



# BEHAVIOURAL STUDY ON THE TRANSPARENCY OF ONLINE PLATFORMS

## Final Report

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## **Behavioural Study on the Transparency of Online Platforms**

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# **Behavioural Study on the transparency of online platforms**

## Contents

<b>1 INTRODUCTION</b>	<b>7</b>
1.1 BACKGROUND OF THE STUDY	7
1.2 POLICY CONTEXT AND REGULATORY FRAMEWORK	9
1.3 METHODOLOGICAL NOTE	12
1.4 STRUCTURE OF THIS REPORT	15
<b>2 SEARCH RESULTS: PRESENTATION AND TRANSPARENCY</b>	<b>16</b>
2.1 REGULATORY ASPECTS	16
2.2 CONSUMER PRACTICES AND PREFERENCE	17
2.3 EXPERIMENT ON THE PRESENTATION AND TRANSPARENCY OF SEARCH RESULTS	19
<b>3 TRANSPARENCY ABOUT THE IDENTITY OF CONTRACTUAL PARTIES</b>	<b>26</b>
3.1 REGULATORY ASPECTS	26
3.2 CONSUMER PRACTICES AND PREFERENCES	26
3.3 EXPERIMENT ON TRANSPARENCY REGARDING CONTRACTUAL IDENTITY	28
<b>4 TRANSPARENCY OF CONSUMER REVIEW, RATING, AND ENDORSEMENT SYSTEMS</b>	<b>36</b>
4.1 REGULATORY ASPECTS	36
4.2 CONSUMER PRACTICES AND PREFERENCES	37
4.3 EXPERIMENT ON TRANSPARENCY OF CONSUMER REVIEWS AND RATING	40
<b>5 CONCLUSIONS AND RECOMMENDATIONS</b>	<b>45</b>
5.1 OVERVIEW	45
5.2 POLICY OPTIONS	48
5.2.1 <i>Transparency of content and presentation features of search results</i>	48
5.2.2 <i>Transparency about the identity of contractual parties</i>	52
5.2.3 <i>Transparency of consumer review, rating, and endorsement systems</i>	54
5.3 TRANSPARENCY BY DESIGN	57
<b>REFERENCES</b>	<b>60</b>
<b>ANNEXES</b>	<b>68</b>
ANNEX 1 AREAS OF RESEARCH AND RESEARCH QUESTIONS	68
ANNEX 2 SYSTEMATIC REVIEW	70
<i>Rationale and Objective</i>	70
<i>Methods</i>	71
<i>Synthesis</i>	74
<i>References</i>	77
ANNEX 3. TRANSPARENCY OF ONLINE PLATFORMS QUALITATIVE RESEARCH	84
<i>Behaviour patterns: how consumers use the platforms</i>	84
<i>Trust and confidence in information provided by online platforms</i>	93
<i>Suggested remedies</i>	112
<i>Suggested target groups for the behavioural experiments</i>	117
<i>Appendix A. Methodology</i>	119
<i>Appendix B. Fieldwork details</i>	122
<i>Appendix C. Discussion Guide</i>	124

<i>Appendix D. Recruitment Screener</i> .....	131
ANNEX 4. BEHAVIOURAL EXPERIMENTS AND ONLINE SURVEY METHODOLOGY.....	135
<i>Experiment design</i> .....	135
<i>Sample and recruiting</i> .....	140
<i>Experimental software</i> .....	141
<i>Test of the experiment</i> .....	141
<i>Implementation of the experiment</i> .....	143
<i>Final online questionnaire</i> .....	145
<i>Questionnaire 1</i> .....	145
<i>Decisions</i>	148
<i>Questionnaire 2</i> .....	151
ANNEX 5. PROFILE OF THE PARTICIPANTS.....	159
<i>Sociodemographic characteristics</i> .....	159
<i>Online purchasing</i> .....	160
<i>Problems reported</i> .....	162
ANNEX 6. POST-EXPERIMENTAL QUESTIONNAIRE RESULTS.....	169
<i>Search results</i> .....	169
<i>Transparency about the identity of contractual parties</i> .....	172
<i>Transparency of consumers reviews, rating and endorsement systems</i> .....	175
ANNEX 7. FACTOR ANALYSIS.....	178
ANNEX 8. FURTHER COMPLEMENTARY ANALYSIS.....	181

## List of figures

Figure 1. Study framework .....	8
Figure 2. Phases and reports of the study .....	15
Figure 3. Search result experiment: example of information content attribute and levels.....	21
Figure 4. Search result experiment: example of rank position attribute and levels .....	22
Figure 5. Search result experiment: example of information presentation attribute and levels	23
Figure 6. Identity of contractual parties experiment: example of information content attribute and levels .....	30
Figure 7. Identity of contractual parties experiment: example of information presentation attribute and levels .....	31
Figure 8. Identity of contractual parties experiment: example of price.....	32
Figure 9. Review result experiment: example of information content attribute and levels.....	41
Figure 10. Review result experiment: example of information presentation attribute and levels .....	42
Figure 11. Review result experiment: example of rating review attribute and levels.....	43
Figure 12. Presentation of search criteria tool on Booking.com: Distance from city centre (see green rectangle) – Unbiased reviews (pop up).....	50
Figure 13. Presentation of search criteria tool on Booking.com: Our top picks (see green rectangle) – Book now, pay when you stay! (pop up) .....	51
Figure 14. Example of information provision about contractual parties .....	52

## List of tables

Table 1. Search results experiment: attributes, levels and research questions.....	19
Table 2. Main results of the discrete choice experiment on information characteristics.....	25
Table 3. Transparency of contractual parties experiment: attributes, levels and research questions.....	29
Table 4 Main results of transparency of contractual entities experiment.....	33
Table 5. Transparency of contractual entities – information by price interaction.....	35
Table 6 Transparency of contractual entities – information prominence by price interaction ..	35
Table 7. Reviews experiment: attributes, levels and research questions .....	40
Table 8. Reviews experiment output .....	44
Table 9. How informational transparency is evaluated by users .....	47

# 1 Introduction

## 1.1 Background of the study

With 360 million Europeans using the internet daily to work, study, shop or stay connected, Europe needs a quality Digital Single Market. The success of the Digital Single Market ultimately depends on the confidence and trust of Europeans<sup>1</sup>. As the use of online platforms has reached unprecedented levels, the potential of online platforms to generate economic growth as drivers of innovation remains undisputed. The growing importance of online platforms and its expansion into new areas of the economy has given rise to new challenges.

The overall purpose of this Behavioural Study on the Transparency of Online Platforms is to understand the impact of enhanced transparency on consumer trust and behaviour in searching and selecting goods and services on online platforms in three specific areas:

Area #1: The general criteria used by platform operators to decide which items are shown to users, in which order, and at what level of saliency, including the disclosure of ownership or contractual relationships that may influence these criteria

Area #2: The identity and the legal status of the contracting parties involved in transactions enabled or facilitated by the platforms (e.g. whether the consumer would be entering a contract with the platform provider or some other retailer or service provider and whether that person is acting as a trader within the meaning of EU consumer law or not).

Area #3: The quality controls established by platform operators (or lack thereof) on user review, rating and endorsement systems, e.g. verification of origin and authenticity, incentives linked to entries, screening / censorship, right to rebuttal of affected parties, etc.

These three areas have certain commonalities<sup>2</sup>. On the one hand, there are **consumer practices**. These practices are shaped by their level of interest, awareness and concerns and how the impact of enhanced information provision and prominence influence consumer behaviour, which in turn is mediated by consumer perception of trust and transparency.

On the other hand, **platform practices** in these three areas shape consumer perception of trust and transparency and, ultimately, impact interest, concerns and awareness as well as practices. Both consumer and platform practices are influenced by the current regulatory framework described in the next section.

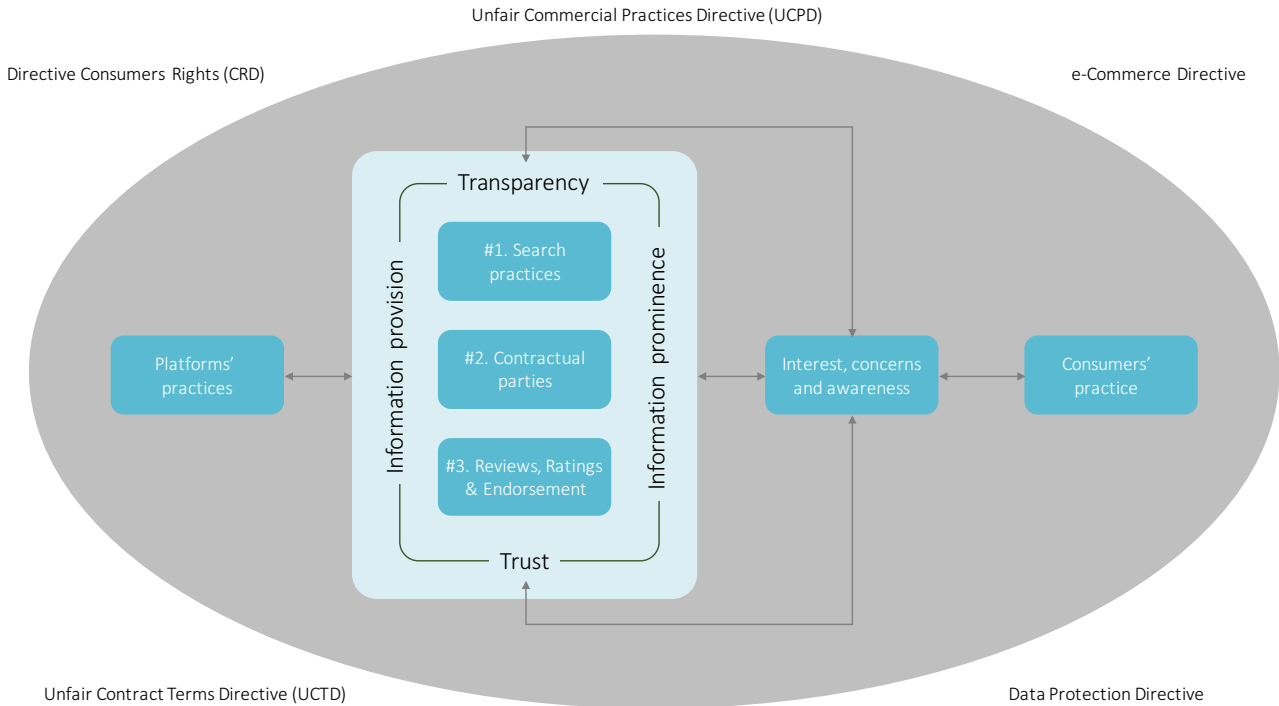
The following figure shows the study framework depicting the interactions between the three areas of the study and consumers' and platforms' practices.

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<sup>1</sup> COM/2017/0650 final

<sup>2</sup> See Annex 1 Areas of research and research questions

Figure 1. Study framework



Source: Open Evidence

This study contributes to the broad-based evidence reviewed by the Commission in the context of the regulatory **Fitness Check of EU Consumer and Marketing Law**, informing targeted legislative enforcement initiatives, non-legislative policy initiatives and/or self-regulatory efforts by online platforms. Within this framework, the characteristics of online platforms in terms of the criteria guiding the presentation of searched information, transparency regarding contractual entities and users’ reviews (the three areas of this study), have important consequences for consumers. Essentially, platforms provide a service to the users, access to goods and products. Thus, at a general level, the question arises as to what extent the service provided by online platforms is balanced in the interests of the users or balanced in the interests of the platform. More concretely, if in an online search, the criteria for ranking of providers of goods and services is not transparent and is designed to maximise advertising revenue for the platform, then this might constitute an unfair commercial practice. Similarly, if consumers are intentionally misled to the extent that they do not know who their “contractual counterpart” is, or who they have to deal with in case of any contractual questions, this constitutes an unfair commercial practice. The same holds true for the risk of manipulating consumer opinion through the presentation or transparency of reviews and ratings, including fake reviews. At the heart of all these aspects is the issue of trust and transparency in platforms. Trusting that the platform has the users’ interests in mind (fiduciary responsibility), and confidence that the information provided will allow the consumer to make an informed choice.



## 1.2 Policy context and regulatory framework

The EC has recently published the 'Work Programme 2018 An agenda for a more united, stronger and more democratic Europe (COM/2017/0650 final)'. This sets out the **New Deal for Consumers** (p.7) and states that the success of the internal market ultimately depends on **trust** and that trust can easily be lost if consumers feel that remedies are not available in cases of harm. Furthermore, this Communication emphasises the importance of the **Digital Single Market** and its dependence on the **confidence** of Europeans (p.4).

It is estimated that 191m citizens across the EU-28 have actively engaged in peer to peer platform markets between May 2015 and May 2016, making at least one transaction involving payment (Hausemer et al, 2017). This has given rise to **new policy and regulatory challenges**. Creating appropriate framework conditions and the right environment is deemed essential to facilitating and fostering the emergence of EU-based online platforms. It is suggested that excessive regulatory measures would suppress innovation. However, the absence of regulatory measures risks creating too much uncertainty that in turn may inhibit investment and further development and open up legal loopholes that may be exploited to the detriment of the consumer.

In this context, the EC notes, in '*Communication on Online Platforms*' issued as part of the **e-Commerce package**, that effectively stimulating innovation in these areas, while adequately protecting the legitimate interests of consumers and other users from unfair trading practices is one of the most important challenge facing the EU. In this regard, the main EU legislation relevant to the protection of consumers using online platforms include the Unfair Commercial Practices Directive 2005/29/EC (**UCPD**) and the Unfair Contract Terms Directive 93/13/EEC (**UCTD**), as well as the Directive 2011/83/EU on Consumer Rights (**CRD**).

Other EU legislation with application to online platforms includes Directive 2000/31/EC on certain legal aspects of information society services (**e-Commerce Directive**). This establishes information requirements for commercial communications as part of information society services and lays down the intermediary liability regime (Articles 14 and 15). In parallel, Directive 95/46/EC on **Data Protection**, includes a broad range of consumer protection provisions. Of note is that the UCPD acts as a "safety net" complementing and filling gaps in other EU laws to safeguard consumers against unfair commercial practices across all sectors. The UCPD is based on the principle of full harmonisation to provide a uniform regulatory framework at EU level integrating different national rules. As clarified through case law<sup>3</sup>, Member States may not adopt stricter rules than those provided for in the Directive, even in order to achieve a higher level of consumer protection.

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<sup>3</sup> Joined Cases C-261/07 and C-299/07 VTB-VAB NV v Total Belgium, and Galatea BVBA v Sanoma Magazines Belgium NV, Judgment of 23 April 2009, paragraph 52.

Within the framework of existing EU consumer and marketing law **online platforms are required to be transparent and to not mislead consumers**. Such rulings apply to the issues at focus in this study, namely ranking search results, the identity of contractual parties, and online rating and review systems. These areas have been flagged as problematic in **Results of the Fitness Check of consumer and marketing law and of the evaluation of the Consumer Rights Directive (2017)**

*"there is a strong call, especially from consumer associations and some business associations, to introduce specific transparency requirements for online marketplaces. The aim would be to ensure that consumers are informed about the identity and quality ('trader' or 'consumer') of the supplier, about the differences in the level of consumer protection when contracting with a trader rather than another consumer and about the default ranking criteria when presenting offers."(EC, 2017)*

Despite EU legal frameworks, there continues to be a risk that current legislation may not be effective in protecting consumers, in particular concerning the **transparency of platform practices**. According to the legal assessment conducted in the study of consumer issues in online peer-to-peer platform market (2017), *"most platforms qualifying as 'traders' and engaging in B2C commercial activities may not comply with, for example, some of the professional diligence duties set out by Article 5(2) of the UCPD"*. This assessment also found that *"most platforms set minimal identification requirements for registration and access (e.g. name and email address), and usually do not adopt adequate measures to verify users' identity"*. In addition to the legal issues, this study included a survey of a representative sample of the online population in 10 EU Member States. The results show that most consumers evaluate user review systems positively but three out of four peer consumers have at least some reservations about the **reliability of user review systems and their ability to generate trust, provide adequate information, safety and protection**

It appears that **improved enforcement of, and better compliance** with, this legislation by platforms, could foster **more trust, transparency and fairness**. As the public consultation of stakeholders by the EC in 2015 on the regulatory environment for platform, online intermediaries, data and cloud computing and the collaborative economy revealed, particular problems persist which could lead to unfair practices vis-à-vis consumers and businesses. The main problems identified by stakeholders include 1) the absence of a level playing field; 2) lack of transparency; 3) concerns around personal data collection; and 4) imbalanced bargaining power between platforms and suppliers (EC, 2016c, p. 1). In addition, problems related to the responsibility and liability of platforms was a key cross cutting theme, with many stakeholders calling for better enforcement of existing regulations and the need to ensure consistency of regulations within the EU.

Results from the online survey conducted in 10 EU Member States concerning consumer issues in online peer-to-peer platform market (2017) show that 60% of peer consumers are not sure who is responsible when something goes wrong; what are the responsibilities of platforms, or if they have a right to compensation or reimbursement. Moreover, 85% of peer consumers find it important or very important that peer-to-peer platforms are clear and transparent about who is responsible in the event of problems with the product or transaction.

Relevant measures such as the key principles for comparison tools (2016), adopted by a Multi-Stakeholder Group steered by the EC, have been developed to inform operators about the relevant EU legislation and how to offer better services to consumers, in particular with respect to the provisions of the UCPD and other relevant legislation. Organisations who have endorsed the principles have agreed to disseminate, implement and/or support their implementation by comparison tools operators. These principles have been drafted to be flexible enough to apply horizontally irrespective of the type of the products compared and sectors involved. Areas covered by the principles include impartiality of the comparison and identification of advertising; transparency about the business model; and transparency and trustworthiness of user reviews and user ratings. In addition, the **EC guidance on the implementation/application of Directive 2005/29/EC on Unfair Commercial Practice (2016c)** pointed out that:

*"a platform qualifying as a "trader" must always comply with EU consumer and marketing law as far as its own commercial practices are concerned. In particular, traders are subject to the transparency requirements of Articles 6 and 7 UCPD, which requires them to refrain from misleading actions and omissions whenever engaging in the promotion, sale or supply of a product to consumers".*

Furthermore, the guidance stated that "Platforms which are considered "traders", should take **appropriate measures** to enable relevant third-party traders to comply with EU consumer and marketing law requirements and users to clearly understand with whom they are concluding contracts". The following examples are given:

- Enabling relevant **third-party traders** to clearly indicate that they act, vis-à-vis the platform users, as traders;
- Clearly indicating to all platform users that they will only benefit **from protection under EU consumer** and marketing laws in their relations with those suppliers who are traders;
- **Designing their web-structure** in a way that enables third party traders to present information to platform users in compliance with EU marketing and consumer law – in particular, information required by Article 7(4) UCPD in the case of invitations to purchase.

As noted by the EC (2016a), online platforms are subject to existing EU rules in areas such as competition, consumer protection, protection of personal data and single market freedoms. Compliance with these rules by platforms, it is argued, is essential to ensure that all players can compete fairly and uphold trust for both businesses and the general public to confidently engage with online platforms. In its overall assessment of online platforms as part of its strategy for the digital single market, the EC made a commitment to take account of the following principles in responding to issues related to online platforms:

- a level playing field for comparable digital services;
- responsible behaviour of online platforms to protect core values;
- transparency and fairness for maintaining user trust and safeguarding innovation;
- open and non-discriminatory markets in a data-driven economy.

In addition, the EC (2016a) stressed that fostering the innovation-promoting role of platforms requires that future regulatory measures at EU level should only address clearly identified problems relating to a specific type or activity of online platforms in line with better regulation principles. It was recommended that this problem driven approach should begin with a fitness check of existing regulation.

### 1.3 Methodological note

This study was designed to investigate the impact on consumers of transparency in searching and selecting of goods and services in three online areas - information search, contractual identity and user reviews and ratings. The study used mixed methods, involving qualitative and quantitative enquiry and experiments methods. The study design included three sequential phases.

**The Preparatory Phase:** A systematic literature review was conducted to provide an overview of the behavioural (and other) drivers behind the levels of consumer interest, awareness and trust with respect to platform search criteria, identity of contractual parties, and quality of review systems. This systematic review was complemented with a policy and regulatory review using a more flexible approach covering a wide range of sources, including interviews with stakeholders<sup>4</sup>.

To complement the findings from the desk research, a 'Think Aloud Online Task'<sup>5</sup> was conducted. Accompanied by an expert social researcher, 40 respondents talked through the completion of a variety of online tasks and commented on their experiences with online search, purchases and user reviews. The objective was to gain a better understanding of how consumers use the various types of online platforms, including consumer priorities and

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<sup>4</sup> See Annex 2 Systematic review

<sup>5</sup> See Annex 3. Transparency of Online Platforms Qualitative Research

concerns in relation to each of the three areas as well as at gauging consumer reaction to various possible remedies, in terms of what informational content is needed, and how it should be presented. The main elements of the 'Think aloud online task' can be summarised as follows:

- Combined observation tasks/ in-depth interview methodology
- Respondents from four countries – selected on basis of population size and geographical representativeness (Spain, UK, Germany, Poland)
- 10 respondents in each country
- Observed respondent's behaviour during series of relevant tasks and follow up in-depth interview on experience and understanding – circa 60-90 minutes.
- Indicative qualitative findings of broad issues, with current usage/ understanding, and reaction to possible remedies, to be quantitatively tested in experiment
- Findings to contribute to the design or later phases in the study.

The outcome of this preparatory phase informed the design of a series of experiments testing the impact of transparency in information provision and prominence on actual choice behaviour of respondents in online searches; contractual identity, and user reviews and ratings. In parallel questionnaires elicited experiences, opinions and attitudes to a range of online activities, including trust and confidence in platforms<sup>6</sup>.

This design was implemented in **the second phase (Behavioural experiments and surveys)**, using a two-fold methodology: (i) a discrete choice experiment testing whether greater informational transparency and the prominence of such information impacted on the respondents' choice behaviour under controlled conditions and (ii) pre and post experimental questionnaires<sup>7</sup>. The first questionnaire collected information on the profile of the respondents and the second investigated the role of awareness and trust in participants' behaviour during the discrete choice experiment<sup>8</sup>.

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<sup>6</sup> See Annex 4. Behavioural experiments and online survey methodology

<sup>7</sup> See Annex 5. Profile of the participants

<sup>8</sup> See Annex 6. Post-experimental questionnaire results

### Discrete choice models

To understand what influences people's choices this study used an established methodology - the discrete choice experiment. The method starts with the idea that a product or a service is a bundle of attributes. Take a car for example, where the attributes contributing to a purchase decision might be (i) number of seats, (ii) engine size and (iii) price. Each attribute may vary: (i) 2 or 4 seats; (ii) more or less than 1500ccs engine size, and (iii) three levels of price low, medium and high.

If every combination of the levels of the three attributes is available, then there are 12 ( $2 \times 2 \times 3$ ) possible cars to choose from. Of course real life is much more complicated – witness the range of car sizes, colours, extras, prices etc.

If only 12 cars are available. Two of the possible 12 cars (combinations of attributes) were selected in order to ask respondents which one of the two they prefer. Respondents then are asked to choose between another pair of cars. Knowing their preferences for 12 pairings allows us to determine the relative importance or weight of the three attributes (the number of seats, engine size and price) in their purchase decision.

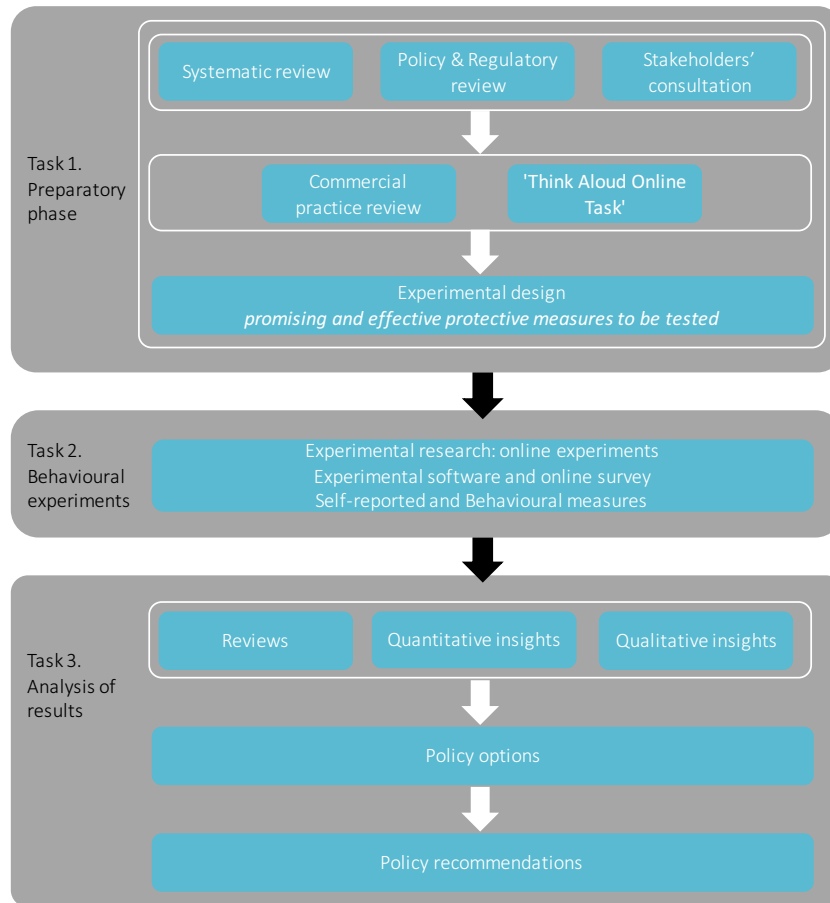
The discrete choice experiment was framed as a realistic purchase decision in a mock-up e-commerce website. A discrete choice experiment is a quantitative technique for eliciting preferences and identifying what is important in consumer decision-making process. A discrete choice experiment consists of a series of binary *decisions* in terms of purchase intention of pairs of *products*. The goods and services offered were the following

- Area #1 (search): booking of a restaurant
- Area #2 (contractual party): purchasing a smart phone
- Area #3 (users review): booking of a hotel

To maximise realism, ecological validity, the information (provision and prominence) was shown as realistic screenshots of mock-up websites. The participants were asked to make 10 binary decisions, selecting which of the two goods or services on offer they preferred. The sample for the experiment consisted of 4,800 respondents in 4 European countries (Germany, Poland, Spain and UK). Each discrete choice experiment for areas 1, 2 and 3 had a sample of 1,600 subjects – 400 in each country.

**The third phase comprised the analysis and triangulation of the results** of the different methods, sources and outcomes of the previous work conducted to prepare a set of analytical conclusions and recommendations. The following figure sketches the workflow of the different tasks and methods, including the expected deliverables.

Figure 2. Phases and reports of the study



Source: Authors' elaboration

#### 1.4 Structure of this report

This report has been organised as follows. Chapter 1 provides the background of the study as well as the policy context and the methodology used. Chapter 2, 3 and 4 address the presentation of the search results, transparency about the identity of contractual parties and transparency of consumer review, rating, and endorsement systems, respectively. These chapters are guided by the same approach. Firstly, the specific regulatory challenges of each area are presented. Secondly, evidence from the systematic literature review and insights from the 'Think Aloud Online Task' (qualitative research) are analysed in order to better understand the consumer practices and experiences in each area. Lastly, the results from the experiments are presented, interpreted and discussed. Chapter 5 covers the conclusions and recommendations of the study, including the policy options and policy implications. The last two chapters include the references and several annexes with complementary materials.

## 2 Search results: presentation and transparency

This chapter concerns Area 1 – the presentation and transparency of online search results. The regulatory issues are summarised followed by key findings about consumer practices and preferences from the systematic review of the literature and from the ‘Think Aloud Online Tasks’ conducted in the study (see section 1.3). An experiment assessing the impact of search results transparency is described and the results reported.

### 2.1 Regulatory aspects

The important role of search engines and their impact on consumers is already taken into account in the guidance for the implementation/application of the UCPD<sup>9</sup>: “any search results showing the websites or URLs of traders who have paid to be included or ranked higher than they would be ranked by relevancy or other objective criteria should be clearly and prominently labelled to show that the ranking or inclusion is paid for. Such labels need to convey that the sites listed are placed higher, or otherwise presented more prominently, because they have paid for their ranking or position” (p.133).

The search engine provider, to the extent that it qualifies as a ‘trader’<sup>10</sup> within the meaning of Article 2(b) UCPD, must clearly distinguish ‘paid’ search results from natural (organic) search results. These disclosures should help to inform consumers when they are being solicited - as opposed to them being only partially informed. Furthermore, the guidance states that, despite the fact that the ways in which search engines retrieve and present results and the devices on which consumers view these results are continuously evolving, the main UCPD principles should be applied; “unless consumers are informed otherwise, they will ordinarily expect natural search results to be included and ranked based on relevance to their search queries and not based on payment by third party traders” (p.133). Moreover, article 6(1) (c) UCPD on misleading actions legislates against traders misleading consumers regarding the “motives for commercial practices, the nature of the sales process and direct or indirect sponsorship or approval of traders or products”. Article 7(2) prevents traders from hiding the “commercial intent of a commercial practice”.

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<sup>9</sup> SWD(2016) 163 final.

<sup>10</sup> Article 2(b) UCPD holds that ‘trader’ means any natural or legal person who, in commercial practices covered by this Directive, is acting for purposes relating to his trade, business, craft or profession and anyone acting in the name of or on behalf of a trader. Given that the UCPD only applies in B2C situations, the first step in assessing whether this Directive is applicable to any given online platform provider should be to evaluate whether it qualifies as a “trader” under Article 2(b) UCPD.



## 2.2 Consumer practices and preference

The articles identified in the systematic literature review address the impact of **information display** (Ma, Liu, and Hossain, 2013; Rieder and Sire, 2014; Sonntag, 2015; Ursu, 2015); **search results position** (Baye, De los Santos and Wildenbeest, 2016; Chen and He, 2011; Jerath, Ma and Park, 2014; Kulkarni, Kannan and Moe, 2011); **trust** (Jeacle and Carter, 2011) and **review manipulation** (Luca et al., 2016). According to Ma et al. (2012), search engines play a critical role in the diffusion of online information as they determine what content is available to internet users. Major search engines, such as Google, Microsoft Live Search, and Yahoo!, provide two distinct types of results, organic and paid, each of which uses different mechanisms for selecting and ranking relevant Web pages.

Findings by Baye, de los Santos & Wildenbeet (2016) suggest that that a retailer's rank on a results page is an important driver of its organic clicks. That is, holding other drivers of clicks constant, consumers tend to click retailers that are more recognised, trusted, have reputations for providing value (in terms of price, product depth, or breadth), and service (well-designed web sites, return policies, secure payment systems). Unsurprisingly, paid placement, where advertisers bid payments to a search engine to have their products displayed prominently among the results of a keyword search, has emerged as a dominant form of advertising on the internet (Chen, 2011). Luca & Wu (2015) find that, while Google is known primarily as a search engine, it has increasingly developed and promoted its own content as an alternative to results from other websites. By prominently displaying Google content in response to search queries, Google is able to use its dominance in search to gain customers for this content, which may potentially lead to reduced consumer welfare if the internal content is inferior to organic search results.

An experiment conducted by Ma, Liu & Hossain (2013) on consumer trust and purchase choice from vendors listed in organic and sponsored search results suggests trust is lower for sponsored links compared with organic links, and that consumers are less likely to buy from vendors in sponsored search results. However, the disclosure of information about vendors' reliability reduces this negative effect. This highlights the importance of ensuring that the "organic results" are ranked according to relevance to the user, and not driven by the platforms' corporate or financial interests. Specifically, disclosing vendors' reliability ratings helps increase consumers trust to sponsored results.

The experiment conducted by Ma, Liu & Hossain (2013) highlights two issues. First, the impact of labelling (i.e. information provision showing the label of "Sponsored Links" in the search engine results page (SERP) and reliability disclosure (i.e., revealing vendors' reliability ratings) on consumer trust in online vendors. And second, whether the impact on trust lowers the chance of buying from a vendor in the paid search results. Their results show that trust is lower for sponsored links compared with organic links, and that consumers are less likely to buy from vendors in sponsored search results. However, the disclosure of information about

vendor reliability reduces this negative effect. Specifically, the disclosure of vendor reliability ratings increases consumers' perceptions of trust in the sponsored results and significantly influences consumers' selections of vendors in terms of reliability.

Results from the 'Think Aloud Online Task', where individuals were asked to conduct two different search exercises (Find a family doctor in your town/region using Google and: Where is the nearest pharmacy to me using Bing), revealed that the participants did not think that the order in which options were presented was seriously manipulated. Even when the issue was raised, most were fairly indifferent and felt confident about the comprehensiveness of list options.

Overall, ranking of search results or advertising was not considered as a way to exploit users: it was perceived with realism and pragmatism, as a source of revenue for the websites. Even if websites did not make it criteria for ranking of search results obvious and explicit, it was not really seen as 'betrayal' of their users' trust. Some level of 'manipulation' of search results was seen as just a part of how business works. In this regard, frequent users were even less concerned than infrequent users about possible manipulation. Frequent users felt they could control their path through the internet, particularly through the strategic use of filters and their greater awareness of, and thus ability to avoid, advertising and sponsored links. In contrast, infrequent users simply did not detect advertising and sponsored links as such. When it was pointed out to them, most accepted it as 'part of the internet experience'.

Participants were far more concerned with the speed and convenience of their search than with transparency or potential manipulation. Generally, participants felt that the orders of the results presented on these sites were based on popularity (i.e. number of previous clicks). Likewise, transparency concerns were not prevalent.

This lack of awareness/concern contrasts with the importance of the impact of search results presentation on consumer behaviour (and therefore in their exposure to manipulation) revealed by previous experimental studies.

### Transparency of search results: main findings

- ✓ Consumer **awareness** of platform practices related to search results is generally low. Users are less trusting of sponsored results, underlining the potential importance of enhanced transparency on consumer behaviour. Moreover, infrequent users simply did not detect advertising and sponsored links as such.
- ✓ Consumers tend to **trust** well-known websites (search engines). They (frequent users) generally feel in control on the internet and acknowledge and accept commercial practices and accept it as part of “the internet experience” and the “commercial reality”;
- ✓ Disclosing vendor reliability information increases consumer trust with regard to sponsored results. Consumers are less likely to buy from vendors in sponsored search results. **Transparency** of vendors' reliability rating, using labels, increases consumer purchase behaviour

## 2.3 Experiment on the presentation and transparency of search results

To understand how different ways of presenting search results influence users' a behavioural discrete choice experiment was conducted. Essentially, respondents were presented with a series of mock up computer displays showing the outcomes of information searches of two restaurants. The respondents were presented with two restaurants and asked which restaurant they preferred basing their evaluation on information from the search results. The experiment investigated three attributes of information about restaurants (i) information content, (ii) information presentation and (iii) rank position on the screen. Information content has three levels, while visual prominence of information presentation and rank position had two levels.

Table 1. Search results experiment: attributes, levels and research questions

Attributes	Levels	Research Questions (RQ)
Information content (IC)	<ul style="list-style-type: none"> <li>• IC1: No information on how the search results are ranked</li> <li>• IC2: Information that the search results are ranked in alphabetical order (an objective criterion)</li> <li>• IC3: Information that the search results are ranked by popularity (a non-objective criterion).</li> </ul>	<ul style="list-style-type: none"> <li>• RQ1. With all other attributes held constant does an objective criterion for ranking search information influence consumer choice?</li> <li>• RQ2. With all other attributes held constant does a non-objective criterion for ranking search information influence consumer choice?</li> </ul>
Information presentation (IP)	<ul style="list-style-type: none"> <li>• IP1: Low visual prominence (as a text included in the header of the research results)</li> <li>• IP2: High visual prominence (as a highlighted text out of the header of the research results)</li> </ul>	<ul style="list-style-type: none"> <li>• RQ3: with all other attributes held constant does highlighting information on the criterion for rank position influence consumer choice?</li> </ul>
Rank Position (RP)	<ul style="list-style-type: none"> <li>• RP1: The restaurant is ranked in first place</li> <li>• RP2: The restaurant is ranked in the third place (out of four results of the search)</li> </ul>	<ul style="list-style-type: none"> <li>• RQ4: with all other attributes held constant does the rank of the information search influence consumer choice?</li> </ul>

Source: Authors' elaboration

Based on different combinations of the three informational attributes and their different levels, respondents make ten choices<sup>11</sup>. Each choice is between two restaurants defined by different attributes and levels. From these choices, it is possible to infer the relative impact on the different attributes and levels of attributes on respondents' choice of restaurant. Note this study is not interested in the choice of restaurant – that is merely an example of a product about which users may search for information. The focus is on the effect on choices of different information content, visual prominence and rank ordering of the search results<sup>12</sup>.

The following figures present examples of how information content (IC) attribute (see Figure 3); information presentation (see Figure 4) and rank position (see Figure 5) were shown to the participants.

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<sup>11</sup> Two of the possible 12 combinations of the attribute and their levels are not feasible. IC1: No information cannot have either low or high salience

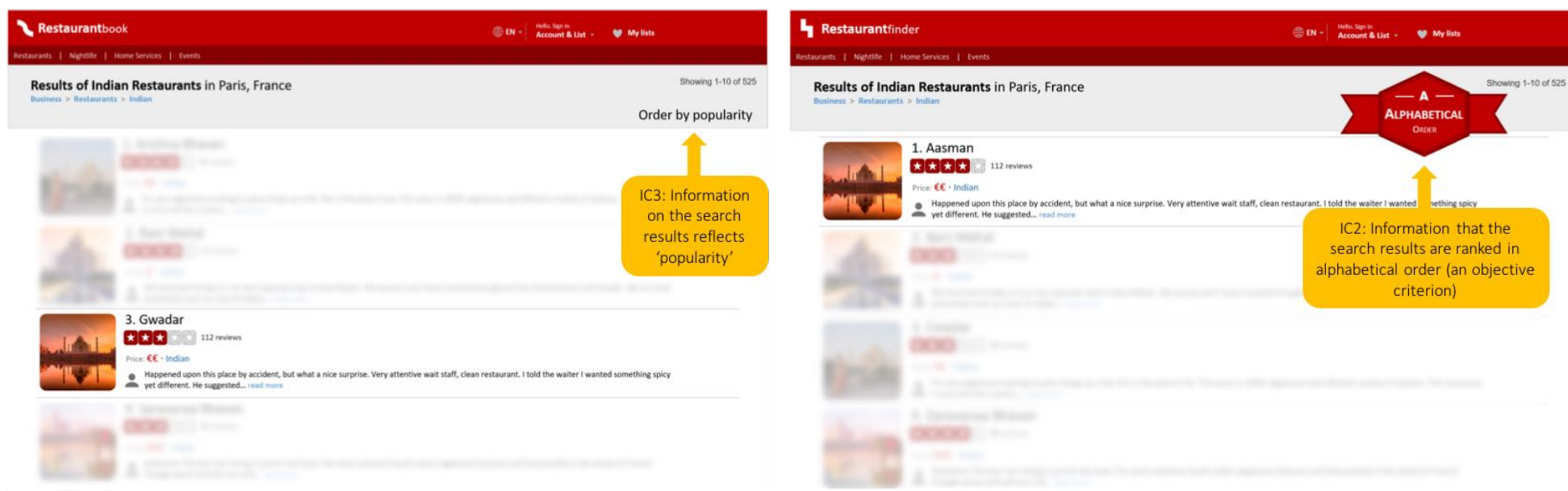
<sup>12</sup> Prior to completing the discrete choice experiment respondents completed a short questionnaire eliciting some profiling about uses and experiences with the internet (see Annex 5. Profile of the participants). And having completed the discrete choice experiment a second questionnaire was administered to assess respondents' recall of the information on the mock up web sites (see Annex 6. Post-experimental questionnaire results) between other pair of cars. Knowing their preferences for every

Figure 3. Search result experiment: example of information content attribute and levels

# Booking a table in a restaurant

Suppose that you want to book a table in an Indian restaurant in Paris through an online platform. You have searched 'Indian restaurant in Paris' in two booking platforms, named Restaurantbook and Restaurantfinder, obtaining the following results. Please tell us if you prefer to make a reservation in:

Click on the image to enlarge



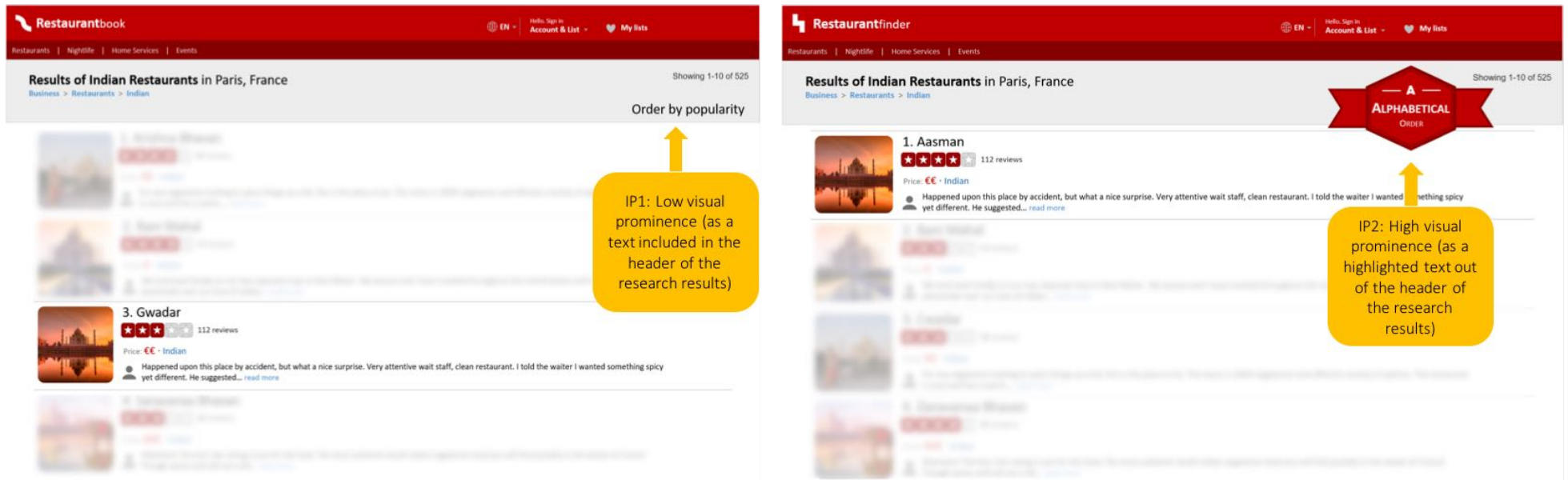
Source: Authors' elaboration

Figure 4. Search result experiment: example of rank position attribute and levels

# Booking a table in a restaurant

Suppose that you want to book a table in an Indian restaurant in Paris through an online platform. You have searched 'Indian restaurant in Paris' in two booking platforms, named Restaurantbook and Restaurantfinder, obtaining the following results. Please tell us if you prefer to make a reservation in:

 Click on the image to enlarge



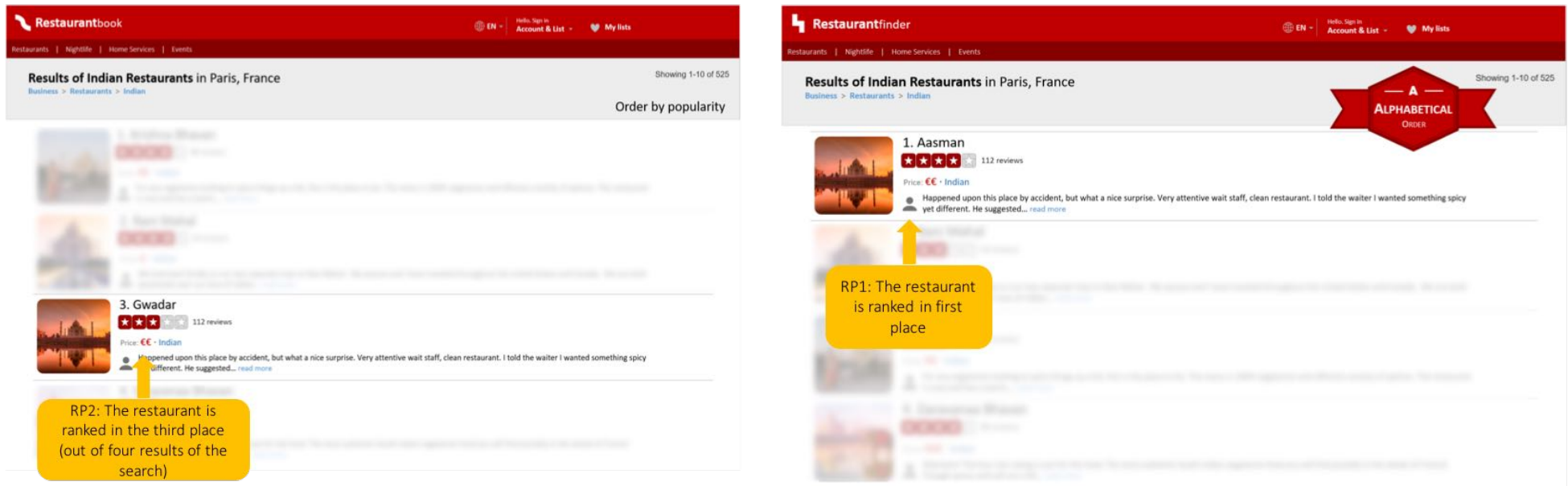
Source: Authors' elaboration

Figure 5. Search result experiment: example of information presentation attribute and levels

# Booking a table in a restaurant

Suppose that you want to book a table in an Indian restaurant in Paris through an online platform. You have searched 'Indian restaurant in Paris' in two booking platforms, named Restaurantbook and Restaurantfinder, obtaining the following results. Please tell us if you prefer to make a reservation in:

 Click on the image to enlarge



Source: Authors' elaboration

The key findings are as follows

- 1) Information that the order of presentation of the search outcomes is based on popularity is by far the most important attribute in increasing the probability of choosing a restaurant or product (RQ2).
- 2) Ranking first in the presentation of the search results also increases the probability of choosing the product (RQ4). But the influence of the first rank is about one half of that ranking by popularity.
- 3) When the explanation of the search outcomes is given high visual prominence, there is a small increase in the probability of choosing the product (RQ3).
- 4) Information that the search outcomes are ordered alphabetically has no effect on the probability of choosing a product (RQ1).

