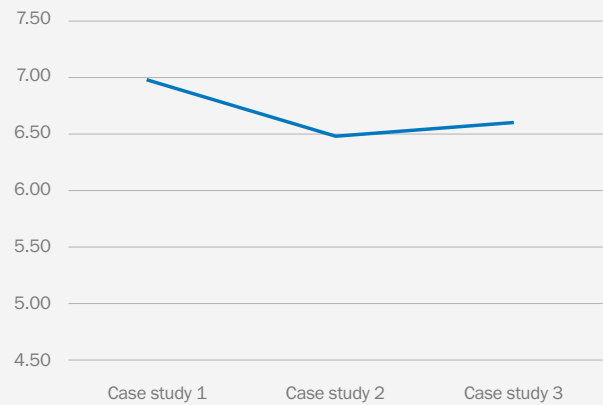
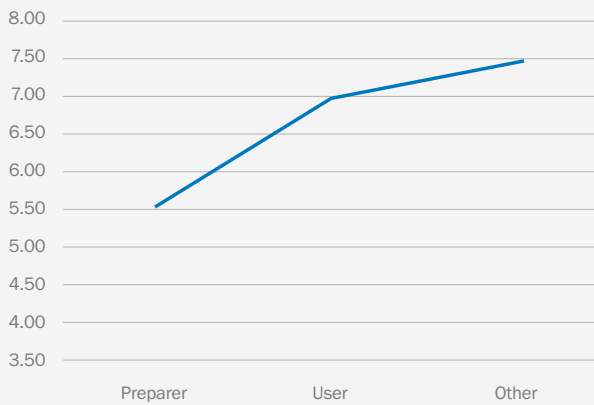


In this case, the most frequent answer is positive for all the groups as defined by their current professional occupations. However, the propensity to the affirmative response is not the same in all the groups. The percentages of “yes” are 90.5% for users, 68.3% for preparers, and 75% for ‘Others’. These differences can be considered strongly significant because the p-value of the Chi-square test is 0.008, however other characteristics did not appear statistically significant.

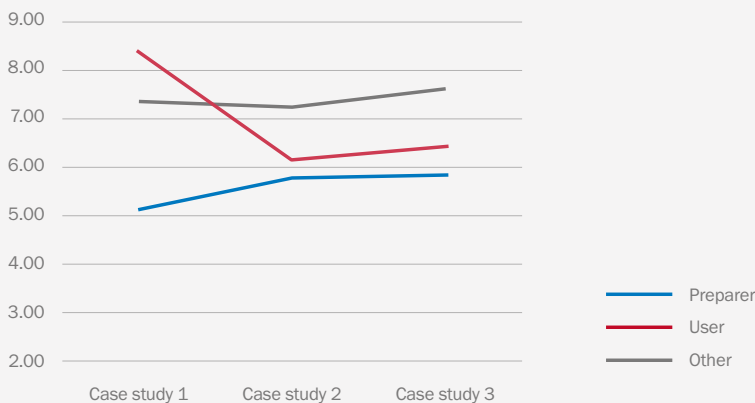
### Brand(s)

#### Q.23: In your opinion, to what extent would it be useful for your decision making and assessments to have more information available on company brand(s) in the annual report presented?

Effects of current professional occupation and case study on the answers to Q23



### Main effect of current professional occupation



### Main effect of case study

### Interaction between current professional occupation and case study

The main effect plot of the current professional occupation shows that the sample means vary significantly according to the professional occupation of respondents. The mean values are 5.5 (preparers), 7.1 (users) and 7.4 (others). The test on the main effect of the current professional occupation confirms the hypothesis of significant effect of this factor ( $p=0.009$ ). Looking at the main effect plot of the case study, we notice that the differences between the sample means related to the three case studies are reasonably contained. Indeed, the test on the main effect of case study does not reject the null hypothesis of no effect. Although the sample means, as a function of the case study, have different behaviours for the three groups of respondents, the test on the interaction effect does not reject the hypothesis of null effect ( $p=0.237$ ).

### Null Hypothesis refused with a probability < 0.05

		Sum of the squares	Degrees of freedom	Mean square	Test F	P-Value
Question 23	Between Group	34	1	33,9	5,1	0,029
	Within Group	334	50	6,7		
	Total	368	51			

In terms of specific indicators, those perceived as the most useful (mean above 7.00 of 10), for users are 'brand strength', 'brand contribution to EBITDA', 'marketing expenses per brand', whilst preparers privilege (mean above 6.00 out of 10) 'marketing expenses per brand', 'brand contribution to EBITDA', and 'brand valuation/value'. From a statistical viewpoint, a significant difference (0.01) on the usefulness for the two professional groups was found on 'brand strength' and 'brand image/reputation'.

### Question 24: In particular, to what extent would the following information on brand(s) be useful?

Question 24	Case Study 1			Case Study 2			Case Study 2		
	Preparer	User	Other	Preparer	User	Other	Preparer	User	Other
Brand strength	4.5	8.7	7.7	5.2	8.1	7.3	5.0	6.1	6.9
Brand image/reputation	5.0	9.2	7.4	5.2	8.3	7.6	4.8	6.1	7.3
Brand contribution to EBITDA	5.8	7.6	7.7	6.0	8.1	7.2	6.8	6.6	7.2
Brand valuation/value	6.1	8.9	7.1	5.7	5.0	6.8	6.3	6.0	7.4
Marketing expenses per brand	5.9	7.7	6.9	5.8	8.3	6.9	7.2	6.1	7.4
Other	4.5	8.0	8.5		8.0	6.0	0.0	2.3	6.4

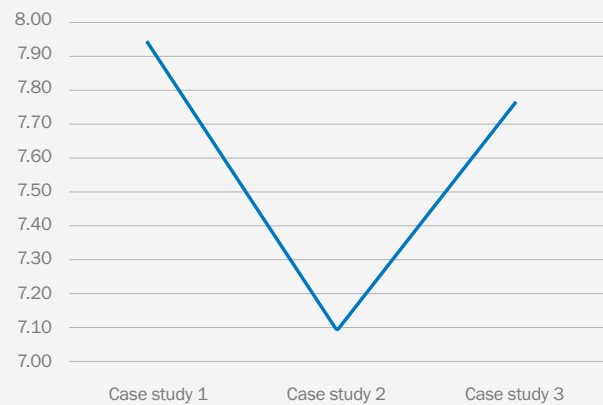
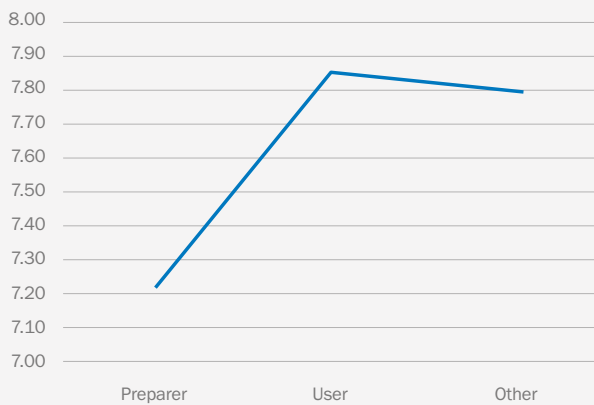
## Null Hypothesis refused with a probability <0.01

			Sum of the squares	Degrees of freedom	Mean square	Test F	P-Value
Question 24	Brand Strength	Between Group	108	1	108,0	19,6	0,000
		Within Group	254	46	5,5		
		Total	362	47			
	Brand Image/ Reputation	Between Group	101	1	101,2	18,9	0,000
		Within Group	230	43	5,3		
		Total	331	44			

## Research and Development (R&D)

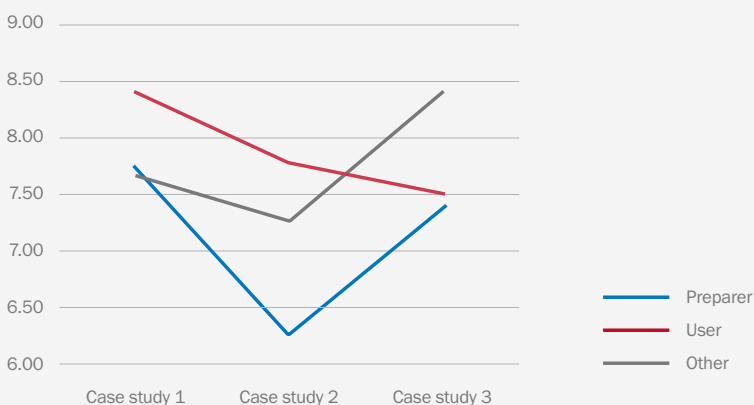
**Q.25: In your opinion, to what extent would it be useful for your decision making and assessments to have more information available on Research and Development (R&D) activities in the annual report presented?**

### Effects of current professional occupation and case study on the answers to Q25



### Main effect of current professional occupation

### Main effect of case study



### Interaction between current professional occupation and case study

**Question 26: In particular, to what extent would the following information on R&D be useful?**

Question 26	Case Study 1			Case Study 2			Case Study 2		
	Preparer	User	Other	Preparer	User	Other	Preparer	User	Other
Detailed amounts of R&D expenditure	7.0	8.4	7.5	7.0	8.3	7.4	6.5	7.4	7.5
R&D expenses per segment of business	7.5	8.2	8.0	6.2	8.5	7.4	6.8	7.8	7.9
Revenues from products generated by internal R&D	6.1	8.5	8.0	5.7	8.6	7.8	7.4	7.8	7.7
No. of R&D projects nearing implementation	6.0	7.8	7.4	7.2	7.3	7.4	7.8	7.1	7.2
% of sales from the last 5 years' internal research	4.9	7.9	7.4	6.3	8.6	7.3	7.2	7.0	7.5
Average time to market of research output(s)	6.2	7.8	7.5	5.5	8.3	7.6	6.5	7.3	7.4
Expected time horizon during which each research outcome can affect profitability	6.5	7.7	7.8	5.5	7.9	7.8	7.0	7.9	8.3
Other	4.0		9.5	5.0	9.0	5.8	1.0	5.0	7.4

**Null Hypothesis refused with a probability <0.01**

			Sum of the squares	Degrees of freedom	Mean square	Test F	P-Value
Question 26	Revenues from products generated by internal R&D	Between Group	51	1	51,1	10,5	0,002
		Within Group	228	47	4,9		
		Total	279	48			
	% of sales from the last 5 years' internal research	Between Group	47	1	47,2	8,9	0,005
		Within Group	239	45	5,3		
		Total	286	46			
	Expected time horizon during which each research outcome can affect profitability	Between Group	26	1	25,6	9,5	0,003
		Within Group	130	48	2,7		
		Total	155	49			

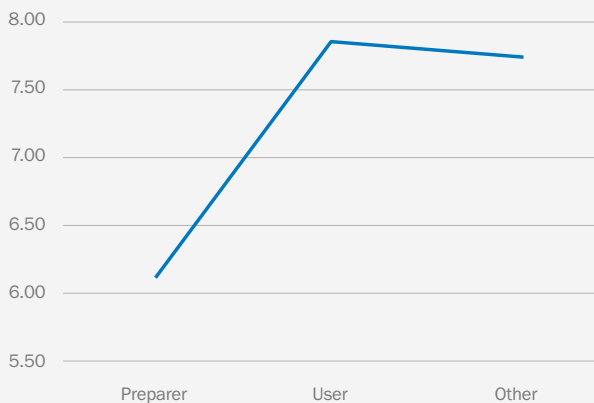
## Hypothesis refused with a probability <0.05