Information that ranking is based on popularity i.e. the restaurant (product) is popular with other internet users, has the greatest effect on the probability of choosing the product. This is consistent with the behavioural science literature which shows that actual or perceived social support is one of the influential nudges. Popularity is followed in influence on choice by being first in the ranking of the presentation of the search outcomes. Making information on the criteria used to rank search results visually more prominent on the screen has only a modest influence on choices. Note that ranking by popularity could be a non-verifiable and a non-objective criterion for ranking search outcomes as platforms do not define popularity (e.g. it could mean the number of site visits or the numbers of times purchased) At the same time, placed first in the ranking of search outcomes in all probability carries connotations of quality or popular support. Each of these ranking criteria is potentially open to manipulation and distortion.

While the behavioural outcome of the discrete choice experiment is the probability of choosing one product over another, it is plausible to argue that different configurations of the informational characteristics affect the user's trust and confidence in the product. Social validation, inferred from information that ranking is based on popularity, followed by first place ranking are found to increase product selection by, most likely, increasing confidence in the product.

For those interested in technical details the next table and paragraph presents the results of the discrete choice experiment and some methodological considerations.



Table 2. Main results of the discrete choice experiment on information characteristics

Attribute and level	Estimate (Logit)	Probability <sup>+</sup>	Std. Error	t-value	Pr(> t )
IC3: Information on the search results reflects 'popularity'	0.77	2.15	0.02	26.15	< 2.2e-16 ***
RP1: The restaurant is ranked in first place	0.39	1.47	0.02	17.08	< 2.2e-16 ***
IP2: High prominence	0.15	1.16	0.02	6.25	4.033e-10 ***
IC2: Information on the search results in alphabetical order.	-0.09	0.91	0.03	-2.63	0.0084**

Source: Authors' elaboration

The odds ratio is calculated by the exponential of the logit. This value is compared to 1 which is the baseline probability. For example, if  $\exp(0.77) = 2.159$ . In this case, the variable doubled the probability of product selection. A value with less than 1 means that a variable decreases the probability of selection.

### Methodological note on discrete choice models

The parameter estimates are standard logit, therefore the regression coefficients represent the change in the logit for each unit change in the predictor. However, in contrast to traditional Conjoint Analysis that relies on Conjoint Measurement, which is not a behavioural theory (of choice), Discrete choice experiments (DCEs) are based on a long-standing, well-tested theory of choice behaviour that can take inter-linked behaviours into account. The theory was proposed by Thurstone (1927), and is called Random Utility Theory (RUT). Recent work in DCE theory and methods relies heavily on work by McFadden, who extended Thurstone's original theory of paired comparisons (pairs of choice alternatives) to multiple comparisons (e.g., McFadden 1986; McFadden and Train 2000; McFadden 1974; Thurstone 1927). Unlike CM, random utility theory provides an explanation of the choice behaviour of humans, not numbers.

Specifically, RUT proposes that there is a latent construct called "utility" existing in a person's head that cannot be observed by researchers. That is, a person has a "utility" for each choice alternative, but these utilities cannot be "seen" by researchers, which is why they are termed "latent". RUT assumes that the latent utilities can be summarized by two components, a systematic (explainable) component and a random (unexplainable) component. Systematic components comprise attributes explaining differences in choice alternatives and covariates explaining differences in individuals' choices. Random components comprise all unidentified factors that impact choices. Psychologists further assume that individuals are imperfect measurement devices; so, random components also can include factors reflecting variability and differences in choices associated with individuals and not choice options per se. More formally, the basic axiom of RUT is:

$$U_{in} = V_{in} + \varepsilon_{in}, (1)$$

where  $U_{in}$  is the latent, unobservable utility that individual  $n$  associates with choice alternative  $i$ ,  $V_{in}$  is the systematic, explainable component of utility that individual  $n$  associates with alternative  $i$ , and  $\varepsilon_{in}$  is the random component associated with individual  $n$  and option  $i$ . Because there is a random component, utilities (or "preferences") are inherently stochastic as viewed by researchers. So, researchers can predict the probability that individual  $n$  will choose alternative  $i$ , but not the exact alternative that individual  $n$  will choose.

### 3 Transparency about the identity of contractual parties

This chapter concerns Area 2 – transparency about the identity of contractual parties. The regulatory issues are summarised followed by key findings about consumer practices and preferences from the systematic review of the literature and from the ‘Think Aloud Online Tasks’ conducted in the study (see section 1.3). An experiment assessing the impact of transparency regarding contractual identity is described and the results reported.

#### 3.1 Regulatory aspects

The UCPD stipulation on the transparency of the identities of contractual parties involved in transactions enabled or facilitated by online platforms is that whenever an online platform can be considered a ‘trader’, it is required to act with a degree of professional diligence (Article 5(2) UCPD), commensurate to its specific field of activity and honest market practice (Article 2(h) UCPD), and not to mislead their users/consumers by either action or omission (particularly with reference to Articles 6(1)(f) and 7(1) and (2) UCPD). Platforms should therefore take appropriate measures to enable users to clearly understand with whom they are possibly concluding contracts. As suggested by the UCPD implementation (2016b), relevant measures in this regard could imply:

- “Enabling relevant third-party traders to clearly indicate that they act, vis-à-vis the platform users, as traders;
- Clearly indicating to all platform users that they will only benefit from protection under EU consumer and marketing laws in their relations with those suppliers who are traders;
- Designing their web-structure in a way that enables third party traders to present information to platform users in compliance with EU marketing and consumer law – in particular, information required by Article 7(4) UCPD in the case of invitations to purchase” (EC, 2016b, p.26).

As such, the transparency requirements of the platform operator have to be assessed on a case-by-case basis and according to the concrete circumstances of the case in question. Both the UCPD and the guidance on its implementation/application provide clear instructions.

#### 3.2 Consumer practices and preferences

The identification of the contractual parties has traditionally served to ensure trust and credibility among exchange partners (Flanagin et al., 2011) and consumer trust is identified as one of the most important factors in electronic commerce (e-commerce) growth (Maadi, Maadi & Javidnia, 2016; Mosavi et al., 2016). The systematic review identified few experimental studies related to this area. A study by Kim & Gupta (2012) suggests that **consumer trust in**

**a particular website or service is even more important than the product or price offered**, as no matter how low the price a website is offering for a particular product, the authentication of that website or online supplier offering the product or service is more relevant. As demonstrated by Hong (2011), consumers' trust in one aspect of the online marketplace may not only affect their trust in the other aspects, but also influence the way consumers make online purchases. The platform in the online marketplace is an intermediary, providing the market infrastructure, and bringing the community of sellers and buyers together to conduct their business.

The 'Think Aloud Online Task', with 40 respondents simulating the purchase of a laptop from Amazon revealed that most respondents did not notice the suppliers' names and that they often assumed that products were sold by Amazon. When they discovered that the item was sold by a third party (usually at the stage of reading a product's description) some, and particularly infrequent users, were confused. In addition, it is important to emphasise that in general the terms and conditions of the purchase were largely ignored (even in the second task performed: book a flight using Ryanair and include a rental car in your purchase). Only in Germany and Poland did a very small number of respondents consult them (especially regarding car rental conditions), while in Spain and the UK none of the participants read them (despite declarations of doing so). Results from the Think Aloud Online Task revealed that consumers willingly buy from unknown sellers within an online marketplace, despite the apparent risk, since they trust the institutional mechanisms furnished by the relatively well-known intermediary. In addition, it was found that trust is transferred from an intermediary to the community of sellers, implying that the trustworthiness of the intermediary plays a critical role in determining the extent to which consumers trust and accept the sellers in the online marketplace. In this regard, Brengmann & Karimov (2012) tested the effectiveness of the mere integration of social network applications to provide a signal concerning the "trustworthiness" of an unfamiliar trader in order to enhance subsequent purchase intentions of consumers. Their findings suggest that the inclusion of social network applications enable a signalling of "benevolence" and "integrity", which in turn have a significant impact on purchase intentions.

Overall, it appears that online users are not aware of any problems related to identity of contractual parties. They believe in the benevolence of online marketplaces and trust those that are recognized and well-known. They are seen to provide the widest range of products possible, with no allegiance to particular traders. Online marketplaces are assumed to trying to do their best to satisfy their customers and offer them the most relevant results.

**Transparency about the identity of contractual parties**

- Consumers are often unaware of issues related to contractual parties, and believe in the benevolence of platform providers. Consumers tend to trust platforms that are recognized and well-known.
- Platforms are perceived to provide the widest range of products possible, with no obvious alliance to any particular, manufacturer or supplier
- Platforms are assumed to trying to do their best to satisfy its customers, and offer them relevant results.
- Consumers willingly buy from unknown traders within an online marketplace, since they trust the institutional mechanisms furnished by the relatively well-known intermediary.

**3.3 Experiment on transparency regarding contractual identity**

Within this context and following the relevant measures suggested by the Guidance on the implementation/application of the UCPD, a second experiment investigated the effect of information on contractual entities on product choices. The design follows the logic of the study in Area 1 on the presentation of online search results.

The respondents were presented with two of the possible mobile phones and asked which phone they preferred basing their evaluation on three attributes of the contractual information and price.

The three attributes were (i) information content about the contractual entity; (ii) information presentation in terms of visual prominence about the contractual entity, and (iii) price of the mobile phone. The following table shows the levels for each attribute.

Table 3. Transparency of contractual parties experiment: attributes, levels and research questions

Attributes	Levels	Research Questions (RQ)
Information content (IC)	<ul style="list-style-type: none"> <li>• IC1: No information on contractual entity</li> <li>• IC2: Information on the contractual entity being a trader</li> <li>• IC3: Information on the contractual entity being a trader which gives the purchaser certain consumer rights in case of problems.</li> </ul>	<ul style="list-style-type: none"> <li>• RQ5: with all other attributes held constant does information on the contractual entity being trader influence choices?</li> <li>• RQ 6: with all other attributes held constant does information on the contractual entity being a trader giving the purchaser consumer rights in case of problems influence choices?</li> </ul>
Information presentation (IP)	<ul style="list-style-type: none"> <li>• IP1: Low visual prominence (as a text included in the description of the mobile phone good)</li> <li>• IP2: High visual prominence (as a highlighted text outside the description of the mobile phone)</li> </ul>	<ul style="list-style-type: none"> <li>• RQ7: with all other attributes held constant does highlighting information about the contractual entity influence choices?</li> </ul>
Price (P)	<ul style="list-style-type: none"> <li>• P1: The mobile phone has a lower price</li> <li>• P2: The mobile phone has a higher price</li> </ul>	<ul style="list-style-type: none"> <li>• RQ8: with all other attributes held constant does the price of the mobile phone influence choices?</li> </ul>

*Source: Authors' elaboration*

As with the first experiment, two of the possible 12 combinations of the attribute and their levels are not feasible. With no information about the contractual entity there can be no low or high information salience. So 10 combinations were presented to the respondents. The following figures present examples of how information content (IC) attribute (see Figure 6); information presentation (see Figure 7) and price (see Figure 8) were shown to the participants.

Figure 6. Identity of contractual parties experiment: example of information content attribute and levels

# Purchasing a smartphone

Suppose that you want to buy a smartphone with some specific technical characteristics. Two e-commerce platforms, named Phonefinder and Phonequest, offer the two following smartphones with the required characteristics. Please tell us if you prefer to buy:

Click on the image to enlarge

**PHONEquest** EN - Hello, Sign In Account & List - Orders Cart

Cell Phones & Accessories | Carrier Phones | Unlocked Phones | Accessories | Cases | Wearable Technology | Best Sellers | Deals | Trade-In | All Electronics

**Smart Phone Gojiberry 16GB Dual SIM 13MP - 4G LTE Factory Unlocked Smartphone - International Version (Gray)**  
 ★★★★★ 3 customer reviews | 34 answered questions

Price: **159.99 €**

**In Stock**

- GSM 850 / 900 / 1800 / 1900 - HSDPA 850 / 900 / 1900 / 2100 - LTE band 1(2100), 3(1800), 4(1700/2100), 5(850), 7(2600), 20(800), 38(2600), 40(2300)
- IPS LCD capacitive touchscreen, 16M colors - Dual SIM (Dual Standby - 5.0 inches 720 x 1280 pixels (~294 ppi pixel density)
- Quad-core - 2GB RAM - 16GB ROM - microSD, up to 256 GB (uses SIM 2 slot) - Video 1080p@30fps
- 13 MP, f/2.2, autofocus, LED flash - Geo-tagging, touch focus, face/smile detection, HDR, panorama -
- GSM Unlocked Phones - will work worldwide. Will NOT work with CDMA carriers like Verizon, Sprint, Boost ...

> See more details

NOTICE  
**This product is not sold by PhoneShop, but by Phone Place, who has declared to be a trader.**

Add to Cart

IC2: Information on the contractual entity being a trader or a non-trader

**PHONEshop** EN - Hello, Sign In Account & List - Orders Cart

Cell Phones & Accessories | Carrier Phones | Unlocked Phones | Accessories | Cases | Wearable Technology | Best Sellers | Deals | Trade-In | All Electronics

**Smart Phone Blueberry 16GB Dual SIM 13MP - 4G LTE Factory Unlocked Smartphone - International Version (Gray)**  
 ★★★★★ 3 customer reviews | 34 answered questions

Price: **129.99 €**

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- IPS LCD capacitive touchscreen, 16M colors - Dual SIM (Dual Standby - 5.0 inches 720 x 1280 pixels (~294 ppi pixel density)
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- Quad-core - 2GB RAM - 16GB ROM - microSD, up to 256 GB (uses SIM 2 slot) - Video 1080p@30fps
- 13 MP, f/2.2, autofocus, LED flash - Geo-tagging, touch focus, face/smile detection, HDR, panorama -
- GSM Unlocked Phones - will work worldwide. Will NOT work with CDMA carriers like Verizon, Sprint, Boost ...

> See more details

This product is not sold by PhoneShop, but by Phone Place, who has declared to be a trader, which gives you certain consumer rights in case of problems.

Add to Cart

IC3: Information on the contractual entity being a trader or a non-trader and its implications on the consumer's rights

Source: Authors' elaboration

Figure 7. Identity of contractual parties experiment: example of information presentation attribute and levels

# Purchasing a smartphone

Suppose that you want to buy a smartphone with some specific technical characteristics. Two e-commerce platforms, named Phonefinder and Phonequest, offer the two following smartphones with the required characteristics. Please tell us if you prefer to buy:

Click on the image to enlarge

The image shows two side-by-side screenshots of e-commerce product pages. Both pages are for smartphones and feature a navigation bar at the top with the site name, language (EN), and account/order links. The left page is for 'PHONEquest' and the right is for 'PHONEshop'. Both pages display a product image of a man holding a smartphone, a title, a star rating, a price, and technical specifications. A yellow callout box labeled 'IP2' points to a notice on the left page: 'This product is not sold by PhoneShop, but by Phone Place, who has declared to be a trader.' A yellow callout box labeled 'IP1' points to a notice on the right page: 'This product is not sold by PhoneShop, but by Phone Place, who has declared to be a trader, which gives you certain consumer rights in case of problems.'

Source: Authors' elaboration



Figure 8. Identity of contractual parties experiment: example of price

# Purchasing a smartphone

Suppose that you want to buy a smartphone with some specific technical characteristics. Two e-commerce platforms, named Phonefinder and Phonequest, offer the two following smartphones with the required characteristics. Please tell us if you prefer to buy:

Click on the image to enlarge

**PHONEquest**

Smart Phone Gojiberry 16GB Dual SIM 13MP - 4G LTE Factory Unlocked Smartphone - International Version (Gray)

Price: **159.99 €**

**P2: The mobile phone has a higher price**

**NOTICE**  
This product is not sold by PhoneShop, but by Phone Place, who has declared to be a trader.

Add to Cart

**PHONEshop**

Smart Phone Blueberry 16GB Dual SIM 13MP - 4G LTE Factory Unlocked Smartphone - International Version (Gray)

Price: **129.99 €**

**P2: The mobile phone has a lower price**

This product is not sold by PhoneShop, but by Phone Place, who has declared to be a trader, which gives you certain consumer rights in case of problems.

Add to Cart

Source: Authors' elaboration



The key findings are as follows:

- 1) A lower price has the largest effect on the probability of purchasing a product (RQ8).
- 2) Full information that the contractual entity is a trader and the associated consumer rights increases the probability of product selection (RQ6).
- 3) Whether information on contractual entities is visually prominent or not has no effect on the probability of product selection (RQ7).
- 4) Information limited to the contractual entity being a trader, without indicating the consequences for consumer rights, reduces the probability of product selection (RQ5).

Regarding the possible consumer benefits of transparency about contractual entities the finding is that learning that the contractual entity is a trader which gives the purchaser certain consumer rights in case of problems increases the probability of selecting a product. By contrast, the provision of only limited information, that the contractual entity is a trader but without spelling out the implications of consumer rights reduces the probability of selecting a product. To interpret this result, it has been conjectured that respondents did not understand the implications of the limited information on contractual entities as third-party traders. On reading it, they were possibly confused or may have seen it as a warning, making them wary of selecting the product. The finding high visual prominence of information on contractual entities has no effect above low prominence should not be interpreted as suggesting that such information is irrelevant. As the following table shows, full information on the identity of the trader and what this means for consumer rights on the screen has a sizable effect on the probability of selecting a product.

Table 4 Main results of transparency of contractual entities experiment.

Attribute and level	Estimate	Probability <sup>13</sup>	Std. Error	t-value	Pr(> t )
P1: The good has a lower price	1.04	2.82	0.02	41.97	< 2.2e-16 ***
IC3: Information on the contractual entity being a third party trader and the implications for the consumer's rights	0.39	1.47	0.02	13.59	< 2.2e-16 ***
IP2: High visual prominence	-0.01	0.99	0.02	-0.39	0.6941
IC2: Information on the contractual entity being third party trader	-0.18	0.83	0.03	-5.44	5.325e-08 ***

*Source: Authors' elaboration*

<sup>13</sup> The odds ratio is calculated by the exponential of the logit. This value is compared to 1 which is the baseline probability

Further analysis has been conducted to investigate whether the impact of information about contractual entity and consumer rights and whether the impact of the visual prominence of information about contractual entity and consumer rights is maintained across the two price levels. By doing that, the following question **Does the price of the product affect the impact of different levels of information about contractual entities?** has been addressed.

As has been shown in Table 4, holding other attributes and levels constant, information on the contractual entity being a trader and the implications for the consumers' rights increases the probability of selecting the product. A question could be raised as to whether this effect (full information on contractual entities increasing the probability of selecting the product) applies equally at the two levels of price (high and low). In technical terms, to investigate this possibility interaction terms have been added to the model. The interaction terms allow for a comparison of the joint effect of price level and limited information on contractual entities with the joint effect of low price and full information on contractual entities and consumer rights. If the one or other of the interaction terms is significant then it shows that, across the two price levels the effect of limited or full information is different.

The analysis shows that in the low price condition the effect of information about contractual entity and consumer rights has a higher probability of influencing product selection than when the price is high.

This suggests that respondents think that high priced products are less likely to be defective/problematic and lead to a consumer right issue. With a cheaper product, there is less confidence and an assurance about consumer rights reduces the concerns about future problems with the product.

In greater technical detail (see Table 5), the results show that when the price is low (P1) and the information on the contractual entity being a being a third party trader is displayed, without with implications on consumer rights (IC2) then the odds ratio is  $\exp(-0.85)=0.42$  times lower, compared to the situation when either price is high (P2) or the information is not displayed at all (IC1) or the information does include implications on consumer rights (C3).

Instead, when the price is low (P1) but the information on the contractual being a third party trader is displayed with mention on consumer rights (IC3), then the odds ratio is  $\exp(0.23)=1.26$  times higher (26% more likely), compared to the situation when either price is high (P2) or the information is not displayed at all (IC1) or the information includes its implications on the consumer's right.

Table 5. Transparency of contractual entities – information by price interaction

Coefficient	Estimate	Probability	Std. Error	t-value	Pr(> t )
P1: The good has a lower price	1.49	4.44	0.08	19.56	< 2.2e-16 ***
C3*P1: Information on the contractual entity being a trader or non-trader and its implications for the consumer's right and the good has a lower price	0.23	1.25	0.06	4.07	4.655e-05 ***
IC3: Information on the contractual entity being a trader or non-trader and its implications for the consumer's right	0.19	1.21	0.04	4.46	8.156e-06 ***
IC2: Information on the contractual entity being a trader or non-trader	0.03	1.03	0.05	0.74	0.45
IP2: High visual prominence	-0.05	0.95	0.03	-1.90	0.06
C2*P1: Information on the contractual entity being a trader or non-trader and the good has a lower price	-0.85	0.42	0.10	-8.73	< 2.2e-16 ***

Source: Authors' elaboration

Following the same logic, whether the impact of the visual prominence of information about contractual entities differs between the two product price levels was investigated. Here the interaction terms contrasts the effects low and high visual prominence in the context of low and high product price. The analysis shows that with high visual prominence there is a very small increase in the probability of product selection in the low-price condition. In other words, the visual prominence of information about contractual entities does not have a different impact for products at different price levels. In technical terms (see Table 6), when the price is low (P1) and the information is displayed with high visual prominence (IP2), i.e. as a highlighted text out of the description of the good, then the odds ratio is  $\exp(0.05) = 1.05$  times higher (5% more likely), compared to the situation when either price is high (P2) or the information is displayed with low prominent, i.e. as a text included in the description of the good.

Table 6 Transparency of contractual entities – information prominence by price interaction

Coefficient	Estimate	Probability	Std. Error	t-value	Pr(> t )
P1: The good has a lower price	1.01	2.74	0.04	28.50	< 2.2e-16 ***
IC3: Information on the contractual entity being a trader or non-trader and its implications for the consumer rights	0.39	1.47	0.03	13.59	< 2.2e-16 ***
P2*A1 High visual prominence and the good has a lower price	0.05	1.05	0.05	1.05	0.29
IP2: High visual prominence	-0.04	0.96	0.04	-1.02	0.31
IC2: Information on the contractual entity being a trader or non-trader	-0.19	0.82	0.03	-5.43	5.36e-08 ***

Source: Authors' elaboration

## 4 Transparency of consumer review, rating, and endorsement systems

This chapter concerns Area 3 – transparency regarding consumer reviews, ratings and endorsement systems. The regulatory issues are summarised followed by key findings about consumer practices and preferences from the systematic review of the literature and from the ‘Think Aloud Online Tasks’ conducted in the study (see section 2.1). An experiment assessing the impact of transparency regarding consumer reviews is described and the results reported.

### 4.1 Regulatory aspects

Consumer reviews and rating systems are key to online platforms and their business model on account of their role in establishing trust between traders, non-traders and consumers, the most relevant provisions are to be found in Articles 6 and 7 UCPD on misleading actions and omissions. These provisions regulate against traders making misleading statements, omitting material information i.e. about the price, the main characteristics, as well as the availability of products and services. Other relevant EU consumer legislation include the Consumer Rights Directive (CRD - 2011/83/EC) and the Misleading and Comparative Advertising Directive (MCAD - 2006/114/EC)<sup>14</sup>.

#### Guidance on the Implementation/Application of Directive 2005/29/EC on Unfair Commercial Practice

The UCPD applies to any natural or legal person that qualifies as a "trader" according to Article 2(b) UCPD. As regards consumer reviews, **the Directive will not apply to consumers who provide information about their experience** with products or services, unless they are acting on behalf of a trader

When publishing user reviews, a platform operator is required to provide truthful information on the main characteristics of its services in accordance with Articles 6(1)(b) and 7(4)(a) UCPD. In particular, the platform should not mislead its users as to the origin of the reviews: it should avoid creating the impression that reviews posted through it originate from real users, when it cannot adequately ensure this. In such case, the platform operator should clearly inform consumers about this fact. If, a contrario, a user review tool provider explicitly claims that its reviews originate from users, it should take **reasonable and proportionate steps** which – **without amounting to a general obligation to monitor** or carry out fact-finding (see Article 15(1) e-Commerce Directive) – **increase the likelihood for such reviews to reflect real users' experiences.**

As argued in EC (2016b), insights from behavioural economics show that not only the content of the information provided, but also the way the information is presented can have a significant impact on consumers' responses. Article 6 (UCPD) explicitly addresses situations

<sup>14</sup> Misleading and/or fake reviews may, in the context of advertisements, fall under the scope of the MCAD. It should be noted however that whereas the UCPD and the CRD apply to Business to Consumer (B2C) transactions, the MCAD is concerned with Business to Business (B2B) transactions.

where commercial practices are likely to deceive consumers 'in any way, including overall presentation'[...] 'even if the information provided is factually correct'. This includes any commercial practice which 'contains false information and is therefore untruthful' (article 6 (1) UCPD). In addition, article 6 (2) UCPD holds that a commercial practice shall also be regarded as misleading "if, in its factual context, taking account of all its features and circumstances, it causes or is likely to cause the average consumer to take a transactional decision that he would not have taken otherwise, and it involves: (a) any marketing of a product, including comparative advertising, which creates confusion with any products, trademarks, trade names or other distinguishing marks of a competitor". With respect to user reviews the screening out of negative reviews or the hosting of positive reviews supposedly from consumers which are actually written by the hotel owner are examples of misleading practices. It is suggested by some that consumer access to a sufficient number of useful, accurate and unbiased reviews may lower the need for regulation, in particular, because many business models do rely on self-regulation, notably via ratings and reviews (UK CMA, 2106). According to Martens (2016), there is nevertheless a role for public sector regulators to supervise the quality of sector-specific attempts at self-regulation and possibly set meta-standards for self-regulation without intervening directly in the self-regulation efforts.

## 4.2 Consumer practices and preferences

Within the legal context outlined above, the systematic literature review conducted during the exploratory phase of this study highlights the importance of a practice that has only grown over the years. Internet users increasingly rely on consumer reviews and look for more detailed product information from online reviews written by other consumers when making online purchasing decisions (Malbon, 2013; Agnihotri & Bhattacharya; 2016; Baek, Ahn & Choi, 2015). While Llamero (2014) argues that researchers have made considerable efforts to gather evidence of the heuristics employed by internet consumers, conceptual and empirical limitations are such that there are no clear findings on such heuristics. Llamero also reports that only so-called "electronic-word-of-mouth" (eWOM<sup>15</sup>) consumer reviews are seen as credible, suggesting that reviewing is based on limited sources. Ballantine & Yeoung (2015) postulate that consumers seeking eWOM often use heuristic cues to assess the credibility of online information. In particular content characteristics are one of the main factors determining trust in eWOMs.

To understand people's perceptions of the credibility of commercial website information and the factors they find important in their evaluative processes, Flanagin (2011) conducted a

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<sup>15</sup> Adapting the traditional concept of WOM to online communication, e-WOM is defined as any positive or negative statement made by potential, actual, or former customers about a product or company, which is made available to a multitude of people and institutions via the Internet Llamero (2014)

nationally representative survey and quasi-experiment. The survey finds that while people engage in online marketplaces on a regular basis, they do not contribute to consumer-generated information very often. They do, however, rely heavily on ratings to evaluate the credibility of commercial information they find online. Experimental results further indicate that people tend to aggregate product ratings, but not to assess the number of ratings when evaluating the quality of products sold online. As suggested by Baek, Ahn & Choi (2015) the influx of online consumer reviews has caused information overload, making it difficult for consumers to choose reliable reviews. Findings from their study suggest that depending on their purposes consumers focus on different information sources for reviews and that online reviews can be used for information search or for evaluating alternatives.

Online reviews could, in principle, greatly improve consumers' ability to evaluate products (Mayzlin, Dover & Chevalier, 2012). However, the authenticity of online user reviews remains a concern as traders and non-traders have an incentive to manufacture positive reviews for their own products and negative reviews for their rivals. Mayzlin, Dover & Chevalier (2015) provide an empirical analysis of promotional reviews, examining both the extent to which fakery occurs and the market conditions that encourage or discourage promotional reviewing activity in two travel websites: Expedia.com and TripAdvisor.com. In this regard, some of the features applied by websites can be important. For example, while anyone can post a review on TripAdvisor, only those who have spent at least one night at the hotel and have booked through the website can only post a review of a hotel on Expedia.

In this context, Kusumasondjaja, Shanka, & Marchegiani (2012) investigate the effects of review valence and the presence of source identity on consumer perceptions of credibility of an online review and initial trust in the travel services being reviewed. Results indicate that a negative online review is deemed more credible than a positive online review, while a positive online review leads to a greater initial trust than a negative review. These findings apply when the identity of the reviewer is disclosed. However, when the reviewer's identity is not disclosed, there is no significant difference between positive and negative reviews either in terms of perceived credibility or impact on consumer trust.

According to Filieri (2015), the proliferation of fake and paid online reviews means that building and maintaining consumer trust is a challenging task for websites hosting consumer-generated content. Fake consumer reviews are found to undermine a (potentially) effective and efficient mechanism for overcoming information asymmetry between online sellers and buyers (Malbon, 2013).

Consumer reviews also offer a powerful mechanism for regulating the marketplace. Genuine consumer reviews can moderate bad seller behaviour and assist in improving the quality and efficiency of the marketplace. Although there are laws in many jurisdictions that prohibit misleading and deceptive conduct, detecting fake reviews is complex. It has been suggested

that it should be addressed by regulators through an 'alliance approach'<sup>16</sup>, bringing soft power to achieve a fair and competitive marketplace.

Respondents in the online think aloud study said that **user reviews tasks** (Choose a hotel for a weekend in London for two people at Booking and Choose a restaurant for this evening at TripAdvisor) were seen as most likely to be prone to manipulation. The two websites (booking.com and TripAdvisor) themselves were seen as transparent – it was the reviews that were open to doubt. However, as reviews were seen as indicative only, respondents again did not place much importance on transparency in this respect. It was acknowledged that websites cannot be held responsible for the reliability of reviews. On both these sites (and in the transaction tasks on Amazon and Ryanair), respondents referred to the reviews and appeared to take them into account in making their decisions / choices considering, as in the previous studies reported, that (i) **negative reviews** were generally seen as more credible than positive reviews; (ii) a **high number of reviews** for an item provided some sort of guarantee that potential biased comments are compensated by authentic ones; and (iii) reviews containing **pictorial proof** seemed to inspire more confidence.

#### Quality controls on the entries into consumer review, rating, and endorsement systems: main findings

- Enhanced transparency of reviewer identity enhances consumer trust. High number of reviews for an item provides consumers with some sort of guarantee that potential biased comments are compensated by authentic ones but full control was perceived as impossible,
- Reviewer comments are believed to be inherently subjective, increasing transparency of reviewer identity enhances consumer trust (e.g. accept reviews only from verified authors)
- Consumers rely heavily on ratings to evaluate the credibility of commercial information they find online. Authenticity of online user reviews remains a concern as firms have an incentive to manufacture positive reviews for their own products and negative reviews for their rivals.
- When reviewer identity is disclosed, negative online reviews are deemed more credible than positive online reviews, while a positive online review leads to a greater initial trust than a negative review.

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<sup>16</sup> This is particularly relevant in light of research question 16 (What are the main shortcomings of existing review, rating and endorsement systems, from the point of view of consumers and consumer protection?).

### 4.3 Experiment on transparency of consumer reviews and rating.

The third experiment concerns the effect on product selection of consumer reviews. The design follows the logic of the studies in Area 1 and 2 (information search and contractual entities). The respondents were presented with two of the possible hotels and asked which hotel they prefer, basing their evaluation on the source of reviews received, the visual prominence of such reviews and the review rating. The following table shows the levels for each attribute.

Table 7. Reviews experiment: attributes, levels and research questions

Attributes	Levels	Research Questions (RQ)
Information content (IC)	<ul style="list-style-type: none"> <li>IC1: No information on quality controls of reviewers</li> <li>IC2: Information stating that reviewers are users of the platform</li> <li>IC3: Information stating that the reviewers have actually stayed at the hotel.</li> </ul>	<ul style="list-style-type: none"> <li>RQ9: with all other attributes held constant does information stating that the reviewers are platform users influence choices?</li> <li>RQ10: with all other attributes held constant does information stating that the reviewers have stayed at the hotel influence choices?</li> </ul>
Information presentation (IP)	<ul style="list-style-type: none"> <li>IP1: Low visual prominence (displayed as a bullet point in the hotel description)</li> <li>IP2: High visual prominence (written in a coloured box under the hotel description)</li> </ul>	<ul style="list-style-type: none"> <li>RQ11: with all other attributes held constant does highlighting information about the reviewers influence choices?</li> </ul>
Rating (R)	<ul style="list-style-type: none"> <li>R1: The hotel attracts the highest user review</li> <li>R2: The hotel attracts the lowest user review</li> </ul>	<ul style="list-style-type: none"> <li>RQ12: with all other attributes held constant does the quality of user reviews influence choices?</li> </ul>

*Source: Authors' elaboration*

As with the previous experiments, the following figures present examples of how information content (IC) attribute (see Figure 9); information presentation (see Figure 10) and rating (see Figure 11) were shown to the participants.

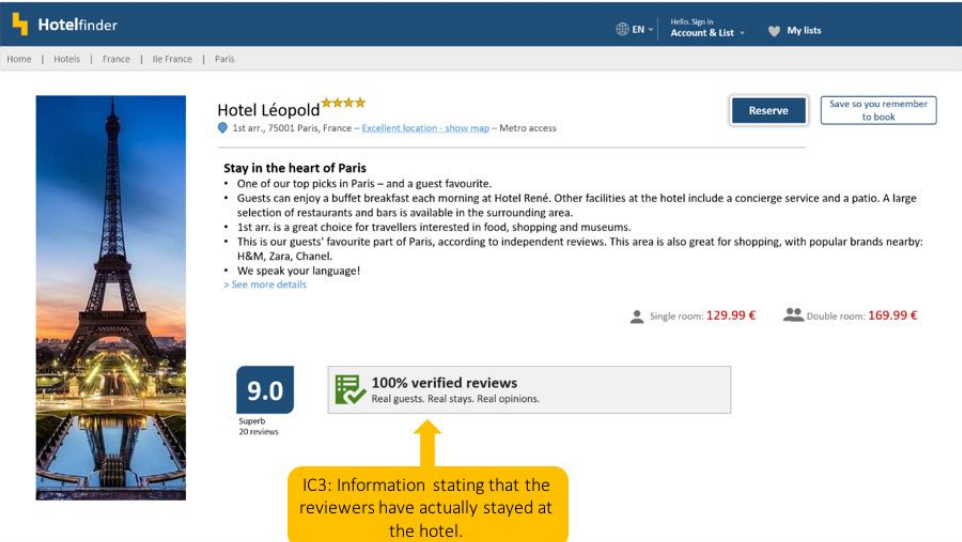


Figure 9. Review result experiment: example of information content attribute and levels

## Booking a room hotel

Suppose that you want to make a reservation hotel in central Paris (1st arrondissement) through an online platform. Two booking platforms, named Hotelbook and Hotelfinder, offer the following hotels in the required area of Paris. Please tell us if you prefer to make a reservation in:

Click on the image to enlarge



**Hotelfinder**

Home | Hotels | France | Ile France | Paris

**Hotel Léopold** ★★★★★

1st arr., 75001 Paris, France – Excellent location - show map – Metro access

**Stay in the heart of Paris**

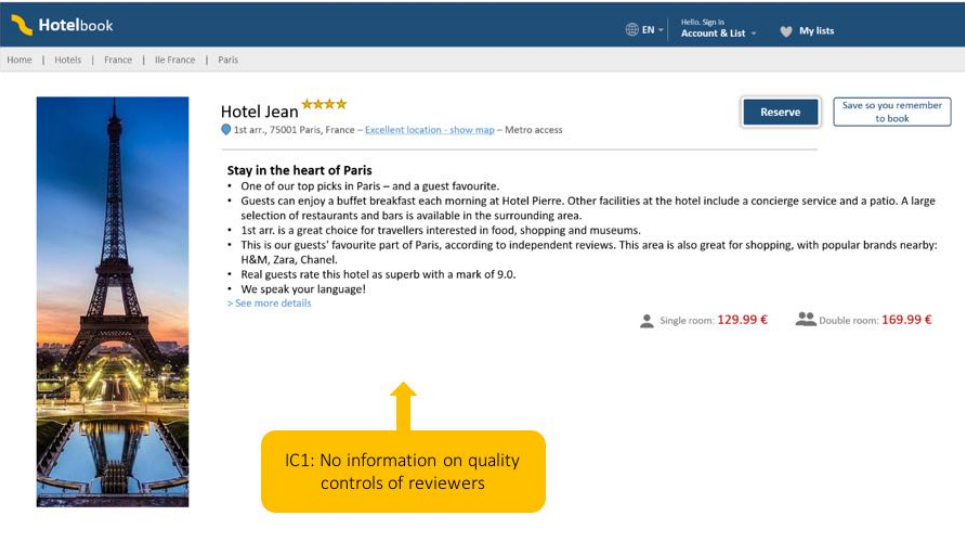
- One of our top picks in Paris – and a guest favourite.
- Guests can enjoy a buffet breakfast each morning at Hotel René. Other facilities at the hotel include a concierge service and a patio. A large selection of restaurants and bars is available in the surrounding area.
- 1st arr. is a great choice for travellers interested in food, shopping and museums.
- This is our guests' favourite part of Paris, according to independent reviews. This area is also great for shopping, with popular brands nearby: H&M, Zara, Chanel.
- We speak your language!

Single room: 129.99 € Double room: 169.99 €

**9.0** Superb 20 reviews

**100% verified reviews**  
Real guests. Real stays. Real opinions.

IC3: Information stating that the reviewers have actually stayed at the hotel.



**Hotelbook**

Home | Hotels | France | Ile France | Paris

**Hotel Jean** ★★★★★

1st arr., 75001 Paris, France – Excellent location - show map – Metro access

**Stay in the heart of Paris**

- One of our top picks in Paris – and a guest favourite.
- Guests can enjoy a buffet breakfast each morning at Hotel Pierre. Other facilities at the hotel include a concierge service and a patio. A large selection of restaurants and bars is available in the surrounding area.
- 1st arr. is a great choice for travellers interested in food, shopping and museums.
- This is our guests' favourite part of Paris, according to independent reviews. This area is also great for shopping, with popular brands nearby: H&M, Zara, Chanel.
- Real guests rate this hotel as superb with a mark of 9.0.
- We speak your language!

Single room: 129.99 € Double room: 169.99 €

IC1: No information on quality controls of reviewers

Source: Authors' elaboration

Figure 10. Review result experiment: example of information presentation attribute and levels

# Booking a room hotel

Suppose that you want to make a reservation hotel in central Paris (1st arrondissement) through an online platform. Two booking platforms, named Hotelbook and Hotelfinder, offer the following hotels in the required area of Paris. Please tell us if you prefer to make a reservation in:

Click on the image to enlarge

**Hotelfinder**

Home | Hotels | France | Ile France | Paris

EN Hello, Sign in Account & List My lists

**Hotel Léopold** ★★★★★  
1st arr., 75001 Paris, France – Excellent location – show map – Metro access

[Reserve](#) [Save so you remember to book](#)

**Stay in the heart of Paris**

- One of our top picks in Paris – and a guest favourite.
- Guests can enjoy a buffet breakfast each morning at Hotel René. Other facilities at the hotel include a concierge service and a patio. A large selection of restaurants and bars is available in the surrounding area.
- 1st arr. is a great choice for travellers interested in food, shopping and museums.
- This is our guests' favourite part of Paris, according to independent reviews. This area is also great for shopping, with popular brands nearby: H&M, Zara, Chanel.
- We speak your language!

> See more details

Single room: 129.99 € Double room: 169.99 €

**9.0**  
Superb  
20 reviews

**100% verified reviews**  
Real guests. Real stays. Real opinions.

IP2: High visual prominence (written in a coloured box under the hotel description)

**Hotelbook**

Home | Hotels | France | Ile France | Paris

EN Hello, Sign in Account & List My lists

**Hotel Jean** ★★★★★  
1st arr., 75001 Paris, France – Excellent location – show map – Metro access

[Reserve](#) [Save so you remember to book](#)

**Stay in the heart of Paris**

- One of our top picks in Paris – and a guest favourite.
- Guests can enjoy a buffet breakfast each morning at Hotel Pierre. Other facilities at the hotel include a concierge service and a patio. A large selection of restaurants and bars is available in the surrounding area.
- 1st arr. is a great choice for travellers interested in food, shopping and museums.

to independent reviews. This area is also great for shopping, with popular brands nearby:

9.0

Single room: 129.99 € Double room: 169.99 €

IP1: Low visual prominence (displayed as a bullet point in the hotel description)

Source: Authors' elaboration

Figure 11. Review result experiment: example of rating review attribute and levels

## Booking a room hotel

Suppose that you want to make a reservation hotel in central Paris (1st arrondissement) through an online platform. Two booking platforms, named Hotelbook and Hotelfinder, offer the following hotels in the required area of Paris. Please tell us if you prefer to make a reservation in:

Click on the image to enlarge

The figure displays two side-by-side screenshots of hotel booking pages. Both pages are for a 4-star hotel in the 1st arrondissement of Paris, France, with a price of 129.99 € for a single room and 169.99 € for a double room. The left page is from Hotelfinder and features a 9.0 rating with a '100% verified reviews' badge. The right page is from Hotelquest and features a 7.0 rating with a 'User reviews' badge. Yellow callout boxes with arrows point to the rating boxes, containing the text: 'R1: The hotel attracts the highest user review' (pointing to the 9.0 rating) and 'R1: The hotel attracts the lowest user review' (pointing to the 7.0 rating).

Source: Authors' elaboration

The key findings are as follows:

- 1) High visual prominence of user reviews increases the probability of selecting the product (RQ11).
- 2) High ratings of a product increase the probability of selection of the product. (RQ12).
- 3) Reviews from users of the product increase the probability of selecting the product (RQ10)
- 4) Reviews from platform users also increase the probability of selecting the product, but are less impactful than actual users of the product (RQ9)

Overall user product reviews increase the probability of selecting the product particularly when the reviewers are users of the product, when the rating is high and when the review outcomes are visually prominent (almost twice more likely to be selected). That a service makes the review process prominent is a sign of transparency that may help to build trust. It is notable that actual users increase the probability of selection by 40% in contrast to platform user reviews with an increase of 20% - see table below.

Table 8. Reviews experiment output

Attributes and levels	Estimate	Probability <sup>17</sup>	Std. Error	t-value	Pr(> t )
IP2: High visual prominence	1.09	2.97	0.02	39.58	< 2.2e-16 ***
Q1: The good or service has the highest user review	0.73	2.07	0.02	30.17	< 2.2e-16 ***
IC3: Information stating that the reviewers have actually bought and use the good or service system	0.34	1.40	0.03	11.44	< 2.2e-16 ***
IC2: Information stating that reviewers are just users of the platform	0.18	1.20	0.03	5.03	4.812e-07 ***

Source: Authors' elaboration

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<sup>17</sup> The odds ratio is calculated by the exponential of the logit. This value is compared to 1 which is the baseline probability

## 5 Conclusions and recommendations

### 5.1 Overview

Online platforms raise concerns regarding consumer protection. Problematic issues include the absence of a level playing field, lack of transparency, concerns around personal data collection, and asymmetrical power between platforms and suppliers, all of which could lead to unfair commercial practices. In the 2016 Communication “Online Platforms and the Digital Single Market - Opportunities and Challenges for Europe”, it is stated that the “future internet cannot succeed without the trust of users in online platforms, and without online platforms respecting all applicable legislation and the legitimate interests of consumers and other users” (European Commission, 2016c).

The objective of the current Behavioural Study on the Transparency of Online Platforms was to investigate the impact of enhanced transparency on consumer trust and behaviour in three specific areas: (1) the criteria for and presentation features of search results; (2) the identity of contractual parties, and (3) quality controls on consumer reviews, ratings, and endorsement systems, are investigated.

The study comprises a systematic review of the literature, an in-depth ‘think aloud’ online qualitative enquiry, and three discrete choice behavioural experiments.

The review of the literature combined with qualitative enquiry paint a picture of limited consumer interest and awareness of platform commercial practices. Platforms are perceived to provide access to the widest range of products, with no obvious allegiance to particular manufacturers or suppliers. Platforms are assumed to be trying to do their best to satisfy their customers, and to offer them relevant results. While user reviews and ratings provide additional information about goods and services, their authenticity and validity is a concern. High numbers of reviews for a product or service are seen to provide an antidote to bias. When making purchases, few are aware of issues related to contractual parties. Trust and confidence in online service provision is prevalent, supported by the knowledge that that millions of people can’t be wrong. If there are problems, these do not concern transparency or informational asymmetries related to information searches or purchases, but rather to the speed and convenience of online operations.

A generalised characterisation of many online users is that they rely on blind trust. They are unlikely to appreciate the risks of exposure to unfair practices, misleading information or other ways in which they might be exploited. Were they conscious of such issues and made an informed choice, there would be little cause for concern. But

when people are unaware and unconcerned, the asymmetry between platforms and consumers calls for regulatory attention.

Three discrete choice experiments were conducted to investigate the effects of increased transparency about (i) the criteria for determining the order of presentation of search results; (ii) the identity of contractual parties involved in a purchase, and (iii) user reviews and ratings. From the choices that respondents made in these experiments a behavioural measure of the impact of transparency on the probability of the selection of a product has been identified. In relation to transparency the key findings for the three areas are as follows

- **Criteria and presentation of search results.** Compared to having no information on the criteria for ordering search results, when informed that the ranking of search results is based on popularity, the probability of selecting the product are 115% more. Again, compared to no information about the ranking criterion, when a product has first rank on the screen the probability of selecting the product are increased by 47%. Most consumers will read popularity as a signal that since many others have chosen the product it must be of quality and from a trustworthy source. In all probability first place in the search results carries similar connotations. Setting aside the possibility of the manipulation and or distortion of 'popularity', the findings underline the way in which information on the presentation of search results influences product selection.
- **The identity of contractual parties.** Compared to having no information about the identity of contractual parties, being informed merely that the product is sold by a third-party trader reduces the probability of product selection. However, providing the additional information that the third-party trader's status ensures consumer rights in case of problems, increases the probability of product selection by almost 50%. Partial transparency, introducing the (possibly surprising) fact that a third party is involved in the sale may lead to confusion and concerns; "can this third party be trusted?" But with full transparency, the additional information that the third party's trader status provides consumer protection rights increases the probability of a purchase. Here, full transparency is seen to increase trust and confidence in the online transaction.
- **Consumer reviews and ratings.** The experiment shows that high prominence of user reviews leads to a twofold increase in the probability of selecting the service/product, as does the product/service receiving the highest category user review. Information that the reviewers have used/purchased the product/service also increases the probability of selecting a product, but by only 40%. That a

service provider chooses to display user reviews prominently invites two possible interpretations from potential customers. First, that the service provider has no wish to hide independent quality assessments and this commitment to transparency builds trust and confidence. Second, people may assume that only those providers with good user reviews would decide to make the reviews prominent.

In summary, the study finds that transparency about the criteria for the ranking of search results, about contractual identity and its implications, and about the origin of user reviews and ratings increases the probability of purchasing a product or a service.

Having completed one of the three experiments, respondents were asked a number of questions about their reactions to the information. Did they recall the information? did it make them more confident and trusting in the platform? and was it important in their decisions?

The following table shows the results. The first row shows that at least two out of three respondents said they recalled the information. And in the second row it is shown that about one in two recalled the information correctly. Of those who recalled the information correctly seventy percent or more agreed that the information was important in their decision and that it made them more trusting and confident in the transaction.

Table 9. How informational transparency is evaluated by users

	Information about the criteria for presenting search results	Information about contractual identity and its implications	Information about who is included in user reviews and ratings
% saying they recall the information	79.8%	74.0%	64.3%
% correctly recalling the information	62.5%	53.2%	45.5%
% of those correctly recalling the information agreeing is was important in their decision	70.0%	67.9%	83.9%
% of those correctly recalling the information agreeing that it made them more confident and trusting	69.9%	69.9%	85.9%

*Source: Authors' elaboration*



It is important not to over-interpret these opinions, but if they are taken at face value and added to the findings of the three experiments it strongly suggests that greater online transparency has three effects:

- It is important in decision taking.
- It increases trust and confidence in the online environment
- It increases the probability of product selection.

As such, online transparency is clearly in the interests of consumers. Equally, it might be argued that it is in the interests of platforms and traders who could expect to see a growth in online activity as a result of increased consumer confidence and trust.

## 5.2 Policy options

### 5.2.1 Transparency of content and presentation features of search results

Given the ever-increasing volume of goods and services available through online platforms, consumers must rely on search tools to find what they want. Search tools benefit consumers where they decrease search costs. However, they also have a real impact on consumer decision-making because humans tend to prefer what is easy over what is optimal. In a recent Statement by Commissioner Vestager on the Commission's decision to fine Google €2.42 billion for abusing dominance as search engine<sup>18</sup> it is claimed that the top ten search results on Google (on the first page) receive 95% of all clicks, with the top result receiving 35% of all clicks. Online platforms that are aware of this behavioural tendency could potentially manipulate the ranking of search results to influence purchasing decisions.

Consumer experiences of commercial practices identified in this study shows that online consumers are more concerned with convenience when searching for goods and services than with the potential manipulation of search results (the most common manipulations that emerged were the ranking of search results, and the inclusion of sponsored links). The results from the qualitative exercise highlighted that **even when search result manipulation was pointed out to online consumers, they accepted it as a commercial reality**. But, as it has been noted in the earlier paragraphs of this chapter, when people are unaware and unconcerned, the

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<sup>18</sup> Statement by Commissioner Vestager on Commission decision to fine Google €2.42 billion for abusing dominance as search engine by giving illegal advantage to own comparison shopping service Brussels, 27 June 2017 [http://europa.eu/rapid/press-release\\_STATEMENT-17-1806\\_en.htm](http://europa.eu/rapid/press-release_STATEMENT-17-1806_en.htm)



**asymmetry between the platform and the consumer demands further attention.**

Evidence from behavioural science suggests that **order effects result in a systematic change in behaviour** (Day et al, 2012). The online experiment tested the impact of ranking search results based on different criteria. It found that **participants were more likely to select the top search result if they were ranked by popularity, compared to ranking by alphabetical order**. This effect was even more pronounced if the search result criteria were made visually prominent at the top of the screen. From the perspective of behavioural science, popularity reflects ‘**social proof**’ that a product is a good choice. Using this decision short-cut reduces the cognitive effort required to assess value (Hug et al., 2014).

Setting aside the possibility of the manipulation and/or distortion of ‘popularity’, the findings underline the way in which information on the ranking criteria and presentation of search results influences product selection. Furthermore, the qualitative study revealed that **users tolerate advertising and sponsored links as a source of revenue for search engines and were confident that they were protected from excessive manipulation** on the most well-known websites because they are used by millions of people. However, infrequent users were often not able to detect advertising and sponsored links, a requirement under the Unfair Commercial Practices Directive (UCPD). By contrast frequent users felt capable of avoiding paid search results but could be susceptible to ‘familiarity bias’ whereby familiarity leads people to underestimate risks (Heath et al., 1991).

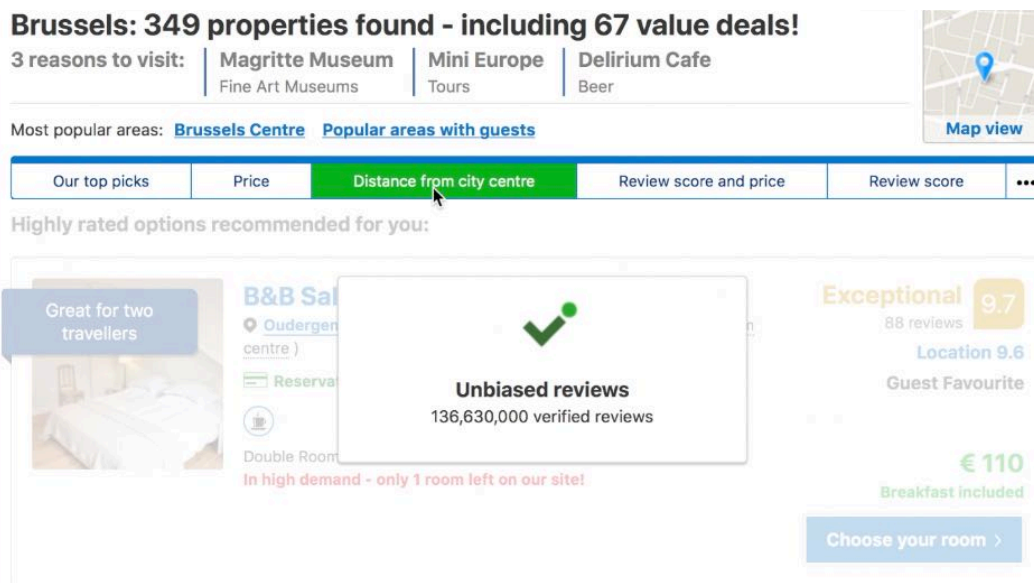
To support consumers to make optimal decisions online, it is important for regulators to understand that consumers are unlikely to spend significant amounts of time going through voluminous search results, even if they are made aware of search manipulations by online platforms. This is because using decision short-cuts is part of normal human cognition. Decision short-cuts do not distort thinking; they reflect thinking. However, mandating the order of search results by price or some other criterion that is considered to be in the average consumer’s best interest, might disadvantage some consumers. In addition, implementing strict regulation on the way in which search results are presented to consumers risks constraining innovation in the sector. Based on these findings, the options presented below focus on how regulators can leverage behavioural tendencies to make it easy for consumers to:

- Be informed about the criterion used to order search results using a pop-up when the selection is loading
- Be able to re-order search results using a range of post-purchase criteria; and

- Be able to identify advertising and sponsored links.

**Make it easy for consumers to be informed about the criterion used to order search results.** While presenting as the default option an objective criterion such as price or alphabetical order may not be an option, informing them about how a subjective criterion is constructed will increase the platforms’ transparency. Although the default option when searching on the platform might be “Our top picks”, if the users select a more objective criterion such a “Distance from the city centre” or “Price” a pop up would then appear showing the following message “Unbiased reviews” (see Figure 12). By contrast, if the user clicks on “Our top picks” the pop up prompts the user to book now (see Figure 13). In addition to pop-ups, platforms could make salient whether the criterion is objective (Price, Distance,...) or subjective (Our top pick, Our selection) in the menu labelling the different options as objective or subjective. This will increase platforms’ transparency and is clearly linked to the transparency of consumer review, rating, and endorsement systems (Sigurdsson et al., 2016; Pan and Zhang, 2016).

Figure 12. Presentation of search criteria tool on Booking.com: Distance from city centre (see green rectangle) – Unbiased reviews (pop up)



Source: Booking.com

Figure 13. Presentation of search criteria tool on Booking.com: Our top picks (see green rectangle) – Book now, pay when you stay! (pop up)

**Brussels: 349 properties found - including 67 value deals!**

3 reasons to visit: **Magritte Museum** (Fine Art Museums), **Mini Europe** (Tours), **Delirium Cafe** (Beer)

Most popular areas: **Brussels Centre** Popular areas with guests [Map view](#)

Our top picks | Price | Distance from city centre | Review score and price | Review score | ...

Tip: [Open map](#) to compare our city centre properties

Your results include some shared accommodations, such as dormitory beds. [Show private rooms only](#)

Centrally-located options recommended for you:

**Résidence** Brussels  
Booked 2 times  
Double Room  
In high demand - only 2 rooms left on our site!

**Book now, pay when you stay!**  
With FREE cancellation on most rooms

**Fabulous** 8.6 (537 reviews)  
Location 9.8

€ 204  
Breakfast included

Choose your room >

Source: Booking.com

**Make it easy for consumers to re-order search results using a range of post-purchase criteria.** Consumers will naturally look for social cues to influence their decisions online. At present, they often rely on the 'popularity' (as in our experiment) but this is a limited source of information because it only reflects pre-purchase 'social value'. After consumers receive a product or service, they may have a negative experience. This post-purchase social value can be reflected in consumer complaints and mystery shopping reviews, but accessing this information often requires active research.

Behavioural research shows that requiring even small amounts of effort ('friction costs') can make it much less likely that a behaviour will occur (BIT, 2014). So it is unlikely that consumers would search for this information on a regular basis.

Regulators could require platforms to aggregate post-purchase social data and use this to present consumers with an alternative search criterion on the main search page. Platforms like Google already provide 'Advanced Search' tools but this option requires a few additional mouse clicks to reach which is likely to deter customers from changing the default settings. Instead, alternative search criteria could be presented to consumers in a similar way that Amazon provides a simple drop-down tool for consumers to search for items based on the criterion of their choice. This could be presented to consumers alongside other options, including price and 'average customer review'.

**Make it easy for infrequent users to identify advertising and sponsored links.**

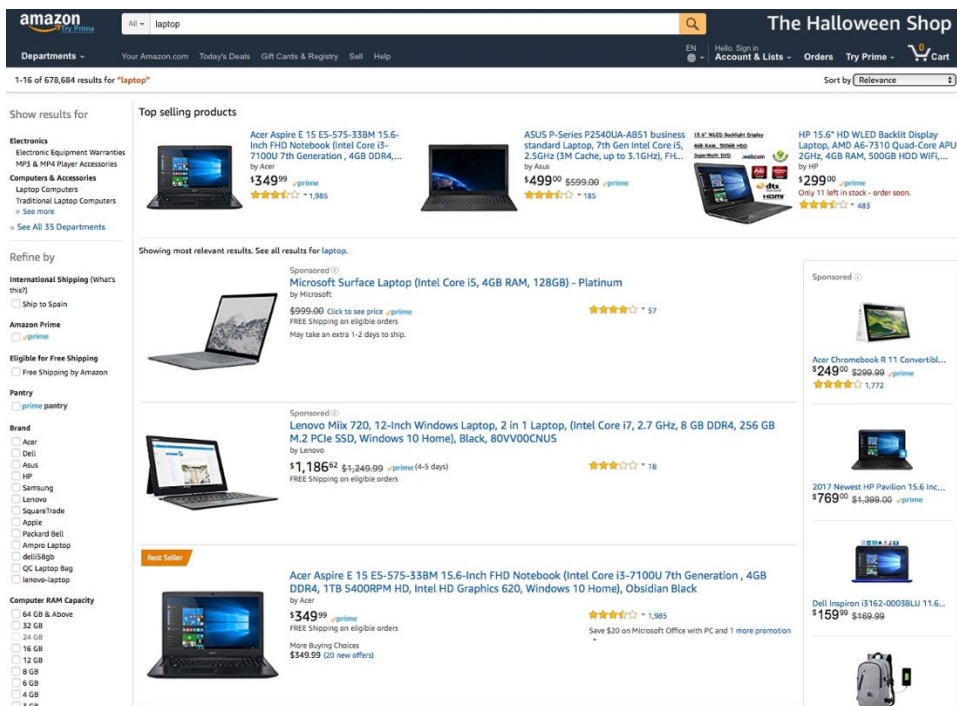
To meet the requirements of the UCPD, platforms must ensure that all users can clearly distinguish advertising and sponsored links from organic search results. The results of the study suggest that this does not always happen, particularly for infrequent users.

Regulators could design a test which measures user comprehension of the presentation of advertising and sponsored links. Where regulators have a particular concern that a platform has not clearly marked its advertising and sponsored links, they could run an online lab comprehension test with, for example, 1,000 users. Regulators could set a 'pass mark' as a minimum requirement that platforms need to meet (where, for example, 80% of users must be able to distinguish advertising and sponsored links from organic search results). If they do not meet these requirements, then the EC could require them to make changes to the platform's presentation of results.

**5.2.2 Transparency about the identity of contractual parties**

Under the UCPD, platforms are responsible for taking appropriate measures to enable users to clearly understand with whom they are entering a contract. However, the qualitative exercise ("think aloud") conducted across 4 countries (10 interviews per country) revealed that when using platforms, consumers often do not notice supplier names. Instead, they tend to assume that products are sold by the platform (such as Amazon), rather than a third-party trader.

Figure 14. Example of information provision about contractual parties



Source: Amazon

The study also revealed that **specific terms and conditions of purchases are generally ignored**: in Germany and Poland only a small group of respondents decided to consult terms and conditions (particularly when considering car rental conditions), while in Spain and the UK no participants read them, despite making declarations of doing so). This research found that **consumers are generally unconcerned about who their contract is with**. In the online experiment price is the dominant attribute affecting choices. Being informed that the product is sold by a third-party trader reduced the probability of product selection. However, when given the **additional information that the third-party trader's status ensures consumer rights in case of problems, increases the probability of product selection by almost 50%**. This is very relevant in the context of hybrid marketplaces and peer platform markets, where private persons act as suppliers and purchasers have few, if any, consumer rights.

The findings are consistent with the behavioural science literature which shows that consumers place disproportionate value on the present benefits of a product or service (such as the price), and heavily discount the future implications of their choice (such as a returns or cancellation policy) (Barber et al., 2005; Thaler, 1991). To better engage consumers in specific information about the identity of contractual parties, regulators could ensure that the implications from their choices are made salient in the platform. Based on these findings, the recommendations presented below aim to:

- Raise consumers' awareness of the identity of their contractual party, and
- Improve consumers' understanding of how the identity of the contractual party affects their consumer rights.

**Raising consumers' awareness of the identity of contractual parties.** Regulators could ensure that platforms and traders make the contractual party salient to consumers. Pop-up messages have been found to be an effective way of influencing online consumer behaviour ranging from online shopping (Sigurdsson et al., 2016) to gambling (Pan and Zhang, 2016). This is because the human brain is hardwired to pay attention to movement as a potential threat in nature. Visuals, such as logos, charts and infographics, also make information easier to process which is why marketers use them to create public awareness of their brand (Pan and Zhang, 2016).

In this context, where consumers have trust in the platforms they use, they may not always notice with which trader they are entering into a contract. Regulators could make it compulsory for platforms to display pop-up messages when a consumer clicks through to a product or service provided by a third party, trader or non-trader. The objective would not be to add 'friction', but rather to increase the likelihood that

consumers will engage with the implication of that contractual party. Although the pop-up would not educate consumers about the specific consequences of entering a contract, as a first step it could make consumers aware of who their contract is with, and alert them to the fact that they may not be covered by the protections of the host site or the EU more generally. For example, platforms could enable relevant third-party traders to clearly indicate that they act, vis-à-vis the platform users, as traders, and that platforms clearly indicate to all their users that they will only benefit from protection under EU consumer and marketing laws in their relations with those suppliers who are traders. In addition, it would also push platforms to design their web-structure so that third party traders have to provide users with the information required to be in compliance with EU marketing and consumer law.

**Improve consumers' understanding of how the identity of contractual parties affects their rights.** To effectively inform consumers about the consequences for consumer rights when entering into a contract with a third-party trader the information must be quick to read and emotionally relevant (Grether et al., 1985). One experimental survey found that users spent an average of 51 seconds reading terms and conditions that would take the average adult between 15 - 17 minutes to read (Obar and Oeldorf-Hirsch, 2016). In addition, the human brain will not pay attention to boring repeated stimuli because it's a natural adaption to the environment which helps us conserve mental energy (Obar and Oeldorf-Hirsch, 2016). Therefore, as the **EC guidance on the implementation/application of Directive 2005/29/EC on Unfair Commercial Practices (2016c)** points out, it is important to "*clearly indicating to all platform users that they will only benefit **from protection under EU consumer and marketing laws in their relations with those suppliers who are traders***" The presentation of this information should be in the same location as the main characteristics of the product (such as price) and not involve further clicks to access.

### 5.2.3 Transparency of consumer review, rating, and endorsement systems

Despite the fact that significant numbers of consumers readily seek out the opinions of others before making a purchase online, the number of consumers who actually leave reviews is low (Moe and Trusov, 2011). This is probably due to 'friction costs' or the hassle of leaving a review. Another factor may be that consumers find it unpleasant or 'costly' to leave a negative rating (Edelman and Geradin, 2015). There is little research into what motivates consumers to leave accurate reviews, ratings and endorsements. One qualitative study suggested that consumer who leave reviews are motivated by feelings of reciprocity (based on the perceived sincerity of other consumers' reviews),

brand attachment, and the desire to help companies improve services (Morrongiello et al., 2017).

As online consumer reviews, ratings and endorsements become increasingly important to people's purchasing decisions, businesses may be incentivised to manipulate this feedback to increase their sales (Hu et al., 2012). One way that traders may do this is through reducing buyer's remorse by encouraging 'post-purchase rationalisation'. This attempts to convince consumers that they like the product or service, even if they do not, after they have made a purchase. (Hasan and Nasreen, 2012). Companies typically do this through mechanisms such as sending follow-up emails to reassure customers they made a smart decision; or asking for ratings and reviews immediately after purchase which creates a sense of completion and helps the brain store a positive memory of the purchase.

There is EU legislation in place to control the quality of consumer reviews, ratings and endorsement systems, including articles 6 and 7 of the UCPD on misleading actions and omissions, the Consumer Rights Directive and the Misleading and Comparative Advertising Directive. However, a number of studies have found issues with the authenticity of reviews, with one analysis estimating that approximately 10% of reviews are subject to manipulation (Hu et al., 2012). A previous EC survey (EC, 2016c) found that 75% of respondents agreed that more transparency is needed around reviews, ratings and endorsement systems.

In this study, mixed evidence on the level of consumer engagement with the transparency of reviews, ratings and endorsements has been found. The questionnaire results showed that 85% of respondents said that knowing who was rating the hotel made them more confident in trusting the platform. However, in practice, the positivity of reviews (evaluative) were stronger predictors of consumer choice than knowing that the reviewers actually bought and used the good or service (factual). The weight given to the 'evaluative' over the 'factual' suggests that simply presenting consumers with information about the trustworthiness of reviews may not be enough to help them choose optimally. Instead, regulators could ensure that quality control systems are in place on platforms.

Based on these findings, the recommendations presented below focus on how platforms can:

- Increase the number of people who leave accurate reviews, ratings and endorsements; and
- Be encouraged to improve the authenticity of reviews.

**Encouraging more consumers to leave accurate reviews, ratings and endorsements.** By tapping into behavioural insights, the European Commission could develop regulations for online platforms that encourage more, and more accurate, consumer reviews, through:

**Making it easy:** Platforms could remove any unnecessary 'friction costs' to leave a review, such as an extra sign-in step, which could easily deter consumers. For example, Uber's rating system makes it easy for consumers to leave a quick and instant review, by presenting them with a 'two-click' rating form when they first log onto the platform after a service. The EC could recommend the use of this quick rating system.

**Leveraging reciprocity:** Platforms could prompt consumer reciprocity when consumers reach a page to leave a review through the use of a pop-up or banner message. For example: 'Did you use consumer reviews to help you decide whether to purchase [insert good / service]? Please help others by leaving a rating for [Insert trader name] below'. The Behavioural Insights Team tested a similar reciprocity intervention in collaboration with a bank in the UK, who wanted to encourage their employees to participate in a charitable giving day. All employees received an email from their CEO, and some of them received an additional pot of sweets. It was found that this simple act of reciprocity increased the proportion of employees who gave a day of their salary to charity from 5 per cent to 11 per cent (BIT, 2013). This type of message could be included by regulators.

**Minimising post-purchase rationalisation:** To improve the accuracy of reviews, regulators could also require all platforms to give consumers an opportunity to revise their review one month after purchase through an email prompt. The EC could make this option compulsory. To compensate consumers' cost, an added incentive such as discounts for future purchases could be considered. Furthermore, platforms could prompt consumers to review previous purchases when they are making a new purchase on the same platform. Platforms could be encouraged or obliged to be more transparent about the reliability of user review systems, ie about the origin of reviews and implement quality controls for improved authenticity of reviews. The EC might require platforms to be transparent about what they have done to implement quality controls for improved authenticity (e.g. double authentication system in place). Platforms could then be ranked by the strength of their controls, and the list made publically available to create competition between platforms who are unlikely to want to be ranked at the bottom. This could be an effective way to encourage platforms to invest in new technologies such as artificial intelligence to screen out fake reviews.



The EC could complement this public ranking with recommended quality controls to be implemented by platforms including a 'contact the reviewer' functionality, where consumers can get in touch with people who have previously left reviews. This could be done via a secure messaging system on the platform (such as on eBay):

- Incorporate a facility for consumers to easily upload photographic evidence of the product or service alongside their review (such as on TripAdvisor)
- Introduce a rule whereby consumers can only leave a review or rating for a product or service if they personally bought or booked it within a given time frame (such as AirBnB)

### 5.3 Transparency by design

The **New Deal for Consumers** was announced in the Work Programme 2018. This sets out an agenda for a more united, stronger and more democratic Europe (COM/2017/0650 final) and emphasises the importance of trust and confidence as key dimensions of the internal market and the Digital Single Market. The results of the current study show that many online users engage with platforms on the basis of **blind trust**, ignorant of common practices in the online world or of the ways in which platforms generate revenue. Most of the online users do not appreciate the risks of exposure to unfair practices, misleading information and other ways in which they might be exploited. Since 2008, considerable academic attention has focused on one kind of design-based approach to shaping behaviour, so-called 'nudge'. Thaler and Sunstein (2008) propose that a nudge is 'any aspect of choice architecture that alters people's behaviour in a predictable way without forbidding any options or significantly changing their economic incentives' (Thaler & Sunstein, 2008, p. 6). The intellectual heritage of nudge is experiments in cognitive psychology which seek to understand human decision-making. These show a considerable divergence between the rational actor model of decision-making assumed in microeconomic analysis and how individuals actually make decisions influenced by their pervasive use of cognitive shortcuts and heuristics (Tversky & Kahneman, 1974, 1981). Critically, much individual decision-making occurs subconsciously, passively and unreflectively rather than through active and conscious deliberation (Kahneman, 2013).

Drawing on these findings, Thaler and Sunstein highlight how the surrounding decisional choice architecture can be intentionally designed in ways that systematically influence human decision-making. Danaher (2017) has recently illustrated this phenomenon "Think about the PageRank algorithm on Google search; the Amazon

recommended choices algorithm; Facebook’s newsfeed algorithm; the route planner algorithm on Google maps; and so on. All of these algorithms sort through options on our behalf (websites to browse, books to buy, stories to read, routes to take) and present individuals with one or more preferred options. They consequently shape the choice architecture in which individuals operate and nudge them toward certain actions. People typically don’t question the defaults provided by our algorithmic overlords.”

When people are unaware and unconcerned, the **asymmetry between the platform and the consumer needs attention**, particularly taking into account the fundamental role, power and impact of the global digital service providers on citizens. The results of the three experiments conducted in this study and the different policy options described point to the importance of **design-based regulation** to build regulatory standards into the design of the system being regulated, i.e. to create an architecture for human behaviour that ‘hardwires’ in the preferred behavioural patterns. This regulatory approach fosters social outcomes deemed desirable (such as ignition locking systems which prevent vehicle engines from starting unless the occupants’ seatbelts are fastened). For example, the new EU General Data Protection Regulation 2016/679 (GDPR)

#### EU General Data Protection Regulation 2016/679 (GDPR)

(78) The protection of the rights and freedoms of natural persons with regard to the processing of personal data require that appropriate technical and organisational measures be taken to ensure that the requirements of this Regulation are met. In order to be able to demonstrate compliance with this Regulation, the controller should adopt internal policies and implement measures which meet in particular the **principles of data protection by design and data protection by default**.

#### Art. 25. Data protection by design and by default

1. Taking into account the state of the art, the cost of implementation and the nature, scope, context and purposes of processing as well as the risks of varying likelihood and severity for rights and freedoms of natural persons posed by the processing, the controller shall, both at the time of the determination of the means for processing and at the time of the processing itself, implement appropriate technical and organisational measures, such as pseudonymisation, which are **designed** to implement data-protection principles, such as data minimisation, in an effective manner and to integrate the necessary safeguards into the processing in order to meet the requirements of this Regulation and protect the rights of data subjects.
2. The controller shall implement appropriate technical and organisational measures for ensuring that, **by default**, only personal data which are necessary for each specific purpose of the processing are processed. That obligation applies to the amount of personal data collected, the extent of their processing, the period of their storage and their accessibility. In particular, such measures shall ensure that by default personal data are not made accessible without the individual's intervention to an indefinite number of natural persons

These two principles can be considered as examples showing how legislation can encourage the construction of “choice architectures” and the use of nudging<sup>19</sup> as a type of design-based regulation (Yeung, 2017; Thaler & Sunstein, 2008). Thus, it is not just about creating rules and regulations and enforcing them but also about hardwiring policy preferences into behavioural architectures. All the policy options outlined above illustrate the importance of how information salience and provision influence decision-making; how the “choice architecture” plays a role when selecting different products/services. Under these circumstances, transparency could be embedded into the regulation following the principle of transparency by design and transparency by default.

#### **Transparency of content and presentation features**

- Make it easy for consumers to be informed about the criterion used to order search results
- Make it easy for consumers to re-order search results using a range of post-purchase criteria.
- Make it easy for infrequent users to identify advertising and sponsored links.

#### **Transparency about the identity of contractual parties**

- Raise consumers’ awareness of the identity of contractual parties.
- Improve consumers’ understanding of how the identity of contractual parties affects their rights.

#### **Transparency of consumer review, rating, and endorsement systems**

- Encourage more consumers to leave accurate reviews, ratings and endorsements.
- Encourage platforms to implement quality controls for improved authenticity of reviews.

In the majority of the policy options described the changes to the “choice architecture” mainly involve actions related to the design (lay-out) of the information without affecting the algorithms used by the platforms. In other words, such changes could be implemented at relatively small cost. In other cases, for example enabling users to re-order search results on the basis of different criteria would require further software/programming. In both cases additional transparency in platforms should create a virtuous circle; a growth of consumer trust and confidence, leading to greater online commerce, and to a more effective Digital Single Market. This potential virtuous circle will overcome the cost of implementing the measures.

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<sup>19</sup> Any aspect of choice architecture that alters people’s behaviour in a predictable way without forbidding any options or significantly changing their economic incentives (Thaler & Sunstein, 2008).

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## Annexes

### Annex 1 Areas of research and research questions

Area #1: The general criteria used by platform operators to decide which items are shown to users, in which order, and at what level of saliency, including the disclosure of ownership or contractual relationships that may influence these criteria

R.Q.1. What is the level of interest of EU consumers in such criteria? Their level of concern about them? And to what extent are EU consumers aware of such criteria?

R.Q.2. To what extent do consumers believe that such criteria are aligned with their interests as consumers (e.g. lower price, greater objective quality, stated preferences, better fulfilment of information need, etc.)?

R.Q.3. To what extent would enhanced transparency with respect to such criteria have an impact on consumer trust on online platforms, as well as on the optimisation of consumer behaviour?

R.Q.4. What is the relative impact of different (combinations of) information items (about such criteria) on the level of trust of consumers on platforms? On their perceived level of transparency? On consumer behaviour and its optimality?

R.Q.5. Which (combination of) information items are most effective to support trust and optimal consumer behaviour?

R.Q.6. To what extent can the presentation of such information items have an impact on the level of trust of consumers on platforms? On their perceived level of transparency? On consumer behaviour and its optimality?

R.Q.7. Which (combination of) presentation features are most effective to support trust and optimal consumer behaviour?

R.Q.8. What potential remedies, other than information displays, could enhance platform transparency on the criteria that determine search results, effectively supporting consumers' trust in online platforms and optimal consumer behaviour? What is their relative effectiveness?

Area #2: The identity *and the legal status* (*trader vs. non-trader* (eg. consumer) of the contracting parties involved in the transactions enabled or facilitated by the platforms (e.g. whether the consumer would be entering a contract with the platform provider or some other retailer or service provider and whether that person is acting as a trader within the meaning of EU consumer law or not).

R.Q.9. What is the level of interest of EU consumers in the identity of the contractual parties? Their level of concern about it?

R.Q.10. To what extent do consumers believe they are fully aware of the identity of the contractual parties? And to what extent are consumers actually aware of their identity?

R.Q.11. To what extent does the information available about the identity of the contractual

parties have an impact on consumers' level of trust on platforms? On consumers' behaviour through platforms and its optimality?

R.Q.12. Which (combination of) information items, and which (combination of) presentation features, are most effective to promote consumer awareness of the identity of the contractual parties and optimal consumer behaviour?

R.Q.13. What potential remedies, other than information displays, could promote consumer awareness of their identity, trust in online platforms, and optimal consumer behaviour? What is the relative effectiveness of these remedies and the three areas?

Area #3: The quality controls established by platform operators (or lack thereof) on the review, rating and endorsement systems, e.g. verification of origin and authenticity, incentives linked to entries, screening / censorship, right to rebuttal of affected parties, etc.

R.Q.14. What is the level of interest of EU consumers in such quality controls? Their level of concern about them? And to what extent are EU consumers aware of any such quality controls?

R.Q.15. To which extent do consumers take into consideration entries on review, rating, and endorsement systems in their decision-making process? What is the level of trust of EU consumers in these systems?

R.Q.16. What are the main shortcomings of existing review, rating and endorsement systems, from the point of view of consumers and consumer protection?

R.Q.17. What type of guidelines about the elements of these systems or of the individual reviews can be drawn and shared with consumers to support their own awareness of, and ability to address, these shortcomings?

R.Q.18. In order to address these shortcomings, what (types of) quality controls have already been suggested, implemented, recommended or disqualified in practice, by the private sector, in the literature, or by policy institutions?

R.Q.19. Which (combination of) features of the quality controls are most effective to support trust in these systems and on the online platforms managing them? And to support optimal consumer behaviour?

R.Q.20. Which presentation features may have an impact in the effectiveness of such quality controls to increase trust and optimal consumer behaviour? What is their relative impact? Which are the most relevant?

R.Q.21. What potential remedies, other than information displays, could enhance platform transparency about the quality controls on the entries into consumer review, rating and endorsement systems, effectively supporting consumers' trust in online platforms and optimal consumer behaviour? What is their relative effectiveness?

## Annex 2 Systematic review

### Rationale and Objective

The literature review and online desk research is aimed at providing an overview of the behavioural (and other) drivers behind the levels of consumer interest, awareness and trust with respect to platform search criteria, identity of contractual parties, and quality of review systems.

The result of the literature review and online desk research allow to address to a great extent many of the research questions of the study, including those on the current level of interest and awareness of consumers on each topic, the impact on consumer behaviour of the three issues raised, and the remedies already suggested, implemented, recommended or disqualified.

In addition to that, the findings will provide an indication of the behavioural drivers and processes underlying the potential impact of enhanced transparency in these three areas on the levels of consumer trust and awareness as well as on the optimality of consumer decision-making and behaviour. While the findings of the literature review will inform other parts of the study, the review of literature provides insights to the three main areas covered by the study and will be guided in particular by the following research questions:

<b>Research question</b>	
<b>#1</b>	<i>What is the level of interest of EU consumers in such criteria? Their level of concern about them? And to what extent are EU consumers aware of such criteria?</i>
<b>#2</b>	<i>To what extent do consumers believe that such criteria are aligned with their interests as consumers (e.g. lower price, greater objective quality, stated preferences, better fulfilment of information need, etc.)?</i>
<b>#8</b>	<i>What potential remedies, other than information displays, could enhance platform transparency on the criteria that determine search results, effectively supporting consumers' trust in online platforms and optimal consumer behaviour? What is their relative effectiveness?</i>

<b>Area #2 Identity of contractual parties involved in transactions carried out through platforms</b>	
Research question	
<b>#9</b>	<i>What is the level of interest of EU consumers in the identity and the legal status (trader vs. non-trader (eg. consumer) of the contractual parties? Their level of concern about it?</i>
<b>#10</b>	<i>To what extent do consumers believe they are fully aware of the identity and the legal status (trader vs. non-trader (eg. consumer) of the contractual parties? And to what extent are consumers actually aware of their identity?</i>
<b>#13</b>	<i>What potential remedies, other than information displays, could promote consumer awareness of their identity and the legal status (trader vs. non-trader (eg. consumer), trust in online platforms, and optimal consumer behaviour? What is the relative effectiveness of these remedies and the three areas?</i>

<b>Area #3 Quality controls on the entries into consumer review, rating, and endorsement systems</b>	
Research question	
<b>#14</b>	<i>What is the level of interest of EU consumers in such quality controls? Their level of concern about them? And to what extent are EU consumers aware of any such quality controls?</i>
<b>#16</b>	<i>What are the main shortcomings of existing review, rating and endorsement systems, from the point of view of consumers and consumer protection?</i>
<b>#17</b>	<i>What type of guidelines about the elements of these systems or of the individual reviews can be drawn and shared with consumers to support their own awareness of, and ability to address, these shortcomings?</i>
<b>#18</b>	<i>In order to address these shortcomings, what (types of) quality controls have already been suggested, implemented, recommended or disqualified in practice, by the private sector, in the literature, or by policy institutions?</i>

## Methods

### Search strategy

After a first preliminary screening of the databases outlined in the technical proposal using a set of different search terms, researchers decided to adapt the search strategy in order to combine the terms in such a way as to achieve best results. The testing of different search strings led to the development of new search strings using different combinations of key terms identified in earlier exercises. The table below depicts the new search strings used:

<b>Search</b>	<b>String</b>
<b>#1</b>	<i>User review tools AND transparency AND consumer behavior OR consumer trust</i>
<b>#2</b>	<i>(search engines OR search results OR online platforms) AND (consumer interest OR consumer awareness OR consumer trust OR consumer motivations OR behavioural economics)</i>
<b>#3</b>	<i>(digital economy OR online platforms) AND (consumer interest OR consumer awareness OR consumer trust OR consumer motivations OR behavioural economics) AND transparency</i>
<b>#4</b>	<i>(search engines OR online platforms OR e-commerce OR comparison tools) AND (consumer interest OR consumer awareness OR consumer trust OR consumer motivations OR consumer behaviour) AND transparency</i>
<b>#5</b>	<i>(online platforms OR e-commerce OR comparison tools) AND (consumer interest OR consumer awareness OR consumer trust OR consumer motivations OR consumer behaviour OR consumer ratings) AND (transparency OR trustworthiness)</i>
<b>#6</b>	<i>(online platforms OR e-commerce OR comparison tools OR online review system OR online rating) AND (consumer interest OR consumer awareness OR consumer trust OR consumer motivations OR consumer behaviour OR consumer ratings) AND (transparency OR trustworthiness OR information displays OR online disclosure)</i>

## Eligibility

As outlined in the TS, for the review researchers include works and publications in the fields of online platforms, search engines, e-commerce, review, rating and endorsement systems, digital marketing and relevant economic and behavioural science publications in connection with these fields, plus any other material deemed relevant and necessary to investigate the matter at hand. Works and publications are therefore understood in the widest sense, including but not restricted to official reports, academic research, legal texts, commercial communications and marketing materials, websites, commercial market research, expert blogs, well-reputed news sources, etc. The inclusion of a broad range of literature allowed for a comprehensive and exhaustive search of key documents. For reasons of feasibility, researchers decided to include only studies no older than published in 2010.

## Information sources

Based on the findings from preliminary screening exercise, researchers have reduced the number of databases used for the search of relevant literature following a first preliminary screening performed using the search strings outlined above:

- Business Source Complete (EBSCO)
- Emerald Management Xtra 111
- ISI Web of Knowledge
- SciVerse – Scopus – Elsevier

Researchers conducted the database search in the period of 19/04/2017 to 24/04/2017 using the 6 different search strings, limiting the search to literature published in 2010 and earlier. This produced an outcome of more than 15,000 articles that have been screened by its title for relevance with the potential to be included in the review.

Search String	BSC(EBSCO)	Emerald Management Xtra 111	Scopus	ISI Web of Knowledge
#1	1499	1447	540	143
#2	44	504	1040	2593
#3	2518	87	11	327
#4	17	775	332	997
#5	53	1091	252	1472
#6	32	723	647	-- <sup>20</sup>

In addition, researchers performed a desk research in order to identify other relevant work that provide insights to the study and to inform the design of the experiment in parallel to all tasks performed during the course of the study. This also includes the scanning of bibliographies of relevant titles and information sources provide in the tender specifications. This exercise has been conducted in parallel to the online desk research for a first-hand assessment of current practices in the market, including main players for the different types of platforms.

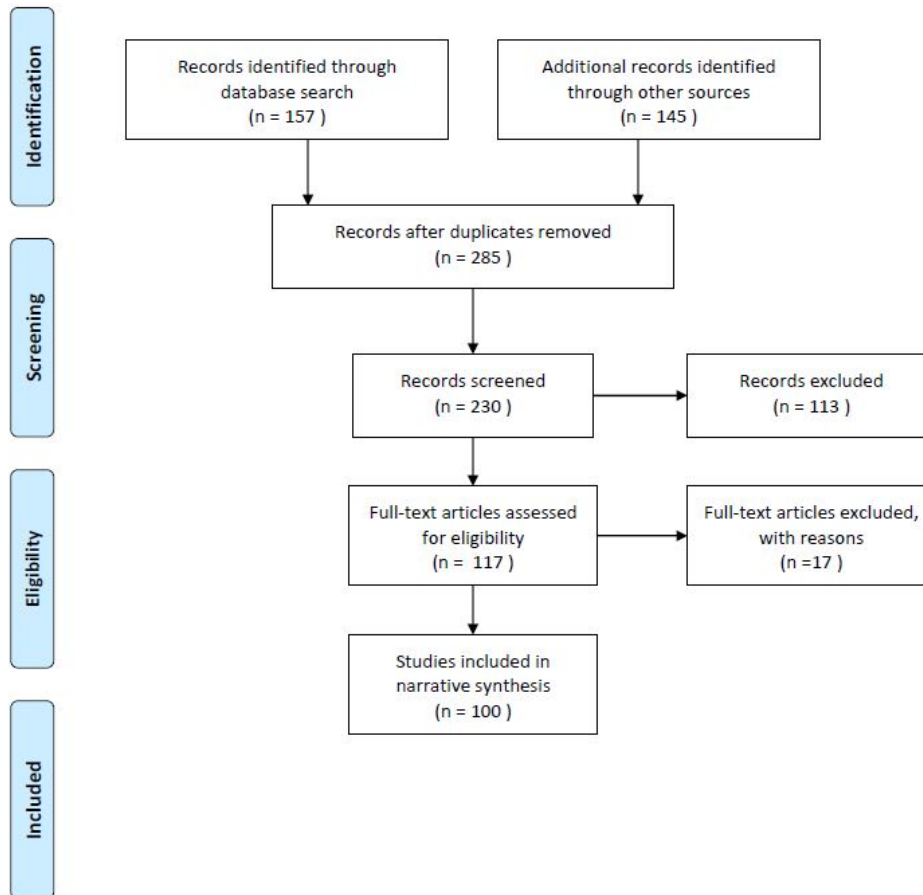
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<sup>20</sup> The search strategy pursued using string 6 in ISI web of Knowledge did not yield a result.



## Study selection

A first screening of the titles produced by the database search led to 157 potentially eligible articles subject to review. In addition, 145 potentially eligible articles were identified through desk research, including literature referred to in the Tender specifications (19 sources) related, although not exclusively, to the policy framework. This led to a total of  $N = 302$  articles, of which 17 duplications were removed. Based on the scanning of abstracts of these titles, 55 articles were excluded from the subsequent screening process. The subsequent application of more stringent inclusion criteria led to the exclusion of 113 articles derived from the database and desk research (2 articles not meeting the exclusion criteria date of publication remained included because of their relevance). Exclusion criteria included: 1) topic (not related to online platforms, search engines, e-commerce, review, rating and endorsement systems, digital marketing and relevant economic and behavioural science) not relevant to the study objective; 2) publication date older than 2010; 3) no focus on consumers. This resulted in 117 articles qualified for full text reading in a subsequent step. Another 17 articles were excluded from the review after full-text reading, leading to 100 articles subject to this review. The figure below depicts the selection process.