			Sum of the squares	Degrees of freedom	Mean square	Test F	P-Value
Question 26	Detailed amounts of R&D expenditure	Between Group	17	1	16,7	4,5	0,040
		Within Group	176	47	3,7		
		Total	192	48			
	R&D expenses per segment of business	Between Group	17	1	16,6	4,3	0,043
		Within Group	185	48	3,9		
		Total	202	49			
	Average time to market of research output(s)	Between Group	34	1	34,1	7,0	0,011
		Within Group	220	45	4,9		
		Total	254	46			

## Intellectual property and know-how

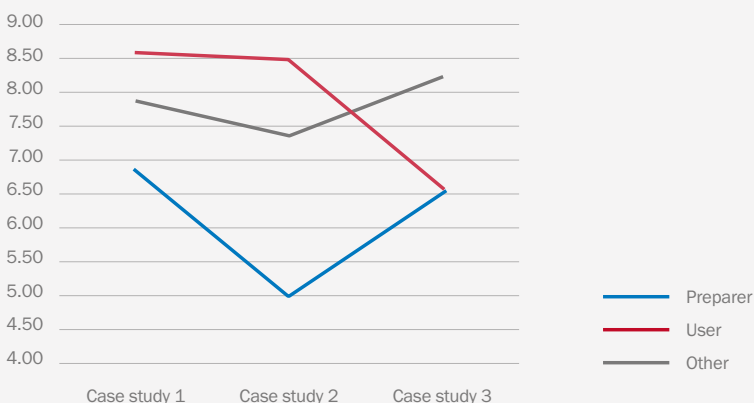
**Q.27: In your opinion, to what extent would it be useful for your decision making and assessments to have more information available on intellectual property and know-how in the annual report presented?**

### Effects of current professional occupation and case study on the answers to Q27



### Main effect of current professional occupation

### Main effect of case study



### Interaction between current professional occupation and case study

The descriptive analysis based on sample means indicates a possible effect of the current professional occupation. The sample mean takes value 6.2 among preparers and 7.8 among users and others. Actually, this is not only due to sample variability as the p-value of the test on the main effect of professional occupation is equal to 0.006, denoting strong significance of the main effect. As can be seen from the main effect plot, the relationship between mean response and case study is not monotonic but the changes observed in the graph cannot be considered significant, due to the large p-value (0.309). Again, in the interaction plot, the relationship between response and case study, for users, seems to be different than for preparers and others, but we cannot conclude in favour of the hypothesis of interaction between the two factors because the p-value is 0.139.

As for the specific indicators, those perceived as most useful (mean above 8.00) by users are 'Revenues from the last 5 years' patents', and No. of active patents', whilst preparers echoed a similar perspective. From a statistical perspective, a significant difference (0.01) on the usefulness for the two professional groups was found on several KPIs, that are 'Revenues from products generated by internal R&D', '% of sales from the last 5 years' internal research', and 'Expected time horizon during which each research outcome can affect profitability'.

### Null Hypothesis refused with a probability <0.05

		Sum of the squares	Degrees of freedom	Mean square	Test F	P-Value
Q27: In your opinion, to what extent would it be useful for your decision making and assessments to have more information available on <b>intellectual property and know-how</b> in the annual report presented?	Between Group	26	1	26,3	4,1	0,049
	Within Group	289	45	6,4		
	Total	315	46			

### Question 28 Case Study 1 Case Study 2 Case Study 3

Question 28	Case Study 1			Case Study 2			Case Study 2		
	Preparer	User	Other	Preparer	User	Other	Preparer	User	Other
No. of active patents	6.5	8.7	6.2	6.2	8.0	7.8	6.2	7.5	7.3
No. of innovative procedures not patented	6.3	7.8	7.2	5.3	7.7	7.7	6.2	6.9	7.3
Revenues from the last 5 years' patents	5.3	8.3	7.8	6.2	8.7	8.1	7.5	8.1	7.4
Other	5.0		10.0	5.0	9.0	5.8	0.0	9.0	7.0

### Null Hypothesis refused with a probability < 0.01

		Sum of the squares	Degrees of freedom	Mean square	Test F	P-Value	
Question 28	No. of active patents	Between Group	37	1	36,8	7,6	0,008
		Within Group	221	46	4,8		
		Total	258	47			
	Revenues from the last 5 years' patents	Between Group	63	1	62,6	13,2	0,001
		Within Group	213	45	4,7		
		Total	276	46			

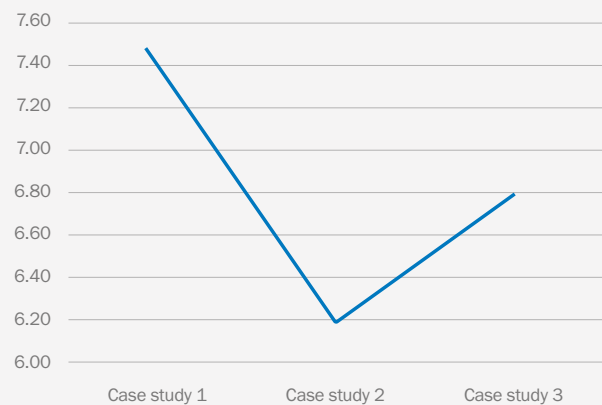
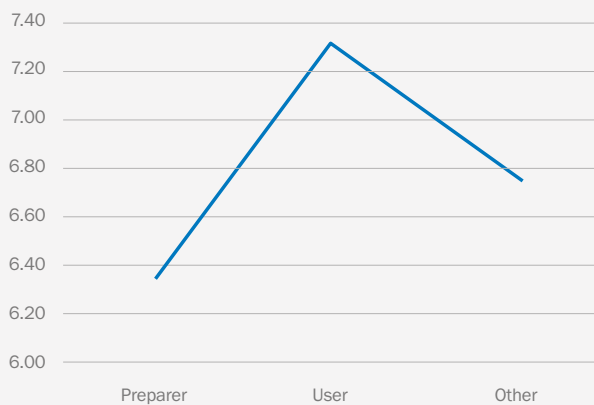
## Null Hypothesis refused with a probability < 0.05

			Sum of the squares	Degrees of freedom	Mean square	Test F	P-Value
Question 28	No. of innovative procedures not patented	Between Group	24	1	24,2	5,1	0,028
		Within Group	213	45	4,7		
		Total	237	46			
	Other (IP and know-how)	Between Group	47	1	47,3	12,6	0,016
		Within Group	19	5	3,8		
		Total	66	6			

### Software and information systems

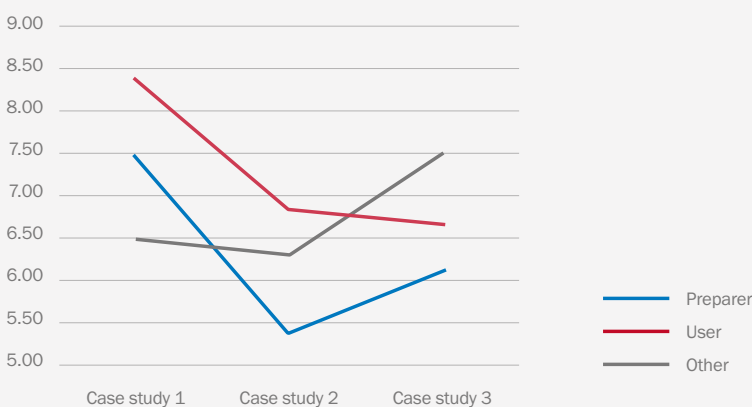
**Q.29: In your opinion, to what extent would it be useful for your decision making and assessments to have more information available on software and information systems in the annual report presented?**

**Effects of current professional occupation and case study on the answers to question Q29**



Main effect of current professional occupation

Main effect of case study



Interaction between current professional occupation and case study



Regarding the professional occupation, the sample mean of the variable corresponding to Q29 ranges from 6.9 in correspondence of the preparers, to 7.3 in correspondence of users. According to the p-value of the test on the main effect of the current professional occupation (0.288), despite the mean differences, we cannot conclude that the mean of answers depends on the current professional occupation. The relationship between mean response and case study seems to be non-monotonic, due to the “V shape” of the curve with the minimum in correspondence to case study 2. The p-value of the main effect of case study (0.056) is less than 0.10, hence we can conclude that there is a significant effect of case study. In the interaction plot, the three lines are not parallel but the p-value of the test 0.152 indicates no significance of the interaction effect.

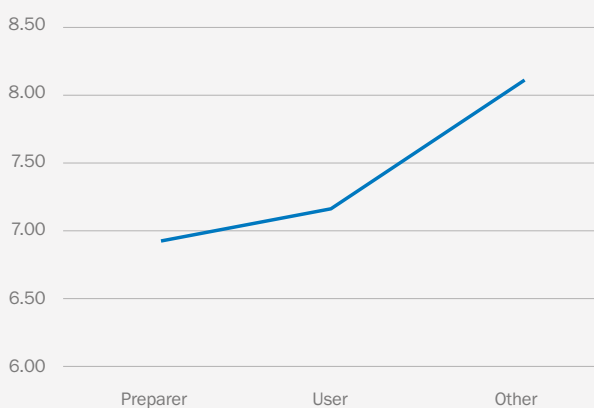
**Question 30: In particular, to what extent would the following information on software and information systems be useful?**

Question 30	Case Study 1			Case Study 2			Case Study 2		
	Preparer	User	Other	Preparer	User	Other	Preparer	User	Other
Degree of IT systems integration/substitutability	6.3	7.8	6.4	6.0	5.3	6.7	6.0	5.6	7.0
Maintenance costs	5.9	6.6	6.1	5.5	7.3	6.6	6.0	6.6	6.9
Compliance with cybersecurity standards/certifications	6.8	8.4	7.4	5.8	8.1	7.6	6.8	6.4	7.9
Data storage choices	6.1	7.1	6.5	5.8	5.9	6.8	5.2	7.0	7.4
Other	3.3	8.0	10.0		0	5.7	0.0	5.0	5.8

**Strategy and planning**

**Q.31: In your opinion, to what extent would it be useful for your decision making and assessments to have more information available on strategy and planning in the annual report presented?**

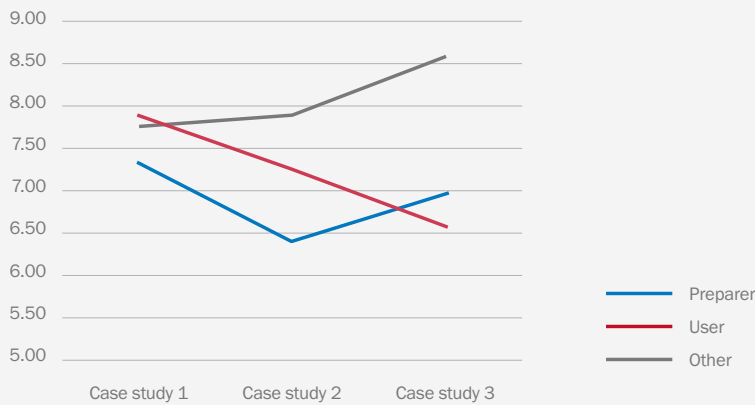
**Effects of current professional occupation and case study on the answers to Q31**



Main effect of current professional occupation

Main effect of case study

## Interaction between current professional occupation and case study



The estimates of the mean response for each respondent group, according to the professional occupation, are 6.9 (preparer), 7.3 (user) and 8.1 (other). The p-value of the test on the main effect of this factor is 0.047. Consequently, the differences in the mean estimates can be considered significant. The changes in the mean estimates with respect to the case studies produces a sort of “V-shaped” plot but in this case the differences in the mean estimates insignificant due to the p-value being 0.585. The lines in the interaction plot are not exactly parallel, denoting a possible interaction effect, but also in this case the p-value (0.425) is greater than 0.10 and we cannot reject the hypothesis of a null interaction effect.