## Data collection process

All articles qualified for the literature review have been reported in an excel file including main data, such as author (s), year, title and source. In a subsequent step, researchers categorized the articles using Microsoft excel along the three main areas of the study: area 1) Criteria on the content and presentation features of search results; area 2) Identity of contractual parties involved in transactions carried out through platforms; area 3) Quality controls on the entries into consumer review, rating, and

endorsement systems. Based on the information provided in the article, further descriptors to facilitate the synthesis of information for the analysis at a later stage was included. These descriptors included: Information display; search results; trust; review manipulation; review characteristics; and consumer behaviour.

## Synthesis

Below, a broad synthesis of results is presented, whereby it has to be noted that each articles' relevance is not necessarily limited to one area, but could also provide important insights in to other areas, despite being attributed to one area.

Dimension	n° of articles
Area #1: Criteria on the content and presentation features of search results	<b>10</b>
Area #2 Identity of contractual parties involved in transactions carried out through platforms	<b>16</b>
Area #3 Quality controls on the entries into consumer review, rating, and endorsement systems	<b>55</b>
Policy framework	<b>19</b>

In addition to this, researchers include 19 sources outlined in the tender specifications which were broadly categorized as policy framework and which is subject to continuous update during the course of the study. Furthermore, researchers present the results of the literature review along the areas covered by the study. The articles were distinguished in terms of relevance for each of the areas covered by the study, as well as along descriptors such as methods used and the topics covered. Among the methods a distinction among qualitative studies, quantitative studies, experiments and others, with the latter including both theoretical frameworks and discussions, was made.

Area #1: Criteria on the content and presentation features of search results	n° of articles	References
N=10		
Topic		
Information display	4	Ma,Z.,Liu,X., & Hossain,T., 2013; Rieder B., Sire G., 2014; Sonntag,A., 2015; Ursu,R., 2015
Search results	4	Baye, M., De los Santos, B., & Wildenbeest, M., 2016; Chen, Y., & He,C., 2011; Jerath, K., Ma, L., & Park, Y-H., 2014; Kulkarni, G., Kannan, P.K. & Moe, W., 2011
Trust	1	Jeacle, I. & Carter, C., 2011
Review manipulation	1	Luca, M., Wu, T., Couvidat, S., Frank, D., & Seltzer, W., 2016
Method		
Quantitative	6	Chen, Y., & He,C., 2011; Baye, M., De los Santos, B., & Wildenbeest, M., 2016; Jerath, K., Ma, L., & Park, Y-H., 2014; Kulkarni, G., Kannan, P.K. & Moe, W., 2011; Ursu,R., 2015; Luca, M., Wu, T., Couvidat, S., Frank, D., & Seltzer, W., 2016; Walsh, G., & Mitchell, V-W., 2010
Experiment	3	Ma,Z.,Liu,X., & Hossain,T., 2013; Sonntag,A., 2015; Jeacle, I. & Carter, C., 2011
Other (discussion, theoretical papers)	1	Rieder B., Sire G., 2014

Area #2 Identity of contractual parties involved in transactions carried out through platforms			n° of articles	References
N=16				
Topic				
Information display	3	Hanekom, J., & Barker, R., 2016; Ma, Z. et al., 2012; Macik, R., 2016		
Trust	11	Bauman, A., 2016; Bauman, A., 2015; Brengman, M. & Karimov, F.P., 2012; Chang, Y-S., & Fang, S-R., 2013; Hong, I.B. & Cho, H., 2011; Kamtarin, M., 2012; Ke, D., Chen, A., & Su, C., 2016; Maadi, M., Maadi, M., & Javidnia, M., 2016; Mosawi, N. et al., 2016; Noorian, Z., Marsh, S., & Fleming, M., 2016; Strader, T.J., & Ramaswami, S.N., 2002		
Consumer behaviour	2	Peighambari, K., et al., 2016; Constantinides, E., Lorenzo-Romero, C. & Gómez, M. a., 2010		
Method				
Qualitative	3	Bauman, A., 2016; Bauman, A., 2015; Peighambari, K., et al., 2016		
Quantitative	8	Chang, Y-S., & Fang, S-R., 2013; Hong, I.B. & Cho, H., 2011; Ke, D., Chen, A., & Su, C., 2016; Maadi, M., & Javidnia, M., 2016; Mosawi, N. et al., 2016; Macik, R., 2016; Ma, Z. et al., 2012; Kamtarin, M., 2012		
Experiment	3	Noorian, Z., Marsh, S., & Fleming, M., 2016; Constantinides, E., Lorenzo-Romero, C. & Gómez, M. a., 2010; Brengman, M. & Karimov, F.P., 2012		
Other (discussion, theoretical papers)	2	Strader, T.J., & Ramaswami, S.N., 2002; Hanekom, J., & Barker, R., 2016		

Area #3 Quality controls on the entries into consumer review, rating, and endorsement systems			n° of articles	References
N =55				
Topic				
Review manipulation	5	Hu, N. et al., 2012; Peng, L., et al., 2016; Ma, Y-J., & Lee, H-H., 2013; Malbon, J., 2013; Mayzlin, D., et al., 2012		
Trust	24	Agnihotri, A. & Bhattacharya, S., 2016; Baek, H., Ahn, J. & Choi, Y., 2012; Ballantine, P.W., & Au Yeung, C., 2015; Dabholkar, P.A. & Sheng, X., 2012; De Langhe, B., Fernbach, P.M. & Lichtenstein, D.R., 2016; Filieri, R., Alguezaui, S., & McLeay, F., 2015; Flanagin, A.J. et al., 2011; Gupta, P. & Harris, J., 2010; Herrero, Á., San Martín, H. & Hernández, J.M., 2015; Kusumasondjaja, S., Shanka, T. & Marchegiani, C., 2012; Li, M., Huang, L., Tan, C-H., & Wei, K-K., 2013; Llamero, L., 2014; Lowry, P.B., Wilson, D.W. & Haig, W.L., 2013; Ma, Z., Liu, X., & Hossain, T., 2013; Mauri, A.G., & Minazzi, R., 2013; Walsh, G., & Mitchell,		

		V-W., 2010; Nilashi, M., et al., 2016; Nowak, K., & McGloin, R., 2014; Pan, L.Y. & Chiou, J.S., 2011; Riasanow, T., Ye, H.J., & Goswami, S., 2015; Shan, Y. & King, K., 2015; Utz, S., Kerkhof, P., & Van Den Bos, J., 2012; Wu, K., et al., 2015; Zhang, J.Q., Craciun, G., & Shin, D., 2010
Consumer behaviour	5	Goes, P., & Lin, M., 2014; Burton, J., & Khammash, M., 2010; Punj, G. N., 2013; Yuan, W., et al., 2012; Zhang, J., Li, L., & Quian, Y., 2016
Review characteristics	21	Chen, H-N. & Huang, C-Y., 2013; Chen, M-Y., 2016; Cheng, Y-H., & Ho, H-Y., 2015; Chua, A.Y.K., & Banerjee, S., 2016; Park, D-H., & Lee, J., 2010; Filieri, R., 2015; Floyd, K. et al., 2014; Ghose, A. & Ipeiritis, P.G., 2010; Hamby, A., Daniloski, K., & Brinberg, D., 2015; Kim, J., & Gupta, P., 2012; King, R.A., Racherla, P. & Bush, V.D., 2014; Korfiatis, N., et al., 2012; Kostyra, D.S., et al., 2016; Pan, Y., & Zhang, J.Q., 2011; Purnawirawan, N., De Pelsmacker, P. & Dens, N., 2012; Schlosser, A.E., 2011; Singh, J.P., et al., 2017; Pongsatorn Tantrabundit, M.A., 2015; Willemsen, L.M. et al., 2011; Xu, J., Benbasat, I., & Cenfetelli, R.T., 2014; Zhang, T., et al., 2017
<b>Method</b>		
Qualitative	17	Walsh, G., & Mitchell, V-W., 2010; Goes, P., & Lin, M., 2014; Baek, H., Ahn, J. & Choi, Y., 2012; De Langhe, B., Fernbach, P.M. & Lichtenstein, D.R., 2016; Chen, M-Y., 2016; Cheng, Y-H., & Ho, H-Y., 2015; Pan, L.Y. & Chiou, J.S., 2011; Willemsen, L.M. et al., 2011; Hu, N. et al., 2012; Mayzlin, D., et al., 2012; Pongsatorn Tantrabundit, M.A., 2015; King, R.A., Racherla, P. & Bush, V.D., 2014; Burton, J., & Khammash, M., 2010; Herrero, A., San Martín, H. & Hernández, J.M., 2015; Llamero, L., 2014; Malbon, J., 2013
Quantitative	15	Ghose, A. & Ipeiritis, P.G., 2010; Flanagan, A.J. et al., 2011; Filieri, R., 2015; Nilashi, M., et al., 2016; Punj, G. N., 2013; Chua, A.Y.K., & Banerjee, S., 2016; Korfiatis, N., et al., 2012; Chen, H-N. & Huang, C-Y., 2013; Pan, L.Y. & Chiou, J.S., 2011; Filieri, R., Alguezaui, S., & McLeay, F., 2015; Zhang, T., et al., 2017; Xu, J., Benbasat, I., & Cenfetelli, R.T., 2014; Nowak, K., & McGloin, R., 2014; Zhang, J., Li, L., & Quian, Y., 2016; Floyd, K. et al., 2014; Purnawirawan, N., De Pelsmacker, P. & Dens, N., 2012
Experiment	21	Dabholkar, P.A. & Sheng, X., 2012; Gupta, P. & Harris, J., 2010; Kusumasondjaja, S., Shanka, T. & Marchegiani, C., 2012; Mauri, A.G., & Minazzi, R., 2013; Riasanow, T., Ye, H.J., & Goswami, S., 2015; Shan, Y. & King, K., 2015; Utz, S., Kerkhof, P., & Van Den Bos, J., 2012; Yuan, W., et al., 2012; Agnihotri, A. & Bhattacharya, S., 2016; Ballantine, P.W., & Au Yeung, C., 2015; Li, M., Huang, L., Tan, C-H., & Wei, K-K., 2013; Ma, Z., Liu, X., & Hossain, T., 2013; Wu, K., et al., 2015; Zhang, J.Q., Craciun, G., & Shin, D., 2010; Park, D-H., & Lee, J., 2010; Kim, J., & Gupta, P., 2012; Kostyra, D.S., et al., 2016; Schlosser, A.E., 2011; Singh, J.P., et al., 2017
Other (discussion, theoretical papers)	1	Lowry, P.B., Wilson, D.W. & Haig, W.L., 2013

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## Annex 3. Transparency of Online Platforms Qualitative Research

### Behaviour patterns: how consumers use the platforms

#### Search exercises

**Google: Find a family doctor in your town**

**Bing: Find the closest pharmacy**

#### Familiarity with Google and Bing:

Respondents in all countries had heard of both sites, but showed **a marked preference for Google**. Indeed, this particular search engine was frequently used by all respondents.

*"I think more than 60% of all people who have internet access use Google and every question I have in my mind has been asked on Google a thousand times"* (DE, frequent, 60, M)

Nevertheless, after completing both tasks, many among them admitted that there was no significant difference between Google and Bing in terms of search quality.

*"I think that both of them were very helpful. When I used Google, I found it without issues, with Bing as well. The list on the first page is enough; I have the map and the addresses."* (PL, frequent, 24, M)

While in Germany, the UK and Poland most participants found both tasks easy **and did not have any particular difficulties**, Spanish participants struggled when asked to search for a family doctor, mainly due to the particular national context (in Spain the family doctor is assigned by National Health Service or private health insurance company). All participants from the UK, Germany and Poland (with one exception) successfully completed both tasks. On the other hand, in Spain only four frequent users were able to finish the Google exercise.

*"I'm a little bit lost. I would go back to Google, and type in 'doctor' and the name of the neighbourhood and put 'telephone' next to it, to make it more specific"* (ES, infrequent, 30, F)

Participants usually executed both tasks quickly (under 3 minutes in both cases). Nonetheless, in the case of the search for a doctor they needed additional time for reading reviews.

In Poland, Germany and the UK, participants were generally relaxed and did not seem to need a lot of concentration. In contrast, in Spain, during the Google search of a physician, most interviewees appeared confused and puzzled (as indicated earlier).

In both exercises and in all countries, participants constructed their search on the basis of geographical proximity:

- Google: "family doctor in city/district/street"
- Bing: "pharmacy in city/district/street"

On both Google and Bing, most participants (especially Germans) preferred to visualise results of the search in the form of a map. A smaller group of participants (usually infrequent and older users) preferred the 'traditional' list of results.

*"For things that I'm looking for in a certain zone, or which are in my area, I use Maps a lot. It's a lot easier than having to look at all the options that the search engine is giving me, and go through them one by one, because the little description underneath the link doesn't tell you that much, either. So, for something like this, I prefer Maps, it gives me more information." (ES, frequent, 35, F)*

Usually people only looked at the top results presented on the first page - despite claims of searching for appropriate results on other pages, no one actually scrolled to the second page during the interviews.

*"I'll look at the options. I always look at the first 3 ones. Because I'm lazy. I never go to the second page. I'll always stay with the first 3,4 or 5 results. I'll check out the first one, 'Libre Elección de Medico de Familia'." (ES, infrequent, 35, M)*

In Germany, Poland and the UK interviewees typically clicked on only two or three links. In Spain, during the search of a family doctor, participants returned more often to the main page in order to find relevant information.

Usually the choice of the first link to click was based on its relevance regarding the objective of the search:

- Google: proximity and rating
- Bing: proximity, and for German and British participants, opening hours

*"I notice that there's a link to their website, so when I'm more interested in the clinic, I would actually go to their website, and that's where I'm assuming I'll find really accurate information, like contact details, opening hours. Whether there's a walk in, that's kind of important. But in this case, I'm kind of a bit curious about the Google reviews, so I'll click on that." (UK, infrequent, 42, M)*

Random clicks were generally a sign of participants' struggle with a task, like for Spanish infrequent users during the search of a family doctor, as well as one 'technologically-challenged' participant in Poland.

### Transaction exercises

**Amazon: buy a laptop under 1000 euros**

**In Germany, the UK and Spain, Amazon was a relatively popular site** and many participants knew and used the platform. On the other hand, **in Poland the website was not well known and not often used**. Indeed, in Poland even if some participants had heard about it, they had never purchased anything from Amazon.

The exercise was relatively difficult to complete. Although the task did not seem so challenging from a technical perspective, **the website appeared less intuitive and**

**more complicated than others.** Additionally, the nature itself of the search involved a **relatively complex and time-consuming search**, which was nearly impossible to carry out in 5 minutes. For the majority of participants, a purchase of a laptop on Amazon would also require a double or even triple-check of selected products, on other sites or among friends or family members who are more knowledgeable about it.

*"I would ask for advice from some members of my family." (PL, frequent, 53, F)*

Nonetheless, despite these difficulties, the majority of participants were able to successfully complete the task.

The exercise demanded a **great level of concentration**, as the decision to make was fairly demanding. During the task, many participants, especially infrequent users, felt confused and sometimes frustrated, when they first saw the initial set of options, which was perceived to be very large and confusing - at that stage, some infrequent users in the UK started to question their own abilities. In Germany, Poland and Spain, some participants felt annoyed when they could not find or apply correctly the "price" filter. In one extreme case, a Polish respondent felt deceived by Amazon into buying more expensive products.

**In** all countries, participants usually started the search by **using generic search terms**. Then, when they were presented with a very large and disordered list of results, most of them narrowed the results' list by using filters.

In all countries, most participants started the search by writing "laptop" in the overall / generic search engine. A few respondents selected first a corresponding department, i.e. "electronics". Two participants in Poland (over 55 years old) went directly to the electronic department.

Given that the limit of the price was part of the task instruction, most participants in all countries sought to give importance to this requirement by using the filter "price" or by sorting by price. Most participants clicked first on the first item that seemed to match technical and financial requirements. Frequent users in Poland tended to use various filters and obtained a very short selection of laptops and were able to click on each product from that list one by one. In Spain and Poland, pictures also encouraged participants to click on a product.

**Generally, the first selection did not correspond to participants' expectations.** The list was composed of a mix of laptops and accessories from different ranges of price and did not follow a tangible logic.

*"There are laptop bags there, they're showing me all kinds of products, so the first thing I'm going to do is... the RAM memory - the premise is that I have to find one for less than 500 euro, right? So I go to the filters on the left as always, and [scrolling down] I suppose that... I suppose that they're showing me laptop bags in the same screen as laptops, because they're bags for laptops, because they include these words. If you only want laptops, and not anything else, you can go to the filters and start sorting them, using "sort by". So if I sort them by price, at first the accessories will appear because they're cheaper, so if I sort them from most expensive to cheapest, I'll get the laptops. And now I see the ones that are 10.000 euro, 8.000, 7.000..." (ES, frequent, 29, M)*

In Spain and Poland some frequent users complained about the presence of ads and 'irrelevant' products. To address this obstacle **the majority used filters that helped them eliminate irrelevant products**. In Spain, some returned to the search engine and wrote longer search terms (but this method appeared to be unsuccessful).

With very few exceptions, interviewees did not click on irrelevant links, but rather pursued their search because they were not satisfied with the options proposed.

There was a predominance of filters related to price and technical features. The "price" filter was considered to be the most important filter in this search, yet many participants struggled with finding it or simply applying it (it was the only filter that needed a confirmation by pressing the button "go"). In Spain, some participants not only used the "price" filter, but also sorted results in increasing price order. Besides price, other popular filters were technical features and brands. In Germany and Poland, frequent users were more prone to use various filters, while infrequent users preferred a more generic search. In Spain four users wanted to filter by "opinions" but they were not able to find such a filter.

Participants usually browsed the page carefully and often went backwards and forwards. But even then, they did not go beyond the second page (usually they used filters in order to reduce the number of pages). They considered several options before choosing a specific laptop. Although various participants looked at reviews and ratings of products, they seemed to have a smaller impact than with other tasks (apart from the UK where reviews had some influence on the final decision).

*"I like the filters, because they guide us. The most common and useful filters are here. They are necessary. But some of the Amazon filters are not really useful. Here for instance, the number of stars, but people's opinion is not important for me..." (PL, infrequent, 45, M)*

Most respondents didn't notice suppliers' names and they usually assumed that products were sold by Amazon. When they discovered that an item was sold by a third party (usually at the stage of reading a product's description), some of them, especially infrequent ones, felt confused.

Regarding **special deals**, most participants in Germany, Spain and Poland did not notice them or decided to ignore them. A few interviewees who entered the section felt confused because they could not understand the logic in the products' presentation. Only in the UK, frequent users clicked on "special offers" and "clients who bought" or "top 10 best sellers".

In all countries **participants struggled with eliminating ads and unnecessary accessories from their results' lists** as well as unwelcome **second-hand devices**.

**Filters did not always 'work' as expected**. Especially the filter "price" seemed to generate some problems, which, given the importance of the said filter, often annoyed participants who wanted to apply it.

The Polish version of Amazon was in reality a Polish-written version of the German site. However, **the page was not fully translated and did not offer comments or products' descriptions in Polish**. In consequence, Polish interviewees experienced difficulties when they had to select an item.

### Ryanair: book a flight and include a rental car in your purchase

Ryanair was a **widely-known** website **in all countries**. In terms of reputation, **it enjoys a very good image in Poland, while not so in Germany and the UK**. Participants' opinion about the brand impacted to some degree their attitude during the task, especially in relation to a perception that Ryanair is trying to get you to purchase extras you don't want/need.

The exercise was composed of two parts – flight booking and car rental. While in Poland and Spain the car rental was relatively easy and only some issues were experienced during the flight booking, in Germany, participants struggled with the car rental (and its different options), more than with flight booking.

The amount of information delivered and the various steps obliged participants to **go through the whole process very carefully**. The exercise was **time-consuming** and in all countries, it took more than 5 minutes, because of technical difficulties and a laborious decision-making process regarding the car rental. In Spain and Poland almost all participants successfully completed the task. On the other hand, in Germany and the UK around half of respondents struggled with the exercise.

*"This one was easy. I thought it was very well organized, you have a lot of options, but you don't have to pick all of them. I could have chosen a hotel, too, and I could add a car. This is easy, easy to search for." (ES, infrequent, 20, M)*

This task was **one of the most engaging exercises** of the interviews. However, many participants felt overwhelmed by the countless options on the website. They paid extra attention in order to avoid any possible mistake. This attitude was strongly present in the UK, and to some extent in Germany, where participants believed that Ryanair wanted to lure them into extra-paying options. In the UK and Spain, frequent users who were familiar with Ryanair, knew how to skim the website and avoid all the extras, while infrequent users proceeded slower and more carefully. In Poland and Spain many participants got upset during the flight selection. After experiencing difficulties, they were in general more concentrated and careful. However, when they arrived at the car rental selection they became relaxed again, the task being considered as easy. In Poland and Germany some interviewees became distrustful when they realised that they had upgraded their flight selection by mistake.

Selection of the dates and destinations was in general an easy process; however, some small difficulties were encountered. In Poland and Spain, a small minority of participants did not scroll at all and did not see the list of airports proposed by Ryanair. They were thus unable to select an airport. In the UK, there was no option "London - all airports". Thus, interviewees were obliged to click on different airports close to London to find corresponding flights.

*"Okay, here, I'm looking at going to Nuremburg later this year. One thing about Ryanair that I find annoying, I've always found it annoying, and they still haven't changed it, and I don't know why, here, let me backtrack, and that is when-, yeah, they don't allow you to search London. You have to pick Stansted, Gatwick or Luton. See, with EasyJet, and most of the others, you can choose a*



*specific airport, but you can also say London (all airports).” (UK, infrequent, 42, M)*

The selection of the flight was particularly difficult for some Polish and German participants who struggled with finding the way to choose a flight (also some minor difficulties in Spain). Main reasons of these difficulties were:

- Participants clicked on the date, and not on the flight hour;
- Some of them thought that it was impossible to select a flight without registering;
- Some of them clicked on “upgrade” instead of “continue” (buttons are placed very close) and were blocked on the page.

In all countries respondents were keener to choose the basic option, even if they were not completely sure what it meant and what services were included.

*“So, I’m taking that, I don’t want any of this 30 day check in and all this that they’re going to put in, so select straight on. Total price to pay, continue. They’re so clever how they’ve got ‘add to trip’, it’s so easy to put additional things on this website here. I’m not going to pick a seat, I’m not going to add insurance.” (UK, frequent, 49, M)*

While in Spain and the UK, participants easily detected **the “upgrade” option**, in Germany and Poland several respondents, especially infrequent users, became confused as the button “upgrade” was bigger and more visible than the button “continue”.

**Terms and conditions were generally ignored.** In Germany and Poland only a very small group of respondents decided to consult them (especially regarding car rental conditions), while in Spain and the UK no one read them (despite declarations of doing so).

The section dedicated to the car rental was **generally easy to find and appeared in different places and subpages on the Ryanair website.**

*“I found it really easy, I’ve never had a problem with car hiring before, it’s always got enough information online, and if there isn’t, there’s always a number.” (UK, frequent, 24, F)*

However, some participants in all countries became disoriented when they tried to book a flight and rent a car simultaneously, as such a transaction failed every time.

*“Before showing the price for the flight, I was asked to rent a car. In the end, I was kicked out so I would have had to start from the beginning. This is very confusing... returning to the main menu was not clear.” (DE, infrequent, 34, M)*

Most participants in Germany, Spain and the UK noticed that **car rental was offered by third companies**. Yet, in Poland only two participants spontaneously noticed that cars were rented from a third party. Participants adopted different approaches regarding the final selection of a rental car:

- In Germany, frequent users used filters, while infrequent ones scrolled down the page.
- Poland: participants usually scrolled down the page as many of them struggled finding filters. Then, they selected two or three cars and compared them.
- In Spain, frequent users browsed more than infrequent ones.
- In the UK, participants usually applied filters and ultimately compared by price.

### Reviews exercise

#### Booking.com: choose a hotel for a weekend in London

The website booking.com is well known and largely used in the Germany, Spain and the UK, while it is less used in Poland.

The exercise was **very easy**, even for participants who used it for the first time. Nevertheless, the selection of a hotel is a **fairly involving process**, and it required a large amount of time. In consequence, participants needed at least 5 minutes to select a hotel (with exception of frequent users in Spain who completed the task in less than 5 minutes).

Participants did not experience any significant difficulties. They did not hesitate while going through different steps of the task. Some of them were however overwhelmed by the amount of information available on the site.

*"What is this? There are thousands of hotels listed, that drives me crazy." (DE, infrequent, 24, F)*

The first step in the search was very straightforward as the search engine appeared to be clear and intuitive.

- Most participants wrote "London"
- A few used the suggestion "London City Centre"
- In Spain, only one infrequent user chose the mention 'popular' in the London neighbourhood top down menu on the home page.

Those who chose the option "London City Centre" saw a **map popping up on the screen**. It was met with various reactions. While German participants appreciated it, because they did not know the city and considered it would be easier to choose a hotel in the city centre, some Spanish and Polish participants did not like it, for the same reason: they did not know the city and considered that results' presentation in the form of a map would not be helpful

*"I don't know exactly where to go – I don't know where the centre of London is. [...] I don't know what London is like. It didn't explain anything to me. No, I don't trust that at all. The centre of London – for example, in Barcelona, you say 'centre of Barcelona', and no one has any idea what... The centre is very relative." (ES, infrequent, 51, F)*

After having obtained a first selection, participants adopted different strategies. In the UK, no one chose the first option but rather explored various hotels in order to have a greater choice. In Germany participants ignored first results because they seemed too expensive. Indeed, the price was an extremely important factor at the hour of deciding. Moreover, more than obtaining a personalised offer, the main reason for using filters was the perceived limitation of the initial results' list. In Poland and Spain most participants constructed their search mainly orienting their search using filters "price" and "location".

- frequent users had a tendency to apply more filters and obtain a very reduced and, in their opinion, objective list. On the other hand, infrequent users looked directly at the results / list presented.
- In both countries, most respondents clicked on a limited number of hotels presented mainly on first pages and in Poland some participants, mainly women, finished their search when they found the first hotel that met their expectations.

Although only some participants (mainly frequent ones) filtered by users' opinions, **most participants paid attention to global notes / ratings of hotels, as they were interpreted as a sign of a hotel's popularity**. While German and British participants tended to read carefully other users' opinions, Spanish and Polish interviewees usually read only one or two comments that were presented together with pictures.

*"The information above the photos tells me something about the hotel, they're giving me the characteristics, if it's good service." (ES, frequent, 63, F)*

Despite a relative trust in ratings presented on Booking.com, in Poland and the UK many respondents expressed their wish to double-check information found on Booking.com with what could be found on official hotels' webpages or TripAdvisor.

In all countries, **pictures played an important role in the decision-making process** as they conveyed the style and atmosphere of the hotels.

No major issues were detected during the exercise - however, most participants were annoyed by bargain pop-ups. In some cases, especially infrequent users, participants were so overwhelmed by the amount of stimuli that they had difficulties in finding relevant information.

*"What a mess There are so many things, here. 'There are only two rooms left here... No risks... Free cancellation... pay when you get there...' They try to rush you so that you book something. 'Someone else is looking at this right now. There's limited availability in London for the dates you picked'. They're telling me that they're selling out fast, so that I have to be super quick about booking." (ES, infrequent, 20, M)*

Some Polish participants were disappointed because not all reviews were written in Polish.

### **TripAdvisor: choose a restaurant for this evening in [city]**

The page was familiar to participants in three countries, especially in the UK, but most Spanish respondents had never used the website.

*"I'm very happy with it, they've always got so much information, there's never really been anything gone wrong with TripAdvisor." (UK, frequent, 24, F)*

Participants who knew the website appeared to use it not only to find a restaurant, but also to read reviews about a travel destination (as in previous task).

The **task was most often considered as easy** except in Spain where participants, especially infrequent users, found it quite difficult. The time needed to complete the task varied between 2 and 5 minutes in Germany, around 5 minutes in Poland and more than 5 minutes in Spain and the UK.

In Germany, Poland and the UK participants felt relaxed and confident. They considered themselves confident and informed enough to make a good decision that would be adapted to their wishes.

In all four countries, most participants started the search by writing the name of the city and choosing the section "restaurants" in the search engine. Two participants in Spain and one in Poland tried -unsuccessfully- to directly select Italian restaurants in the search engine. In Spain, when using the search engine at the top of the page they obtained a list where no filters were available, and with the search engine at the bottom they could not proceed and had to go back to the homepage.

The main criteria that were taken into consideration during the search included the following:

- In the UK and Germany, the locality was an important filter at the start of the search. In Poland, two participants also used this filter.
- In all countries, many participants filtered restaurants by the type of cuisine.
- Although price was also an important filter in all countries, Polish participants struggled finding this specific filter.
- Pictures played a crucial role as they showed the atmosphere of a restaurant and the style/quality of food.

**Reviews were taken into consideration by nearly everyone.** Reviews impacted participants' opinions and several people changed their decision after reading comments (especially negative ones).

*"Customer service was awful'. And you see, this is four weeks ago, yeah. Well, 'our starter came out after 40 minutes'. [...] I would most certainly go through most of these reviews and if they are-, what I'm looking at, at the moment, I don't think I'd want to go there, quite frankly." (UK, infrequent, 65, F)*

However, many participants also expressed their doubts regarding the trustworthiness of these comments, and consequently, most read comments only superficially. In the UK, participants had a tendency to focus on the most recent comments, whereas

frequent users also read older negative reviews to understand whether a restaurant had long term ongoing problems or not. However, to limit a possible bias, many interviewees also looked at the number of reviews and global ratings.

Participants usually clicked first on restaurants that combined all the previous requirements.

*"I judge by the photos, a little bit – the price could help me orientate a little, as well. If it's very expensive, I won't go, and if it's very cheap, I think that would be strange. And I want to take a look at the menu. [looking at the photos] I'm looking for a menu. How do I find a way to make a reservation tonight...? It has positive reviews, it says that it's a nice, family-friendly restaurant... This restaurant seems nice." (ES, infrequent, 51, F)*

In the UK, Spain and Poland, many participants chose restaurants from the top of the list because they felt these restaurants were supposed to be the most appreciated by other users. Polish respondents who applied various filters and obtained a very limited list of restaurants checked every possible option one by one.

*"I can see now a list of restaurants. I click on the first one, because it is the highest rated by users. I don't really like the location, so I come back to the list. I know the next restaurant so I don't even click on that because I want to try something new. I check reviews. I see that some of them are very negative and it influences my decision." (PL, infrequent, 33, F)*

By contrast, German interviewees who did not necessarily see any logic in the results' presentation chose lower positions in the results' list.

*"They show me the best restaurants with many reviews first. You can also choose between "fine dining" or "cheap eats", you have reviews for different categories and you can select between all the different country cuisines. I choose Italian. But they don't tell me how much it costs. I guess I have to click here again for more options. And I don't know if this is the best restaurant. Does number 1 mean that it is the best and number 2 the second best? It was clearer on the previous site." (DE, infrequent, 24, F)*

## Trust and confidence in information provided by online platforms

### Transparency

**Respondents did not spontaneously question the transparency of the contents they access on the Internet.** They appeared to trust the Internet in general as their main source of information.

*"It is verified by millions of people who use it every day many times. I can rely on it, I do it every day and it has never failed me." (PL, frequent, 24, M)*

The fact that the Internet is **a shared tool used by so many people was felt as a major protection** (mutual and large scale control over what happens online, thanks to the community of users). Lists of results, of any considered website, were seen as a **compilation of all the available information**. This information was perceived as **absolutely updated** too;

*"Yeah, I'd always assume that Google-, well Google in particular would have the right pharmacies listed and doctors listed, just because I always assume that Google would know everything." (UK, infrequent, 19, M)*

*"Google and Bing, they're up to date, I've never found that I've found one that's closed down, or, like, I feel like it's, like, nowadays, everything's really up to date. So, I feel like the times are always updated, like, everything's really accurate, and I'm confident, and I trust Google, or Bing, so yeah, I don't feel like I've had any experiences." (UK, frequent, 24, F)*

The order of the list of results was **usually not seen as deliberately manipulative or biased**: the only issue they noted was the huge quantity of results, which required to be handled actively.

*"The order of the results is not important because it doesn't tell you anything about what you are looking for." (DE, frequent, 60, M)*

*"Google showed me all the possible options. In my opinion, they update their data base quite often and so I trust them and I believe that these places exist. It showed me exactly where to go." (PL, infrequent, 33, F)*

Even when coming to links or websites which were not directly relevant in the frame of their request, they remained very passive (they rarely seemed frustrated or critical), and just went back, **as if wrong pathways (even if they are caused by hidden advertising) were just part of the Internet experience.**

**The main concern was about the efficiency of the search itself: the ease, fluidity and rapidity of the access to a relevant and complete result** (fulfilling the search in terms of items / service and price). There is some acceptance that, the more complex the search, the more it will be necessary to try different pathways to reach relevant results. They tend to blame their own inability more than the idiosyncrasies of the website.

*"Well, as we saw, upon the first search, a lot of things appeared; laptop sleeves... It wasn't relevant to what I was looking for, but it was relevant to what I wrote. Because I got results that had something to do with the words that I was searching for, so in a way they are giving me what I'm searching for, really." (ES, frequent, 29, M)*

Also, **in Germany especially, and in the UK to a lesser extent, the fact that Internet is tracking users** by gathering and keeping information about individuals (their searches, their needs...) was only a slight concern in the background of perceptions.

Even if awareness of possible manipulation exists, it is considered with a relative indifference.

When prompted about transparency aspects, interviewees did have a vague perception of platform mechanisms which would affect the results' neutrality and objectivity. Their level of overall trust placed in the considered website also had an impact on the perception of its probable transparency.

There was a widespread feeling that even if websites manipulate or interfere in the order of the results it is no more intense / forceful than in off-line situations.

*"I don't think it changes my trust, because I know nowadays, like-, like, ads are everywhere." (UK, frequent, 24, F)*

Despite being partly aware of advertising, no one felt there was the intention or interest for websites to manipulate the order: the predominant feeling was that satisfying users with the most relevant results is the search engines' priority.

*"You search for words, and in this case, I don't think they had bad intentions, it just wasn't right." (ES, frequent, 29, M)*

*"I trust that. Because I think that they're not going to trick me. Ryanair wants me to come back to travel with them again and use their page." (ES, frequent, 63, F)*

*"I always feel like Amazon is definitely trying to sell, so that's their top priority, is to put the information that they think will help you to buy it. They are often fairly comprehensive though in, like, their photos, their descriptions, reviews they have, that's all I can think of. I mean, you know, and sometimes, they're-, what they're also trying to sell is helpful." (UK, infrequent, 42, M)*

Advertising was not described as a hidden way to mislead users - it was perceived pragmatically, as a source of revenue for the websites, therefore a condition for their existence. Even if websites do not make it obvious and explicit, it was not really seen as 'betrayal' of their users' trust.

*"On Google, the first links that appear have paid for the top ranking ... that is OK, Google has to earn some money." (DE, frequent, 60, M)*

*"It doesn't influence, this is business, I get it. Companies need to make money somehow, ads are one of Google's incomes. Personally, I think that if something is good, then it doesn't need to use it but it will speak for itself. I have nothing against Google, I'd rather keep distance from companies that bombard me with information." (PL, infrequent, 35, F)*

*"In the end it's all a strategy, which I mean, it's nothing anything illicit, so I guess it's okay." (ES, infrequent, 30, F)*

Although there was a slight degree of scepticism, no one consciously set up preventative strategies to avoid potential manipulation.

*"I neither try to protect myself nor control it. I simply try to - I look for the one I want, and from there on I look at what's possible, I just compare the ones I'm interested in." (ES, frequent, 45, M)*

*"It [filters] surely narrows down the selection range during searching, but this is rather about limiting the choice than making the selection more objective." (PL, frequent, 24, M)*

Even after being prompted on transparency issues only a small minority felt uncomfortable about it.

*"Amazon uses two different categories like 'reviews' and 'relevance'. What is the difference?" (DE, frequent, 21, F)*

*"I could be wrong, but it's just hard to imagine that HP is doing better than Apple. Even though I'm not an expert, but it just seems like, for me, that Apple MacBook is always the most popular these days so why does it not come top of list? But I could be wrong, it could happen that HP is actually more popular. So, it*

*could be that, that could be influenced by, maybe HP is paying money to Amazon, so that it comes up first.” (UK, frequent, 32, F)*

The search tasks were the least obvious ones in terms of participant awareness of information being manipulated. Google was spontaneously considered as more reliable than Bing - participants were much more used to Google, and thus more familiar with its layout and functioning. Bing had been used before only by a minority, and was considered as a secondary search engine. Some also stated that it had a negative image for them, and was not even considered as a ‘true’ search engine.

*“I have never been disappointed by Google. I have always got everything I have been looking for” (DE, frequent, 60, M)*

*“I don’t trust this page Bing because I see it for the first time and I am not able to judge its credibility. It would need to be more known or somebody would need to recommend it to me, then I would get more confident about this website.” (PL, infrequent, 18, F)*

*“Bing? Ah, it’s like a virus that comes onto my computer.” (UK, infrequent, 31, M)*

*“I’ve never really thought of Bing as a search engine, more as something like spam. I’ve always used Google, never Bing.” (ES, frequent, 29, M)*

Despite this, both search engines were most often spontaneously perceived as neutral deliverers of all available up-to-date data. The order of listings was generally supposed to reflect the popularity of the result (interpreted as the number of clicks). If some results are of equal popularity, then they may be ordered randomly. Besides this general opinion, alternative suggestions were mentioned (ordered by relevance, by proximity...). Usually, after a while, respondents realized that they did not actually understand the order and whether there is a logic behind it.

*“I think the most, it’s probably the most popular is on the top.” (UK, infrequent, 62, F)*

*“I think the most trustworthy results are the first ones that show up, because more people click on them or something...” (ES, infrequent, 20, M)*

*“I am not sure. Sometimes it is connected with the number of clicks on a webpage and this kind of things.” (PL, frequent, 44, M)*

*“Maybe it is the most wanted pharmacy, maybe it has the best reviews or it is an advert” (DE, frequent, 21, F)*

*“I didn’t really see an order. The ones that were underneath the map... No, no, I’ve never really thought about it, or about why those are beneath the map, or why precisely these results.” (ES, frequent, 63, F)*

The presence of advertising or paying websites amongst the first results was mentioned by most (but then often forgotten in the process of the tasks, or even when prompted to think about the underlying order of the results’ list). Ads were avoided as often as possible, not for transparency issues, but for their lack of efficiency. Frequent users seemed more skilful about side-stepping them.



*"I know that the first results on Google are always sponsored. It is called web positioning. Usually I ignore these links and I go directly to other links." (PL, infrequent, 33, F)*

*"I never go to advertised pages because I know they are a bit deceiving and it is not really good." (PL, infrequent, 35, F)*

*"A lot of times, sometimes you're searching for a website, and an advertisement comes up, and you think it's a website, and you click on it and it takes you to some sort of spam. It annoys me, personally." (ES, frequent, 35, F)*

Regarding the purchase category, intentional manipulation was seen as rather natural and therefore acceptable. Manipulation was not perceived as widespread. On both websites considered in the purchase tasks, i.e. Amazon and Ryanair, users noticed above all some efficiency issues:

On Amazon there was an issue with getting results where laptops were mixed up with laptop accessories.

*"Oh my God, the results' page shows me everything but laptops. I can see some bags... but I don't want any bag" (PL, frequent, 53, F)*

There was also an issue with having to deal with a very large number of results, and the fact that it was not possible to avoid refurbished / 2<sup>nd</sup> hand products in their selection;

*"The one thing that has to be very clear, whether it's a used product or it's a brand new one." (UK, frequent, 32, F)*

*"I didn't see there was a filter for new or second-hand computers before; oh, I don't see it. I could put 'laptop new' in the search bar, but I'd surely get many different articles because of the word 'new'." (ES, frequent, 29, M)*

The only country where participants had troubles with the website was Poland, where reviews and product specifications appeared in German (Amazon.pl is Polish-written version of the German website), which created consternation and confusion.

On Ryanair, the issues were mainly during the flight choice: selecting a destination in the UK, there were sporadic problems with the layout of the flight results (not clear when there were no available flights, confusing how to choose the return flight...). There was also a slight hesitation about when to book the car (after choosing the flight, or necessity to go to the tab on the home page?).

*"They don't allow you to search London. You have to pick Stansted, Gatwick or Luton. See, with EasyJet, and most of the others, you can choose a specific airport, but you can also say London (all airports)." (UK, infrequent, 42, M)*

*"I think when you book, like, an Airbnb or something, they have a calendar there in front of you, so you can see an X on the day if it's not available. So rather than-, before you even put in your dates, you can see, you know, that this flight is not available." (UK, infrequent, 31, M)*

*"When I booked the flight, I was not sure if I could make the booking of the flight and the rental car together." (DE, frequent, 40, M)*

Transparency on Amazon was not spontaneously mentioned except in Poland, where the website had a good image and was considered trustworthy thanks to the quality

and comprehensiveness of the selection and the general popularity of the website; and, former positive experience of shipping and products gave some of them confidence.

*"I just feel like Amazon has everything, and they've got good deals, they've got good reviews, they're all-, most things from Amazon, obviously, again, like, companies, or actual, like, brands, like, everything's-, do you know, I don't even know why I trust it so much, I just do. They have everything. I'd choose Amazon, definitely, over eBay." (UK, frequent, 24, F)*

*"I trust Amazon although I don't have an account. But my friend always gives me positive feedback about Amazon." (DE, infrequent, 24, F)*

*"I love Amazon. I can order something, I can send it back and have got a lot of reviews. I have been a member of 'Amazon Prime' for 5 years and we really order a lot. I have never been disappointed." (DE, frequent, 33, M)*

There was almost no questioning of the validity of the information (the selection, the urgency messages...). The very large range of choices suggests that the results are complete and trustworthy.

*"Yes, it was a good selection, because all the brands were there, different possibilities. I think it's complete - I can choose from these... This helps me because I have the option of looking of other brands. Even if I already know what brand I need, because I've heard good things about it, then it still gives me the option of comparing the laptop. All the models, all kinds of characteristics. It's very comfortable." (ES, frequent, 63, F)*

The order of the list was supposed to be random, or by price. No one seemed to think that the result lists are ordered intentionally, especially after filters had been applied;

*"I think it is ordered by price, the cheapest on top of the list. I clicked on the first option. I chose it intuitively because it could have been the cheapest laptop." (DE, infrequent, 24, F)*

*"Here I can see that the order is random - it is not ordered by price or by technical parameters. At a quick glance, it seems like it is not ordered by stars either. It looks like it is set randomly." (PL, frequent, 24, M)*

*"It looks quite random to me, because that's a Lenovo, and that's a Dell, so logic-, I mean, not logically, but alphabetically it doesn't seem to be doing it. It's not doing it on price, because that's 199, that's 149, so I don't quite know how they've done that. (UK, frequent, 63, M)*

The awareness of advertising was rather low - specific sections as *Amazon's choice* or *Best seller* were not perceived as publicity *per se*, but more as a 'normal' commercial focus on certain available items;

*"They represent the ones they want to get rid of very quickly... I do not know if the order is determined by Amazon, it is not clear to me.... It is a commercial enterprise. They want to earn money." (DE, infrequent, 54, F)*

*"All the things that they have to sell quickly because they ordered too much of them." (DE, frequent, 33, M)*

Categories such as *Customers who viewed this item also viewed* or *Sponsored products related to this item* were not identified as hidden advertising: for participants, it

represented additional information (even if the majority, except in Spain, does not use it).

**Furthermore, users did not give a lot of importance to that issue: for them, it is just the same as in physical shops**, where products are highlighted to promote them. The intention on the Internet is seen as exactly similar, and acceptable as a **basic characteristic of trade**. Amazon was seen as reasonably detached in terms of offered product range. It was perceived to provide the widest range possible, with **no obvious alliance to anyone**, manufacturer or supplier. It offers **reviews**, which were seen as an additional and fairly independent information. Even if some recognized that Amazon may try to present first products that it is interested in selling faster / first, there was a shared feeling that the website is trying to do its best to satisfy its customers, and offer them relevant results anyway.

Usually, the identification and understanding of the actual seller (Amazon or a third party) was extremely low, but only a small minority of infrequent or less confident users seemed slightly irritated about it when prompted. For the vast majority, it does not alter trust.