In regard to the specific indicators in this area, those perceived as most useful (mean above 8.00 out of 10) by users is ‘Market share’, whilst for preparers ‘Description of strategic pillars’ (mean above 7.00 out of 10). From a statistical viewpoint, a significant difference (0.005) on the usefulness for the two professional groups was found on KPIs such as ‘Market share’, ‘Presence and main points of strategy/industrial plan’.

### Question 32: In particular, to what extent would the following information on strategy and planning be useful?

Question 32	Case Study 1			Case Study 2			Case Study 2		
	Preparer	User	Other	Preparer	User	Other	Preparer	User	Other
Description of strategic pillars	7.6	8.2	7.8	7.3	7.8	7.9	7.0	7.1	8.1
Mission and vision	7.1	7.0	7.5	7.2	6.6	7.6	6.0	8.1	8.0
Market share	7.9	8.5	7.5	7.0	8.6	8.3	5.3	8.0	8.1
Presence and main points of strategy/industrial plan	7.4	8.2	7.3	7.0	7.9	8.0	5.7	7.5	8.5
Other	5.0	8.0	8.5			7.0	0.0	5.0	6.8

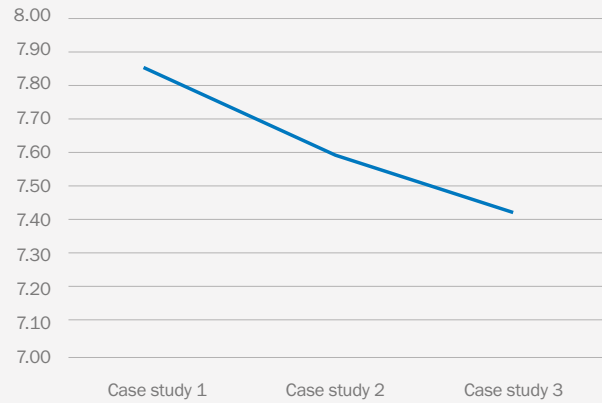
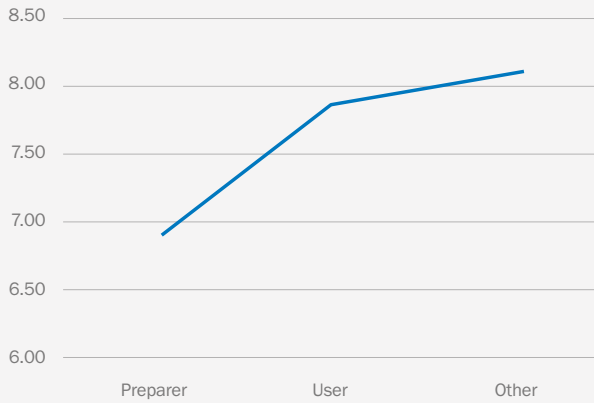
**Null Hypothesis refused with a probability <0.05**

			Sum of the squares	Degrees of freedom	Mean square	Test F	P-Value
Question 32	Market share	Between Group	24	1	24,4	6,8	0,012
		Within Group	165	46	3,6		
		Total	189	47			
	Presence and main points of strategy/ industrial plan	Between Group	14	1	13,7	4,4	0,041
		Within Group	146	47	3,1		
		Total	160	48			

**Business model**

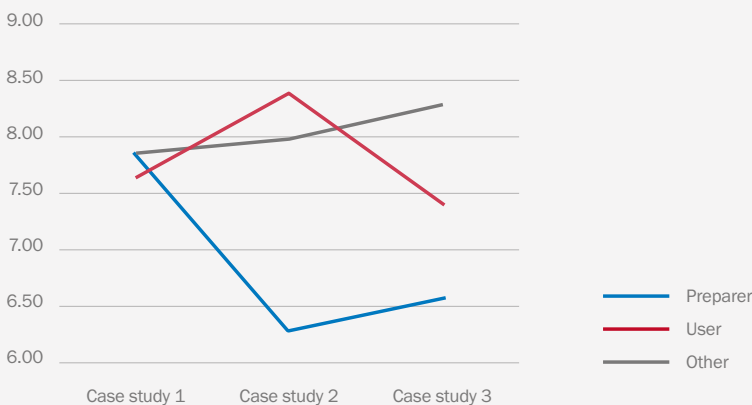
**Q.33: In your opinion, to what extent would it be useful for your decision making and assessments to have more information available on business model in the annual report presented?**

**Effects of current professional occupation and case study on the answers to Q33**



Main effect of current professional occupation

Main effect of case study



Interaction between current professional occupation and case study

The mean value of usefulness expressed by the respondents in relation to Q33, changes significantly depending on the professional occupation: 7.8 for users, 7.2 for preparers and 8.1 for others. The test on the main effect of the professional occupation supports the hypothesis that the answers to question Q33 depend on the professional occupation ( $p=0.058$ ). Even though the main effect plot concerning the relationship between the mean answer to Q33 and the case study seems to indicate a monotonic decreasing relationship, the differences in the mean estimates are not relevant and the  $p$ -value of the specific test (0.658) leads to the conclusion that there is not empirical evidence in favour of the hypothesis that the considered case study has an effect on the response. In regard to the joint effect of the two factors, the interaction plot suggests a possible interaction. However, this descriptive evidence is not confirmed by the  $p$ -value of the ANOVA (0.252) and cannot be generalised outside the observed sample.

As for the specific indicators, those perceived as most useful (mean above 8.00 out of 10) by users are 'Illustration of value proposition', 'Description of business activities/lines', and 'Description of input/output/outcome', whilst for preparers 'Description of business activities/lines' and 'Illustration of value proposition' (mean above 7.00 out of 10). From a statistical viewpoint, a significant difference (0.005) on the usefulness for the two professional groups was found on the KPI 'Description of input/output/outcome'.

#### Question 34: To what extent would the following information on business model be useful?

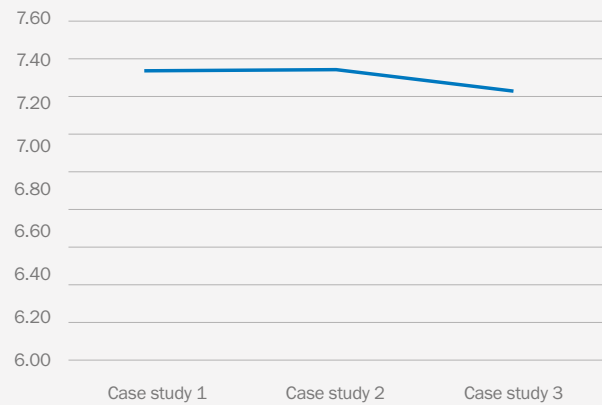
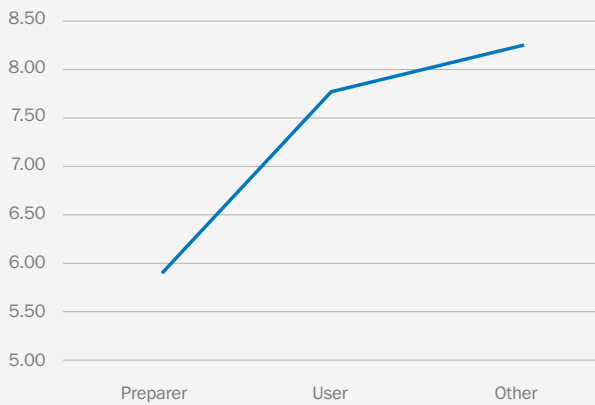
Question 34	Case Study 1			Case Study 2			Case Study 2		
	Preparer	User	Other	Preparer	User	Other	Preparer	User	Other
Description of business activities/lines	8.1	7.9	7.9	7.8	9.1	7.7	6.4	7.3	7.9
Illustration of value proposition	7.7	8.0	7.9	7.3	8.9	7.8	7.0	7.6	8.3
Description of input/output/outcome	7.5	8.0	7.5	7.2	8.6	7.3	5.2	7.5	8.1
Other	4.5	8.0	10.0			7.6	0.0		5.8

#### Null Hypothesis refused with a probability $<0.05$

			Sum of the squares	Degrees of freedom	Mean square	Test F	P-Value
Question 34	Description of input/output/outcome	Between Group	15	1	15,2	4,2	0,045
		Within Group	165	46	3,6		
		Total	180	47			

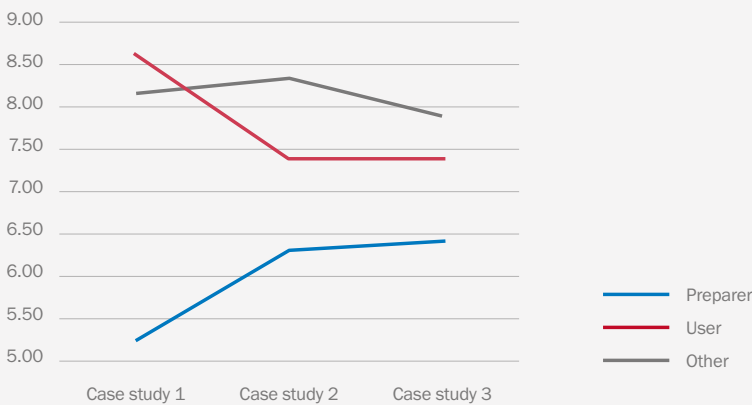
**Q35. In your opinion, to what extent would it be useful for your decision making and assessments to have more information available on customer satisfaction and loyalty in the annual report presented?**

**Effects of current professional occupation and case study on the answers to Q35**



Main effect of current professional occupation

Main effect of case study



Interaction between current professional occupation and case study

Also with regard to this question, the average response of preparers (6.0) is lower than that of users (7.8). The highest mean (8.2) refers to the category of others. According to the test on the main effect of professional occupation in the two-way ANOVA, the null hypothesis of no effect must be rejected in favour of the hypothesis that the professional occupation affects the response ( $p=0.001$ ). The behaviour of the means with respect to the case study is characterised by low variability, in the range 7.20-7.40. As a consequence, the test on the main effect of case study leads to the non-rejection of the hypothesis of the null effect ( $p=0.983$ ). The different behaviour of the plots representing the mean as a function of the case study by professional occupation, could be a symptom of interaction between case study and professional occupation. Nevertheless, the test on the interaction in the two-way ANOVA has a p-value greater than 0.10 (0.547) and the empirical evidence does not support the hypothesis of interaction effect.

As for the specific indicators, those perceived as most useful (mean above 8.00 out of 10) by users are ‘Customer attrition rate’, ‘Average customer retention period’, and ‘Revenues from new customers’, whilst for preparers ‘Average customer retention period’ and ‘Revenues from new customers’ (mean above 5.50 out of 10). From a statistical point of view, a significant difference (0.001) on the usefulness of the two professional groups was found on all the proposed KPIs in the survey.

**Null Hypothesis refused with a probability <0.01**

		Sum of the squares	Degrees of freedom	Mean square	Test F	P-Value
Question 35	Between Group	47	1	46,7	8,0	0,007
	Within Group	267	46	5,8		
	Total	314	47			

**Question 36: In particular, to what extent would the following information on customer satisfaction and loyalty be useful?**

Question 36	Case Study 1			Case Study 2			Case Study 2		
	Preparer	User	Other	Preparer	User	Other	Preparer	User	Other
Customer attrition rate	5.3	8.6	8.1	6.7	8.0	7.9	4.2	8.0	8.1
Average customer retention period	5.6	8.6	7.9	6.8	7.8	8.1	4.2	7.8	8.0
Revenues from new customers	4.9	8.6	8.0	7.2	8.3	8.2	5.2	7.1	8.4
Repurchase rate (%) by customers	5.3	8.4	7.9	6.7	7.5	8.6	4.2	7.9	7.8
Other	5.0	8.0	10.0		2.0	7.5	0.0		7.7

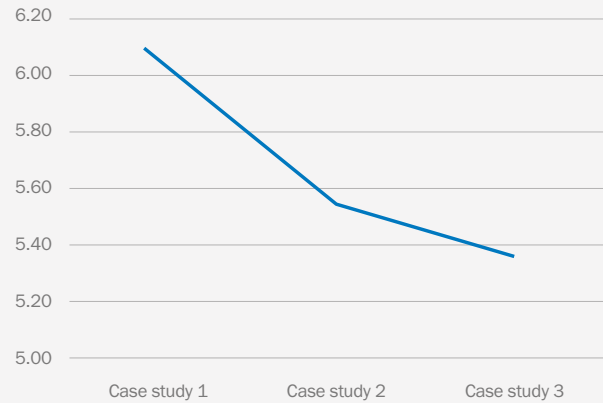
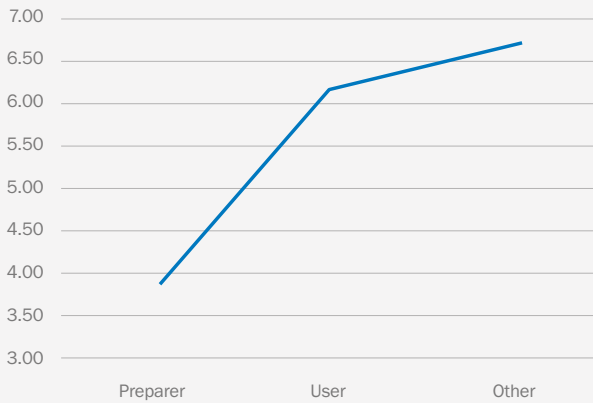
**Null Hypothesis refused with a probability <0.01**

			Sum of the squares	Degrees of freedom	Mean square	Test F	P-Value
Question 36	Customer attrition rate/ churn rate	Between Group	95	1	94,9	16,5	0,000
		Within Group	264	46	5,7		
		Total	359	47			
	Average customer retention period	Between Group	71	1	71,0	11,2	0,002
		Within Group	291	46	6,3		
		Total	362	47			
	Revenues from new customers	Between Group	68	1	68,0	10,3	0,002
		Within Group	298	45	6,6		
		Total	366	46			
	Repurchase rate (%) by customers	Between Group	73	1	73,1	12,2	0,001
		Within Group	264	44	6,0		
		Total	337	45			

## Customer list

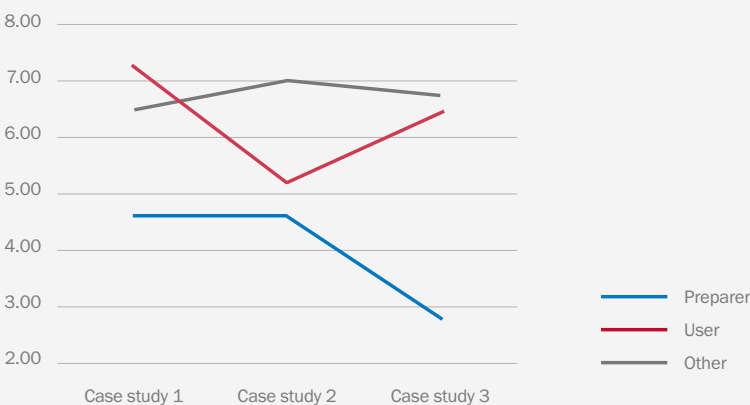
**Q.37: In your opinion, to what extent would it be useful for your decision making and assessments to have more information available on customer list in the annual report presented?**

### Effects of current professional occupation and case study on the answers to question Q37



#### Main effect of current professional occupation

#### Main effect of case study



#### Interaction between current professional occupation and case study

On this question, the values representing the usefulness according to the respondents are quite low, ranging from 4.0 (preparers) to 6.3 (users) to 6.8 (others). The differences in the means are significant ( $p=0.000$ ). On the contrary, the variation of the means with respect to the case study is insignificant due to the p-value of the test on the main effect of the case study being 0.526. The same conclusion concerns the interaction effect ( $p=0.236$ ), despite the interaction plot showing a lack of parallelism between the lines.

As for the specific indicators, those perceived as most useful (mean above 6.00 out of 10) by users are 'Customer list size', 'Purchase/Sale of customer data', and 'Use of customer data', whilst for preparers 'Purchase/Sale of customer data' (mean above 4.50 out of 10). In statistical terms, a significant difference (0.001) on the usefulness for the two professional groups was found on the KPI 'Customer list size' proposed in the survey.

**Null Hypothesis refused with a probability <0.05**

		Sum of the squares	Degrees of freedom	Mean square	Test F	P-Value
Question 37	Between Group	55	1	55,2	7,0	0,011
	Within Group	363	46	7,9		
	Total	418	47			

**Question 38: In particular, to what extent would the following information on customer list be useful?**

Question 38	Case Study 1			Case Study 2			Case Study 2		
	Preparer	User	Other	Preparer	User	Other	Preparer	User	Other
Customer list size	4.3	6.8	6.0	5.3	4.9	6.8	3.8	7.1	7.5
Use of customer data	4.3	6.8	5.9	4.6	3.9	6.9	3.8	7.1	7.3
Management storage of customer data	4.3	6.8	5.8	5.2	3.5	6.9	3.8	6.7	7.1
Purchase/Sale of customer data	5.1	7.3	6.3	5.2	4.0	7.3	3.8	6.7	7.3
Other	4.6	7.4	7.2		5.0	7.0	0.0	0	7.8

**Null Hypothesis refused with a probability <0.05**

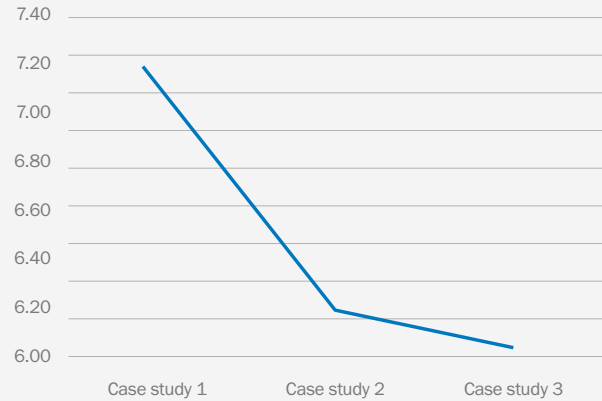
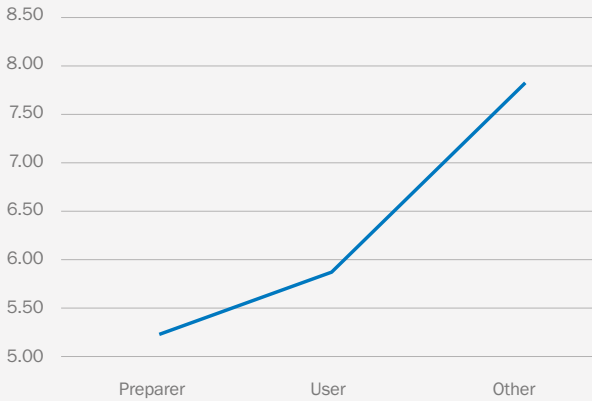
		Sum of the squares	Degrees of freedom	Mean square	Test F	P-Value	
Question 38	Customer list size	Between Group	35	1	35,2	4,5	0,040
		Within Group	336	43	7,8		
		Total	371	44			
	Other	Between Group	55	1	55,4	4,8	0,039
		Within Group	252	22	11,5		
		Total	307	23			



## Corporate reputation

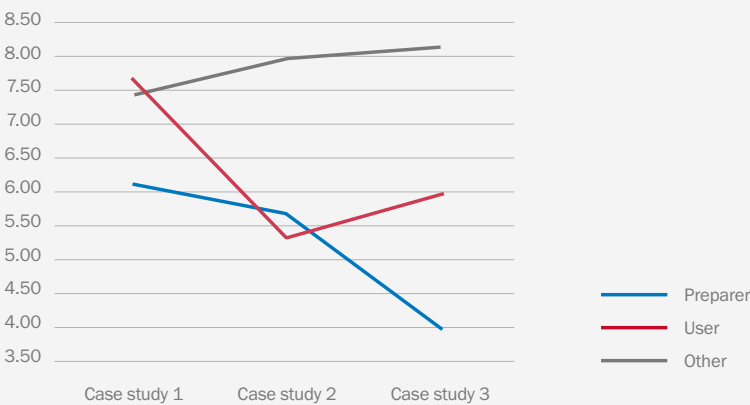
**Q.39: In your opinion, to what extent would it be useful for your decision making and assessments to have more information available on corporate reputation and image in the annual report presented?**

### Effects of current professional occupation and case study on the answers to Q39



Main effect of current professional occupation

Main effect of case study



Interaction between current professional occupation and case study

The main effect that narrative of the current professional occupation shows that the estimates of the means have important variations according to the professional occupation of respondents. The mean values are 5.6 (preparers), 6.4 (users) and 7.9 (others). The test on the main effect of the current professional occupation confirms the hypothesis of a significant effect of this factor ( $p=0.000$ ). Looking at the main effect plot of the case study, we can notice that the differences between the sample means related to the three case studies are more contained, although a decreasing behaviour of the means with respect to case studies appears. Indeed, the test on the main effect of case study does not reject the null hypothesis of no effect ( $p=0.130$ ). Even if the sample means, as a function of the case study, have different behaviours for the three groups of respondents, the test on the interaction effect does not reject the hypothesis of the null effect ( $p=0.112$ ).

As for the specific indicators, those perceived as most useful (mean above 6.00) by users are 'Reputation level by customer groups/business lines', and 'Drivers of corporate reputation and image', and preparers have similar preferences also on this last one (mean above 6.00). From a statistical viewpoint, no significant difference ( $p=0.001$  or  $p=0.005$ ) on the usefulness for the two professional groups was found on the KPIs proposed in the survey.