*"Is it clear who it's coming from? Whether it's coming from Amazon or an independent seller? Not always, not always, I get a bit confused about that sometimes. In fact, I think-, oh yeah, when you can, sometimes they have links on Amazon where it then takes you to a list of same products, these are the different sellers." (UK, infrequent, 42, M)*

*"Are these stores? Why shouldn't it be Amazon? I think Amazon is only the company above all the others. They don't produce the items. And this company here sells the items." (DE, infrequent, 62, F)*

*"Is it the brand Acer itself? .... There is no hint who ships the laptop.... There is an offer from the USA." (DE, infrequent, 34, M)*

*"You buy it from Amazon, right? What do you mean by 3<sup>rd</sup> party? No. No, it wasn't clear. Where do I see that, who the distributor is?" (ES, infrequent, 51, F)*

With regard to the Ryanair website, awareness of actual manipulation was not very strong, but there was more suspicion in Germany and the UK. Ryanair suffers from a bad image in the UK, as well as in Germany, even if to a lesser extent. The distrust came from a poor reputation of 'penny pinching', and from the feeling that Ryanair is trying to get as much money as possible, by offering a lot of unnecessary extras: the sense that Ryanair exploits consumers creates uncertainty around the whole transaction, and made British and German respondents be more careful about their purchase. On the contrary, in Poland and Spain, the airline benefited from a good corporate image and this kind of prejudices did not appear.

*"Ryanair, their MO is about, you know, getting everything as cheap as possible. I'm guessing they get-, you know, they're making their money on very minimal margins, so I'd imagine that anything they recommend is giving them something in return, whereas I'd think a business more like BA or Virgin, it would be the consumer, I'm probably completely incorrect, but I'd imagine that they would, you know, match you to a car that fits your profile, more than Ryanair just choosing any." (UK, infrequent, 31, M)*

*"I'm afraid that I have to pay too much if I would choose one of them. I expect Ryanair to be not transparent so I choose very carefully." (DE, frequent, 21, F)*

*"I trust them, Ryanair is a big and well-respected company." (PL, infrequent, 56, M)*

In the UK, and in Germany and Poland to a lesser extent, lots of options relating to extras when booking the flight created uncertainty about the real content of their purchase and diminished trust (such reluctance did not appear at all in Spain).

*"Basically, the web page is OK, but for me the existence of these misleading options is a black mark." (PL, frequent, 44, M)*

Regarding the car rental itself, the only transparency issue which appeared spontaneously was regarding the ratings, which were not of clear nature (ratings from who and about what, the cars or the car rental companies?)

*"I think the rating is what you'd look at, I mean, but I'm not sure who's rating that... it's a bit messy. Like, I clicked on it, and it doesn't take me to the reviews. I clicked on the actual score, and it's taken me to information about the car, and not about the, why it's given a 7.6. Okay, it says supplier rating there, so I wouldn't really trust that. No. Because that's Centauro rating that, and I'd feel better if it was consumers rating it. If it was like, 'This person had this experience with the car.'... I wasn't sure whether that was the insurance company rating the car, or whether that was the consumer." (UK, infrequent, 31, M)*

*"The supplier ratings, but-, how do I? Supplier rating's 8.4, but what-, how do you find out the reviews from people, like personal reviews? Is there any personal reviews here?... Not clear at all... They said it was filtered on recommended, but I don't know what that was-, what those recommendations are from. So, it wasn't very clear, it should probably say like, 'customer recommendation'. Is it customer recommendation, or is it Hertz's recommendation, or Ryanair's recommendation? I think it should be based on customer recommendation, because obviously, I'm the customer, so I would want what people have enjoyed to have." (UK, infrequent, 19, M)*

Apart from that, there were no major concerns. The access to the car rental within the flight booking appeared to be simple.

*"I just scrolled down and it was right there, in the middle of the page." (UK, frequent, 32, F)*

The presence of a third party was clear for almost everyone (except to a lesser extent in Poland), and did not raise any specific reactions.

*"It was obvious that I rented the car from a third party, the name was written there." (DE, infrequent, 54, F)*

*"It does not change my level of trust at all, no. Thrifty is a name that I'm aware of. If, for example, it was a company maybe based there, and I didn't-, and I'd never heard of the company name, then maybe I might be a bit worried." (UK, frequent, 44, F)*

*"I have the companies displayed, they are presented below the cars' selection. But when I click on the car at this stage, it doesn't say which company it is." (PL, frequent, 24, M)*

More than being actively aware, the participants unconsciously assumed that there was some kind of order of presentation of results, probably based on commercial or financial objective. The nature of the car rental providers' connection to Ryanair was not obvious at all, but specifically envisioned as either a package offer, with an

interesting price for the consumer, or simply a way of car rental companies to promote their offer, by paying a commission to the airline.

*"My hunch tells me that they're showing me the ones that they have special business arrangements with. They're not necessarily the best, you know, the best choices. I would also think that they're not necessarily showing the cheapest." (UK, infrequent, 42, M)*

*"I never believe it is 100% random. I know that Ryanair has cheap flights for a reason. Someone has to pay. Often big cities pay a lot, because they want to have more flights. I suppose that some car suppliers pay Ryanair to appear among their top results." (PL, frequent, 44, M)*

Even in countries which had a 'bad' image of Ryanair, the shared feeling that, whatever the motive of the organisation, the result would be cost effective, was almost unanimous (both because of the airline's price positioning and the assumption that prices should be competitive, as otherwise customers would buy elsewhere). So even if it was not fully transparent, and even if there was some minor scepticism that car rentals with best commissions for Ryanair will be at the top of the list, it was not a major concern.

In the review tasks, ratings and users' comments were believed more likely to be prone to manipulation. The review websites themselves were not considered as less transparent than the other ones investigated in the study. Transparency was not questioned spontaneously, and was seen as a given.

Again, the degree of trust towards websites was rooted in familiarity with them: Polish interviewees being the least familiar with the reviews' websites, they were not overly trusting toward the presented selection of results. Most British and German respondents believed the filters (they had set themselves) to 'do the job', while many Spanish and some Polish participants adhered to the attitude ranking was according to popularity.

*"After all, I am responsible for the selection. When I look for a low budget restaurant I don't get the expensive top restaurants." (DE, frequent, 21, F)*

*"It's matching what I typed in." (UK, infrequent, 31, M)*

*"I trust it, the order is given to me the way I requested. The information within, that is for me to make a decision based on what I have in front of me, but yes, I trust that they've given me the order of the cheapest to the most expensive." (UK, frequent, 44, F)*

Overall, the order of selection of results was not spontaneously something that was thought about.

*"I don't know if they are sorted in any way. I think it's random, because I typed in 'Italian restaurant', and the first one was in Gràcia, and the rest all over town. I don't know." (ES, infrequent, 51, F)*

*"TripAdvisor showed Italian restaurants only in the city centre... Maybe a company needs to apply, maybe they need to pay to be in this portal... I do not exactly know how it works... in my opinion it doesn't show all the restaurants. Restaurants in other districts are missing, in my district, maybe they are not listed for some reason, maybe there is some kind of internal policy." (PL, infrequent, 35, F)*

*"And on Tripadvisor it wasn't possible to set a filter, so I think they sorted them by interest or something. By TripAdvisor's interest – what they want to show you the most. I think that, for some motive, some things are up there on the list. Maybe by the number of visits, or by cookies, or... I don't know." (ES, frequent, 45, M)*

The **filtered categories** generally seemed **clear and relevant and were usually taken at face value**. They were assumed to assist users and provide flexibility, a helpful tool to narrow down the search – in addition, in Germany it was pointed out that when they changed the filters the results are altered accordingly.

*"It was good, I could make a detailed selection." (DE, infrequent, 54, F)*

*"That was quite good, it was quite clear for me." (UK, infrequent, 52, F)*

Yet, when being prompted about the topic, TripAdvisor's categories produced some criticism, especially in Spain, Poland and a small minority in Germany. In Spain and Germany, the "relevance" criterion was not clear at all and they did not understand the difference with the alternative filter "ranking". In Poland, participants complained about the perceived lack of a "price" filter.

As observed with the purchase websites, the presence of **urgency messages** did not seem to alter the level of confidence in review websites: obviously, being vendors they want to sell their items, and this might be a technique of pushing users towards a purchase – these messages (which admittedly were not always appreciated) tended to be disregarded by most.

*"Basically, the impression they give me is that they want me to choose FAST. [...] But them telling me that there are only 3 rooms left feels the same as someone calling me on the phone and offering me a cellphone against a 50% discount, but I have to decide whether I want it before I hang up the phone. I don't really care about that..." (ES, frequent, 29, M)*

*"I take them with a pinch of salt. It's almost trying to force my hand, and I don't like that. [...] They might just as well say 'Buy it now, just get it now, or you'll lose it forever', you know." (UK, infrequent, 52, F)*

*"I don't consider them as helpful, they only want to force me to book quickly. But I don't mind, they need to do that, they need to earn some money." (DE, frequent, 33, M)*

*"It doesn't really affect my trust. Everybody's out to make a buck. They've got to get bodies on beds, you know, it's a cut-throat business. All these businesses are, and you know, so long as the basics are right, then that's perfectly fine by me." (UK, infrequent, 65, F)*

Only a small minority of participants considered these urgency messages as rooted in fact, and were thus perceived by these participants as a useful / helpful indication of availability.

*"I believe them – there's no sense showing these messages when you actually want to let a room." (DE, infrequent, 34, M)*

*"I do actually believe them, because I'm sure there's been instances in the past where you're looking through and you can say 'Oh, this hotel is now full' sort of thing, for that day." (UK, frequent, 63, M)*

It could be observed with all the investigated websites that reviews were used as a help in the decision-making process, especially when purchasing a good or a service. The position of reviews appeared to be clearly one of 'assistance'. A review was seen as an additional subjective insight, expected to balance the commercial information;

*"It will always be subjective because different people have different criteria and opinions." (DE, frequent, 60, M)*

Complementary to objective aspects (e.g. price, item features...), it was not the core element of the decision – more a subjective indication than a 'real' piece of information.

*"Percentage-wise when I'm taking a decision? No more than 10%. Because the price and location are more important." (ES, frequent, 45, M)*

Ratings may encourage people to have a closer look at results (for instance, a laptop on Amazon or a physician on Google).

*"I'd click on all of the different ones that I've seen, because they all have like, pretty good ratings. They're all like, four star and above." (UK, infrequent, 19, M)*

*"If I'm comparing different hotels, it'll do to just look at the rating, and to see if there's anything in there that catches my attention. And I'll look at the ratings of the different aspects, and at the photos, too." (ES, frequent, 24, M)*

The fact that a review is partial/ subjective, coupled with the fact that 'anything' can be posted on the Internet as there is no means of verification meant participants were more aware of the possibility of manipulation via fraudulent reviews – respondents seemed to be aware of this, and accepted it as one of the unavoidable realities of the internet, a fact of life one just has to put up with.

*"You have to live with this risk." (DE, frequent, 21, F)*

*"On the Internet, anybody can be anybody. Everybody can create a fake profile on Facebook, the restaurant owner can create a fake profile everywhere and say 'This is the best restaurant ever'. Unfortunately, on the Internet everybody can be whoever they want. With reviews, a restaurant owner could create a fake profile and say 'This is the best restaurant in the world'. But that's the dark side of the Internet. I just have to accept it." (UK, frequent, 32, F)*

*"I think it's fine. I know that the information can be a little bit deceitful at times, as long as the rest of the comments are reliable and I can believe the general rating, I think the comments are still going to be helpful to people and I can accept that." (ES, frequent, 29, M)*

*"The problem is that the internet is not reality and you can fake many things." (DE, frequent, 60, M)*

Still, it should be noted that some participants appeared to be more or less trusting towards the genuineness of reviews: generally, interviewees in the UK and a large majority in Germany tended to be more likely to believe them to be authentic. Polish

respondents were the most sceptical. Spanish participants were more ambivalent about their credibility.

*"They're very useful, they're unbiased, you know, it's not from TripAdvisor telling you that it's 4 stars, it's people telling you, and you know, you've got to trust what the person next to you is doing."* (UK, infrequent, 31, M)

*"Opinions that are published on the internet are not entirely true, because they depend on someone's preferences. Everyone has its own point of view and it will influence its opinion. It will be never balanced. People's feelings will influence strongly."* (PL, frequent, 53, F)

*"I like reviews and I want to believe they are independent and reliable."* (DE, frequent, 33, M)

Reviews being an essentially personal matter, and indicative in nature, respondents were not particularly concerned about transparency in this respect. It was often acknowledged that websites cannot be held responsible for the reliability of reviews.

*"I don't care whether it's transparent. In the end, it's my decision what I do."* (DE, infrequent, 62, F)

*"They cannot do anything. They do not control and have no impact on what people write about a hotel or a restaurant, so they cannot control people who write bad reviews."* (PL, infrequent, 33, F)

*"I accept that you can't trust everyone's reviews."* (UK, frequent, 24, F)

*"I just don't think there's any way to check them. Maybe if it's somebody I know, and I know it's their comment on there. If I knew first-hand. [...] If I think TripAdvisor and Booking should be more transparent about this? I think that it would be impossible, as well. It wouldn't necessarily make me trust the comments more, but it might be a little cleaner on their part. It's not something I'm very worried about."* (ES, frequent, 45, M)

The only website where some issue about transparency of reviews appeared was Ryanair: the nature of those reviews was unclear, given that their authors were not identified, and that there was no direct evidence / indication what they were evaluating.

In addition to this initial relative indifference about transparency issues, Internet users (in particular frequent users much more, because of their literacy), felt in control of their online activities. There was a general feeling that as individuals, they were able to take independent and 'wise' decisions (Polish respondents insisted on that aspect).

*"Amazon controls your choice, because obviously, they make certain things stand out better than others, and they try and-, and maybe some reviews aren't-, you can't always trust them, I guess, but I think it's both. It's your own, and theirs."* (UK, frequent, 24, F)

Most were convinced of their ability to manage the provided selections thanks to the familiarity they had with some websites (especially Google for all, booking.com and – to a lesser extent – Amazon), which enables them find their way easily and to feel confident.

*"Google seems more intuitive, I prefer Google, it's more transparent."* (PL, infrequent, 35, F)



*"I was confident with Google, not with Bing" (DE, frequent, 40, M)*

Being given a large range of options gave the feeling that one plays an active part in the choice anyway

*"Why is it in this order? I have no idea. Maybe the companies or the airports add an order, maybe they pay more or they pay less, I don't know, but I understand that Ryanair is giving me different options." (ES, frequent, 63, F)*

There are strategies at users' disposal to manage the search actively and increase their supposed ability to avoid any possible misguidance. These included **reading** the short description and summarized / overview information that accompanies the results, and trying to **avoid advertising**, which seemed easier e.g. on Google, because it labels explicitly the advertising contents (more observable in UK and Germany than in the other countries, where a majority avoided top links). On Amazon, not for the idiosyncrasies of the website itself, but for the nature of the search as such: participants did not use to click on the top ranked items because they tried to go directly towards items which could really interest them, according to the criteria they gave priority to (picture, brand, price...). Hence, they did not avoid the advertising intentionally in that case.

**Clarifying the search terms**, in order to get as directly as possible to a more accurate result.

*"Well, as we saw, upon the first search, a lot of things appeared; laptop sleeves... It wasn't relevant to what I was looking for, but it was relevant to what I wrote. Because I got results that had something to do with the words that I was searching for, so in a way they are giving me what I'm searching for, really." (ES, frequent, 29, M)*

**Setting filters and selecting product features**, which help to tailor the results according to individual needs (except on search engines). This was perceived as the most efficient way to get to a narrower and more relevant selection of options, but also to overcome any bias that might exist. For example, the lack of filters in the *Amazon's choice* selection was a major reason for respondents feeling uncomfortable using this category.

*"This window should help you to ease your decision with the help of users' manner. Now there are several questions what kind of notebook I'm looking for. There are again different icons to choose and I will click on notebooks. Now there are also tablets so I scroll down. And the laptops on top are very expensive. I don't like that. I would prefer applying the filters on my own." (DE, infrequent, 39, M)*

**Using the maps** as another way to get objective and complete information (remark: some Smartphone users thought that the results on maps were automatically located)

*"The one on Bing gave me a good selection, yes, because when I don't know the name of a pharmacy, having a map helps loads. Because you can see which one is closest, and this way you'll find it. So the list on Bing seemed fine to me – they offered me a map immediately." (ES, frequent, 24, M)*

*"I suppose that if I use Internet then I am in hurry so I would choose the closest one. And here, the map is very useful." (PL, frequent, 44, M)*

Controlling their purchase: for instance, in the UK, reading the car hire contract in order to check all the conditions

*"During and after the hire'. Given that the terms and conditions are there, I'd also look at that...I'd skim through it. I try and hone in on the bits that I thought could be a bit iffy, from my point of view, if I don't do this." (UK, frequent, 63, M)*

Strategies of coping with the specific risk of manipulation by reviews included never using reviews as a filter. **Negative reviews were generally supposed to be more credible**, as they obviously are not a credit for the item reviewed;

*"I think the reviews are reliable because there are many negative reviews to be found, I feel confident." (DE, infrequent, 54, F)*

Similarly, overly positive or reviews with a similar writing style tended to be less believed;

*"When I look at comments, I sometimes find it hard to believe them. Because sometimes those people don't have photos, almost always positive comments, very positive, and very subjective – not everything can be good 100% of the time. If everything is super great all the time, then I suspect a marketing strategy, a sales strategy so that the people go to this restaurant." (ES, infrequent, 35, M)*

*"The confidence comes with real reviews written by real people, opposite to similar sounding reviews that always have the same content." (DE, infrequent, 34, M)*

*"The ones that say 'everything was beautiful', those I don't care about. But if one of them starts with, 'the cleaners really bothered us in the morning', I'll read that, because that's something I don't like. So, I weed out the ones that have things I don't like – I'm going on holiday, I want those few days to be nice, I don't want to be bothered by anything." (ES, frequent, 63, F)*

Participants often employed a quantitative approach such as using **graphical ratings**, to get a summary insight into the whole of the comments. Similarly, a **high number of reviews** for an item can be some sort of guarantee that potential biased comments are compensated by authentic ones;

*"If there are many reviews you can be sure many people tried it." (DE, frequent, 60, M)*

*"I think sometimes relatives or friends write the reviews. Maybe they have some enemies. If only negative reviews were given by one single person it would be unreliable. But if you have a lot of reviews, you get a good cross-section." (DE, frequent, 21, F)*

Some would look at the number of comments a reviewer has posted, i.e. the more reviews the more dependable the review. Reviews containing **pictorial proof** also seemed to inspire more confidence;

*"Of course, I would like more information about the authors of these reviews. When there is a face behind an opinion, then it is immediately more reliable. It would be enough to have a normal picture, not professional, this is reliable for me." (PL, infrequent, 35, F)*

*"It wouldn't help to have more information about the review because you can manipulate all the written reviews. You can also manipulate the information about the reviewers. But you can't manipulate real people in videos." (DE, infrequent, 24, F)*

*"I would probably look at pictures, in order to find something pleasant. Maybe a picture would encourage me to go." (PL, frequent, 53, F)*

Participants would also benchmark with comments on other websites for concordance (mostly DE, UK), or discuss the item with others (mostly ES, PL);

*"I would balance, you know. If I'm looking at somewhere to book it, Booking.com, I'll look at the reviews and then look at the reviews as well on TripAdvisor, just to see that I'm getting the same kind of thing, if there's a big difference." (UK, frequent, 49, M)*

*"I would select a hotel, then I would go on TripAdvisor, check out the reviews, and then I would go back to Booking.com to make the booking." (UK, infrequent, 65, F)*

*"I would also look at the reviews although it's not important because I would stay only one night at the hotel. But if I stayed a longer time, I would also read more reviews on Holidaycheck." (DE, infrequent, 39, M)*

*"I would read comments on the page, but also I would speak to my friends, so that someone recommend me something." (PL, infrequent, 45, M)*

The date of the reviews was also taken into account by some UK respondents – 'old' reviews being considered as less relevant.

*"If there were like, 30 reviews, and they were all, say, within the last month, and they're all broadly speaking giving 4 out of 5, I would say 'Yeah', I'd go for that hotel. But if there were, say, 20-30 that span over the last 10 years, then I would say to myself, 'Well, how realistic is that, because things can change for the better or the worse.'" (UK, frequent, 63, M)*

*"I wouldn't go back to 2015, and be like 'Oh God, someone had, like, something on their sheets'." (UK, frequent, 24, F)*

**Users usually believed they were capable of managing their way or seeing through the pressurising or otherwise manipulative messages.** For example, *Best seller* indications were only taken into account for checking what other users chose. The large majority did not see it as information *per se* (except if one has no idea about what kind of product one is looking for), but only a common marketing focus on specific products. It was perceived as 'normal' and probably true, and therefore did not affect trust. In any case, the vague nature of these messages meant they were not effective as a real trigger.

*"I don't believe in it. Because I think that most-sold could also mean advertised products that they want to sell more, I don't know if there is really a system that monitors the most frequently sold items, it might just be that they want to sell a product more than other products." (ES, frequent, 45, M)*

"Urgency" messages were usually considered cautiously with a large majority of users who claimed to treat them with indifference.

*"It doesn't affect me at all... It doesn't offend me and I don't feel forced to act. I heard that they write these types of messages always to suggest people they have to buy. But to me it is not irritating." (DE, infrequent, 39, M)*

*"It does not work with me. I don't get influenced by this kind of message. I don't really believe that this is the last piece. I rather think that this is a marketing move." (PL, infrequent, 33, F)*

Even if considered as genuine, still some doubts appeared (except in the UK) but most (except in Spain) claimed not to be influenced by categories such as 'Customers who viewed this item also viewed...'

*"I think they're trustworthy, because when a company goes to the trouble of surveying these things, that makes me trust them. They could also just put something there that isn't true - but, I mean, I don't distrust them, honestly, I don't distrust them." (ES, infrequent, 60, F)*

*"I think it makes sense to show things that other people have bought. As well as the laptop, there may be security things, there may be games that you want to buy. So yes, I can understand why it's done. But it means nothing to me." (UK, frequent, 44, F)*

*"I didn't see that link and it's not interesting for me because other customers might have different search criteria than I do." (DE, infrequent, 39, M)*

*"It does not interest me. Everyone has their own preferences and I would not take any suggestion. I have to think about things I need and not about purchases of other people." (PL, frequent, 53, F)*

Tangible reference information was also seen as useful, because it enables to evaluate the quality of the online result – such information included product or service characteristics (brand, price etc.) or trustworthy websites (e.g. directories, or official sources as NHS in UK or Yellow pages in Spain, or familiar websites).

*"I don't enter other links anymore, I simply enter the link that I know." (PL, infrequent, 35, F)*

*"I know it. I used it and it is reliable. I wrote some reviews myself. To be honest I take into consideration other people's reviews. I don't see other pages in the research engine at first glance. And this portal is quite complete." (PL, frequent, 24, M)*

There was a general habit to **double-check the information from other sources** where purchasing an item / service (NB: not for search engines, except for a minority of infrequent users who would ask someone in their surroundings if they do not find it quickly) via acquaintances or other information sources (e.g. websites, magazines, reviews or expert opinions) or via physical bricks and mortar shops for goods, where you can see them and evaluate them with your own eyes;

*"I think with something this big, I wouldn't just look at Amazon's reviews, I'd go on Google and type-, or Apple's actual website, and look into the computer more, in more detail, more detail than Amazon's reviews and information." (UK, infrequent, 19, M)*

*"I do not trust completely. I guess Amazon has contracts with some dealers or suppliers so I would use a regular search engine additionally." (DE, infrequent, 39, M)*

*"I do trust Ryanair, but I would still do my own research, and, because I think I could find even better recommendations, or better solutions. So I do trust them, but if I feel like, if I check other websites, and really these are the cheapest options, then I would go for it." (UK, frequent, 32, F)*

*"They can't replace the service you get at a real store." (DE, infrequent, 62, F)*

Thanks to these strategies employed to supplement the huge amount of information provided on the Internet, people general felt empowered to be able to take the right / an informed decision.

## Observed manipulations during task

### Search tasks

There was widespread trust that the **most relevant results would be in the first positions**. For example, people only looked at the first page (nobody went on to check other consecutive pages) and many participants clicked on the top results (even if they mentioned later in the interview that they were aware that those first results were advertised content).

*"I believe in looking at the first one more than the last one. And I don't want to lose a lot of time on the computer." (ES, infrequent, 35, M)*

*"Google has a way of doing that, it has a way of putting the best results near the top, and then the other results further down." (UK, infrequent, 62, F)*

*For the majority, there was also an unquestioning trust that **all available information is presented** (except in Germany, where some wondered why the doctors they knew did not appear in the list).*

*Sponsored / paying links were not always detected per se. When they are not labelled as advertising, the results were believed to be always potentially relevant (the idea of websites paying or implementing strategies to be top listed was known but not taken into account) which made it difficult to "escape" advertising altogether.*

*"I mean, I don't think they're ads, those three, because I think Google has to tell you when it's an ad or not." (UK, infrequent, 31, M)*

*"I want to skip the adverts but sometimes I do not recognize them, so I am trapped." (DE, frequent, 40, M)*

On Google, advertising was more visible, and users were used to it. But even in that context, a minority clicked on it. On Bing, the publicity was separated by a thin line that no one noticed clearly (therefore more interviewees clicked on those links).

*"On Google they make the advertisement yellow, but on Bing they don't look very special." (ES, frequent, 35, F)*

*"I don't think they're ads, because I think Google has to tell you when it's an ad or not." (UK, infrequent, 31, M)*

*A small minority clicked randomly (especially infrequent users, at moments when they became somewhat nervous because they could not (rapidly) find their way through the information). Maps were perceived as objective information and very appealing – no one ever wondered whether all the results are listed, all took for granted that it is the case. Also, the box around a map, with star ratings, was very appealing. No one questioned the reason for its position nor the small number of results in the box.*

*"It doesn't influence my confidence because there were no ads and the box is a useful thing to me because it helps achieving a result" (UK, infrequent, 34, M)*

*In each country, several respondents did click on the top results of the list which were advertising or commercial websites (online pharmacies for instance) and not relevant for the search. In many cases, they were not aware that those sites were advertisements.*

### **Purchase tasks**

On both sites the order of the results (car on Ryanair, laptop on Amazon) never had a clear logic, nor was it questioned by Internet users. No one was aware that only the price filter was objective in terms of getting a neutral order.

On Ryanair when booking a flight, a major problem appeared in Germany and Poland: as the information about upgrading appeared just above the button 'continue', and being more visible, some accepted the upgrade without being aware of it. When it came to car rental, all assumed more or less the best value offer to be on top of the list; consequently, in Poland and Spain, interviewees remained mainly at the first results, and did not scroll to check other possibilities, other than the ones appearing in the windows at first sight.

*"I think the cheapest one was listed first and the one with the best reviews. Maybe the order is determined by an algorithm of Ryanair. It is not transparent." (DE, frequent, 21, F)*

*"Even if I had not selected 'price high to low', it was organized like that." (DE, infrequent, 54, F)*

*"I didn't focus on it, but I thought it was sorted by price, right? That's the impression I have, but I immediately looked at the cars, I didn't focus on the order. From cheapest to most expensive." (ES, frequent, 63, F)*

There was a widespread conviction in Spain that the presented car rentals are 'good deals' empowered by the collaboration Ryanair and the car rental company.

*"I think it's part of an offer with Ryanair where they offer you a cheaper price for your car rental, and if you find a cheaper price, you can rent the car for free. I don't think there's a cheaper price anywhere out there, but because of this, I think it's an offer with Ryanair." (ES, infrequent, 20, M)*

*"The fact that the first results all belong to this company, gives me the impression that there's some kind of collaboration with Ryanair that ensures that their cars appear first. On the one hand, yes it bothers me. But on the other hand, the fact that there's some kind of deal between them might mean that you get a discounted price." (ES, frequent, 24, M)*

Under half of the respondents used the filters and generally used filters which would not result in an objective list (for instance, by car features, which does not guarantee the neutrality of the list either).

*"With Ryanair, they didn't have those options, you know, it was like, 'Just choose a flight and then choose a car,' whereas that one there has been like, the price, the brand, I couldn't see that with Ryanair's one with the cars, it was just, 'Here you go, there's the cars that we've put for you,' whereas this one is, there's an obvious key here, and I could really narrow my choice down." (UK, infrequent, 31, M)*

There was a general indifference to terms and conditions (only a small minority checked it regarding the car rental in Germany and the UK)

On Amazon, there was a **general trust in the filters**. The subsequent order of presentation of results was seen as largely unbiased and no one was aware that even if setting the price range in the filters, the results were not ordered by price (i.e. NOT in a neutral order), **Advertising tended to not be identified during the navigation process**. The items unrelated to the search were never identified as sponsored results (but these were considered bothering, as they were not directly relevant)

*"I'm surprised it's-, again it's-, it's not really giving me what I want. There's all the accessories mainly on this page. I don't think that's very good, which is surprising from Amazon, because I would have thought that's-, you see I'm searching for low price laptop computers, Windows, and I'm getting things like, see the mouse, router, well I don't want any of that, I just want to see laptops." (UK, frequent, 63, M)*

The status of *sponsored products related to this item* or *Special deals / Amazon's choice* was never clearly identified as advertising. Even if it did not appear during the test, respondents recognized that **they sometimes take such messages at face value, as valuable information**, if they want to buy something

*"If it's something I really wanted, and I saw there was-, only, like, two left, then that would probably cause me to go and buy it, rather than to go out shopping, come back, and then see it's not there... that's fine by me...I hope they are credible. I mean, actually you never know really, but I like to think so, yeah. (UK, frequent, 63, M)*

*"It depends – if it's something that's difficult to find, or if it's an offer out there, something for my PlayStation and I see that there's an offer: only 30 euros, and only 3 left, that's something valuable, that would rush me into buying something." (ES, frequent, 24, M)*

## Reviews

Usually, users did not read reviews very thoroughly: they just focused on graphical ratings, and titles of the comments. Therefore, a lot of information is lost in the process. On search engines and on Amazon, ratings in results (i.e. stars) influenced some respondents (infrequent users especially), as they could increase the confidence regarding the result itself.

On Amazon, where a lot of results had a rating, it was also used as information to exclude probably irrelevant / less interesting items (a laptop with less than 3 stars was not even considered in the scope of possibilities). On Ryanair, the majority did not realize that they were not aware of what the ratings really meant, but felt reassured when they saw a lot of stars.

Booking.com reviews were often not explicitly identified as reviews ('embedded' in the hotel description and offer): e.g. in Spain some respondents regarded those reviews as descriptive information about the hotel.

On TripAdvisor, the presence of ratings in the restaurant description (in the results list) often gave the false impression that the list was ordered according to restaurants' popularity, which gave more trust in the first restaurants of the list.

### Suggested remedies

After completing the online exercises, participants were asked for suggestions regarding measures that could be implemented to increase their level of trust / confidence in the information presented by these online platforms. Most found it difficult to come up with suggestions, as they were not unduly concerned with trust issues, as indicated earlier in this report.

Also, as transparency is not a major concern for interviewees, they would not generally make any effort themselves to improve their awareness of the issue (e.g. click on 'explanatory links', etc.).

*"Things such as 'click on this link and we'll explain to you why...' I don't care about that kind of thing. Those things are just boring, and I'm not going to look at them...If they intervene in the order in which the results appear ... I don't know, I don't care, I don't think it's relevant." (ES, frequent, 29, M)*

### Search tasks

Most ideas for optimisation evolved around a clearer identification of what was an advertisement, in order for users to be able to differentiate between advertisements and 'information' – which for Spanish and Polish interviewees implied enhanced efficiency of (and thus confidence in) the search. This would include more separation of the advertisements from the list (DE, ES, PL);

*"It would be interesting for me if results and information would be strictly separated from advertising. But this would be in conflict with the way Google is operating." (DE, frequent, 60, M)*

In addition, people said they would welcome a clearer emphasis via some kind of 'ad symbol' or other obvious identification of advertisement (UK).

*"If it's about transparency, then yes, say 'This is an advert'. So that you're aware that, you know, they've paid to be there, basically." (UK, frequent, 44, F)*

*"I didn't think they were adverts, actually... Probably because it didn't say blatantly 'ad' across the top." (UK, infrequent, 52, F)*

*"They could just mention it, like 'This is an ad, or this is paid by someone, that's why it comes up on top' or something like that." (UK, frequent, 32, F)*

*"I'd like them to tell me when it's an ad or not." (UK, infrequent, 31, M)*

Some also wanted these platforms to limit the amount of space given over to advertisements (PL);

*"Maybe less ads. These first links don't always show what we are looking for. Maybe if there were less of them, it would be more user-friendly. It's clear that they make money on it, but I would cut it a little bit." (PL, frequent, 24, M)*



*"I would be more trustful if there were less intrusive publicity. Sometimes it makes me very tired. I would love to search for something without having to use ad blocks. And I am sure it would change search results, especially the number of links and their order of presentation." (PL, frequent, 44, M)*

As a means to control the order and content of proposed results, and as a support for fine-tuning the search, **more discriminating or tailored filters** was suggested in Germany and Spain.

*"It would help to choose filters to make the order the way I prefer it. If I could filter the options myself, for example which one has the best reviews or which one is closest to my home?" (DE, infrequent, 34, M)*

Other **less frequently mentioned suggestions** (some by only one or two participants) included:

- Colour coding sites or links that pay for being among the top of proposed results;

*"I feel safe when I use the internet, I grew up with it. Maybe they could colour the sites and links which pay for being top-ranked. So, it would be evident what is paid for and what is a real Google result." (DE, frequent, 33, M)*

- Have access to one's personal profile (i.e. what the platform knows about the user), and have the possibility to choose between a personalised and non-personalised / anonymous search;
- Add more factual details to the information (e.g. in the case of a physician: qualifications, number of years of experience...);

*"They could indicate that the doctor was certified and qualified and that he has 20 or 30 years of practice" (DE, infrequent, 24, F)*

- Explicitly sort the results by reviews;
- Have Google/Bing verify the companies with sponsored links on their pages re 'honesty' / integrity;
- Post detailed information, on the search sites explaining the rationale behind the order of results.

### **Transaction tasks Amazon**

According to participants, the clarity of the Amazon transaction could be enhanced by having a **clearer organisation of the selection of results** – which would result in a more efficient search. For example, by **listing results / products in a more structured way**, including an indication of the criteria / parameters of the setting (DE, PL), with a possibility of accessing an additional level of information explaining the relevance / logic of the list order (ES); and presented in an uncluttered and clear way.

*"If I do not choose the filters myself there must be other criteria. But that's not clearly apparent. It shows items for 10 € and the next is for 3000 €. Why? .... They could show you a selection menu that helps you understand what are the actual options and criteria. And you should be able to modify that yourself." (DE, infrequent, 34, M)*

*"Some layout, maybe columns. I would change the laptops category – now it shows everything, but it could have subcategories and it would be more legible. It would certainly make it easier." (PL, infrequent, 35, F)*

"Maybe they could have some kind of window where they had a type of caption where they explained all the information and why it is relevant, or about the price, or about offers, where you could read about how and why they do things, that could be interesting information." (ES, frequent, 29, M)

"Sometimes it's quite difficult to find information." (UK, frequent, 24, F)

"Alphabetical is the best order, because it's an order which doesn't influence or condition me." (ES, frequent, 63, F)

#### **Other suggestions for remedies included:**

- **Add more information about the identity of the vendor** (DE, ES, UK infrequent);

"It would have been nice to actually make it clear as to who was selling it more prominent. Maybe even put it in bold or something, or different coloured writing, so it would stand out more." (UK, infrequent, 52, F)

- **Links to related websites for alternative and more detailed reviews** (UK);

- **An indication of popularity (and thus quality) of the product** (ES, PL)

- Specify the number of sold items

"Maybe instead of putting 'most-sold', put '100 items sold'. And don't put '3 items left', that doesn't really help me, just say '100 items sold in the last month'. Something like that. If 100 have been sold in the last month, you know that it's good. I don't know." (ES, frequent, 24, M)

- Indicate when articles are second hand (ES, UK frequent);

"The one thing that has to be very clear, whether it's a used product or it's a brand new one. They could make it, like, highlight it with bigger letters, I suppose." (UK, frequent, 32, F)

"I don't want to see anything that's reconditioned or been used. I want that choice, to be able to choose that, and I didn't see that on here." (UK, frequent, 49, M)

- Put "price" among the first options of the filters (PL);
- Make the filter list more specific (e.g. two different categories: laptops vs. tablets) (DE);
- Possibility of comparing several products (DE);

"I would like to click on 5 computers and compare them in order to find the best one." (DE, frequent, 33, M)

- Translate comments into the local language, do not keep them in German (PL).

"Here the text is in Polish, there in German, I don't really understand it. Technical description and comments are only in German. That's weird..." (PL, infrequent, 28, F)

#### **Ryanair**

Ideas of how to **enhance the clarity of transactions on the Ryanair platform covered various areas**. Regarding the **website in general** it would be preferable to

limit the amount of information on the page (PL), simplify the paid for extras (UK); make 'filter' and 'sort' options more visible to facilitate the decision process (PL); and make clear which flight departure points link to which destinations (UK).

*"Sometimes I don't see things, some things are unreadable, I have to stare at it, look carefully and letters should be bigger." (PL, frequent, 53, F)*

Suggestions for the **car rental section** included providing reassurance about best prices for car rental (DE infrequent, PL, UK) and including client reviews of cars / rental companies / policies (DE infrequent, PL, UK);

*"I guess what they could do is, if they took on board people's feedback on their experiences, having come back as-, if people were saying, 'Well, it wasn't clear to me that if I hired this car, and I didn't pay this £39.97, that I could get charged £1,000 because I've got a dent in the wing.' So maybe some information that the, sort of, big bullet points could be made more transparent. That's what I'd say." (UK, frequent, 63, M)*

*"They should have reviews about the cars. And I would like to see videos of the car, from the inside and outside" (DE, infrequent, 24, F)*

*"Ryanair certainly cooperates with verified cars. The only thing is that I cannot read reviews about the rental companies. Customer service can vary a lot, clients often write about accidents etc., I would activate that." (PL, infrequent, 35, F)*

The platform should explicitly indicate that the car rental is offered by a third party (DE frequent, ES), and possibly include a bigger sized logo and/or a link to the company's website (ES);

*"Ryanair could emphasize that they have different partners." (DE, frequent, 40, M)*

*"They could put a little notice up there that said 'these are companies that collaborate with us on car rentals', or something like that, so that you understand that it's not them renting you the car." (ES, frequent, 29, M)*

It could be clearer that the car rental is cheaper when purchased in combination, i.e. together with the flight (DE frequent) and should be more clear about what precisely is contained in the rental offer (e.g. insurance).

*"Maybe they could stress that it is cheaper to book a package than booking the flight and the car separately." (DE, frequent, 40, M)*

*"What is exactly included and what isn't. Like what insurances they have..." (DE, infrequent, 62, F)*

The ratings given to car companies should be explained in terms of what they refer to and how they are derived / Indicate reasons for recommending a car (DE frequent, UK, ES) and include links to external websites and even to expert reviews (UK). The rental results' list should be able to be ordered per users' interests: by price, or in relation to characteristics of the flight purchased (e.g. number of suitcases) (ES):

*"Supplier rating's 8.4, but what-, how do you find out the reviews from people, like personal reviews? Is there any personal reviews here?... Not clear at all... They said it was filtered on recommended, but I don't know what that was-,*

*what those recommendations are from. So, it wasn't very clear, it should probably say like, 'customer recommendation'. Is it customer recommendation, or is it Hertz's recommendation, or Ryanair's recommendation? I think it should be based on customer recommendation, because obviously, I'm the customer, so I would want what people have enjoyed to have."* (UK, infrequent, 19, M)

*"If they've got good products, show me-, show me someone from outside the company who's saying that they've got good products, you know, show me a reliable source. In the case of rental cars, now, why not provide the details...Or even-, like, where am I going to rent this from, and can I look at their website? You know. Maybe provide, also, links to the car itself, what experts are saying about the car."* (UK, infrequent, 42, M)

## Review tasks

**It was difficult for respondents to think of solutions** for enhanced transparency regarding the reviews websites, as full control is seen as impossible per se, and reviewer comments are inherently subjective.

*"TripAdvisor can't know if my friend has opened a restaurant and that I'm commenting because he's my friend or not."* (ES, frequent, 24, M)

*"It is very difficult to do anything. We can always doubt in the veracity of an opinion or the authenticity of an author. I don't think we can do anything. People will always distrust a little bit."* (PL, frequent, 53, F)

Suggestions for remedies included including pictorial proof from clients / reviewers – photos, videos (DE, ES, PL)

*"You can write anything you want. The only idea I have is producing a short live video from these places to prove that somebody was really there. And then you can be sure it looks the way it is on the video."* (DE, infrequent, 24, F)

*"Pictures, visualization, pictures of people who really were in this hotel with the hotel in the background, for example."* (PL, infrequent, 35, F)

It was felt the platform could add information about the reviewer (DE, ES) such as location, number of reviews, the duration of the stay, include a social media link enabling contact with the reviewer (ES) and only accepting reviews from verified reviewers (PL).

*"They should say, where the people come from."* (DE, frequent, 40, M)

*"Maybe when they went, the season in which they went – if it was in winter or summer, yes. A more detailed explanation, yes, because here they only comment on 3 little things. This is a comment that to me isn't complete, because this could just be the same person. 'Andrea from Spain' could also be 'Andrea from Uruguay'. The comments are always the same. More information about who wrote the comment, yes. The date they went, for how much time, maybe they only stayed 1 night, and you can't rate a hotel perfectly in 1 night."* (ES, infrequent, 20, M)

*"I don't really know, maybe if it was connected to your social networks. If you could check that everybody who commented was a real, existing person, that*

*would increase reliability, but of course I understand that not everybody wants to share their personal networks.” (ES, infrequent, 30, F)*

*“I would like to be sure that the person who wrote a review was really there. And today I am not sure at all. But I don’t know if TripAdvisor and Booking can find some solutions to publish only true opinions...” (PL, frequent, 44, M)*

Others suggested that the platform could more clearly separate the factual information from the reviews on Booking.com (ES, UK) and emphasize the neutrality of the platform (UK)

*“I think it might be better if the comments were in a more visible area, more highlighted.” (ES, infrequent, 35, M)*

*“They need to get the reviews like, links to reviews clearer to me, so that I can click on it, instead of having all these different things listed on one page.” (UK, infrequent, 19, M)*

*“You know when you go on a website, and whilst loading it a message pops up, you know like ‘These are the restaurants in the area, we’re not saying this because we’re getting commission, we’re completely independent.’ (UK, infrequent, 31, M)*

*“Say that they’re not affiliated with any particular companies, or anything like that.” (UK, frequent, 44, F)*

Other suggestions including adding direct links to businesses’ websites or travel guides and ensuring that businesses respond to reviews, especially negative ones (UK)

## Suggested target groups for the behavioural experiments

**Internet literacy clearly affected confidence and ability when executing the tasks.** Frequent and infrequent users had different ways to carry out the tasks (even if in Poland, these differences were not as pronounced). These differences between frequent and infrequent users related mainly to **general confidence** regarding familiarity with websites and thus speed of use, rather than comfort with / trust in the specific websites in question.

Those who were more familiar with websites and search engines were **more comfortable** with the format, layout and process: they did not ask themselves many questions, and even if they eventually got lost, were able to quickly correct their mistake. Sometimes they were also more aware of different ways of getting to the desired result.

*“I’m like a pro, I could do it blind ...I’d do the search tab, as well, I’d do laptops, that’s one option, or I’d go down here and do electronics, and lap-, there is one, computers and accessories.” (UK, frequent, 24, F)*

On the other hand, those less familiar were more cautious in the way they navigated, anxious when dealing with an unfamiliar website, and more likely to follow the ‘obvious’ steps. They were not confident about their decisions and appreciated any help or support from within the search process (e.g. they liked suggestions or ‘live chat’ options that could help them to navigate more easily)

*"This is why I don't like buying stuff online, I always get nervous that I'm buying the wrong thing, so... whenever you're spending over a certain amount of money, I'm always having to double check and triple check things, and I mean, I can tell you what, if I was actually buying something there, it would take about half an hour or more, and I would actually get someone else in the room to confirm what I am buying is correct... there is live chat, I mean, and I do use it, ....like, with Skype, for example, they have a live chat, and it's just so much better, rather than me looking, just to talk to someone, say, 'Can you do this for me?'... Like I say, I mean, I assume they're showing everything that's available, but I would like them to be more transparent about my selection. So, say, you know, if I've logged in, or, like, you know, if I have-, if this is my first time, say, 'Hi, customer. This is what we think is-, this is what we think matches what you're after.'" (UK, infrequent, 31, M)*

**Frequent users** moved extremely quickly from one page to another, and, when finding themselves stuck, found strategies to go forward easily (e.g. going back and adding additional search terms). They used **filters immediately and systematically** when getting a first result listing, to tighten the choice range (infrequent users did not do this systematically). As the search progressed, frequent users would continue to add filters to organise and reduce the selection to a most accurate one. A minority of younger frequent users would open new windows for the results they were interested in, to compare them more easily. They tended to be more active on the scroll than infrequent users: they would scroll down straight away when getting to a result page, to get a global view.