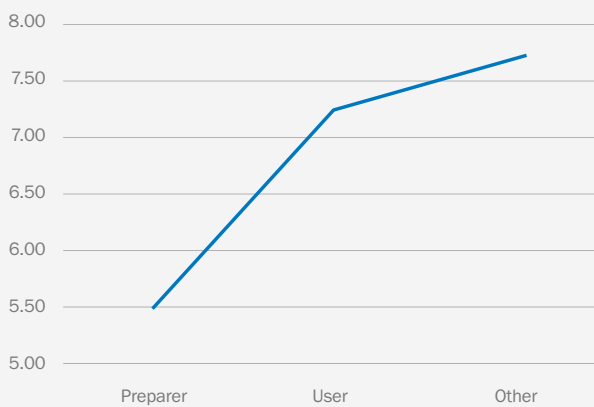
**Question 40: In particular, to what extent would the following information on corporate reputation and image be useful?**

Question 38	Case Study 1			Case Study 2			Case Study 2		
	Preparer	User	Other	Preparer	User	Other	Preparer	User	Other
Drivers of corporate reputation and image	6.3	6.9	7.5	6.3	5.1	8.0	5.3	6.3	7.7
Types of reputation surveys conducted	5.3	6.3	7.3	5.5	4.8	7.3	5.0	5.9	7.6
Reputation level by customer groups/ business lines	5.8	7.2	7.4	6.3	6.1	7.8	5.0	6.4	7.6
Other	4.5	6.5	10.0		0.0	6.3	0.0	0.0	7.8

**Relationships with suppliers**

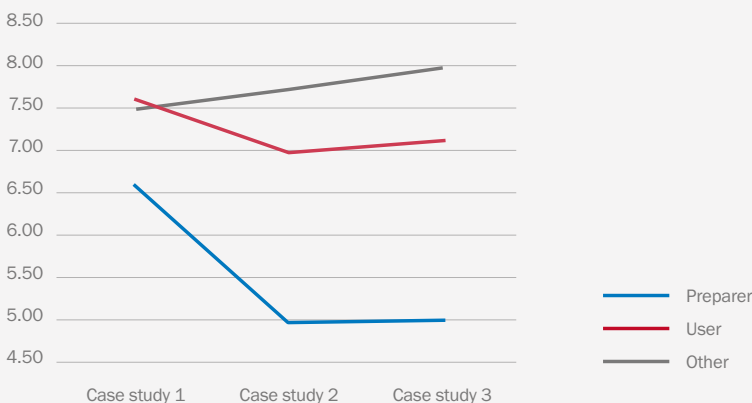
**Q.41: In your opinion, to what extent would it be useful for your decision making and assessments to have more information available on relationships with suppliers in the annual report presented?**

**Effects of current professional occupation and case study on the answers to Q41**



**Main effect of current professional occupation**

**Main effect of case study**



**Interaction between current professional occupation and case study**

With respect to the current professional occupation, the mean response varies from 5.7 (preparers) to 7.7 (others). The mean usefulness for users is 7.3. The main effect of the current professional occupation is strongly significant ( $p=0.000$ ). The mean response with case study 1 is 7.3 and the values with case study 2 and case study 3 are lower, 6.6 and 6.7 respectively. However, the main effect of case study is not significant ( $p=0.339$ ). Within each professional occupation, the changes of means by case study are similar to those of the main effect plot, except for the group of others, characterised by an apparent increasing linear relationship. But also the interaction effect is not significant according to the p-value of the specific test in the ANOVA (0.451).

As for the specific indicators, those perceived as most useful (mean above 7.00 out of 10) by users are 'Degree of value chain integration', 'Types of suppliers' product quality certifications', and 'Types of suppliers' environmental certifications', whilst preparers prefer (mean above or equal to 6.00 out of 10) 'Degree of value chain integration' and 'Types of suppliers' environmental certifications'. From a statistical standpoint, a significant difference (0.005) on the usefulness for the two professional groups was found on 'Degree of value chain integration', 'Types of suppliers' product quality certifications' in the survey.

### Null Hypothesis refused with a probability <0.05

		Sum of the squares	Degrees of freedom	Mean square	Test F	P-Value
Question 41	Between Group	28	1	28,2	6,1	0,017
	Within Group	207	45	4,6		
	Total	236	46			

### Question 42: In particular, to what extent would the following information on relationships with suppliers be useful?

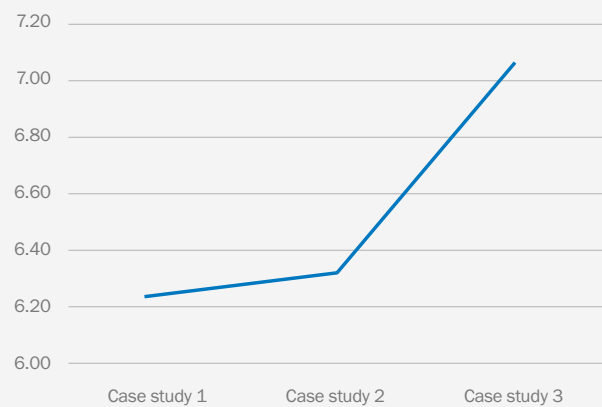
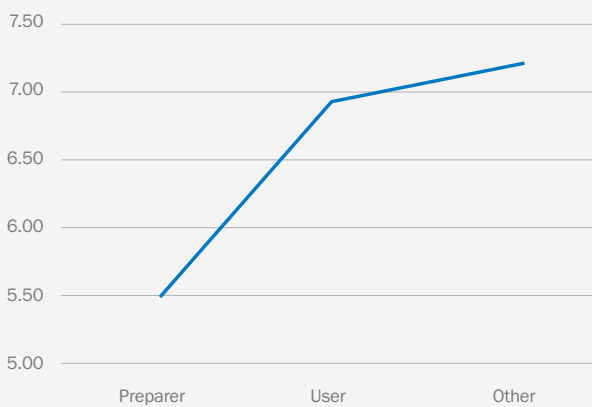
Question 42	Case Study 1			Case Study 2			Case Study 2		
	Preparer	User	Other	Preparer	User	Other	Preparer	User	Other
Data share among supply chain participants	6.2	7.9	7.0	5.3	5.4	7.1	4.2	6.6	7.3
Degree of value chain integration	6.6	8.0	7.2	5.8	6.6	7.7	5.5	7.4	7.6
Types of suppliers' product quality certifications	6.5	8.4	7.2	5.3	5.8	7.5	4.8	7.3	7.7
Types of suppliers' environmental certifications	6.8	8.2	7.5	5.5	6.0	7.5	4.8	7.1	7.8
Other	6.0		8.7		7.0	6.0	0.0		7.8

**Null Hypothesis refused with a probability <0.05**

			Sum of the squares	Degrees of freedom	Mean square	Test F	P-Value
Question 42	Degree of value chain integration	Between Group	17	1	17,2	4,2	0,045
		Within Group	179	44	4,1		
		Total	196	45			
	Types of suppliers' product quality certifications	Between Group	25	1	25,3	4,3	0,044
		Within Group	272	46	5,9		
		Total	298	47			

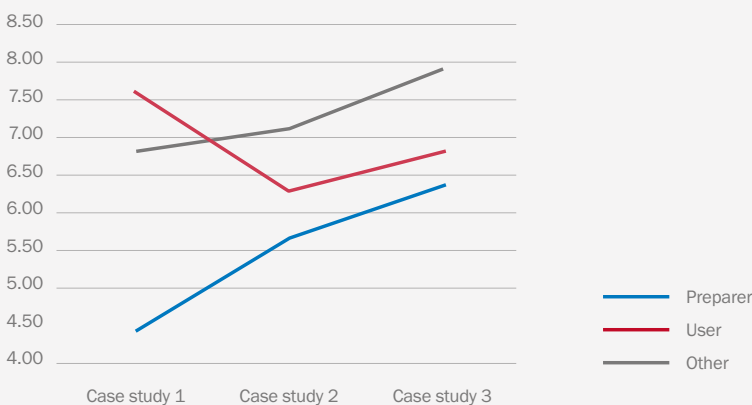
**Q.43: In your opinion, to what extent would it be useful for your decision making and assessments to have more information available on training in the annual report presented?**

**Effects of current professional occupation and case study on the answers to question Q43**



**Main effect of current professional occupation**

**Main effect of case study**



**Interaction between current professional occupation and case study**

The descriptive analysis based on sample means indicates a possible effect of the current professional occupation. The sample mean takes value 5.2 for preparers, 6.9 for users and 7.3 for others. Actually, this is not only due to sample variability because the p-value of the test on the main effect of professional occupation is equal to 0.007, denoting strong significance of the main effect. As can be seen from the main effect plot, the relationship between mean response and case study seems to be non-decreasing, because the mean values for case study 1 and case study 2 are similar (6.3) and the mean for case study 3 is greater (7.0). However, these differences cannot be considered as significant, due to the large p-value (0.370). In the interaction plot, the relationship between response and case study, seems to follow a different trend for users, preparers and others, but we cannot conclude in favour of the hypothesis of interaction between the two factors because the p-value is 0.427.

As for the specific indicators, those perceived as most useful (mean above 6.00 out of 10) by users are 'Training costs on annual revenues', 'Level of employee participation in training courses', and 'No. of training courses completed by employees', whilst preparers privilege (mean above 5.00 out of 10) 'Training costs on annual revenues' and 'Level of employee participation in training courses'. In a statistical perspective, no significant difference (0.001 or 0.005) on the usefulness for the two professional groups was found on the proposed KPIs of the survey.

#### Null Hypothesis refused with a probability <0.05

		Sum of the squares	Degrees of freedom	Mean square	Test F	P-Value
Question 43	Between Group	36	1	35,6	6,2	0,016
	Within Group	257	45	5,7		
	Total	292	46			

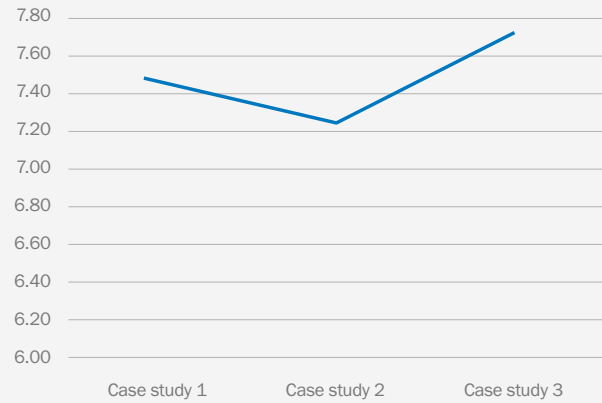
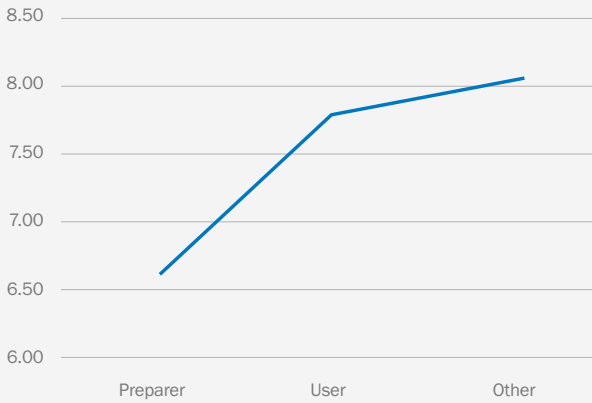
#### Question 44: In particular, to what extent would the following information on training be useful?

Question 44	Case Study 1			Case Study 2			Case Study 2		
	Preparer	User	Other	Preparer	User	Other	Preparer	User	Other
Level of employee participation in training courses	4.0	6.6	6.5	6.3	6.3	6.9	5.6	6.6	7.5
Training costs on annual revenues	4.5	7.0	6.2	7.0	5.9	7.2	6.6	7.0	7.5
No. of training courses completed by employees	3.6	6.6	5.7	6.5	5.3	6.8	5.0	6.1	6.8
Post course salary increases	3.4	6.7	5.8	5.5	4.8	7.2	4.0	5.9	7.1
Other	4.5	9.0	7.0		4.5	6.3	0.0	8.0	6.5

## Human capital

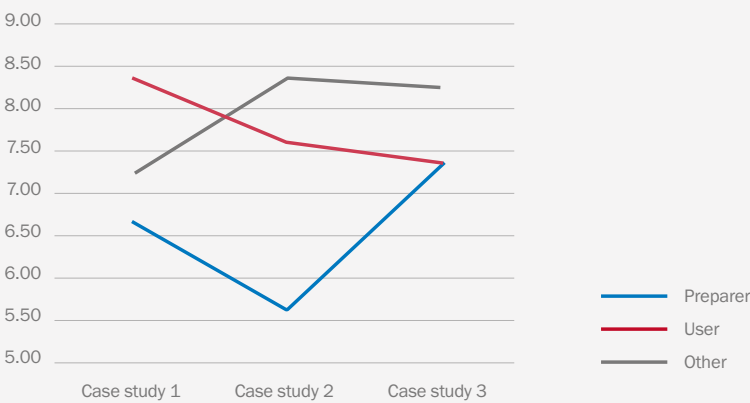
**Q.45: In your opinion, to what extent would it be useful for your decision making and assessments to have more information available on human capital (employee competencies skills, experience) in the annual report presented?**

### Effects of current professional occupation and case study on the answers to question Q45



#### Main effect of current professional occupation

#### Main effect of case study



#### Interaction between current professional occupation and case study

Regarding the professional occupation, the sample mean of the variable corresponding to question Q45 takes the minimum 6.6 in correspondence of the preparers and the maximum 8.1 in correspondence of others, while users scored 7.8 on average. According to the p-value of the test on the main effect of the current professional occupation (0.015), we can conclude that the mean values depend on the current professional occupation. The relationship between mean response and case study seems to be non-monotonic, due to the “V shape” of the curve with the minimum in correspondence to case study 2. Despite the mean differences, we cannot conclude that the mean answers depend on the case study, because the p-value of the main effect of case study (0.722) is greater than 0.10. In the interaction plot, the three lines are not parallel but, the p-value of the test 0.219 indicates no significance of the interaction effect.

As for the specific indicators, those perceived as most useful (mean above 7.00 out of 10) by users are all the three KPIs proposed, being ‘Employee competence level’, ‘Employee turnover per function and geography’, and ‘Employee satisfaction and engagement’. Preparers also privilege

(mean above 6.00 out of 10) 'Employee competence level' together with 'Employee satisfaction and engagement' and 'Employee turnover per function and geography'. From a statistical viewpoint, a significant difference (0.005) on the usefulness for the two professional groups was found for the KPI 'Employee turnover per function and geography' suggested in the survey.

**Null Hypothesis refused with a probability <0.05**

		Sum of the squares	Degrees of freedom	Mean square	Test F	P-Value
Question 45	Between Group	20	1	19,6	5.0	0,030
	Within Group	180	45	3,9		
	Total	199	47			

**Question 46: In particular, to what extent would the following information on human capital (employee competencies, skills, experience) be useful?**

Question 46	Case Study 1			Case Study 2			Case Study 2		
	Preparer	User	Other	Preparer	User	Other	Preparer	User	Other
Employee turnover per function and geography	6.5	7.8	6.9	5.7	7.9	8.0	6.0	7.1	8.1
Employee satisfaction and engagement	6.4	8.1	7.3	7.2	7.1	8.4	6.2	7.3	8.4
Employee competence level	6.7	8.3	7.5	6.8	7.1	8.6	6.0	7.5	8.6
Other	4.5	9.0	7.5		5.0	7.7	0.0	7.0	7.7

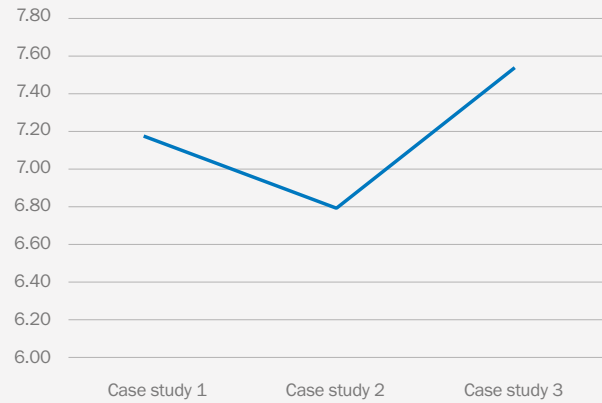
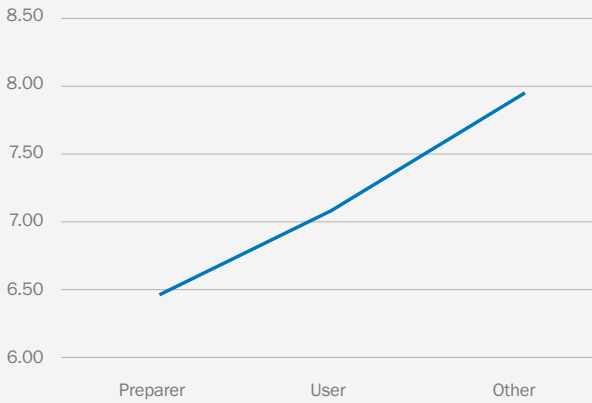
**Null Hypothesis refused with a probability <0.05**

		Sum of the squares	Degrees of freedom	Mean square	Test F	P-Value	
Question 46	Employee turnover per function and geography	Between Group	26	1	26,1	5,5	0,024
		Within Group	219	46	4,8		
		Total	245	47			

## Organisational culture/climate

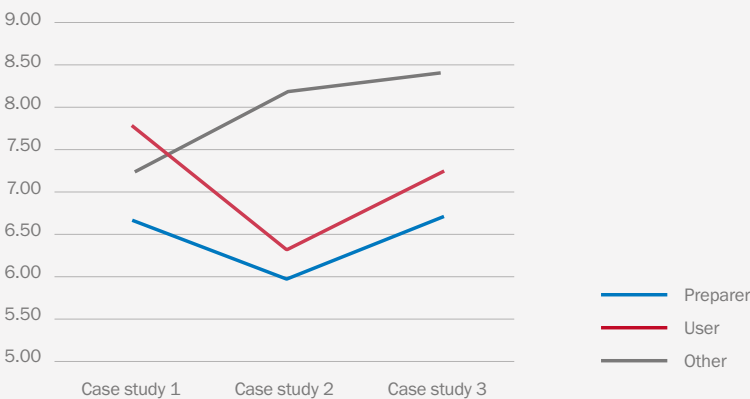
**Q.47: In your opinion, to what extent would it be useful for your decision making and assessments to have more information available on organisational culture/climate (e.g., ‘entities’ DNA’, employee satisfaction and engagement) in the annual report presented?**

### Effects of current professional occupation and case study on the answers to question Q47



#### Main effect of current professional occupation

#### Main effect of case study



#### Interaction between current professional occupation and case study

The estimates of the mean response for each respondents’ group, according to the professional occupation, are 6.5 (preparer), 7.1 (user) and 8.0 (others). The p-value of the test on the main effect of this factor is 0.008. Consequently, the differences in the mean estimates can be considered significant. The changes in the mean estimates with respect to the case studies produces a “V- shaped” plot but, in this case, the differences in the mean estimates are insignificant as the p-value is 0.401. The lines in the interaction plot are not exactly parallel, particularly in others, denoting a possible interaction effect, but also in this case the p-value (0.322) is greater than 0.10 and we cannot reject the hypothesis of a null interaction effect.

As for the specific indicators, those perceived as most useful (mean above 7.00 out of 10) by users are two out of the four KPIs proposed in the survey, being ‘Employee turnover/absences’, ‘and ‘Salary and promotion packages’. Preparers also indicate (mean above 6.00 out of 10) ‘Employee turnover/absences’ and ‘Gender equality’. From a statistical perspective, a significant difference (0.005) on the usefulness for the two professional groups was found on the two KPIs considered most useful by users.



**Question 48: In particular, to what extent would the following information on organisational culture/climate would be useful?**

Question 48	Case Study 1			Case Study 2			Case Study 2		
	Preparer	User	Other	Preparer	User	Other	Preparer	User	Other
Gender equality	6.4	7.4	6.6	7.0	6.4	7.8	5.4	6.4	8.2
Salary and promotion packages	5.9	7.8	6.7	6.3	6.3	7.9	4.4	7.1	7.7
Employee turnover/ absences	6.3	8.2	7.6	6.8	7.8	7.6	6.0	6.8	8.3
Efficiency of production/ commercial procedures	5.0	6.9	7.0	6.3	5.6	8.1	7.0	6.9	7.8
Other	4.5	7.5	8.7		3.5	7.5	0.0		5.7

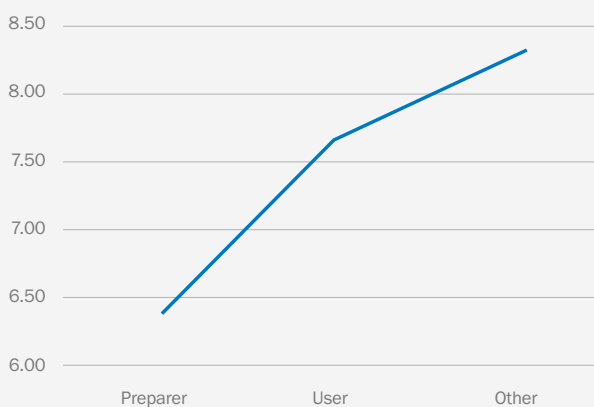
**Null Hypothesis refused with a probability <0.05**

			Sum of the squares	Degrees of freedom	Mean square	Test F	P-Value
Question 48	Salary and promotion packages	Between Group	26	1	26,1	5,5	0,024
		Within Group	219	46	4,8		
		Total	245	47			
	Employee turnover/ absences	Between Group	19	1	18,7	5,1	0,029
		Within Group	169	46	3,7		
		Total	188	47			

**Intangibles-related risks and opportunities**

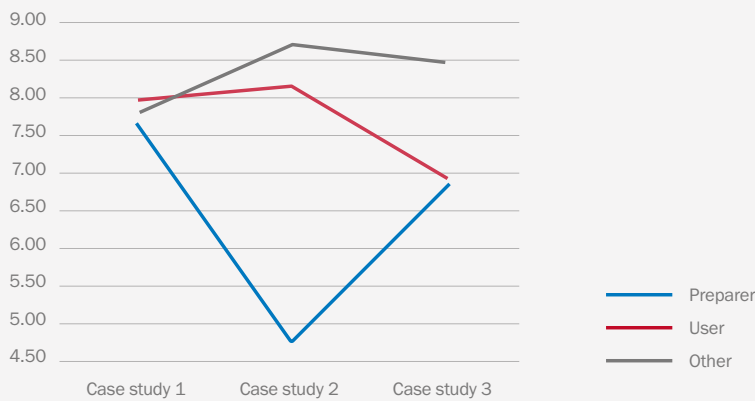
**Q.49: In your opinion, to what extent would it be useful for your decision making and assessments to have more information available on intangibles-related risks and opportunities in the annual report presented?**

**Effects of current professional occupation and case study on the answers to Q49**



Main effect of current professional occupation

Main effect of case study



### Interaction between current professional occupation and case study

The mean value of usefulness expressed by the respondents in relation to Q49, changes significantly depending on the professional occupation: 6.5 for preparers, 7.7 for users, and 8.3 for others. The test on the main effect of the professional occupation supports the hypothesis that the answers to Q49 depend on the professional occupation ( $p=0.002$ ). The main effect plot concerning the relationship between mean answer to Q49 and case study seems to indicate an important difference between the mean response with case study 1 and those with case study 2 and case study 3. The differences in the mean estimates are not relevant and the p-value of the specific test (0.382) leads to the conclusion that there is not empirical evidence in favour of the hypothesis that the considered case study impacts the response. Regarding the joint effect of the two factors, the interaction plot suggests an interaction. This descriptive evidence is confirmed by the p-value of the ANOVA (0.014) and can be generalised outside the observed sample. The interaction effect is due in particular to the “V-shaped” behaviour of the means with respect to the case studies for the group of preparers, unlike the plot observed for the group of users and the group of others. The case study has an effect only in terms of interaction with the professional occupation, therefore, if both change, then there is an additional effect that adds up to the change induced by the professional occupation, which has the principal impact.