**Infrequent users** were a bit slower to navigate their way around the functions of their platform.

*"If the 'reserve a room' button was closer, it would be easier, no? Oh, you can do it up here as well, I hadn't seen that." (ES, infrequent, 35, M)*

They were more likely to end up having to scroll through a long list to get to the part they wanted (because they applied less filters spontaneously to focus their search). They had more difficulty identifying an advertising page as such (e.g. the belief that the website of an online pharmacy was actually a high-street pharmacy) and were more likely than frequent users to use marketing indications as a guide for their choice (*best sales* for instance). A majority mentioned spontaneously that they would ask for 'external' help if they couldn't find something

*"In case I don't know where to look, I would just ask people I knew for a reference." (ES, frequent, 63, F)*

Demographic differences were primarily related to **age**. The age of the respondent clearly impacted the agility of usage. Generally, those aged under 40 managed their way on the web better, reflecting the fact that they have been familiar with the internet since a young age, and it was an integral part of their education. Older respondents came across the internet at a later age, and this is reflected in their lower level of comfort / familiarity, and thus confidence and speed of use with online technology

There were no tangible differences were observed regarding education level. It was observed that attitudes towards transparency differed between the investigated countries: UK and Germany were more sensitive to this topic, and more aware of the potential issues that a lack of transparency would create. Whilst they were not highly concerned (as outlined earlier), they were at least willing to seek more information about transparency and possible manipulations. Conversely, respondents in Spain and Poland were unconcerned about the issue of transparency, and additional information

about it was not perceived as useful or relevant (but more as an element of added complexity they do not need).

## Appendix A. Methodology

### Sampling

The experiment was designed to gather in-depth qualitative input from a total of **10 interviews across 4 countries**, meaning 40 sessions overall were held. The experiment was carried out in major cities in the following countries:

- Spain
- Poland
- United Kingdom
- Germany

Recruitment was conducted via a mix of telephone directories, census information and other sources. Quotas were set by age and frequency of internet usage with non-interlocking quotas set for demographic characteristics. The quotas were to ensure a mixed profile in the sample design and a comparable profile across countries. Recruiters contacted potential respondents directly by telephone to ask if they would be interested in taking part. After providing some details of the research, potential respondents responded to a screening questionnaire to assess eligibility to be invited to participate in the research.

The recruitment procedure two question were applied to collect information on the indicator of frequency of interview usage.<sup>21</sup> Two categories were distinguished:

- **Frequent users** (50% of the sample) made purchases or read reviews every two months or more frequently;
- **Infrequent users** (remaining 50%) did purchases or consulted reviews less often than the frequent participants.

In addition to these quotas, non-interlocking quotas were set by education (50% low education – finished aged 19 or under, 50% high education -aged 20 and over) and gender (50% male, 50% female).

The group of infrequent users had a low prevalence amongst the population, in all the countries studied, especially in the age group of less than 50 years old. An overview of the interviewed sample in each country can be found in Appendix A.

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<sup>21</sup> The following questions were included in the recruitment screener: "Q5: And how often do you use the internet to purchase or shop around for goods and services.", and "Q6: Finally how often do you look at reviews on websites from other users when deciding on what goods or services to buy?"

## Overview of the sample with non-interlocking quota for education

Education	DE		ES		PL		UK	
	Frequent	Infrequent	Frequent	Infrequent	Frequent	Infrequent	Frequent	Infrequent
Low ≤ 19 )	3	2	2	3	4	1	3	2
High (>=20ys)	2	3	3	2	2	3	2	3

### Tasks

In each country, the ten respondents were asked to perform six online tasks, which were ordered in three categories: Search, Transaction, and Review. Summary of the tasks performed during the interviews:

- Search tasks
  - o Google: Use the search engine Google to find a family doctors in your town/region
  - o Bing: Use the search engine Bing to find the nearest pharmacy from the current location.
- Transaction tasks:
  - o Ryanair: Book a flight using Ryanair and include a rental car in your purchase
  - o Amazon: Buy a laptop under 1000 euros
- Review tasks:
  - o Booking: Choose a hotel for a weekend in London for two people
  - o TripAdvisor: Choose a restaurant for this evening in [CITY]. The placeholder [CITY] marked the respective city in which the experiment was carried out.

Two tasks are performed for each category, to exclude particularities of the companies

#### Overview table: Tasks performed by respondents

	Search	Transaction	Review	Thematic fields
Task A	Google: search family doctor	Ryanair: purchase flight including rental car	Booking.com: choose hotel for weekend in London	Services, Travel and hospitality: ICT equipment
Task B	Bing: search local pharmacy	Amazon: purchase a laptop	TripAdvisor: choose local restaurant	

The respondents were allotted 5 minutes to complete each task, and then were asked several questions about the way they felt about online transparency during the exercise. When they had not been able to fulfil the task, or had not been exposed in



their process to some 'manipulative' elements that were interesting for the discussion, they were led to them afterwards by the interviewer to be able to comment on them.

All interviews were conducted in person and the implementation of the tasks tried to replicate 'real life' conditions. Each pair of tasks is completed online by the respondent with the intervention of the interviewer afterwards. The interviewers used a common 12-page discussion guide to conduct the experiment including the tasks and the interviews. The discussion guide was translated in the local languages of the countries in which the experiment took place.

The respondents were encouraged to 'think aloud' while completing the tasks, and the interviewer used the observation protocol so that the feedback on how the tasks are completed was done in a standardized way. After every pair of tasks had been completed, the interviewer referred to any issues noted during the observation as well as use the structured probes contained in the discussion guide.

After the respondents performed the tasks, the interviewer conducted a semi-structured interview. Up to eight probing questions were defined in the discussion guide of the interviewers for each of the individual tasks. The questions were used to lead the in-depth interviews with the respondents to gather information about their awareness of issues of transparency and consumer protection.

### **Procedure**

The interviews had a duration of 75-90 minutes. Results were documented in an overall protocol of the experiment and in the notes of the individual tasks performance and following interviews. The dates of the fieldwork are documented in Appendix B.

The process of how the interview takes place had been carefully explained to respondents at the beginning – in other words, that the interview took the form of an intermittent series of tasks which ought to be completed as if they were done at home (while thinking aloud) and that each pair of tasks was followed by a series of questions and probes to explore how respondents reacted to the information presented.

It was made clear to respondents that there are two distinct components to the interview – the observed tasks themselves and the probing sections to explore their behaviour and understanding of the information presented.

The practicalities of the interview was carefully explained to respondents and they were given time to familiarise themselves with the laptop which was used. The laptop was "depersonalised" after each exercise by deleting browser history and cookies, so that all of the exercises were performed in the same way and under the same conditions. None of the users used their own personal accounts – they either did not register with the sites or used a profile created specifically for the exercise. Browser effects and whether there are more comprehensive ways of "cleaning" the user history (e.g. using incognito mode with Chrome) before starting the exercises in consultation with internal IT experts were investigated.

**Appendix B. Fieldwork details**

GERMANY: Cologne, 10-11/04/2017

Respondents – interviewed sample

1	2	3	4	5	6	7	8	9	10
frequent	infrequent	infrequent	frequent	frequent	frequent	infrequent	frequent	infrequent	infrequent
60 years old	62 years old	39 years old	40 years old	21 years old	54 years old	34 years old	33 years old	54 years old	24 years old
Male	Female	Male	Male	Female	Female	Male	Male	Female	Female
Education ≥ 20 years old	Education ≤ 19 years old	Education ≥ 20 years old	Education ≥ 20 years old	Education ≤ 19 years old	Education ≤ 19 years old	Education ≤ 19 years old	Education ≤ 19 years old	Education ≥ 20 years old	Education ≥ 20 years old

SPAIN: Barcelona, 04-05/04/2017

Respondents – interviewed sample

1	2	3	4	5	6	7	8	9	10
frequent	infrequent	frequent	infrequent	frequent	infrequent	infrequent	infrequent	frequent	frequent
63 years old	35 years old	45 years old	51 years old	24 years old	20 years old	30 years old	60 years old	29 years old	35 years old
Female	Male	Male	Female	Male	Male	Female	Female	Male	Female
Education ≤ 19 years old	Education ≥ 20 years old	Education ≤ 19 years old	Education ≤ 19 years old	Education ≥ 20 years old	Education ≤ 19 years old	Education ≥ 20 years old	Education ≤ 19 years old	Education ≥ 20 years old	Education ≥ 20 years old

Poland: Cracow, 05-06/04/2017

Respondents – interviewed sample

1	2	3	4	5	6	7	8	9	10
frequent	infrequent	frequent	infrequent	frequent	frequent	frequent	infrequent	frequent	infrequent
24 years old	18 years old	53 years old	45 years old	33 years old	54 years old	56 years old	35 years old	56 years old	28 years old
Male	Female	Female	Male	Female	Male	Male	Female	Male	Female
Education ≥ 20 years old	Education ≤ 19 years old	Education ≤ 19 years old	Education ≥ 20 years old	Education ≤ 19 years old	Education ≥ 20 years old	Education ≤ 19 years old	Education ≥ 20 years old	Education ≤ 19 years old	Education ≥ 20 years old

UK: London, 10-11/04/2017

Respondents – interviewed sample

1	2	3	4	5	6	7	8	9	10
frequent	frequent	infrequent	infrequent	infrequent	infrequent	infrequent	frequent	frequent	frequent
63 years old	44 years old	31 years old	42 years old	19 years old	65 years old	52 years old	32 years old	49 years old	24 years old
Male	Female	Male	Male	Male	Female	Female	Female	Male	Female
Education ≤ 19 years old	Education ≤ 19 years old	Education ≥ 20 years old	Education ≥ 20 years old	Education student	Education ≤ 19 years old	Education ≤ 19 years old	Education ≥ 20 years old	Education ≥ 20 years old	Education ≤ 19 years old

## Appendix C. Discussion Guide

### GUIDE FOR INTERVIEWS/ ACCOMPANIED EXERCISE - FINAL VERSION

Respondents are asked to go through a series of exercises covering three different types of online task:

- 1) Searching for information
- 2) Making a purchase or transaction
- 3) Using reviews to make a decision

There is some overlap between the tasks as many will require the same cognitive skills

There will be three sets of two tasks each – each pair equating to one of the types of tasks described above.

To help reduce order bias, the order of tasks and how they are presented will be rotated between respondents.

During each task, the respondent will be asked to "think out loud" during the exercise and each pair of tasks will be followed by a series of standardised probes to rationalise the process and understand how they came to make their decision.

We will use the same global platforms across all four countries using the most familiar sites.

Sample will be stratified on a combination of age and education/ online literacy – with online literacy probably defined by how frequently the respondents conduct these types of tasks themselves.

The tasks, organised in two thematic fields<sup>22</sup>, will include the following:

Thematic field	Search	Transaction	Review
Services, Travel and hospitality	<b>Google:</b> Find a family doctor in your town/region using Google	<b>Ryanair:</b> Book a flight using Ryanair and include a rental car in your purchase	<b>Booking:</b> Choose a hotel for a weekend in London
			<b>Tripadvisor:</b> Choose a restaurant for this evening in [CITY]
ICT equipment	<b>Bing:</b> Where is the nearest pharmacy to me	<b>Amazon:</b> Buy a laptop under 1000 euros	

As with all qualitative discussion guides this document is not intended to be an exhaustive questionnaire but, rather, an indication to the interviewer of the topics to be covered, the approximate time to be apportioned to each area of discussion and to provide some suggestions around possible areas of investigation. The discussion guide will be accompanied by an in-depth briefing of the interviewers, to provide them with a full understanding of the research and its objectives.

<sup>22</sup> Both tasks related to review functionalities haven been taken from the thematic field 'services, travel and hospitality' due to the difficulty to find multi-language platforms focused in ICT equipment.

**INTRODUCTION (5 minutes)**

## Interviewer

- Introduce self
- TNS Qual+ / local institute
- Independent

## Process

- Audio recording
- No right / wrong answers
- Confidentiality

## Subject

- We're interested in how people do things on the internet, what information they use, how they make decisions or look for information. We're going to ask you to complete a series of different tasks online – the kinds of online tasks many people do every day

**OBSERVATION PROTOCOL DURING FREE ROAMING EXERCISE (UP TO 10 MINUTES FOR EACH PAIR OF TASKS WITH 10 MINUTES FOLLOW UP)**

*Allow some time for respondent to get familiar with laptop.*

I am going to ask you to complete a series of common online tasks.

To help me understand the process you're following, I'd like you to speak out loud as you do each step. please tell me at each stage what you are doing, and why you are doing that – and also what you are planning to do next. In other words, just talk me through what you are doing, step by step.

*Allow respondents to take as much time as they need for each exercise – some will find the task easy others more difficult*

*Keep reminding people to think out loud – people will forget and need to be reminded frequently*

*The following general protocol should be followed together with the task-specific protocols described below*

<b>Objectives</b>	<ul style="list-style-type: none"> <li>- Identify what is in people's minds as they proceed through the task</li> <li>- Are they able to navigate to the required information easily</li> <li>- Highlight any areas of confusion/ hesitation</li> <li>- Observe any difficulties, concerns</li> </ul>
<b>General impressions</b>	<ul style="list-style-type: none"> <li>- Understanding and relevance of task ;</li> <li>- Concentration/ effort needed;</li> <li>- Information used to complete task</li> <li>- What is their selection based on (e.g. prominence, top of list, reviews, something else)</li> </ul>
<b>General probes to use to keep people "thinking aloud"</b>	<ul style="list-style-type: none"> <li>- "What are you doing now?" "Why did you just click on that?"</li> <li>- "You look confused, are you having a problem deciding what to do next?"</li> <li>- "what are you looking at now?" "what are you thinking of doing next ?"</li> </ul>

The list is not exhaustive nor does it need to be adhered to – it is suggestive of the kinds of things to look for

Please during the exercise ask questions about the things that people are doing where it is appropriate but also try to allow people to complete the task as “naturally” as possible

Issues noted should be followed up after each pair of exercises

### **SEARCH EXERCISES – THINK ALOUD (10 MINUTES)**

*Google: Find a family doctor in your town/region using Google*

*Bing: Where is the nearest pharmacy to me?*

Observation protocol for search exercises and to be followed up in prompted questions where appropriate:

- 1) Search term(s) used
- 2) Amount of time taken to complete task
- 3) Which links clicked first (scroll, click first links, click on ads or scroll past ads, click boxed/ highlighted links, click recognised brand names, click based on location)
- 4) Any questions asked/ confusion about content of links
- 5) How many times click on irrelevant/ wrong link – why?
- 6) Do they click at random, click top ranked links
- 7) Do they successfully complete task?

### **SEARCH EXERCISES – FOLLOW UP QUESTIONS (10-15 min)**

Q1. Were you **confident** that you were presented with a good selection of options from which to make your choice?

If yes, why?

If not, why not? What made you feel less confident? (probe fully)

Q2. Thinking about the list of options that were presented on Google / Bing, how do you think the order of the options was presented – is it random?

Q2a. [If says order determined by Google/Bing]: How do you think they select the order in which to present the items ? Is it clear and transparent?

Q2b. Do you **trust** Google/Bing to present the options in a way that helps you make the best choice / decision? If not, why not? (probe fully)

(Check recording sheet from earlier Observation / Think Aloud stage, and choose the appropriate follow up probes from the list below. **Do not repeat questions if already covered in Think Aloud process**):

Q3. I notice you clicked on the first item / one of the first items in the list? Did you think it was the best option or did you just click on it because it was first / near the top? (If thought it was best), Why was that? What made you think it would be a good option?

Q4. Did you notice that the first few listings were actually ads?

Q4a. How do you feel about that? Does it change your confidence or trust in the website?

Q4b. Did you click on any of the ads or boxed links? Why? Why not?

Q5 Thinking generally about this type of online search task, what would make you more confident about the way in which the options were presented? (probe fully)

Q5a. What changes, if any, could Google and Bing make to the way their lists are presented to help explain or reassure you about this? (probe fully)

### **TRANSACTION EXERCISES – THINK ALOUD (10-15 MINUTES)**

*Ryanair: Book a flight using Ryanair and include a rental car in your purchase*

*Amazon: Buy a laptop under 1000 euros*

Observation protocol for search exercises and to be followed up in prompted questions where appropriate:

#### **Amazon**

- 1) Find laptop using search engine in amazon/ go to department?
- 2) Scroll down side to find price limit
- 3) Scroll down clicking links within main listings
- 4) Use "Amazon's Choice" function
- 5) Click on the supplier name (hyperlink), check who is the actual seller, whether it is "fulfilled by Amazon" – do they understand what that means?
- 6) Go elsewhere on site (e.g. special deals)
- 7) Any questions asked/ confusion about content of links
- 8) How many times click on irrelevant/ wrong link – why?
- 9) Do they click at random, click top ranked links
- 10) Do they successfully complete task? How long does it take?

#### **RyanAir**

- 1) Follow process of selecting destination – any issues?
- 2) Any issues selecting dates etc
- 3) Read/ refer to terms and conditions
- 4) Do they change dates when see prices etc – anything which makes them change their mind (e.g. times of flight)
- 5) Issues selecting type of fare (economy, business etc)
- 6) Any problems/ confusion with upgrade options
- 7) Any problems/ confusion with layout of site and the way options are presented
- 8) Do they find car rental option easily?
- 9) Do they notice that car rental is through 3<sup>rd</sup> party and mention this?
- 11) How do they select the car – e.g. first ones presented or do they choose view all cars option and then select
- 12) Do they successfully complete task? How long does it take?

## TRANSACTION EXERCISES – DISCUSSION (10 MINUTES)

Q1) Were you confident that you were presented with a good selection of options from which to make your choice?

If yes, why?

If not, why not? What made you feel less confident?

### Amazon transaction:

Q2. Thinking about the list of options that were presented on Amazon, how do you think the order of the options was presented – is it random?

Q2a. If says order determined by Amazon: How do you think they select the order in which to present the items?

Q2b Is it clear and transparent?

Q2c. Do you **trust** Amazon to present the options in a way that helps you make the best choice / decision? If not, why not? (probe fully)

Q2d – Was it clear who you were purchasing the laptop from – Amazon or another third party?

(Check recording sheet from earlier Observation / Think Aloud stage, and choose the appropriate follow up probes from the list below. **Do not repeat questions if already covered in Think Aloud process**):

Q3. I notice you clicked on the first item / one of the first items in the list? Did you think it was the best option or did you just click on it because it was first / near the top? (If thought it was best), Why was that? What made you think it would be a good option?

Q4. Special categories: Do you think the categories such as 'Featured Deals', 'Better Sellers' and so forth are useful before you narrow down using the filters ? Why? Why not? How do you think the brands that appear in these categories are chosen? Do these categories help you make a better choice? If not, why not?

Q5. Filtered choice: Once you narrow down the options using the filters on the left side of the screen, you are presented with a list of product choices. Does narrowing the options reduce any bias in the brands / options you are offered, or doesn't it make any difference?

Q6. 'Urgency messages': Did you notice the messages on Amazon saying there were "only a few left in stock – order soon"? What do you think of these sort of messages ? Do you believe them? Do they offend you? Do they make you anxious – make it more likely or less likely to choose those options? And do these messages about 'limited stock' affect your confidence or trust in the whole process? Why? Why not?

Q7. Links: When you click onto a specific product, as well as detailed product information there are also specific links to things like "customers who viewed this item also viewed", "customers also purchased these related items" and links to "ads about sponsored products". What do you think of these sort of links? Do they affect your choice of laptop – make it more likely or less likely to choose those options

Q8 Thinking generally about this type of online search task, what would make you more confident about the way in which the options were presented? (probe fully)



Q8a. What changes, if any, could Amazon make to the way their lists are presented ? Or what sort of information, if any, could Amazon provide to help explain or reassure you about this? (probe fully)

**Ryan Air transaction:**

Q1 How easy or difficult did you find that exercise?

- Anything in particular which you were unsure about?
- Any problems with the links/ knowing where to go?
- Was it easy to find the information about the car rental and the options available to you

Q2. Thinking about the list of rental car options that were presented on Ryanair, how do you think the order of the options was presented – is it random?

Q2a. If says order determined by Ryanair: How do you think they select the order in which to present the items? Is it clear and transparent?

Q2b. Do you **trust** Ryanair to present the options in a way that helps you make the best choice / decision? If not, why not?

Q2c Was it clear who you were renting the car from – was it part of a package deal with Ryanair?

Q2d In fact the car rental was through a third party – was that clear? Does it change your level of trust?

Q3. What changes, if any, could Ryanair make to the way they present car rentals etc which are actually provided by a third party? What sort of information, if any, could Ryanair provide to help explain or reassure you about this?

**REVIEW EXERCISES – THINK ALOUD (10-15 MINUTES)**

*Booking: Choose a hotel for a weekend in London*

*Tripadvisor: Choose a restaurant for this evening in [CITY]*

Observation protocol for search exercises and to be followed up in prompted questions where appropriate:

**Booking.com**

- 1) Ease of finding hotels in London and available dates
- 2) Do they select from first hotels presented from first list
- 3) Do they apply any filters (location, price, “top picks”, ratings etc)
- 4) Are they looking at review scores (are these one of the filters applied in search)
- 5) At what point do they select first hotel
- 6) Do they read reviews from other users? At what point?
- 7) Do they successfully complete task? How long does it take?

**Tripadvisor**

- 1) How do they search for restaurant (search engine), click on button, how specify location

- 2) What other criteria do they use (if any, e.g. location/ map feature)
- 3) Are they looking at review scores and/ or reading the short reviews on the listings
- 4) How do they decide which ones to click on – what is going through their mind
- 5) Do they look at detailed reviews when they have clicked on a restaurant – does this make them change their mind
- 6) What is going through their mind when they make their final selection
- 7) Do they successfully complete task? How long does it take?

### **REVIEW EXERCISES – DISCUSSION (10 MINUTES)**

Q1. Were you confident that you were presented with a good selection of options from which to make your choice?

If yes, why?

If not, why not? What made you feel less confident?

(Check recording sheet from earlier Observation / Think Aloud stage, and choose the appropriate follow up probes from the list below. **Do not repeat questions if already covered in Think Aloud process**):

Q2. Thinking about the list of options that were presented on these two sites, how do you think the order of the options was presented – is it random?

Q2a. [If says order determined by booking.com/ tripadvisor]: How do you think they select the order in which to present the items? Is it clear and transparent?

Q2b. Do you **trust** booking.com/ tripadvisor to present the options in a way that helps you make the best choice / decision? If not, why not?

Q3. Filtered by category: You can filter the list by several categories down the left side of the home page. If you do this, again on what basis are the filtered lists ordered? Is that fair and transparent?

Q4. 'Urgency messages': Did you notice the messages on Booking.com saying there were "only a limited number of rooms left on our site" and "in high demand"?

Q4a What do you think of these sort of messages? Do you believe them? Do they affect your choice?

Q4b. How do these message affect your trust in the information on the website?

### **Reviews:**

(Again, check recording sheet from earlier Observation / Think Aloud stage, and choose the appropriate follow up probes from the list below. **Do not repeat questions if already covered in Think Aloud process**):

Q5 Did you notice that there are Reviews offered on each option? (may have to probe separately for Trip Adviser and Booking.com)

Q5a I notice you did / did not click on the reviews.....why? why not?

Q5b How useful are the reviews? How confident are you that these reviews are independent and reliable?

Q5c What would make you feel more confident that these reviews are independent?

Q6a What sort of changes or additional information could Trip Adviser and Booking.com provide to help prove the independence and reliability of the reviews ?

For example

- Would you like the reviews to be presented in a different way or different format? If so, how?
- Would you like more information about the review? If so, what type of information specifically, what type of further detail?
- Would you like more information about the reviewer? Do the current review filters on Trip Adviser/Booking.com help? What type of further detail would help?

Q6b Do you accept that reviews are not totally independent and that Trip Adviser / Booking.com should simply be more transparent about this ? If so, how should they do this?

**Appendix D. Recruitment Screener**

	<b>RECRUITMENT QUESTIONNAIRE</b>	
Date:  Recruiter:	Ref: 6737  TOP study – recruitment screener for interviews/ accompanied exercise Type: Depth interview  Duration: 60-75 minutes	Fill in address of institute:
<p><b>INTRODUCTION</b>                  Good morning / afternoon / evening. My name is _____ and I’m calling from [INSTITUTE].                  We are currently conducting a study about how people do things on the internet, what information they use, how they make decisions or look for information. We’d like you to take part in an interview that will involve performing a few simple online tasks and then asking you questions about it.                  The interview will take place at [LOCATION] will take up to 75 minutes, and we will reimburse you [AMOUNT] to cover your expenses.                  May I ask you a few questions to see if you are amongst the types of people we wish to speak to?</p>		

Q1	Gender	- Male	- 1 => CONTINUE
		- Female	- 2 => CONTINUE
Q2.	Can I check your age: RECORD EXACT AGE (IF UNDER 18 - CLOSE)		
	_____		
	CODE TO CATEGORIES BELOW		
	- 18-24	- 1 => CONTINUE	
	- 25-34	- 2 => CONTINUE	
	- 35-44	- 3 => CONTINUE	
	- 45-54	- 4 => CONTINUE	
	- 55+	- 5 => CONTINUE	
	- Refuse to answer	- 6 => STOP INTERVIEW	
Q3.	And at what age did you finish full time education		
	- 15 or under	- 1 => CONTINUE	
	- 16-19	- 2 => CONTINUE	
	- 20 or over	- 3 => CONTINUE	
	- Refuse to answer	- 4 => STOP INTERVIEW	
Q5.	And how often do you use the internet to purchase or shop around for goods and services?		
	- Every day	- 1 => CONTINUE	
	- Weekly	- 2 => CONTINUE	
	- Monthly	- 3 => CONTINUE	
	- Every 2-3 months	- 4 => CONTINUE	
	- Several times a year	- 5 => CONTINUE	
	- Less often	- 6 => CONTINUE	
	- Never	- 7 => CLOSE	
Q6.	Finally how often do you look at reviews on websites from other users when deciding on what goods or services to buy?		
	- Every day	- 1 => CONTINUE	
	- Weekly	- 2 => CONTINUE	
	- Monthly	- 3 => CONTINUE	
	- Every 2-3 months	- 4 => CONTINUE	
	- Several times a year	- 5 => CONTINUE	
	- Less often	- 6 => CONTINUE	
	- Never	- 7 => CLOSE	

## Online classification

If monthly or more frequently at Q5 (purchasing sites)  
or  
monthly or more often at Q6 (review sites)

→ count as FREQUENT USER

Others count as INFREQUENT

Age	Online activity	Online activity
18-24	Frequent	Infrequent
25-34	Frequent	Infrequent
35-44	Frequent	Infrequent
45-54	Frequent	Infrequent
55+	Frequent	Infrequent

In addition to these quotas, we will set non-interlocking quotas by education (50% low education – finished aged 19 or under, 50% high education -aged 20 and over) and gender (50% male, 50% female).

**INVITATION**  
 We would like to invite you to participate in an interview.  
 The interview will take place at \_\_\_\_\_ on \_\_\_\_\_  
 It will start at \_\_\_\_\_ and last around 75 minutes. Please arrive at least 10 minutes before the start.  
 To reimburse your expenses, we will provide you with vouchers of €. <local institute to include>  
 Would you be able to attend?

- yes	- 1 => NOTE CONTACT DETAILS
- no	- 2 => STOP INTERVIEW

**(INT: NOTE CONTACT DETAILS OF RESPONDENT)**

Surname: \_\_\_\_\_

First name: \_\_\_\_\_

Age: \_\_\_\_\_

Occupation: \_\_\_\_\_

Street and Street number: \_\_\_\_\_

Town and post code: \_\_\_\_\_

Telephone: \_\_\_\_\_

I would like to thank you in advance for taking part.

Date and time end of recruitment interview:	
---	--

## Annex 4. Behavioural experiments and online survey methodology

### Experiment design

The experiment was structured in three main blocks: two questionnaires and a discrete choice experiment. The first questionnaire, devoted to eliciting information on the profile of the participant, remained unchanged for the three research areas. The choice experiment and the second questionnaire were adapted to the research questions to be answered in each of the three research areas.

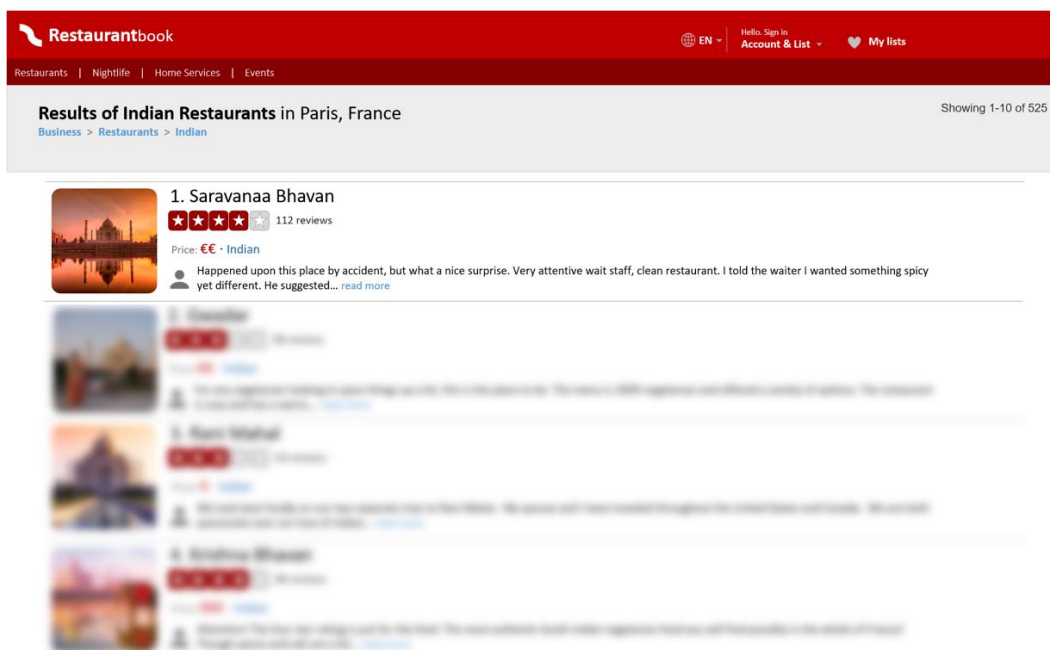
The discrete choice experiment **was framed as a realistic purchase decision** in a mock-up e-commerce website, using the correspondent currency in each country. The goods and services offered were chosen from among the most popular goods and services sold online in Europe according to Eurostat 2016 survey on ICT:

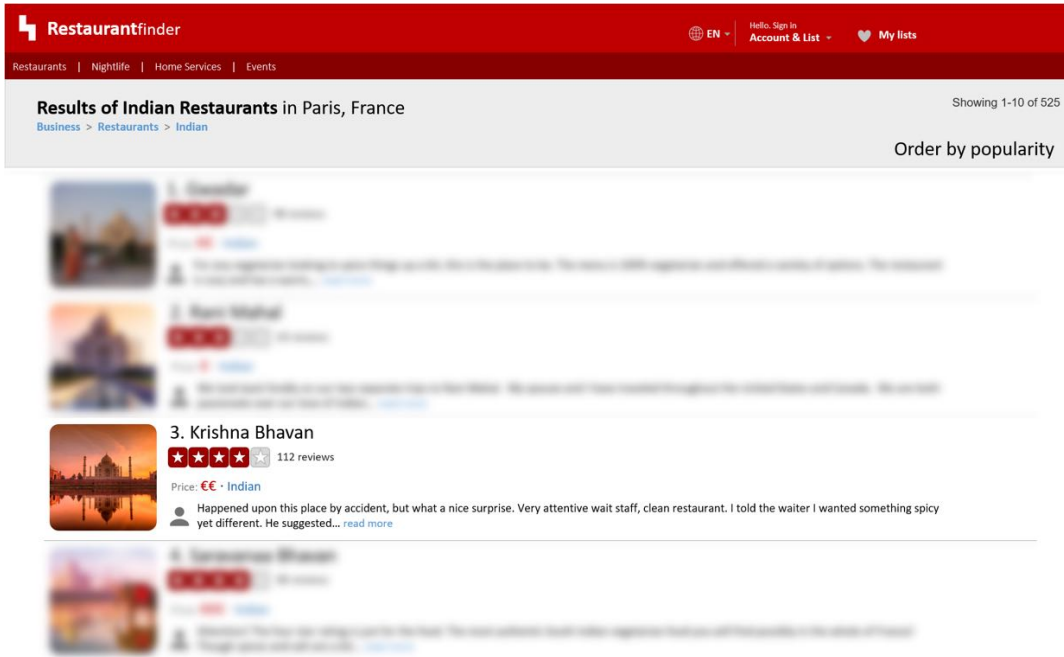
- Area #1 (search): booking of a restaurant (from now on also called *Experiment 1*);
- Area #2 (contractual party): purchase of a smart phone (from now on also called *Experiment 2*);
- Area #3 (users review): booking of a hotel (from now on also called *Experiment 3*).

To enhance ecological validity, the information (provision and salience) was shown as realistic screenshots of mock-up websites (and not through simplistic choice cards as it is common in discrete choice experiments). The following figures display one example for each area of the study:

*Imagine that you want to make a reservation in an Indian restaurant in Paris through an online platform. Your search 'Indian restaurant in Paris' in two booking platforms, named Restaurantbook and Restaurantfinder, obtaining the following results. Please, tell us if you prefer to make a reservation in:*

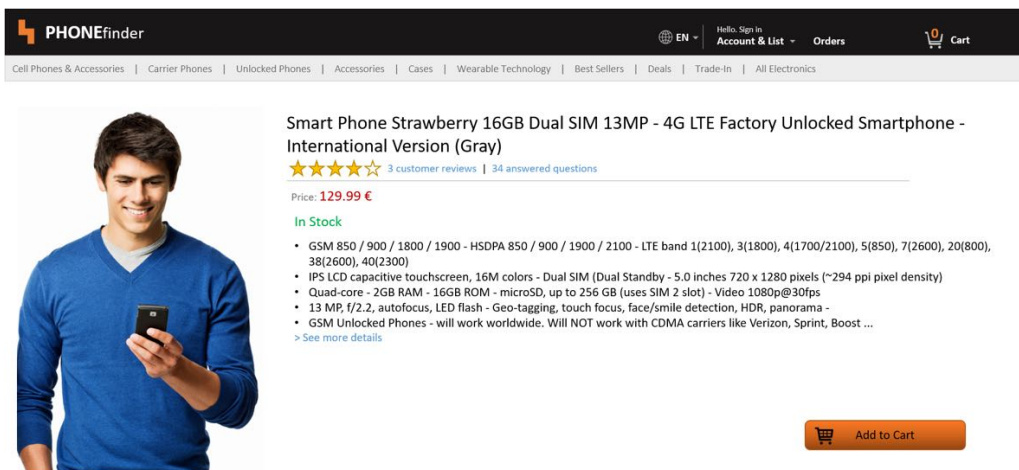
- (A) Saravanaa Bhavan through Restaurantbook  
(B) Krishna Bhavan through Restaurantfinder





*Imagine that you want to buy a smartphone with some specific technical characteristics. Two e-commerce platforms, named Phonefinder and Phoneshop, offer the two following smartphones with the required characteristics.*

- Please, tell us if you prefer to buy:*
- (A) Strawberry smart phone in Phonefinder*
  - (B) Gooseberry smart phone in Phoneshop*





**PHONEshop** EN Hello, Sign in Account & List Orders Cart

Cell Phones & Accessories | Carrier Phones | Unlocked Phones | Accessories | Cases | Wearable Technology | Best Sellers | Deals | Trade-In | All Electronics

**Smart Phone Gooseberry 16GB Dual SIM 13MP - 4G LTE Factory Unlocked Smartphone - International Version (Gray)**

★★★★★ 3 customer reviews | 34 answered questions

Price: **129.99 €**

**In Stock**

- GSM 850 / 900 / 1800 / 1900 - HSDPA 850 / 900 / 1900 / 2100 - LTE band 1(2100), 3(1800), 4(1700/2100), 5(850), 7(2600), 20(800), 38(2600), 40(2300)
- IPS LCD capacitive touchscreen, 16M colors - Dual SIM (Dual Standby - 5.0 inches 720 x 1280 pixels (~294 ppi pixel density))
- Quad-core - 2GB RAM - 16GB ROM - microSD, up to 256 GB (uses SIM 2 slot) - Video 1080p@30fps
- 13 MP, f/2.2, autofocus, LED flash - Geo-tagging, touch focus, face/smile detection, HDR, panorama -
- GSM Unlocked Phones - will work worldwide. Will NOT work with CDMA carriers like Verizon, Sprint, Boost ...

> See more details

This product is not sold by PhoneShop, but by **Wireless Place**, who has declared to be a trader, which gives you certain consumer rights in case of problems.

**Add to Cart**

Imagine that you want to make a reservation hotel in central Paris (1<sup>st</sup> arrondissement) through an online platform. Two booking platforms, named **Hotelfinder** and **Hotelbook**, offer the two following hotels in the required area of Paris.

Please, tell us if you prefer to make a reservation in:

- (A) **Hotel René** through **Hotelfinder**
- (B) **Hotel Pierre** through **Hotelbook**

**Hotelfinder** EN Hello, Sign in Account & List My lists

Home | Hotels | France | Ile France | Paris

**Hotel René** ★★★★★

1st arr., 75001 Paris, France – Excellent location - show map – Metro access

**Reserve** Save so you remember to book

**Stay in the heart of Paris**

- One of our top picks in Paris – and a guest favourite.
- Guests can enjoy a buffet breakfast each morning at Hotel René. Other facilities at the hotel include a concierge service and a patio. A large selection of restaurants and bars is available in the surrounding area.
- 1st arr. is a great choice for travellers interested in food, shopping and museums.
- This is our guests' favourite part of Paris, according to independent reviews. This area is also great for shopping, with popular brands nearby: H&M, Zara, Chanel.
- We speak your language!

> See more details

Single room: **129.99 €** Double room: **169.99 €**

**9.0** Superb 20 reviews

**100% verified reviews** Real guests. Real stays. Real opinions.

**Hotel Pierre** ★★★★★

1st arr., 75001 Paris, France – [Excellent location - show map](#) – Metro access

**Stay in the heart of Paris**

- One of our top picks in Paris – and a guest favourite.
- Guests can enjoy a buffet breakfast each morning at Hotel Pierre. Other facilities at the hotel include a concierge service and a patio. A large selection of restaurants and bars is available in the surrounding area.
- 1st arr. is a great choice for travellers interested in food, shopping and museums.
- This is our guests' favourite part of Paris, according to independent reviews. This area is also great for shopping, with popular brands nearby: H&M, Zara, Chanel.
- Real guests rate this hotel as superb with a mark of 9.0.
- We speak your language!

[> See more details](#)

Single room: 129.99 €    Double room: 169.99 €

To achieve comparability, the three experiments featured the same number of attributes (information content, information presentation), the same number of levels for each attribute and an additional attribute adapted to each experiment, as presented in the following table.

Research area and objective	Attributes	Levels
<b>Experiment 1:</b> Impact of general criteria used by platform operators to decide which items are shown to the users, in which order, and at what level of saliency.	Information content ( <b>IC</b> )	<ul style="list-style-type: none"> <li>• <b>IC1:</b> No information or unclear information on how the search results are ranked</li> <li>• <b>IC2:</b> Information on the search results being ranked according to an objective order criterion, with no relation with the preferences of the participant and that can be easily checked: alphabetical order.</li> <li>• <b>IC3:</b> Information on the search results being ranked according to a subjective criterion that can be manipulated by the platform and cannot be checked by the participant: 'popularity' order.</li> </ul>
	Information presentation ( <b>IP</b> ) <sup>23</sup>	<ul style="list-style-type: none"> <li>• <b>IP1:</b> Low salience (as a text included in the header of the research results)</li> <li>• <b>IP2:</b> High salience (as a highlighted text out of the header of the research results)</li> </ul>
	Ranking ( <b>R</b> )	<ul style="list-style-type: none"> <li>• <b>R1:</b> The good is ranked in first place</li> <li>• <b>R2:</b> The good is ranked in the third place (out of four results of the search)</li> </ul>
<b>Experiment 2:</b> Impact of the identity of the contracting parties involved in the transactions enabled or facilitated by the platform.	Information content ( <b>IC</b> )	<ul style="list-style-type: none"> <li>• <b>IC1:</b> No information on contractual identity</li> <li>• <b>IC2:</b> Information on the contractual entity being a trader or non-trader</li> <li>• <b>IC3:</b> Information on the contractual entity being a person or a company and its implications on the consumer's right</li> </ul>
	Information presentation ( <b>IP</b> )	<ul style="list-style-type: none"> <li>• <b>IP1:</b> Low salience (as a text included in the description of the good)</li> <li>• <b>IP2:</b> High salience (as a highlighted text out of the description of the good)</li> </ul>
	Price (P)	<ul style="list-style-type: none"> <li>• <b>A1:</b> The good has a lower price</li> <li>• <b>A2:</b> The good has a higher price</li> </ul>
<b>Experiment 3:</b> Impact of the quality controls established by platform operators (or lack thereof) on the review, rating and endorsement systems.	Information content ( <b>IC</b> )	<ul style="list-style-type: none"> <li>• <b>IC1:</b> No information on quality controls</li> <li>• <b>IC2:</b> Information stating that reviewers are just users of the platform</li> <li>• <b>IC3:</b> Information stating that the reviewers have actually bought and use the good or service system</li> </ul>
	Information presentation ( <b>IP</b> )	<ul style="list-style-type: none"> <li>• <b>IP1:</b> Low salience (as a text included in the description of the good)</li> <li>• <b>IP2:</b> High salience (as a highlighted text out of the description of the good)</li> </ul>
	Review ( <b>R</b> )	<ul style="list-style-type: none"> <li>• <b>R1:</b> The good or service has the highest users' review</li> <li>• <b>R2:</b> The good or service has the lowest users' review</li> </ul>

<sup>23</sup> The attribute (P) can be only considered in combination with levels C2 and C3 of attribute (P): if no content is not included, different presentation of the contents can not be considered.

This structure generates a 3 x 2 x 2 complete factorial design with 12 potential screenshots. However, only 10 of these combinations are different since it is not possible to distinguish between high and low salience presentation when no content is included in the screenshot under level C1 of attribute C. The 10 potential screenshots are presented in the following table.

Screenshot	Description
#1	C1 - P1 - A1 (= C1 - P2 - A1)
#2	C1 - P1 - A2 (= C1 - P2 - A2)
#3	C2 - P1 - A1
#4	C2 - P1 - A2
#5	C2 - P2 - A1
#6	C2 - P2 - A2
#7	C3 - P1 - A1
#8	C3 - P1 - A2
#9	C3 - P2 - A1
#10	C3 - P2 - A2

In each experiment, the participants were asked to make 10 binary decisions, where for each decision the respondent had to choose between purchasing a good or service as presented in two screenshots. Not all the possible pairs of screenshots were used, as just a subset is usually sufficient for this type of experiment. The subset of screenshots pairs was selected at random, where all screenshots appeared once in each of the two alternative positions (right and left position).

### Sample and recruiting

The sample for the experiment consisted of 4,800 subjects in 4 European countries (Germany, Poland, Spain and UK). Each discrete choice experiment for areas 1, 2 and 3 was a sample of 1,600 subjects. The sample for each discrete choice experiment, 400 subjects in each target country, was representative of the population that purchased a good or service online during the last year, as quotas by sex and age were applied to these samples, based on the last available Eurostat's data from the 2016 survey on ICT:

	Spain	Poland	Germany	UK
Male	47.3%	49.6%	49.0%	51.3%
Female	52.7%	50.4%	51.0%	48.7%
16 - 34 years	38.2%	51.5%	35.0%	37.4%
35 - 74 years	61.8%	48.5%	65.5%	62.6%

Source: Eurostat – 2016 survey on ICT

The participants in the pilot and the experiment were recruited through an online panel, where participants access the experiment through a link in an invitation mail. A screening question elicited age and gender in order to achieve the desired quotas. After

the screening questions, participants were redirected to the platform where the experiment was implemented using ad hoc software created for the experimental task. Participants completing the experiment in less than 50% of the median duration of the experiment (so called "speeders") were excluded from the final sample. The time spent by the participants to complete the experiment was calculated as the interval of time between the time the respondent accessed the platform to the time he/she left the platform.