As for the specific indicators, those perceived as most useful (mean above 7.50 out of 10) by users are ‘Product quality’ and ‘Customer relationships and loyalty’. Preparers also privilege (mean above 6.80 out of 10) ‘Product quality’, while the second KPI considered as most useful is ‘Employee development’. In statistical terms, no significant difference on the usefulness for the two professional groups appeared on the KPIs proposed in the survey.

### Question 50: In particular, to what extent would the following information on intangibles-related risks and opportunities be useful?

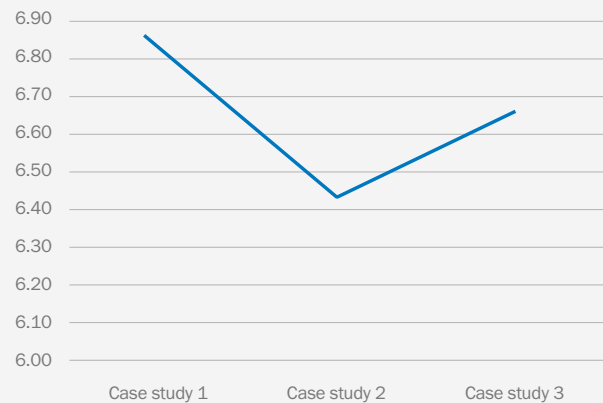
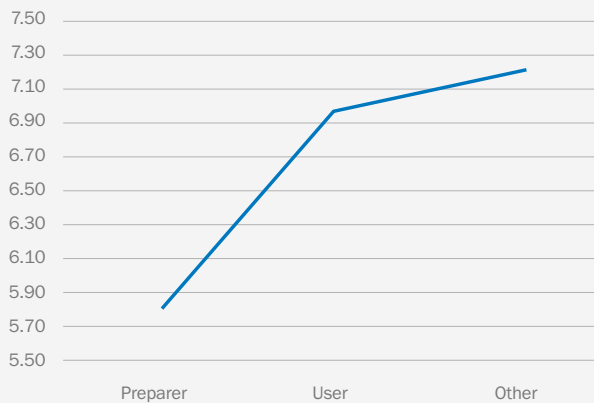
Question 50	Case Study 1			Case Study 2			Case Study 2		
	Preparer	User	Other	Preparer	User	Other	Preparer	User	Other
Customer relationships and loyalty	6.6	8.1	7.5	7.0	7.5	8.5	7.0	7.6	8.3
Employee development	6.0	7.9	7.2	7.2	6.7	7.9	7.0	7.3	8.0
Product quality	7.2	8.5	7.8	6.7	7.9	8.5	7.0	7.6	8.3
					10.			10.	
Other	3.0	7.5	9.2		0	8.0	0.0	0	8.2

## Null Hypothesis refused with a probability <0.01

			Sum of the squares	Degrees of freedom	Mean square	Test F	P-Value
Question 50	Other	Between Group	92	1	91,9	30,6	0,001
		Within Group	18	6	3,0		
		Total	110	7			

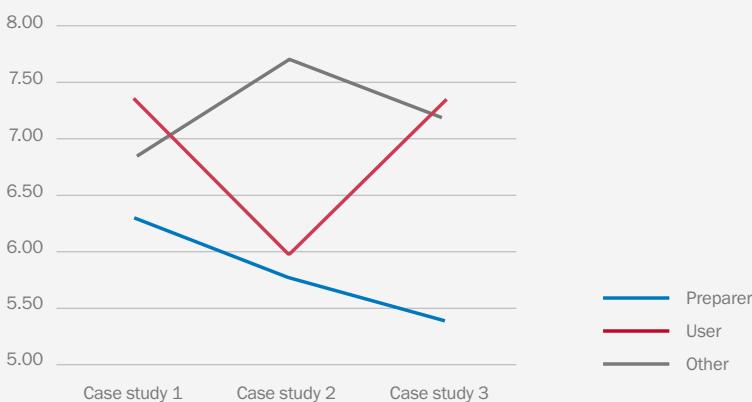
### Q.51: In your opinion, to what extent would the above presented annual report be useful/relevant for decision-making by financial capital providers?

#### Effects of current professional occupation and case study on the answers to question D51



#### Main effect of current professional occupation

#### Main effect of case study



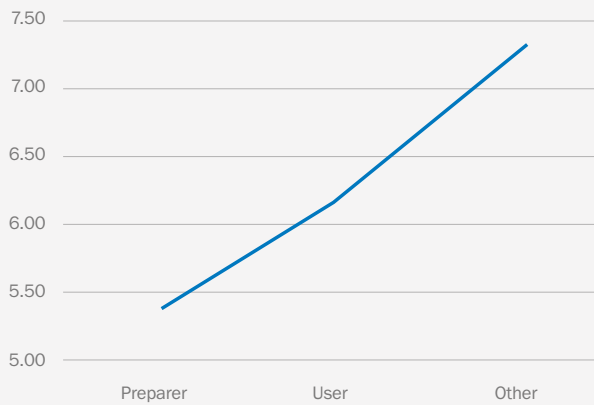
#### Interaction between current professional occupation and case study

According to the test on the main effect of professional occupation in the two-way ANOVA, the null hypothesis of no effect must be rejected in favour of the hypothesis that the professional occupation affects the response ( $p=0.034$ ). The behaviour of the means with respect to the case study is characterised by low variability, in the range 6.40-6.90. Consequently, the test on the main effect of the case study leads to the non-rejection of the hypothesis of null effect ( $p=0.751$ ). The different behaviour of the plots representing the mean as a function of the case study by professional occupation could be a symptom of the interaction between the case study and professional occupation.

Nevertheless, the test on the interaction in the two-way ANOVA has a p-value greater than 0.10 (0.398) and therefore, the empirical evidence does not support the hypothesis of interaction effect.

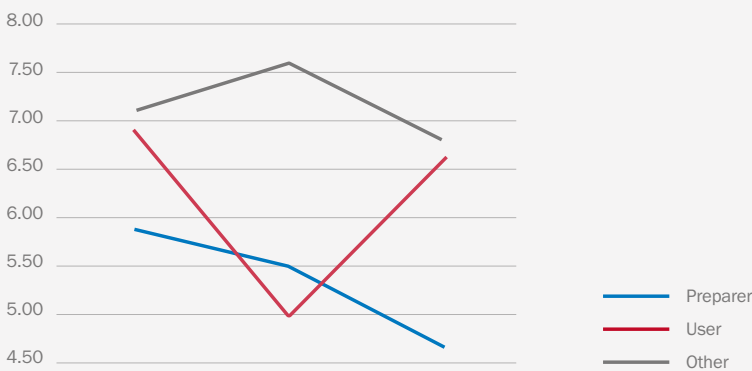
**Q.52: In your opinion, to what extent would the above presented annual report be useful to evaluate the stewardship of resources by company management?**

**Effects of current professional occupation and case study on the answers to Q52**



Main effect of current professional occupation

Main effect of case study

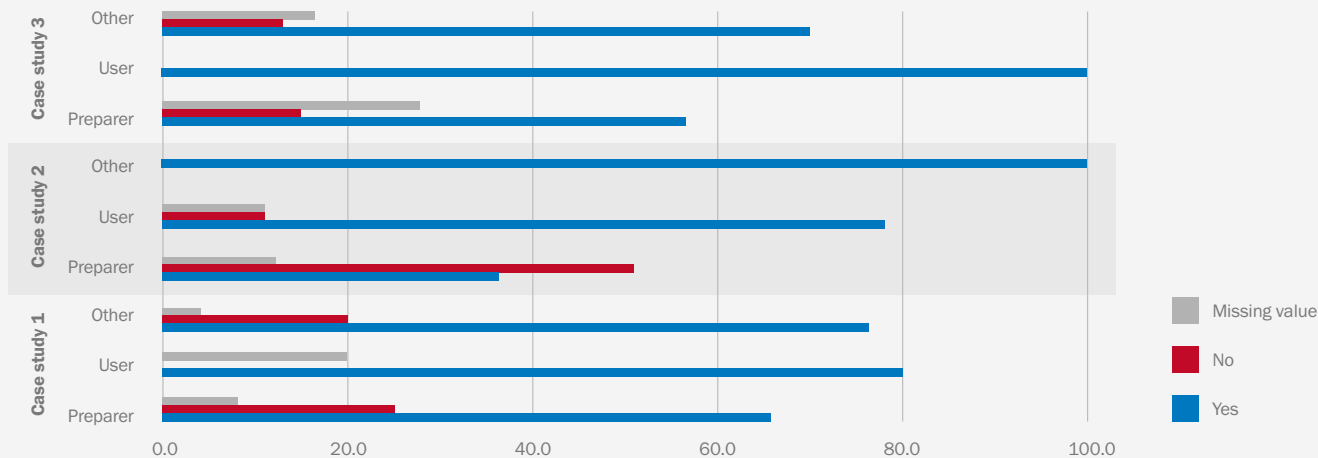


Interaction between current professional occupation and case study

The statistical tests show that differences in the means are statistically significant ( $p=0.004$ ). On the contrary, the variation of the means with respect to the case study is not significant because the p-value of the test on the main effect of the case study is 0.436. The same conclusion concerns the interaction effect ( $p=0.250$ ), despite the interaction plot shows a lack of parallelism between the lines.

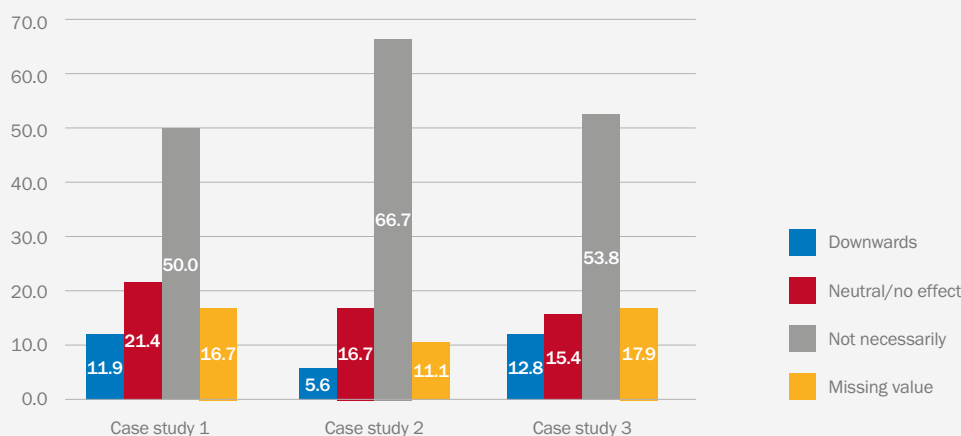
**Q.53: In your opinion, in the annual report presented would the availability of more information on intangibles change the company’s market value (as identified earlier in the sector profile)?**

Current professional occupation and the perception of corporate value change vis-à-vis the availability of information on intangibles provided in the annual reports of the three case studies



**Q.54: If more information on intangibles were to be provided, which direction would this affect the company's value in your opinion?**

Direction of change in company value as a consequence of the availability of information on intangibles provided in the three case studies



Regarding only **case study 2**, which – we recall – is that adopting a fair value measurement basis for valuing unaccounted intangibles, Q55 poses the issue of the relevance of this information in relation to company future cash flows.

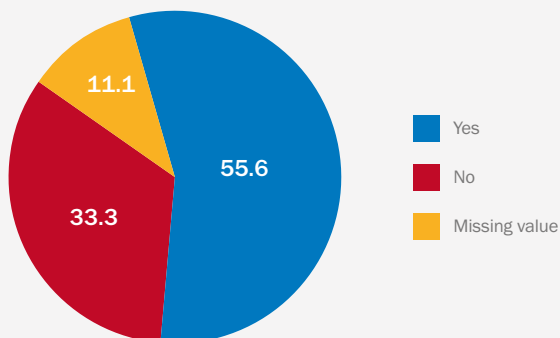
**Q.55: In your opinion, to what extent would the recognition of the internally developed intangible assets on the balance sheet – as in the annual report presented – help to provide information that is useful in assessing the amount, timing, and uncertainty of the company’s future cash flows?**

Preparers responding to this question tend to see this interaction (mean of responses 5.86), whilst users at a lesser extent (mean of responses 4.14). This is further confirmed by the statistical difference that emerges from the ANOVA test (0.005).

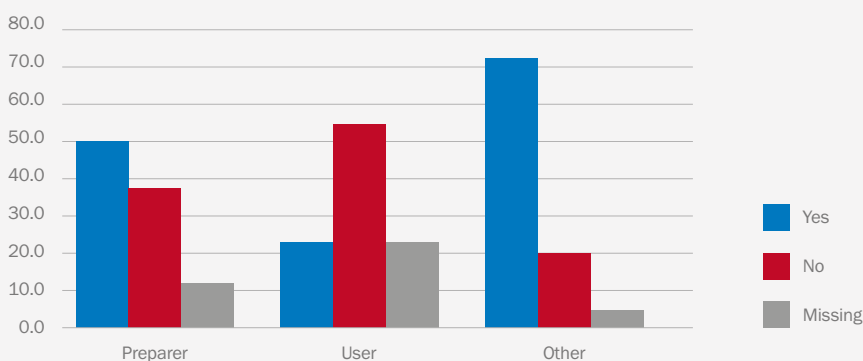
In Q56, that represents the logical continuation of the previous one from an accounting standpoint, the issue of annual amortisation vs. annual fair valuing of these intangibles is explored.

**Q.56: In the annual report presented, the internally generated intangible assets valued at fair value are subject to amortisation (if they have finite useful lives) or impairment test (if they have indefinite useful lives). In your opinion, would it be more useful for decision making and assessments if the fair value of intangibles were to be determined annually at the end of each financial year without applying amortisation?**

Percentage distribution of answers to Q56



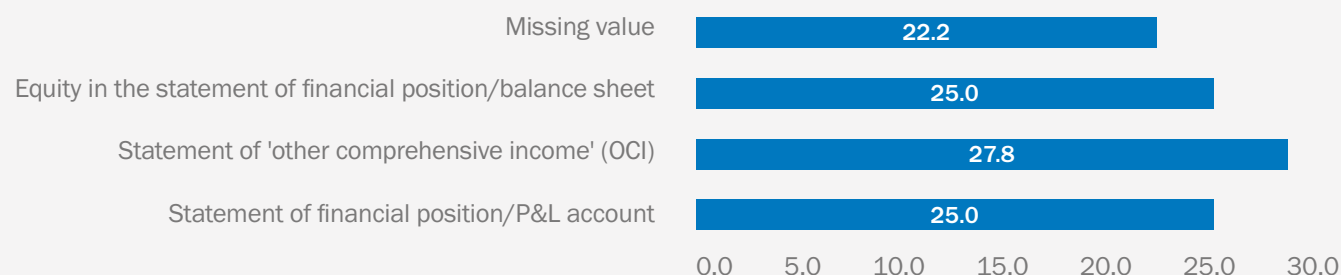
Current professional occupation and annual amortisation vs. annual fair value of intangibles in case study 2



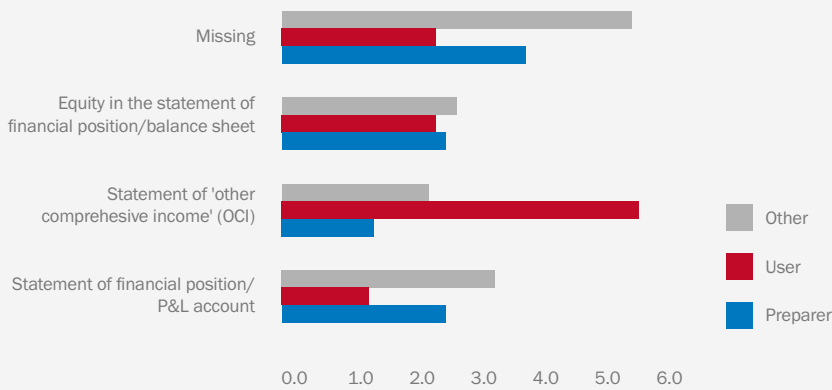
In case study 2, Q57 continues in the investigation of the possible measurement at fair value of intangibles that today are unrecognised in the balance sheet by addressing the issue of the favourite accounting treatment of the annual changes in these fair values.

**Q.57: In the case of adoption by the company of an annual fair value determination for internally generated intangible assets (see previous question), what would be your preferred option for treating the yearly change/variation in these fair values?**

Percentage distribution of answers to Q57



Current professional occupation and annual amortisation vs. favourite accounting treatment of the annual changes in these fair values in case study 2

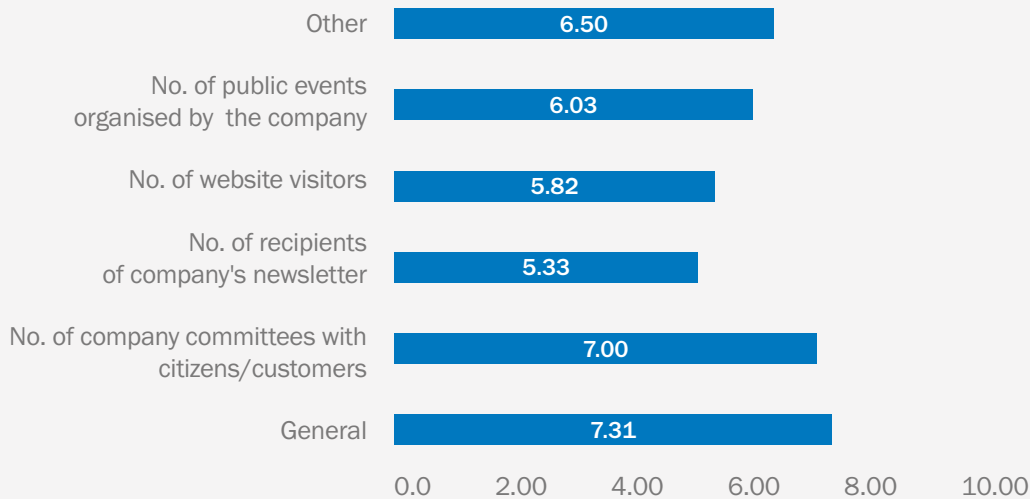


Regarding only **case study 3**, which – we recall – is that presenting both financial and non-financial information, Q.51 and Q.52 of the associated survey three explore the relevance of information on stakeholder engagement.

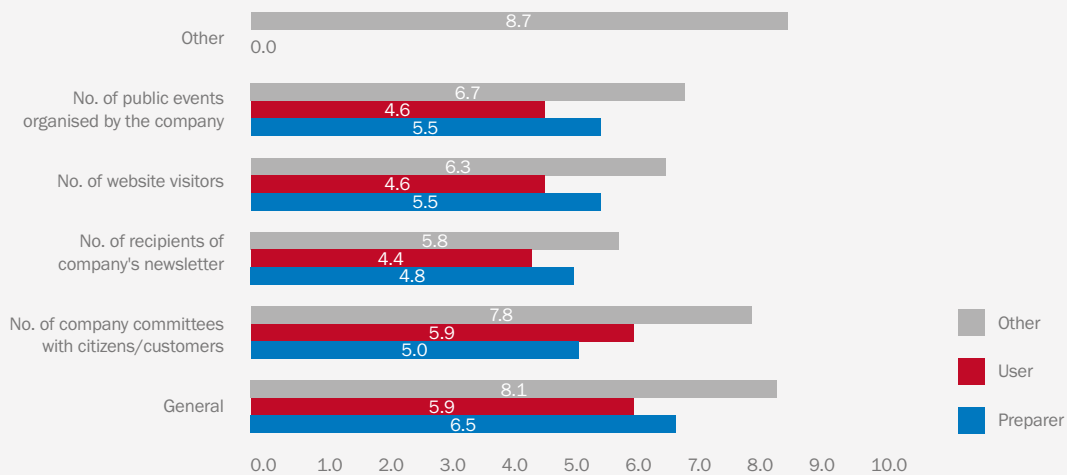
### Stakeholder engagement

**Q.51 of survey three: In your opinion, to what extent would it be useful for your decision making and assessments to have more information available on company's stakeholder engagement?**

Percentage distribution of answers to Q51 of survey three



## Current professional occupation vs. information available on company's stakeholder engagement



Interesting to note, for this type of information, preparers have expressed for once more appreciation than users (preparers: 6.5/10; users: 5.9/10), even though this intangible appears only in case 3, making this finding less supported and robust than others. As to the detailed metrics, respondents favour a 'General' type of information. Others that replied to Q.52 indicate some preferences being 'No. of company committees with citizens/customers' and 'No. of public events organised by the company'. On examination and breakdown of responses, both preparers and users who tend to privilege 'General' information, also include 'No. of company committees with citizens/customers', and 'No. of recipients of company's newsletter'. This convergence was statistically significant with reference to the first two sets of info.

The third extra question included regarding only case 3 addresses the issue of how to conceive a reduction in the corporate reputation, i.e., whether this should be seen as a company liability or a decrease in the value/level of this intangible.

### Null Hypothesis refused with a probability <0.05

		Sum of the squares	Degrees of freedom	Mean square	Test F	P-Value
Question 51	Between Group	30	2	15,0	5,1	0,012
	Within Group	85	29	2,9		
	Total	115	31			



**Question 52: In particular, to what extent would the following information on company's stakeholder engagement be useful?**

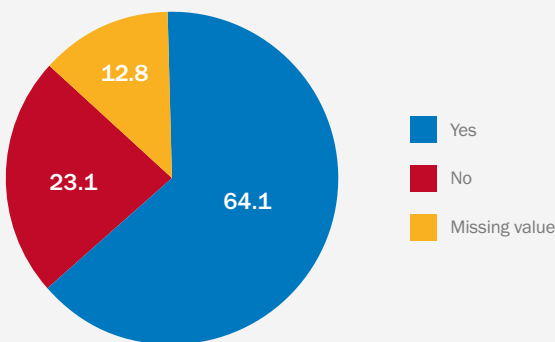
Question 51 & 52	Case Study 3		
	Preparer	User	Other
<b>Stakeholder engagement</b>	6,5	5,9	8,1
No. of company committees with citizens/customers	5,0	5,9	7,8
No. of recipients of company's newsletter	4,8	4,4	5,8
No. of website visitors	5,5	4,6	6,3
No. of public events organised by the company	5,5	4,6	6,7
Other	0,0		8,7

**Null Hypothesis refused with a probability <0.01**

			Sum of the squares	Degrees of freedom	Mean square	Test F	P-Value
Question 52	Other	Between Group	40	2	19,9	6,6	0,004
		Within Group	90	30	3,0		
		Total	130	32			

**Q.53 of Survey three: In your opinion, in the annual report presented would you consider the level of corporate reputation in 2019 (4.9/10) as an intangible liability or a decrease in the value of this resource?**

**Percentage distribution of answers to Q53 of survey three**



**Current professional occupation vs. reduction in the corporate reputation, i.e., whether this should be seen as a company liability or a decrease in the value/level of this intangible**