## Experimental software

DevStat developed the software used for the experiment, based on the Yii2 software. Yii2 is an open source, object-oriented, component-based PHP framework for rapidly developing modern web applications. Devstat developed the software for the experiment and combined it with the MySQL database, considered by many as the best open-source database. The key functionalities of the experimental software developed by DevStat were as such:

- tailor-made questions, based on the previous answers given by the respondent
- impossibility to change answers by the respondent at a later stage
- obligation to open the screenshots of the mock-up websites before being able to provide an answer
- obligation to use a pc to be able to run the experiment (instead of a mobile phone) to ensure optimal visualisation
- minimum time (20 seconds) for visualisation of the screenshots of the mock-up websites in the second questionnaire 2

The software developed showed also advantages with respect to the administration functions:

- possibility to check on real-time the quotas by gender and age
- possibility to check on real-time where the respondent is in the implementation of the experiment, thus allowing knowing if there is a particular point where respondents usually drop-out (if they drop-out), because for instance of misunderstanding of what requested, and allowing to mitigate the problem.

## Test of the experiment

The first step for the implementation of the experiment was to undertake a pre-pilot test on the 26<sup>th</sup>-27<sup>th</sup> June 2017. The experiment was tested with 10 respondents who completed the experiment at DevStat's premises and then provided their comments and suggestions directly to the responsible team at DevStat. This was a very valuable step that permitted testing the software developed and the experimental procedures. Based on the feedback received, some minor changes and additions were introduced. Specifically, the

- addition of a welcome section and general instructions about the experiments.
- addition of brief instructions at the beginning of each of the three parts of the experiment (Questionnaire 1, Discrete decision Experiment, Questionnaire 2).
- correction of some typos.
- modification in the order of some items of questionnaire 1 to make more logical the flow of questions. Questions were also ordered in terms of the time period they referred to (3 months and 12 months).
- improvement of the wording of some items in questionnaire 2.
- modification of the 'empty labels' used to refer the mock-up platforms to avoid the coincidence of the names in a binary decision.

Some binary options in the discrete choice experiment were also changed compared to the ones initially selected to avoid the cases in which the random selection generated inconsistencies in the two screenshots to be compared. The set of ten final binary selections are shown in the Table below.

Decision	Screenshots to be compared
1	<b>#8</b> versus <b>#3</b> : C3 – P1 – A2 / C2 – P1 – A1
2	<b>#2</b> versus <b>#4</b> : C1 – P1 – A2 / C2 – P1 – A2
3	<b>#5</b> versus <b>#10</b> : C2 – P2 – A1 / C3 – P2 – A2
4	<b>#8</b> versus <b>#5</b> : C3 – P1 – A2 / C2 – P2 – A1
5	<b>#6</b> versus <b>#7</b> : C2 – P2 – A2 / C3 – P1 – A1
6	<b>#1</b> versus <b>#9</b> : C1 – P1 – A1 / C3 – P2 – A1
7	<b>#10</b> versus <b>#2</b> : C3 – P2 – A2 / C1 – P1 – A2
8	<b>#3</b> versus <b>#6</b> : C2 – P1 – A1 / C2 – P2 – A2
9	<b>#7</b> versus <b>#1</b> : C3 – P1 – A1 / C1 – P1 – A1
10	<b>#4</b> versus <b>#9</b> : C2 – P1 – A2 / C3 – P2 – A1

After the pre-pilot experiment was successfully conducted and the modifications, as described above, implemented, a pilot test was carried out.

The pilot test was run on 3<sup>rd</sup> and 4<sup>th</sup> July 2017 in Spain and UK, with at least 30 subjects completing each experiment in each country. The distribution of the participants (191 in total) is shown in the following table:

	Experiment	Men		Women		Total
		<35 years	≥35 years	<35 years	≥35 years	
<b>Spain</b>	1	7	10	8	8	33
	2	9	7	8	10	34
	3	8	8	9	8	33
<b>UK</b>	1	6	8	8	8	30
	2	7	8	7	8	30
	3	7	7	9	8	31

The main results of the pilot were the following:

- The average duration of the experiment was 12,7 minutes. There were no large differences between the average duration of the experiment in Spain and UK.
- There were no technical problems during the running of the pilot.
- In the open questions added at the end of the experiment to get feedback from the participants, they considered in general the experiment as easy to complete and interesting.

- Only 22% of the persons invited to participate did not complete the experiment. Most of these drop outs were concentrated in two steps: in the welcome screen (9%) and in the first binary decision (6%).
- Participants were aware of the information presented in the screens.:
  - In the self-assessment (question 1 of questionnaire 2), three out of each four subjects declared to remember the information presented in the mock ups (order criterion / contractual party / quality of reviews).
  - In the objective assessment (question 2 of questionnaire 2), most of the subjects properly remembered the actual content of the information.

	Experiment	Declare to remember the information (Q1)	Report the contents of the information properly (Q2)
<b>Spain</b>	1	81.8	77.8
	2	85.3	89.7
	3	69.7	69.6
<b>UK</b>	1	70.0	76.2
	2	73.3	77.3
	3	67.7	47.6

The implementation of the pilot experiment showed that the experiment worked properly and the developed software had no failures. No problems of comprehension were reported for any question. Finally, the dropout rate was 22%, which is a low value for this type of experiments.

Based on the above, no additional changes were implemented. The final version of the experiment was sent to the EC on 12<sup>th</sup> July 2017 and no additional modification was asked by the EC after confirming the reception of the final version.

### Implementation of the experiment

The experiment started on 12<sup>th</sup> July 2017 in the four countries. Invitations to participate to the experiment were sent constantly to the online panel during the duration of the experiment in order to reach the required quota by country and by gender and age. Once a quota was reached, the system stopped sending invitations to those profiles. The first round of the fieldwork ended on 24<sup>th</sup> July 2017, and the speeders (the speeders are respondents completing the experiment in less than 50% of the median duration of the experiment, see section 1.2) were identified in the following 24/48 hours and then removed from the quota. The experiment was then re-launched to complete the quota of respondents. On 31<sup>st</sup> July 2017, the final target was reached and the experiment stopped. In the table below the speeders by country are presented together with the final number of respondents who successfully implemented the experiment.

	Total	Spain	Poland	Germany	UK
Successful Respondents	<b>4802</b>	1200	1200	1200	1202
Speeders	<b>389</b>	95	82	110	102
Total	<b>5191</b>	1295	1282	1310	1304

As it can be seen from the table above, the final quota of **4,802** subjects was achieved. Other subjects took part but did not complete the experiment, the so-called dropouts. Table 8 presents the % of dropouts compared to the % of the respondents who completed the experiment (speeders and successful respondents).

	Total	Spain	Poland	Germany	UK
Respondents who completed the experiments	<b>90.66%</b>	93.03%	89.84%	90.85%	90.66%
Dropouts	<b>9.34%</b>	6.97%	10.16%	9.15%	9.34%
Total	<b>100%</b>	100%	100%	100%	100%

The average dropout was 9.34%, where the lowest % of dropouts is found in Spain (6.97%) and the highest % is found in Poland (10.16%). The final distribution by sex and age of the respondents is shown in the following table.

	Spain	Poland	Germany	UK
Male	47.2%	49.4%	49.0%	51.1%
Female	52.8%	50.6%	51.0%	48.9%
16 – 34 years	37.4%	50.9%	34.3%	37.5%
35 – 74 years	62.6%	49.1%	65.7%	62.5%

The distribution by age and gender perfectly reflects Eurostat's data from the 2016 survey on ICT that was used to create the quota, with no deviations. No weights needed to be applied to the quotas. Finally, with respect to the duration of the experiment, there were no big differences among the countries: the average duration was a little more than 14 minutes, with respondents from Poland taking a little longer (15,6 minutes) and respondents from UK who were faster (13,3 minutes). The median duration also did not vary too much from one country to the other, with the UK still scoring the lowest median duration and Poland the highest. The following table presents the detailed average and median durations.

	Total	Spain	Poland	Germany	UK
Average (sec)	<b>865,4</b>	885,3	935,7	845,3	795,7
Average (min)	<b>14,4</b>	14,8	15,6	14,1	13,3
Median (sec)	<b>686</b>	692,5	746,5	683	628



## Final online questionnaire

### Welcome

Welcome to our online questionnaire. It is composed of three different sections. You will be able to see your progress in the right corner of the top menu.

Your opinion is very important for us. Please read the following questions carefully before answering them. Please note that all the questions in each screen should be answered in order to access the next screen of the questionnaire.

Please press Continue to start the questionnaire. Thank you for your participation.

[Continue]

## Questionnaire 1

### Pre-Questionnaire 1

1. Sex (Q1a01)
  - Man
  - Woman
  
2. Year of birth (Q1a02) \_\_\_\_\_

#### Questionnaire 1a

1. What is the highest level of education you have completed? (Q1a03)
  - 0-11 years of education
  - 12 years of education (high school diploma)
  - Some years of university (not completed)
  - University degree (BA, BS)
  - Post-graduate degree (MA, MS, JD, MD, PhD, etc)
  
2. Employment situation (Q1a04)
  - Self-employed
  - Employed
  - Unemployed
  - Student (not in the labour force)
  - Other not in the labour force (retired, inactive, etc.)
  
3. When did you last buy or order goods or services for private use over the Internet? (Q1a05)
  - Within the last 3 months [*Go to 4*]
  - Between 3 months and a year ago [*Go to 6*]
  - More than 1 year ago [*Go to 10*]
  - Never bought or ordered [*Go to 10*]

### Questionnaire 1b

4. How many times did you order or buy goods or services over the Internet for private use in the last 3 months? (Q1b06)
  - 1-2 times
  - 3-5 times

- 6-10 times
  - > 10 times
5. How much as an estimate did you spend buying or ordering goods or services over the Internet (excluding shares or other financial services) for private use in the last 3 months? (Q1b07)
- Less than £50
  - 50 to less than £100
  - 100 to less than £500
  - 500 to less than £1000
  - £1000 and more
  - Don't know
6. What types of goods or services did you buy or order over the Internet for private use in the last 12 months? (tick all that apply) (Q1b08)
- Food groceries
  - Household goods (e.g. furniture, toys, etc.; excluding consumer electronics)
  - Medicine
  - Clothes, sports goods
  - Computer hardware
  - Electronic equipment (incl. cameras)
  - Telecommunication services (e.g. TV, broadband subscriptions, fixed line or mobile phone subscriptions, uploading money on prepaid phone cards, etc.)
  - Holiday accommodation (hotel etc.)
  - Other travel arrangements (transport tickers, car hire, etc.)
  - Tickets for events
  - Films, music
  - Books, magazines, newspapers
  - e-learning material
  - Video games software, other computer software and software upgrades
  - Other
7. From whom did you buy or order goods or services for private use over the Internet in the last 12 months? (tick all that apply) (Q1b09)
- National sellers [*Go to 9*]
  - Sellers from other EU countries [*Go to 8*]
  - Sellers from the rest of the world [*Go to 8*]
  - Country of origin of sellers is not known [*Go to 9*]
8. Which type of products did you buy or order over the Internet for private use from sellers from other EU countries or from the rest of the world in the last 12 months? (Q1b10)

- Physical goods (e.g. electronics, clothes, toys, food, groceries, books, CDs/DVDs)
- Products downloaded or accessed from websites or apps (e.g. films, music, e-books, e-newspapers, games, paid applications)
- Travel, accommodation or holiday arrangements (e.g. tickets and documents by mail or printed by yourself)
- Other services (e.g. tickets for events received via mail, telecom, subscriptions)
- 

9. How often have you encounter any of the following problems when buying or ordering goods or services over the Internet in the last 12 months? (Q1b11)

a) Technical failure of website during ordering or payment	Almost always	Often	Sometimes	Seldom	Never
b) Difficulties in finding information concerning guarantees and other legal rights	Almost always	Often	Sometimes	Seldom	Never
c) Speed of delivery slower than indicated	Almost always	Often	Sometimes	Seldom	Never
d) Final costs higher than indicated (e.g. higher delivery costs, unexpected transaction fees)	Almost always	Often	Sometimes	Seldom	Never
e) Wrong or damaged goods/services delivered	Almost always	Often	Sometimes	Seldom	Never
f) Problems with fraud encountered (e.g. no goods/services received at all, misuse of credit card details, etc.)	Almost always	Often	Sometimes	Seldom	Never
g) Complaints and redress were difficult or no satisfactory response after complaint	Almost always	Often	Sometimes	Seldom	Never
h) Foreign retailer did not sell to my country	Almost always	Often	Sometimes	Seldom	Never
i) Lack of clarity about whether contracts are concluded with the online marketplace itself or with a third party supplier	Almost always	Often	Sometimes	Seldom	Never
j) Lack of clarity about who is responsible for the performance of the relevant contracts	Almost always	Often	Sometimes	Seldom	Never
k) Other	Almost always	Often	Sometimes	Seldom	Never

## Questionnaire 1c

10. How often have you personally suffered detriment when concluding contracts for online services for which you do not pay with money (e.g. cloud storage, e-learning, social network services)? (Q1c12)
- Very often
  - Often
  - Sometimes
  - Never
  - No opinion / don't know
11. How often have you personally experienced problems with getting individual redress when you have been victim of unfair commercial practices (e.g. if you have entered into contractual commitments based on misleading claims or aggressive practices by traders)? (Q1c13)
- Very Often
  - Often
  - Sometimes
  - Never
  - No opinion / don't know

## Decisions

### Experiment 1

#### Instructions

In this section of the questionnaire, we would like you to suppose that you want to book a table in a restaurant using an Internet platform. To this end, we are going to present you two screenshots in two different platforms and will ask you to select the option that you prefer.

**Since the screenshots are small, you will have to enlarge them to be able to read the information and make your selection.** Therefore, you are required to enlarge both screenshots before being able to make your choice and moving to the next pair of options.

You can enlarge the image simply by clicking it. To reduce it again, click on the red "X" in the upper right corner of the image.

You will be asked to select between 10 pairs of options.

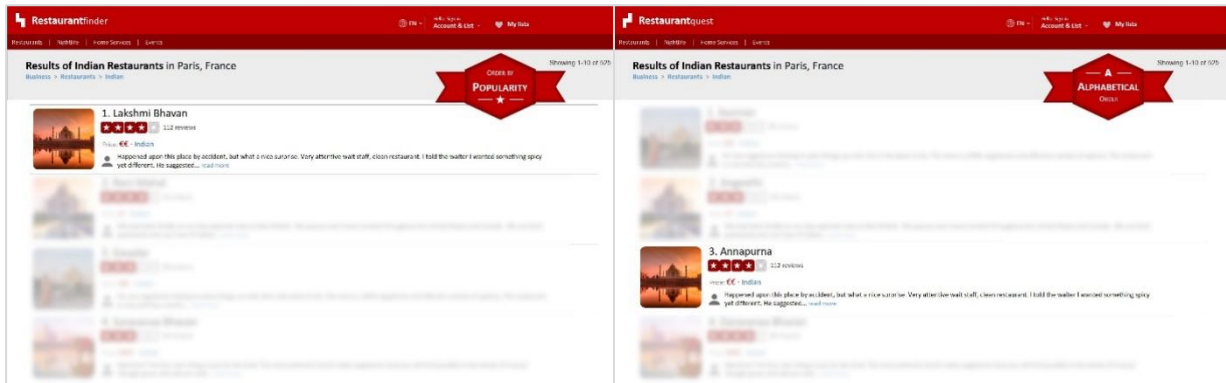
[Continue]

#### Booking a table in a restaurant

Suppose that you want to book a table in an Indian restaurant in Paris through an online platform. You have searched 'Indian restaurant in Paris' in two booking

platforms, named Restaurantfinder and Restaurantquest, obtaining the following results. Please tell us if you prefer to make a reservation in:

[Click on the image to enlarge]



- Lakshmi Bhavan restaurant through Restaurantfinder
- Annapurna restaurant through Restaurantquest

Please enlarge the two options to be able to continue

## Experiment 2

### Instructions

In this section of the questionnaire, we would like you to suppose that you want to purchase a smartphone using an Internet platform. To this end, we are going to present you two screenshots in two different platforms and will ask you to select the option that you prefer.

**Since the screenshots are small, you will have to enlarge them to be able to read the information and make your selection.** Therefore, you are required to enlarge both screenshots before being able to make your choice and moving to the next pair of options.

You can enlarge the image simply by clicking it. To reduce it again, click on the red "X" in the upper right corner of the image.

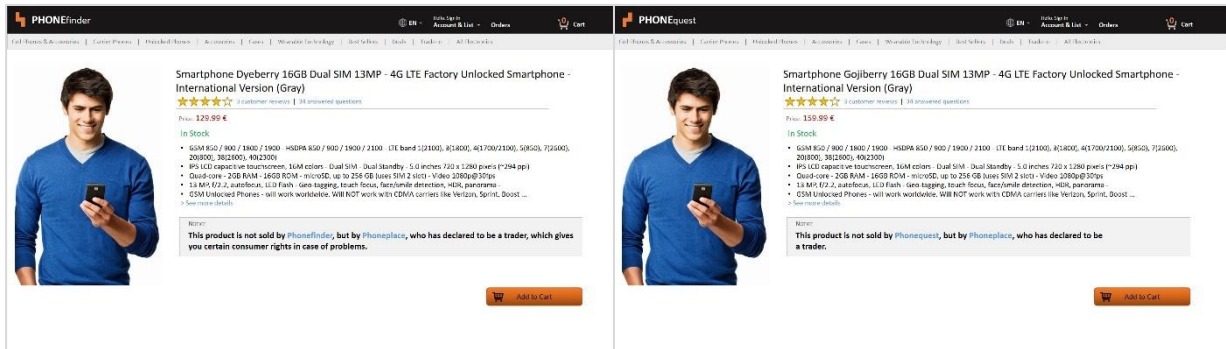
You will be asked to select between 10 pairs of options.

[Continue]

Purchasing a smartphone

Suppose that you want to buy a smartphone with some specific technical characteristics. Two e-commerce platforms, named Phonefinder and Phonequest, offer the two following smartphones with the required characteristics. Please tell us if you prefer to buy:

[Click on the image to enlarge]



Smartphone Dyeberry in Phonefinder

Smartphone Gojiberry in Phonequest

Please enlarge the two options to be able to continue

Experiment 3

Instructions

In this section of the questionnaire, we would like you to suppose that you want to book a room in an hotel using an Internet platform. To this end, we are going to present you two screenshots in two different platforms and will ask you to select the option that you prefer.

**Since the screenshots are small, you will have to enlarge them to be able to read the information and make your selection.** Therefore, you are required to enlarge both screenshots before being able to make your choice and moving to the next pair of options.

You can enlarge the image simply by clicking it. To reduce it again, click on the red "X" in the upper right corner of the image.

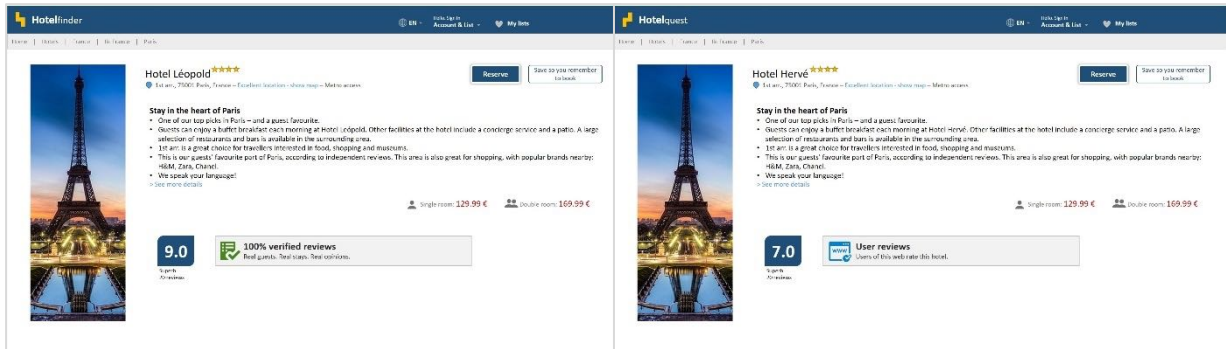
You will be asked to select between 10 pairs of options.

[Continue]

Booking a room hotel

Suppose that you want to make a reservation hotel in central Paris (1st arrondissement) through an online platform. Two booking platforms, named Hotelfinder and Hotelquest, offer the following hotels in the required area of Paris. Please tell us if you prefer to make a reservation in:

[Click on the image to enlarge]



○ Hotel Léopold through Hotelfinder

○ Hotel Hervé through Hotelquest

Please enlarge the two options to be able to continue

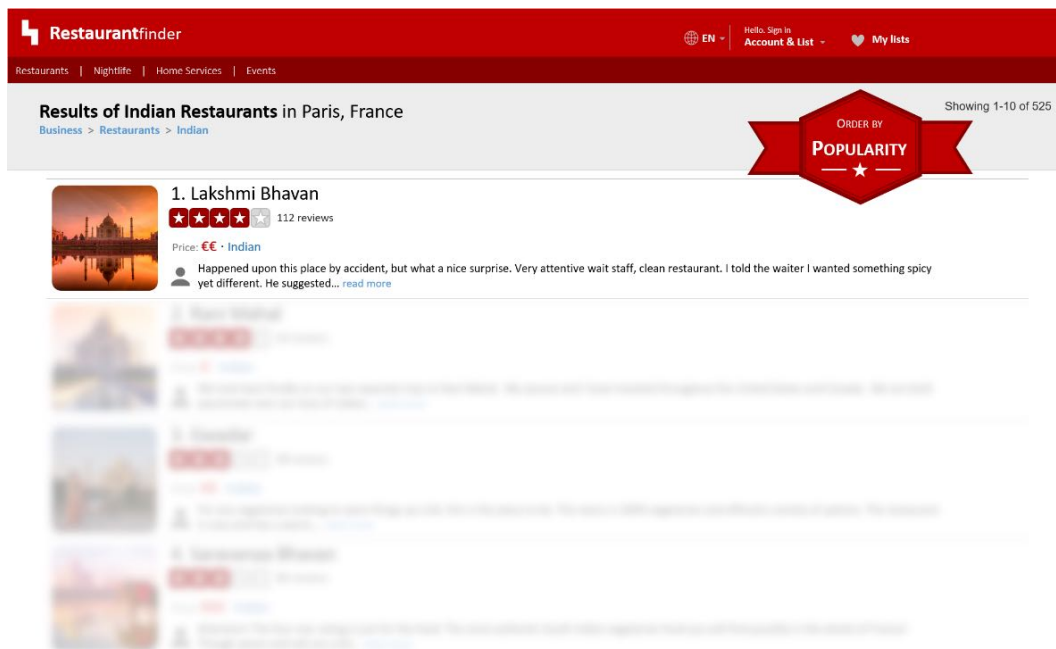
## Questionnaire 2

### Instruction

Finally we are going to show you again one of the screenshots that were presented before. Please, look at this screenshot as long as you want (with a minimum of 20 seconds). After that, **the screenshot will be removed and you will be asked to answer some questions about it.**

## Experiment 1

Booking a table in a restaurant



Please observe the screenshot of the platform

50%

1. In this specific screen that we have just shown you, do you remember the criterion applied by Restaurantbook to present the results of the search? (Q2a01)
- Yes [Go to 2]
  - No [Go to 5]
  -

## Questionnaire 2a

2. What was the criterion applied by Restaurantbook to present the results of the search? (Q2a02)
- Alphabetically
  - By price
  - By popularity
  - At random
  - Restaurant paying for an advertisement were shown in the first places
  - Don't know

Please indicate whether you agree or disagree with the following statements related to how did you actually make your selections between the 10 pairs of options of restaurant and booking platforms presented before.

3. Knowing how the platform ordered the results of the search was important in my decisions. (Q2a03)

Strongly agree	Agree	Indifferent	Disagree	Strongly disagree
----------------	-------	-------------	----------	-------------------

4. Knowing how the platform ordered the results of the search made me more confident and trusting in this platforms. (Q2a04)

Strongly agree	Agree	Indifferent	Disagree	Strongly disagree
----------------	-------	-------------	----------	-------------------

## Questionnaire 2b

Please indicate whether you agree or disagree with the following statements about the information provided by platforms in the Internet in general.

5. Providing information on how platforms order the results of search would give users a better service. (Q2b05)

Strongly	Agree	Indifferent	Disagree	Strongly
----------	-------	-------------	----------	----------



agree				disagree
-------	--	--	--	----------

6. Knowing how a platform orders the results of a search would make users more confident and trusting in this platform. (Q2b06)

Strongly agree	Agree	Indifferent	Disagree	Strongly disagree
----------------	-------	-------------	----------	-------------------

7. All platforms should include information on the way they order the results of a search. (Q2b07)

Strongly agree	Agree	Indifferent	Disagree	Strongly disagree
----------------	-------	-------------	----------	-------------------

8. Internet platforms should be required by law to include information on the way they decide to order the presentation of search results. (Q2b08)

Strongly agree	Agree	Indifferent	Disagree	Strongly disagree
----------------	-------	-------------	----------	-------------------

9. From whom did you buy or order goods or services for private use over the Internet in the last 12 months? (tick all that apply) (Q2b09)

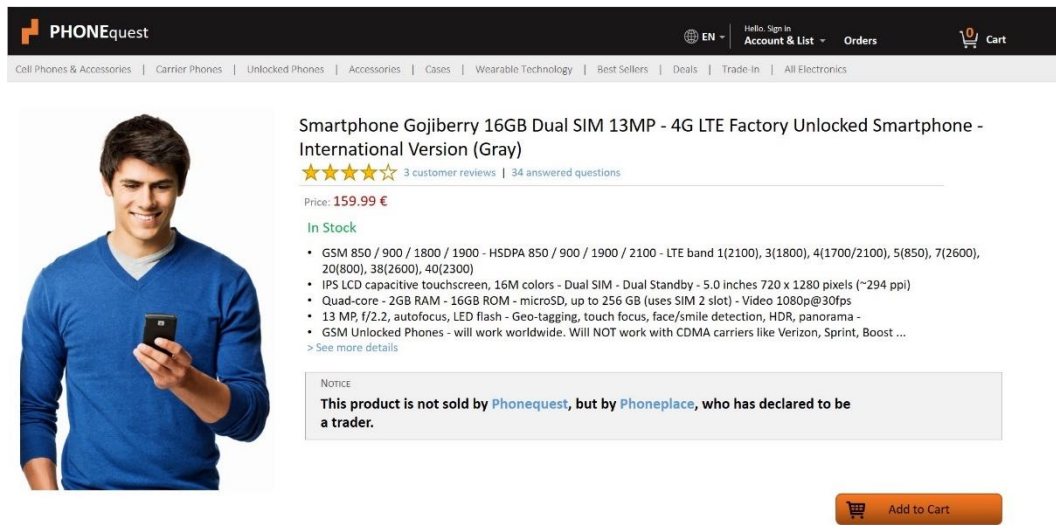
- Direct from companies ecommerce places (e.g. Apple, HP, Dell),
- From online marketplaces (e.g. Amazon)
- From another user (e.g. eBay)
- I have not bought or ordered good or services

10. Have you ever encountered any of the following problems? (tick all that apply) (Q2b10)

- When trying to get a faulty product replaced or repaired, I found that the seller was a private person and because of that I did not have the right to a repair or a replacement
- When trying withdraw from a contract in the two week cooling off period, I found that the seller was a private person and because of that I did not have the right to withdraw
- I have not encountered none of this problems

## Experiment 2

### Experiment 2: Purchasing a smartphone



Please observe the screenshot of the platform



- In this specific screen that we have just shown you, do you remember whether Phonequest provided information on who was actually selling the phone? (Q2a01)
  - Yes [Go to 2]
  - No [Go to 5]

#### Experiment 2: Questionnaire 2a

- Who was actually selling the phone? (Q2a02)
  - The platform (Phonequest) itself
  - Another commercial trader who was using the platform to sell the phone
  - A person who was using the platform to sell the phone
  - Don't know

Please indicate whether you agree or disagree with the following statements related to how did you actually make your selections between the 10 pairs of options of smartphones and platforms presented before.

- Knowing who was actually selling the smartphone in the platform was important in my decisions. (Q2a03)

Strongly agree	Agree	Indifferent	Disagree	Strongly disagree
----------------	-------	-------------	----------	-------------------

4. Knowing who was actually selling the smartphone in the platform made me more confident and trusting in the platform. (Q2a04)

Strongly agree	Agree	Indifferent	Disagree	Strongly disagree
----------------	-------	-------------	----------	-------------------

#### Experiment 2: Questionnaire 2b

Please indicate whether you agree or disagree with the following statements about the information provided by platforms in the Internet in general.

5. Providing information on who is actually selling the goods or services presented in a platform would give users a better service. (Q2b05)

Strongly agree	Agree	Indifferent	Disagree	Strongly disagree
----------------	-------	-------------	----------	-------------------

6. Knowing who is actually selling the goods or services presented in a platform would make users more confident and trusting in this platform. (Q2b06)

Strongly agree	Agree	Indifferent	Disagree	Strongly disagree
----------------	-------	-------------	----------	-------------------

7. All platforms should include information on who is actually selling the goods or services presented in the platform. (Q2b07)

Strongly agree	Agree	Indifferent	Disagree	Strongly disagree
----------------	-------	-------------	----------	-------------------

8. Internet platforms should be required by law to include information on who is actually selling the goods of services presented in the platform. (Q2b08)

Strongly agree	Agree	Indifferent	Disagree	Strongly disagree
----------------	-------	-------------	----------	-------------------

9. From whom did you buy or order goods or services for private use over the Internet in the last 12 months? (tick all that apply) (Q2b09)

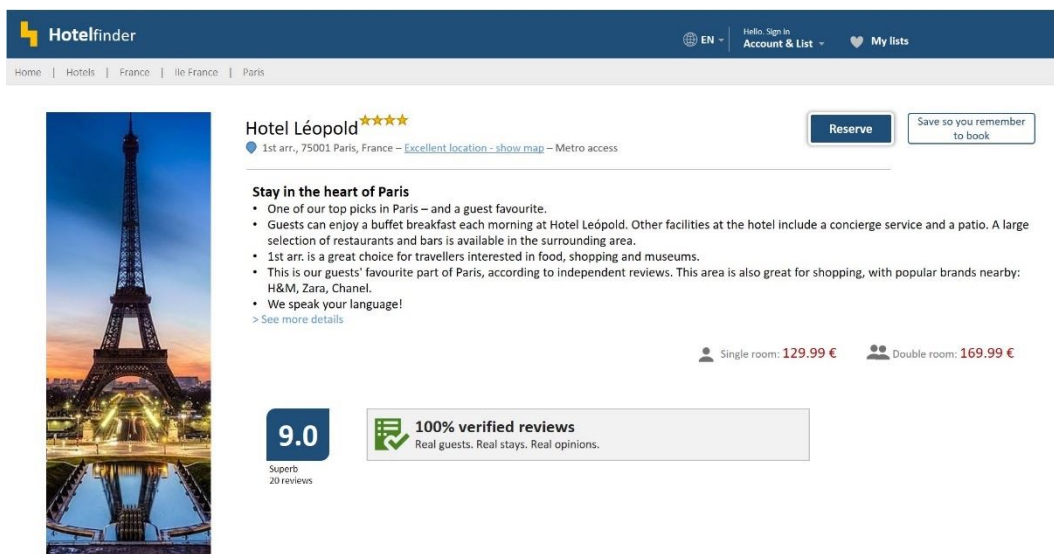
- Direct from companies ecommerce places (e.g. Apple, HP, Dell),
- From online marketplaces (e.g. Amazon)
- From another user (e.g. eBay)
- I have not bought or ordered good or services

10. Have you ever encountered any of the following problems? (tick all that apply)  
(Q2b10)

- When trying to get a faulty product replaced or repaired, I found that the seller was a private person and because of that I did not have the right to a repair or a replacement
- When trying to withdraw from a contract in the two week cooling off period, I found that the seller was a private person and because of that I did not have the right to withdraw
- I have not encountered none of this problems

### Experiment 3

#### Experiment 3: Booking a room hotel



The screenshot shows the Hotelfinder website interface. At the top, there is a navigation bar with the Hotelfinder logo, language options (EN), and user account links. Below the navigation bar, the breadcrumb trail reads: Home | Hotels | France | Ile France | Paris. The main content area features a large image of the Eiffel Tower at night. To the right of the image, the hotel name 'Hotel Léopold' is displayed with a 5-star rating and a location pin icon. Below the name, there is a 'Reserve' button and a 'Save so you remember to book' button. The hotel's address is listed as '1st arr., 75001 Paris, France - Excellent location - show map - Metro access'. A section titled 'Stay in the heart of Paris' lists several bullet points: 'One of our top picks in Paris - and a guest favourite.', 'Guests can enjoy a buffet breakfast each morning at Hotel Léopold. Other facilities at the hotel include a concierge service and a patio. A large selection of restaurants and bars is available in the surrounding area.', '1st arr. is a great choice for travellers interested in food, shopping and museums.', 'This is our guests' favourite part of Paris, according to independent reviews. This area is also great for shopping, with popular brands nearby: H&M, Zara, Chanel.', and 'We speak your language!'. Below this text is a '> See more details' link. To the right of the text, the prices for 'Single room: 129.99 €' and 'Double room: 169.99 €' are shown. At the bottom left of the hotel information, there is a '9.0' rating with the text 'Superb 20 reviews'. To the right of the rating is a '100% verified reviews' badge with the text 'Real guests. Real stays. Real opinions.'

Please observe the screenshot of the platform

50%

1. In this specific screen that we have just shown you, do you remember who was actually rating the hotel in the platform Hotelbook? (Q2a01)

- Yes [Go to 2]
- No [Go to 5]

#### Experiment 3: Questionnaire 2a

2. Who was actually rating the hotel in the platform Hotelbook? (Q2a02)

- Professional critics
- Users of the platform
- Clients who booked and stayed in this hotel
- Staff of Hotelbook
- Don't know

Please indicate whether you agree or disagree with the following statements related to how did you actually make your selections between the 10 pairs of options of hotels and platforms presented before.

3. Knowing who was rating the hotel in the platform was important in my decisions. (Q2a03)

Strongly agree	Agree	Indifferent	Disagree	Strongly disagree
----------------	-------	-------------	----------	-------------------

4. Knowing who was rating the hotel in the platform made me more confident and trusting in the platform. (Q2a04)

Strongly agree	Agree	Indifferent	Disagree	Strongly disagree
----------------	-------	-------------	----------	-------------------

### Experiment 3: Questionnaire 2b

Please indicate whether you agree or disagree with the following statements about the information provided by platforms in the Internet in general.

5. Providing information on who rate the goods or services presented in a platform would give users a better service. (Q2b05)

Strongly agree	Agree	Indifferent	Disagree	Strongly disagree
----------------	-------	-------------	----------	-------------------

6. Knowing how who rate the goods or services presented in a platform would make users more confident and trusting in this platform. (Q2b06)

Strongly agree	Agree	Indifferent	Disagree	Strongly disagree
----------------	-------	-------------	----------	-------------------

7. All platforms should include information on who is actually rating the goods or services presented in the platform. (Q2b07)

Strongly agree	Agree	Indifferent	Disagree	Strongly disagree
----------------	-------	-------------	----------	-------------------

8. Internet platforms should be required by law to include information on who is actually rating the goods or services presented in the platform. (Q2b08)

Strongly agree	Agree	Indifferent	Disagree	Strongly disagree
----------------	-------	-------------	----------	-------------------

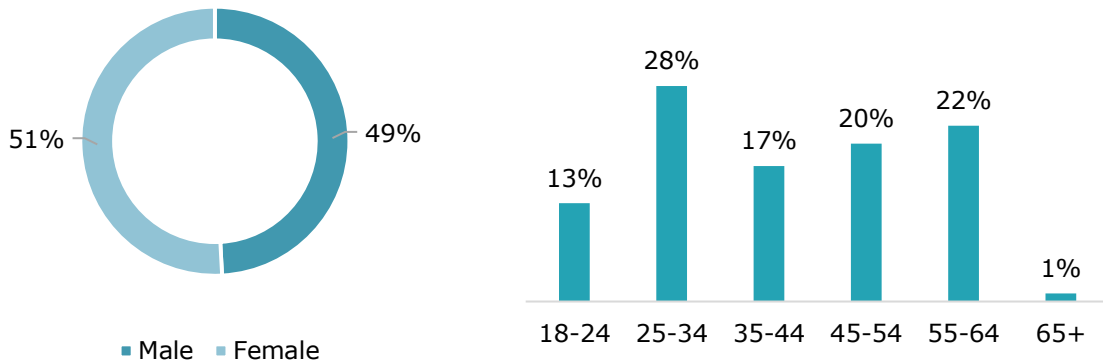
agree				disagree
-------	--	--	--	----------

9. From whom did you buy or order goods or services for private use over the Internet in the last 12 months? (tick all that apply) (Q2b09)
- Direct from companies ecommerce places (e.g. Apple, HP, Dell),
  - From online marketplaces (e.g. Amazon)
  - From another user (e.g. eBay)
  - I have not bought or ordered good or services
10. Have you ever encountered any of the following problems? (tick all that apply) (Q2b10)
- When trying to get a faulty product replaced or repaired, I found that the seller was a private person and because of that I did not have the right to a repair or a replacement
  - When trying withdraw from a contract in the two week cooling off period, I found that the seller was a private person and because of that I did not have the right to withdraw
  - I have not encountered none of this problems

## Annex 5. Profile of the participants

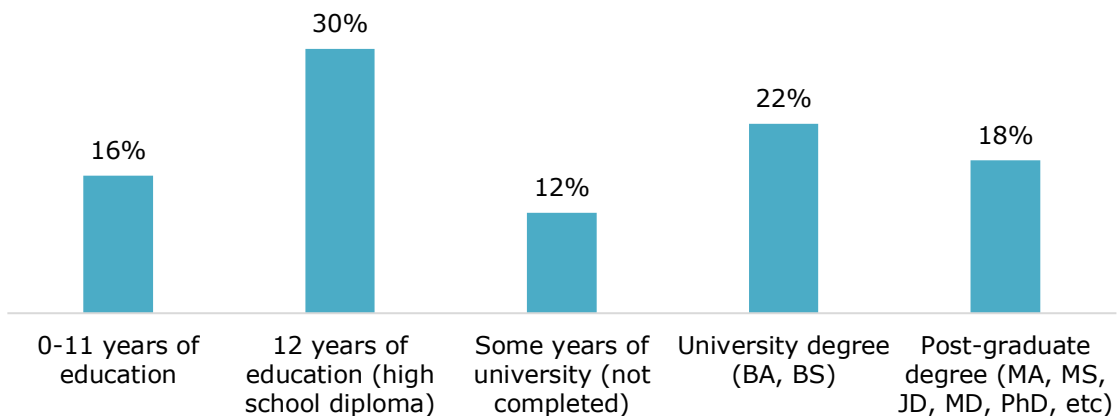
### Sociodemographic characteristics

As seen before, a total of 4,802 respondents participated in the survey, of whom 51% were female. More than one in four respondents was between 25 and 34 years old. The next most frequent age group was 55-64 (21%), followed by 45-54 (20%). Young people amounted to 13%.

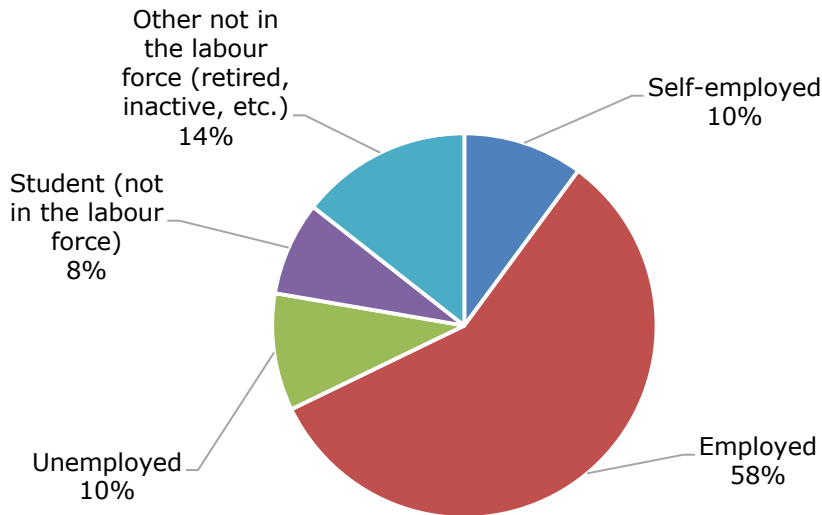


Source: Q1a01, Q1a02

Around four in ten respondents had a university degree. More specifically, 22% had a Bachelor’s degree, while 18% had at least a Master’s degree. Around 30% studied up to high school diploma while 16% did not complete high school. In terms of employment status, the majority of respondents (58%) were in a dependent employment situation. Self-employed, including entrepreneurs, and unemployed accounted for 10% each. Around 8% of respondents were students, while the remaining 14% were outside of the labour force.



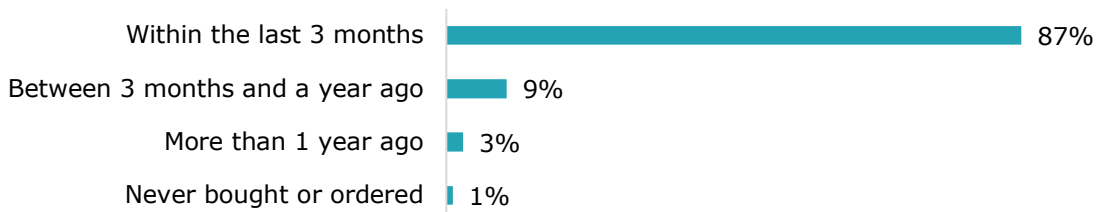
Source: Q1a03



Source: Q1a04

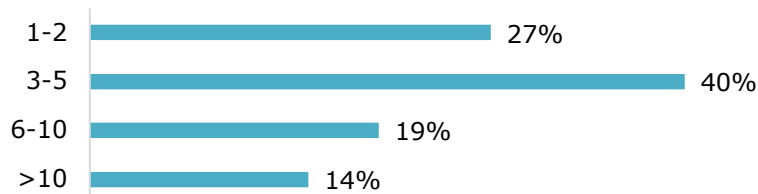
### Online purchasing

Buying over the internet is very popular among survey participants: more than four in five respondents (87%) bought goods or services online in the three months prior to the survey. An additional 9% purchased online in the previous year, while 2% had never used the internet to buy or order. The findings are consistent with those from the 2016 Survey on ICT usage in households and by individuals, which was used as the reference criteria for country selection. The relatively higher share of online shoppers in the survey stems from the channel selected to reach the target population. The survey was carried out online, therefore excluding the non-internet-savvy share of population.



Source: Q1a05

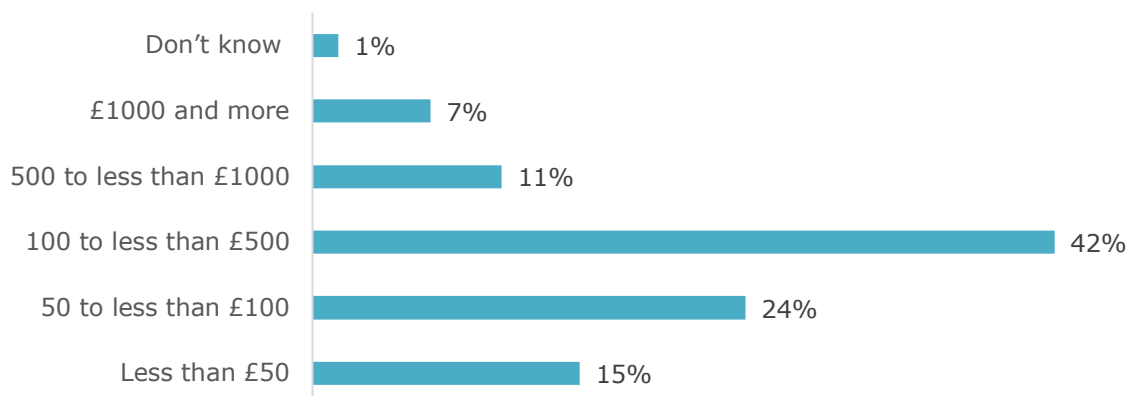
Among those who bought in the three months prior to the survey, one- or two-time buyers represent 27%, while it is more common that they bought things online three to five times (40% of respondents). The remaining third bought goods or services online more than six times.



Source: Q1a06

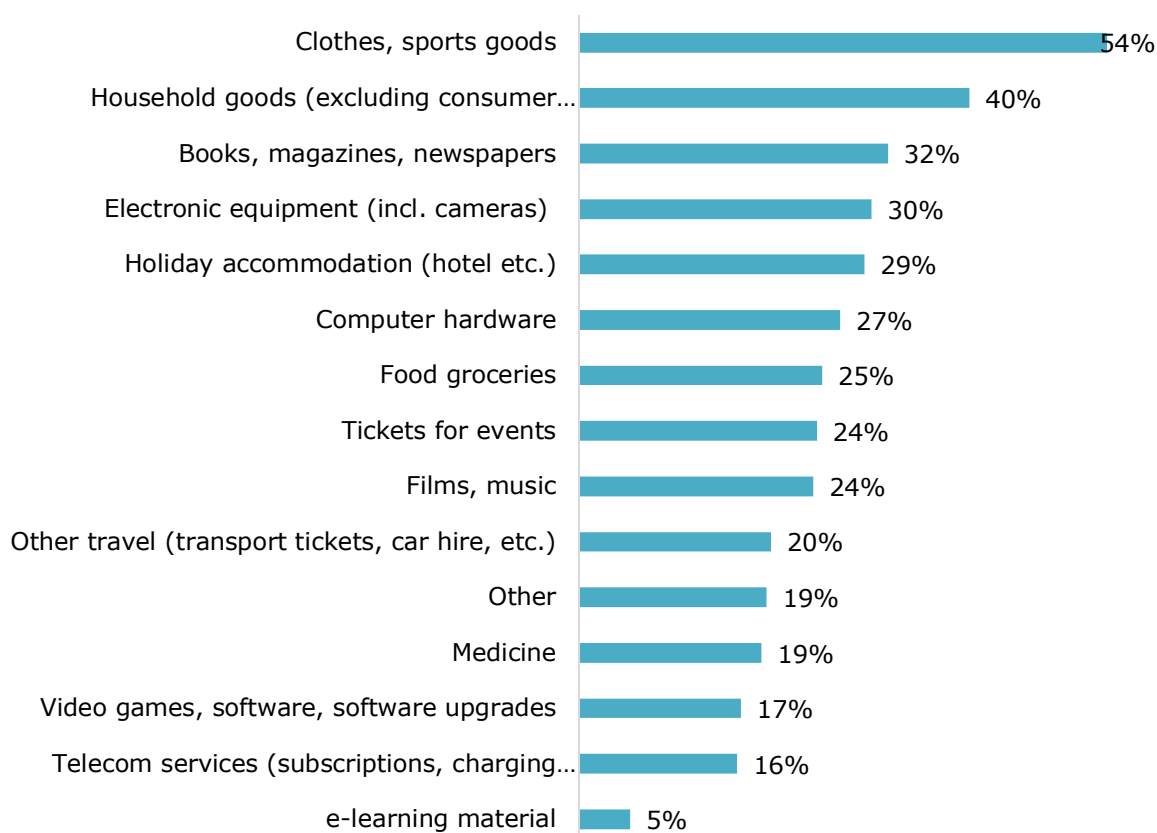


The modal range of money spent online is between €100 and €500 (42%). A nearly equal share of respondents spent less than €100 (39%), while more expensive purchases are less common (18%).



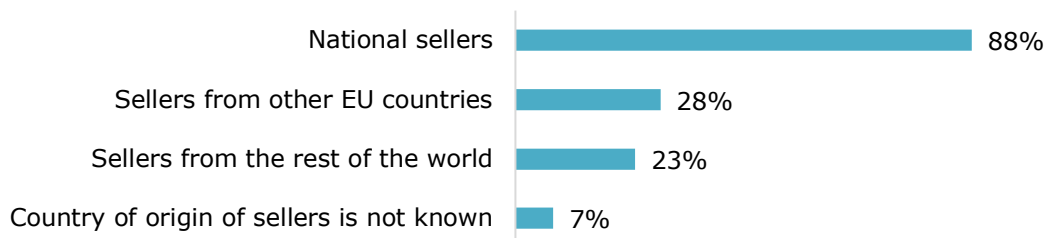
Source: Q1a07

The most common good or services purchased online are clothes and sports equipment (54%), followed by furniture and other household goods (40%), books, magazines or newspapers (32%), consumer electronics such as cameras (30%), hotels and other holiday accommodation (29%), and computer hardware (27%). Less common are other types of entertainment such as music, films (24%), games (17%) and event tickets (24%), while about one in five respondents (20%) used the internet to purchase travel-related arrangements, such as flight and train tickets, or car rental. Only 16% of respondents bought phone subscriptions or uploaded money on pre-paid phone cards, and only 5% purchased online learning material.



Source: Q1a08

Most users purchase over the Internet from national sellers (88% in the survey). Less common are transactions with other countries: slightly more than one in four respondents had bought or ordered from a seller in different EU country (28%), and slightly less than one in four respondents had bought or ordered from a seller in an extra-EU country (23%). International transactions occur more often for physical goods, such as clothes or electronics (32%), followed by travel or holiday arrangements (14%) and digital products (11%).



Source: Q1a09

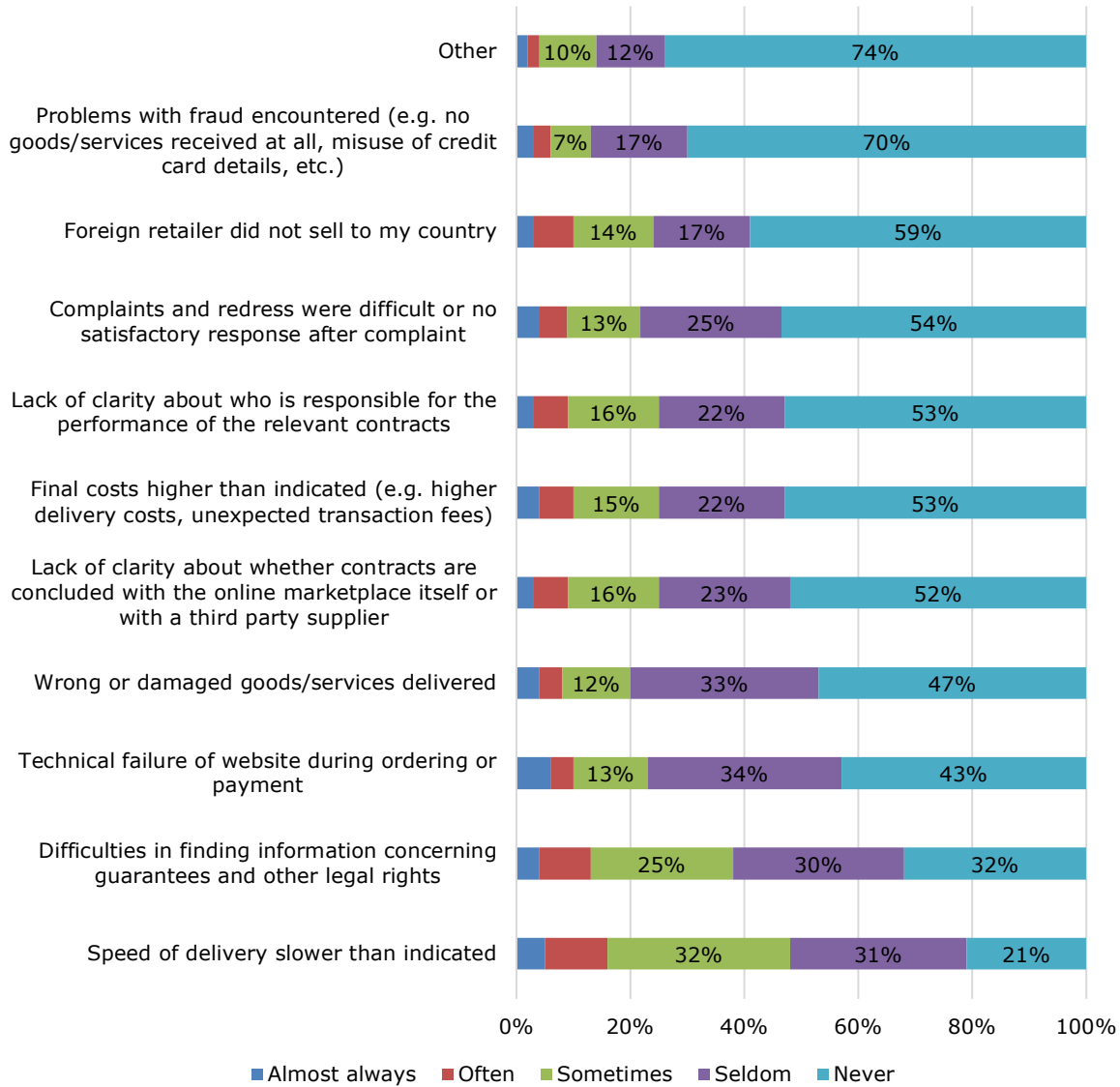
Preferred sources to buy are online marketplaces that allow people to buy things from each other and from third party suppliers (e.g. Amazon) (71%), followed by online marketplaces that only allow you to buy from third party providers (e.g. eBay) (45%), and corporate online shops such as Zara stores (36%).



Source: Q2b09

## Problems reported

Respondents were asked about their negative experience with online purchasing. The most frequently mentioned disservice was the slow delivery (only 21% of online buyers reported never having such a problem). Other problems that are at times encountered are the difficulty in finding information on guarantees and consumer rights; website technical failure during the sale; wrong or corrupted deliveries, and the lack of clarity about the identity of the contractual party.



	Almost always	Often	Sometimes	Seldom	Never
Other	2%	2%	10%	12%	74%
Problems with fraud encountered (e.g. no goods/services received at all, misuse of credit card details, etc.)	3%	3%	7%	17%	70%
Foreign retailer did not sell to my country	3%	7%	14%	17%	59%
Complaints and redress were difficult or no satisfactory response after complaint	3%	5%	13%	25%	54%
Final costs higher than indicated (e.g. higher delivery costs, unexpected transaction fees)	4%	6%	15%	22%	53%
Lack of clarity about who is responsible for the performance of the relevant contracts	3%	6%	16%	22%	53%
Lack of clarity about whether contracts are concluded with the online marketplace itself or with a third-party supplier	3%	6%	16%	23%	52%
Wrong or damaged goods/services delivered	4%	4%	12%	33%	47%
Technical failure of website during ordering or payment	6%	4%	13%	34%	43%
Difficulties in finding information concerning guarantees and other legal rights	4%	9%	25%	30%	32%
Speed of delivery slower than indicated	5%	11%	32%	31%	21%

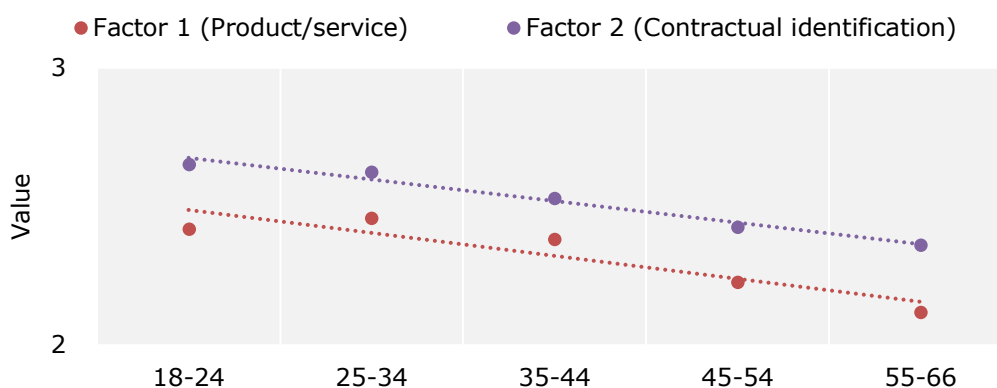
Source: Q1b11

Exploratory Factor Analysis was conducted to summarise the information contained in the items below into a smaller number of factors. By doing that, we were able to investigate whether several variables were related through some linear function to a smaller number of unobservable factors (latent variables or constructs). This statistical technique derives underlying dimensions that, when interpreted and understood, describe the data in a much smaller number of concepts than the original individual variables allowing us to better understand the characteristics of the participants encountering problems when purchasing online.

From the analysis<sup>24</sup> two factors emerged: (1) emphasis on the platform and its services, such as the product or value; (2) emphasis on the contractual identification, e.g. the supplier. This last factor grouped the two items related to contractual identification (lack of clarity about who is responsible for the performance of the relevant contracts and lack of clarity about whether contracts are concluded with the online marketplace itself or with a third party supplier) while the first factor grouped all the other items.

The following figures show the persistence of problems, summarised in both factors, as broken down by respondents' age, country, education level, as well as by several online purchasing variables. To do so, the two factors were rescaled on a continuous reverted 1-5 scale displayed in the y-axis and zoomed for relevance, where 1 indicates "never" (encountered problems when purchasing online) and 5 indicates "almost always" (encountered problems when purchasing online). Differences were not large but statistically significant<sup>25</sup>, and in some cases a trend was suggested.

Problems tend to be encountered less by older participants, who are also less frequent purchasers, than by younger participants. The downward trend is clearly indicated in the following figure, which adds a linear trend line to the scatterplot. More specifically, contractual problems (Factor 2) were encountered more often by respondents in the 18-24 age group, whereas product/service problems (Factor 1) on average were encountered more often by respondents in the 25-34 age group<sup>26</sup>.



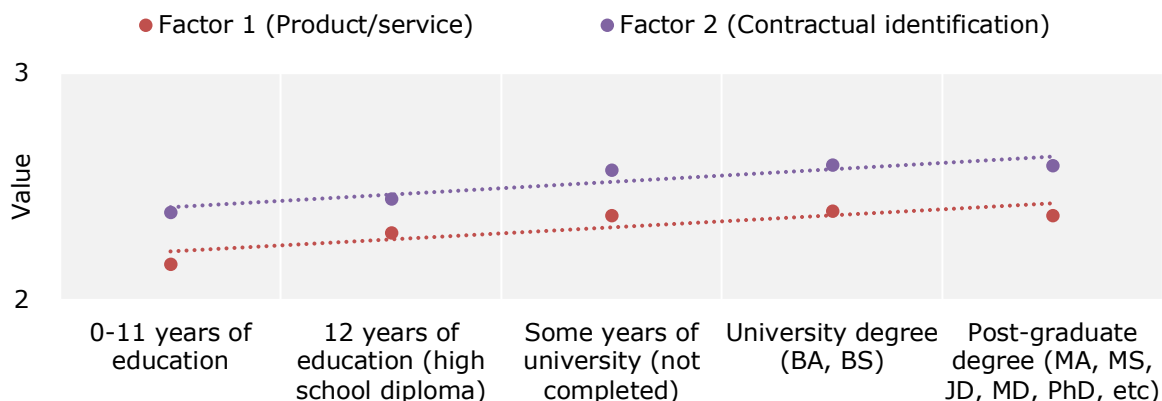
A slight, but significant negative relationship between problems and education was found<sup>27</sup>, which is described by the downward slope of the trend line shown in the following figure. More educated participants, who are more internet-savvy and shop more often, are more likely than less educated participants to encounter problems while purchasing online. As in the previous figures, problems related to contractual identification (Factor 2) are more frequently reported than other problems.

<sup>24</sup> For a detailed explanation of the factor analysis see Annex 7. Factor analysis

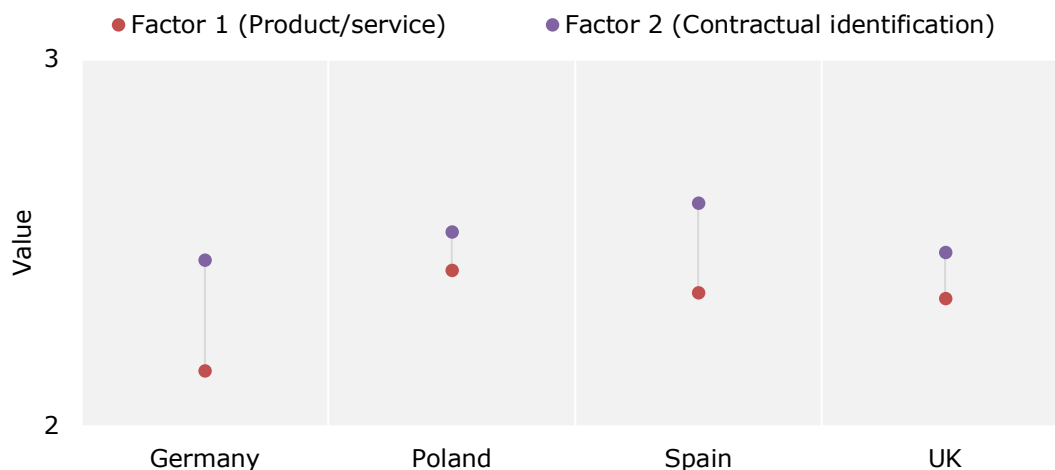
<sup>25</sup> ANOVA test  $p < 0.001$

<sup>26</sup> ANOVA test  $p < 0.001$

<sup>27</sup> ANOVA test  $p < 0.001$

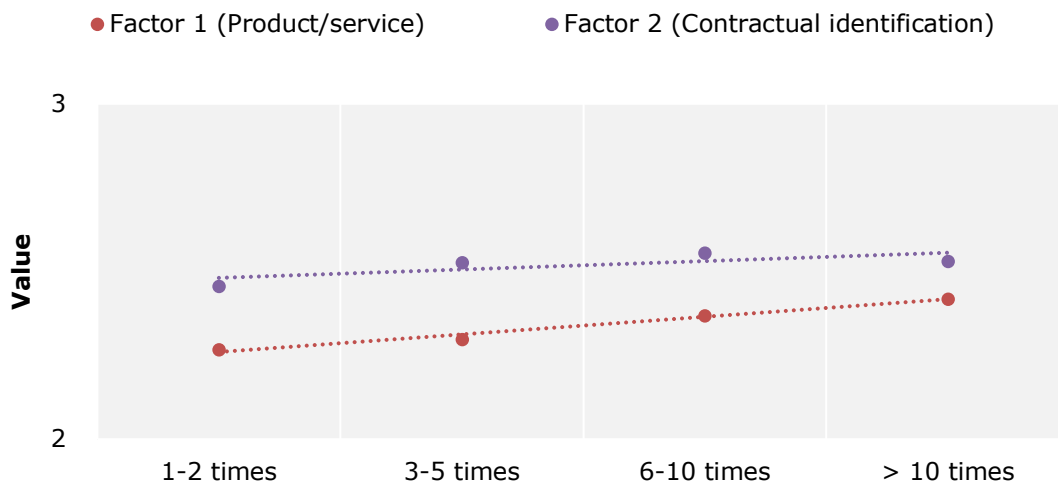


With regards to the country breakdown, contractual identification problems (Factor 2) appear more relevant to respondents than product/service problems (Factor 1) across all four MS. Within countries, contractual problems are relatively more frequent in Germany and Spain, as described by the larger distance between the two data points shown in the figure below. Contractual identification problems are more often reported by Spanish respondents. Conversely, Polish respondents tend to report problems on product/service more often than respondents in the remaining MS. The relationship is small but statistically significant<sup>28</sup>.

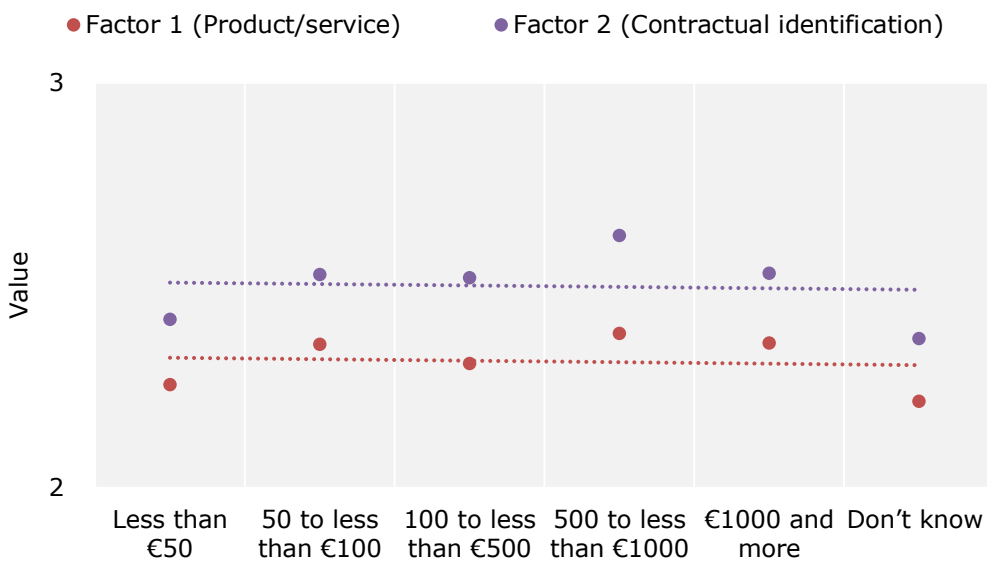


Frequent purchasers have more occasions to incur problems, and it is expected that they would report it more often compared to casual purchasers. The positive relationship is confirmed by the analysis, as described in the figure below. Frequent purchasers are those who report having encountered problems more often. Contractual problems and especially product/service problems, whose trend line's slope is slightly steeper, appear less often among one- or two-time buyers. The relationship is small but statistically significant.

<sup>28</sup> ANOVA test  $p < 0.001$



Conversely, there is no unambiguous trend among problems encountered and size of purchase<sup>29</sup>. The slopes of the trend lines for both factors are nearly flat, as shown by the figure below. Buyers of both high-end and low-end goods and services (those priced above €1,000 and below €50) seem relatively less affected by problems, which are encountered more often with purchasers reporting having spent in the €500-1000 range. Again, contractual identification problems more frequently occur.



Findings seem to suggest that there is a relationship between the frequency of problems encountered and country of origin of the seller. As shown in the figure below, problems are reported less often among respondents who purchased from national sellers. Conversely, when the seller is from a different country than the buyer, regardless of being inside or outside the EU, the frequency with which problems occur is higher. The difference is small but statistically significant<sup>30</sup>.

<sup>29</sup> ANOVA test  $p < 0.001$

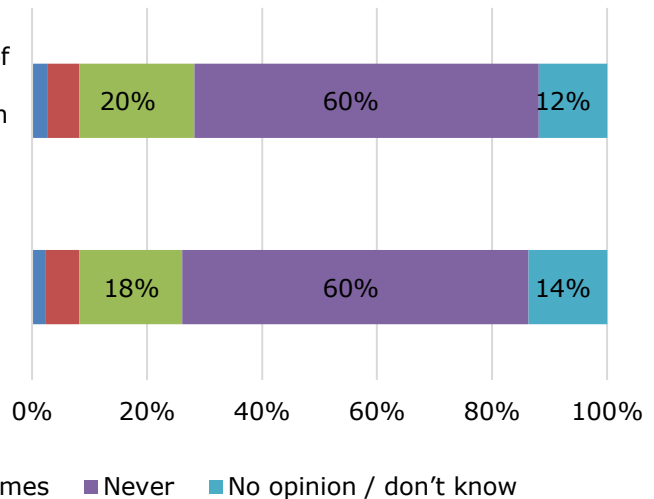
<sup>30</sup> ANOVA test  $p < 0.001$



Lastly, more than half of the respondents have never personally experienced problems with getting individual redress when in a situation of unfair commercial practices, or experiencing problems because a foreign retailer did not sell to their countries.

Personally experienced problems with getting individual redress when you have been victim of unfair commercial practices (e.g. if you have entered into contractual commitments based on misleading claims or aggressive practices by traders)?

Personally suffered detriment when concluding contracts for online services for which you do not pay with money (e.g. cloud storage, e-learning, social network services)?

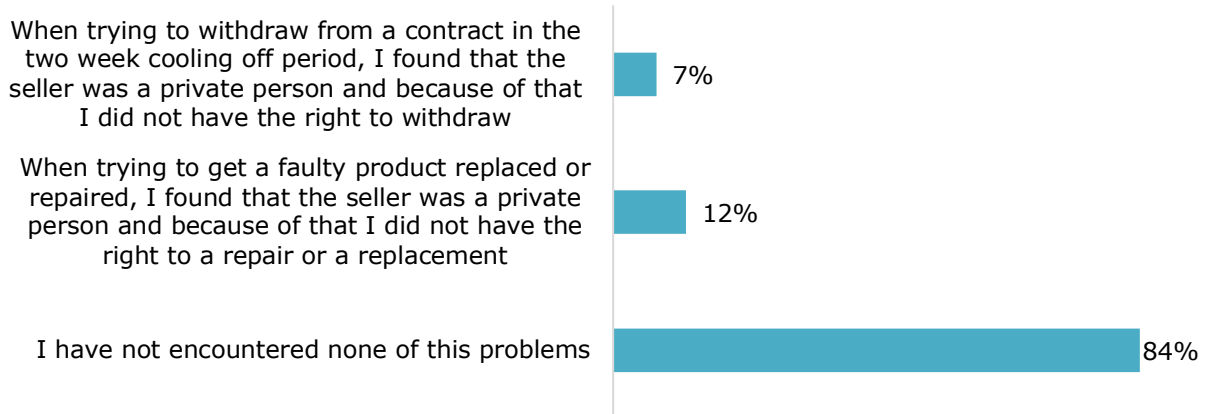


	Very often	Often	Sometimes	Never	No opinion / I do not know
Personally experienced problems with getting individual redress when you have been victim of unfair commercial practices (e.g. if you have entered into contractual commitments based on misleading claims or aggressive practices by traders)?	2%	6%	20%	60%	12%
Personally suffered detriment when concluding contracts for online services for which you do not pay with money (e.g. cloud storage, e-learning, social network services)?	2%	6%	18%	60%	14%

Source: Q1a12, Q1a13

Participants were also asked about problems related to the identification of contractual parties: 84% said they have not encountered this type of problems, 12% said they did

not have the right to a repair or a replacement when they found that the seller was a private person and 7% said they did not have the right to withdraw.



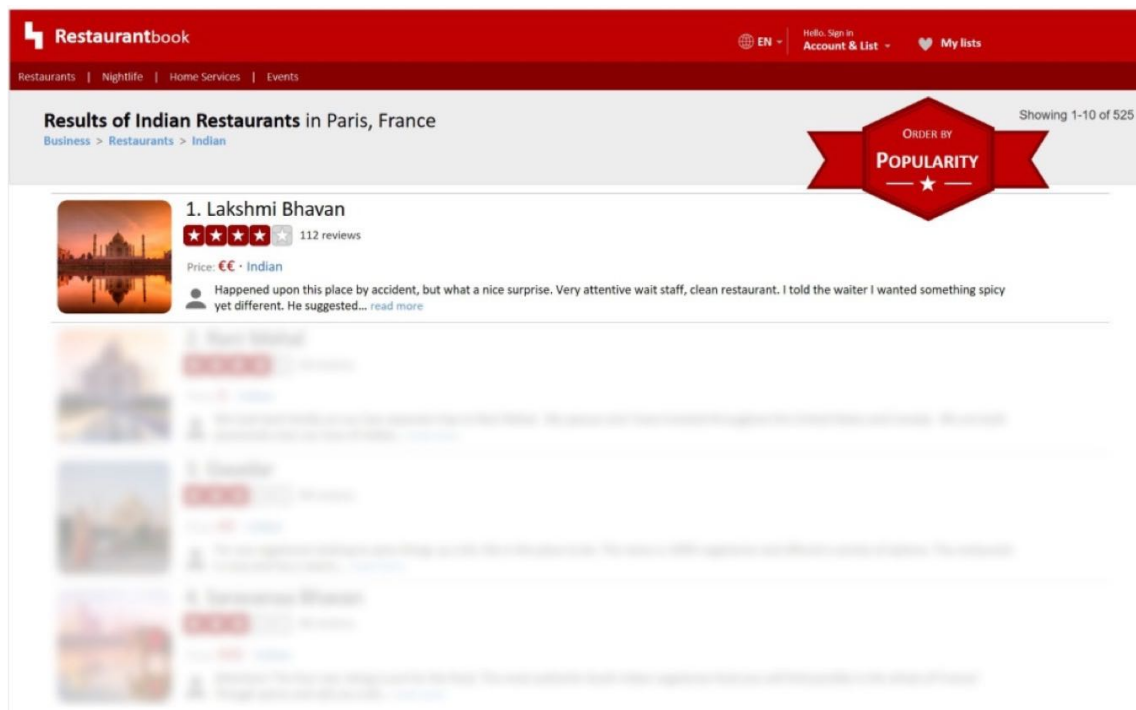
Source: Q2b10



## Annex 6. Post-experimental questionnaire results

### Search results

After the experiment, participants were asked to quickly look once again at the following screen. The same screen was shown to all the participants during 20 seconds.



Please observe the screenshot of the platform

Then they were asked whether or not they could remember which criterion was applied in the specific screen shown before. Around 80% of respondents said that they could remember the criterion.

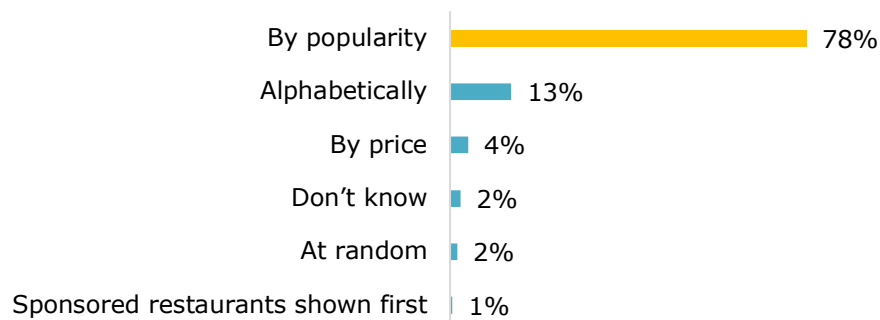
1. In this specific screen that we have just shown you, do you remember the criterion applied by Restaurantbook to present the results of the search?

- Yes  
 No

Respondents who said that they could remember the criterion applied by Restaurantbook to present the results of the search (n=1278) were asked to identify this criterion in the next question: 78% were able to remember it and correctly selected "Popularity" while 13% wrongly selected "Alphabetically" and 4% wrongly selected "by price"

2. What was the criterion applied by Restaurantbook to present the results of the search?

- Alphabetically  
 By price  
 By popularity  
 At random  
 Restaurant paying for an advertisement were shown in the first places  
 Don't know

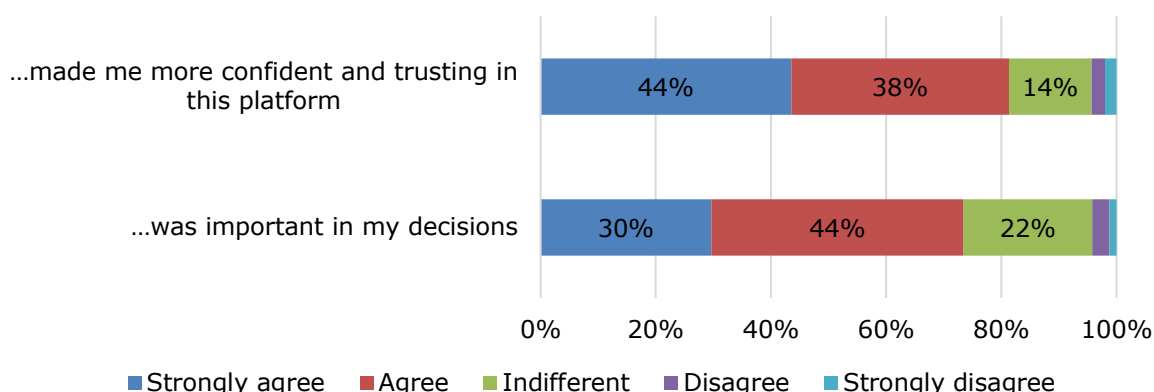


Source: Q2a02

Respondents (n=1278) were then asked "Please indicate whether you agree or disagree with the following statements related to how did you actually make your selections between the 10 pairs of options of restaurant and booking platforms presented before":

- Knowing how the platform ordered the results of the search was important in my decisions (Q2a03)
- Knowing how the platform ordered the results of the search made me more confident and trusting in this platform (Q2a04)

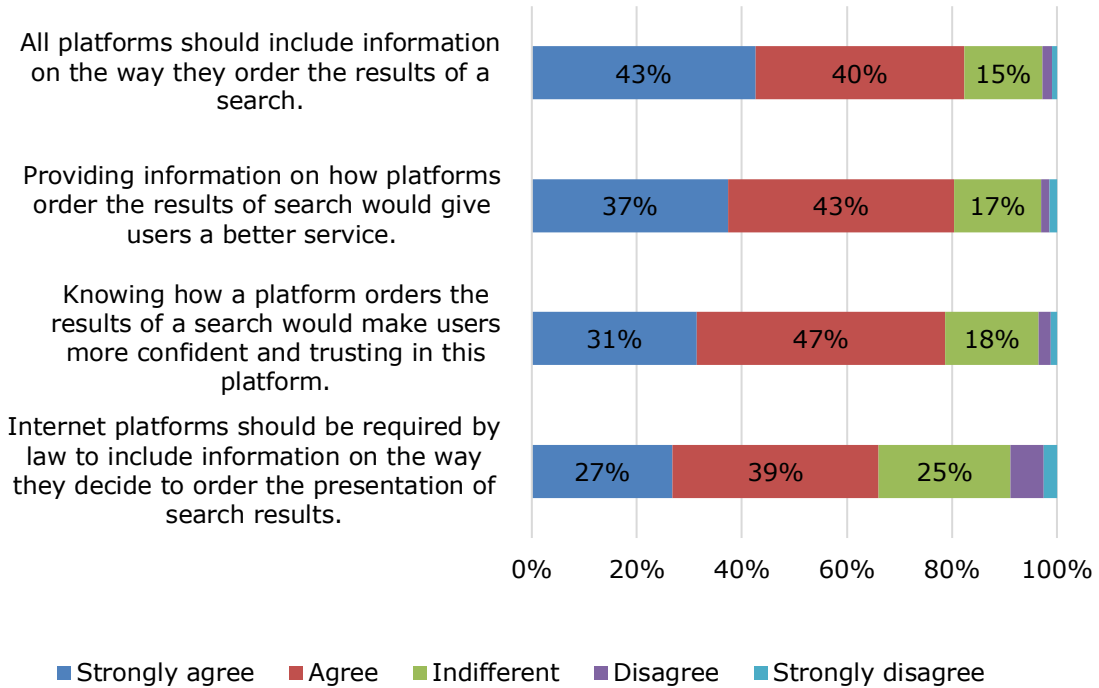
Of the respondents who said they could remember the criterion utilised to rank the results (n=1278), **around 82%** (Strongly agree - 44% and agree - 38%) that "knowing how results were ranked made them more confident and trusting in the platform". Furthermore, around 74% (Strongly agree - 30% and 44% agree) declared that such information was important in their decision.



	Strongly agree	Agree	Indifferent	Disagree	Strongly disagree
...made me more confident and trusting in this platform	44%	38%	14%	2%	2%
...was important in my decision	30%	44%	22%	3%	1%

Source: Q2a03, Q2a04

After that, all the respondents in the information search experiment (n=1601) were asked the extent to which they agreed or disagreed with a number of statements about information provision on platforms. The greater majority think that platforms should include such information (84% agree or strongly agree), even by law (83% agree or strongly agree), that this would make users more confident and trusting in platforms (81%), and in general that this would translate in a better service for users (79% agree or strongly agree)

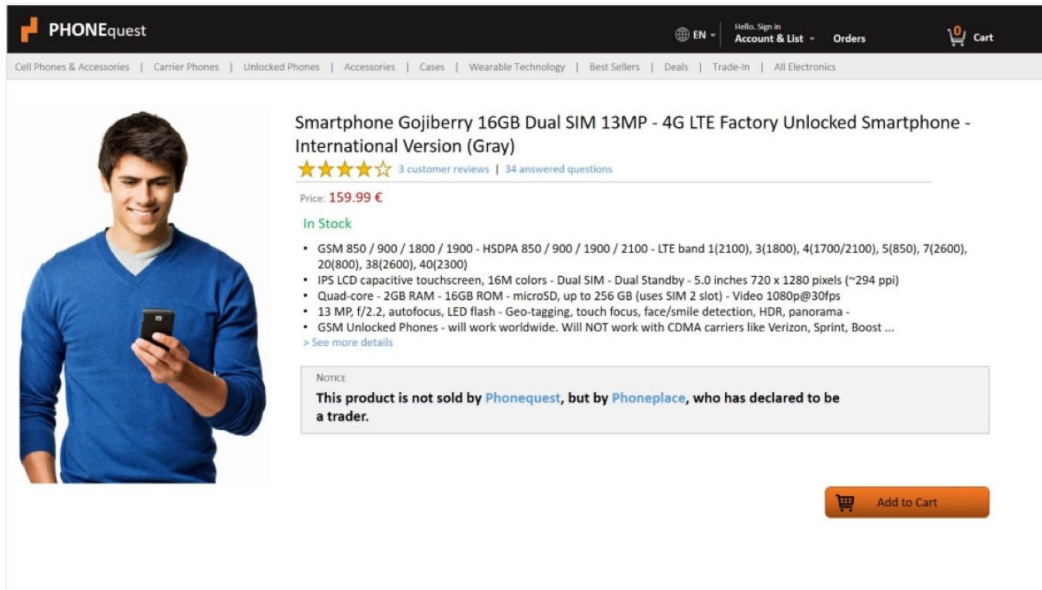


	Strongly agree	Agree	Indifferent	Disagree	Strongly disagree
All platforms should include information on the way they order the results of a search	43%	40%	15%	1%	1%
Providing information on how platforms order the results of search would give users a better service	37%	43%	17%	2%	1%
Knowing how a platform orders the results of a search would make users more confident and trusting in this platform	31%	47%	18%	3%	1%
Internet platforms should be required by law to include information on the way they decide to order the presentation of search results	27%	39%	25%	6%	3%

Source: Q2b05, Q2b06, Q2b07, Q2b08

## Transparency about the identity of contractual parties

Following the same logic of the information search experiment, after respondents completed the contractual entities experiment, they were asked to quickly look again at one of the screens.



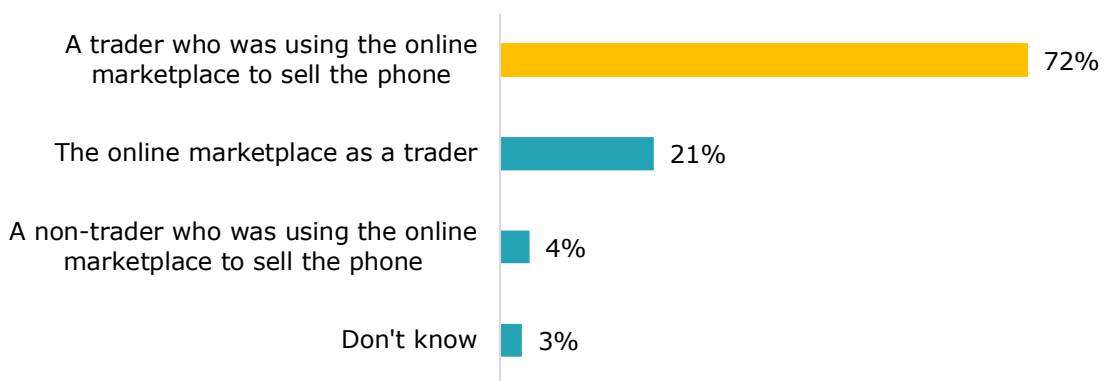
Then they were asked whether or not they could remember who was indicated as the real seller on the website.

1. In this specific screen that we have just shown you, do you remember whether Phonequest provided information on who was actually selling the phone?

Yes

No

Around 74% of respondents (n=1601) stated that they could remember who was selling the phone. From those making such a claim (n=1188), around 72% remembered it accurately (i.e. A trader who was using the online market place to sell the phone).

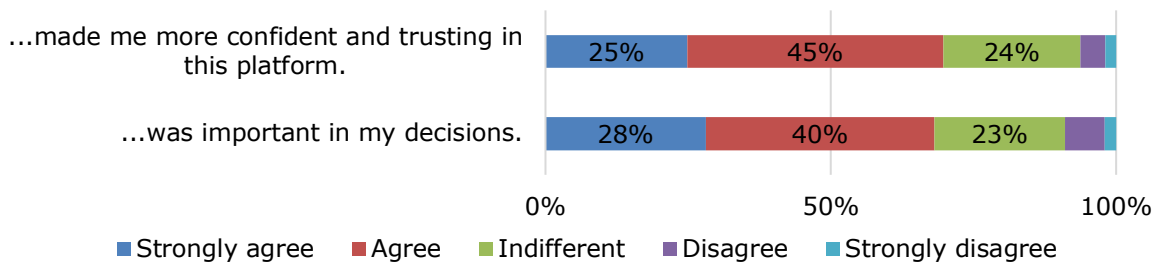


Source: Q2a02

After that, these respondents (n=1188) were asked "Please indicate whether you agree or disagree with the following statements related to how you make your selections between the 10 pairs of options of smartphones and platforms presented before":

- Knowing who was actually selling the smartphone in the platform was important in my decisions (Q2a03)
- Knowing who was actually selling the smartphone in the platform made me more confident and trusting in the platform (Q2a04)

Around 70% of these respondents (strongly agree and agree) believed that knowing who was selling the phone made them more confident and trusting in the platform. Around 68% (strongly agree and agree) stated that such information was important in their decision.

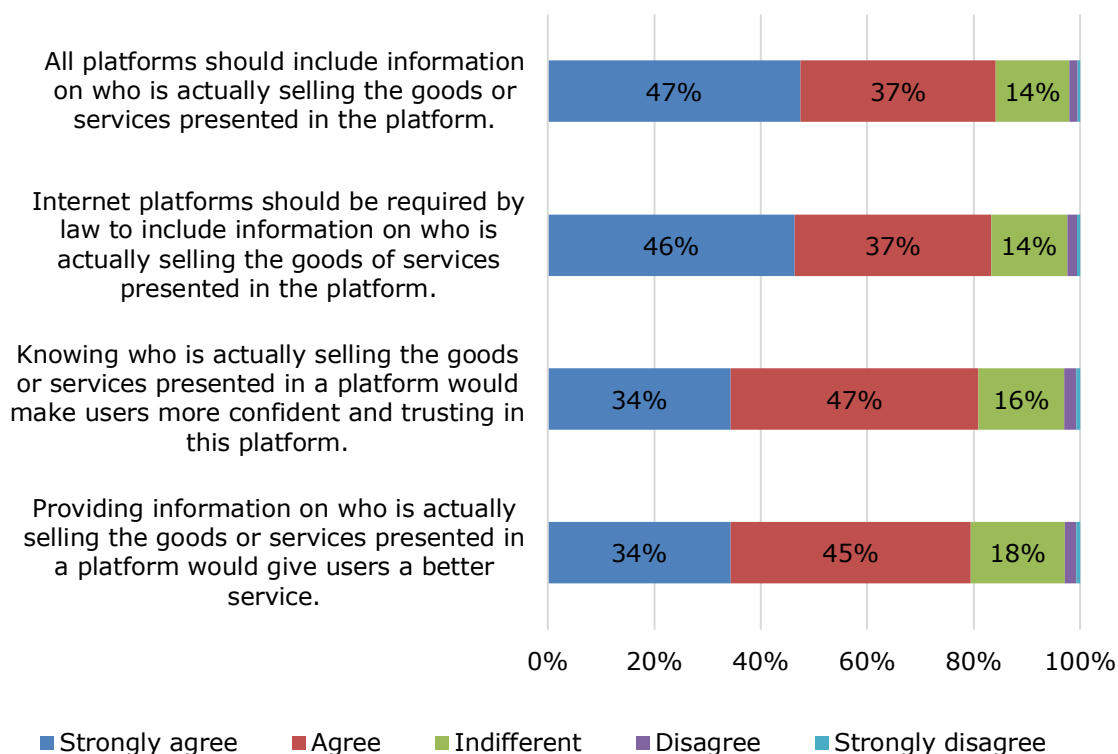


	Strongly agree	Agree	Indifferent	Disagree	Strongly disagree
...made me more confident and trusting in this platform	25%	45%	24%	4%	2%
...was important in my decisions	28%	40%	23%	7%	2%

Source: Q2a03, Q2a04

As in the search experiment, the relationship between the items above and the problems reported by the participants have been analysed. In this case, due to the objective of this experiment, the problems related to contractual parties' identification have been selected. No statistical significance differences were found. Thus, for all participants knowing who was actually selling the smartphone it is important in terms of confidence and trusting as well as in their decision.

In addition to the items above, all participants conducting the experiment (n=1601) were asked several statements about information provided by the platform.



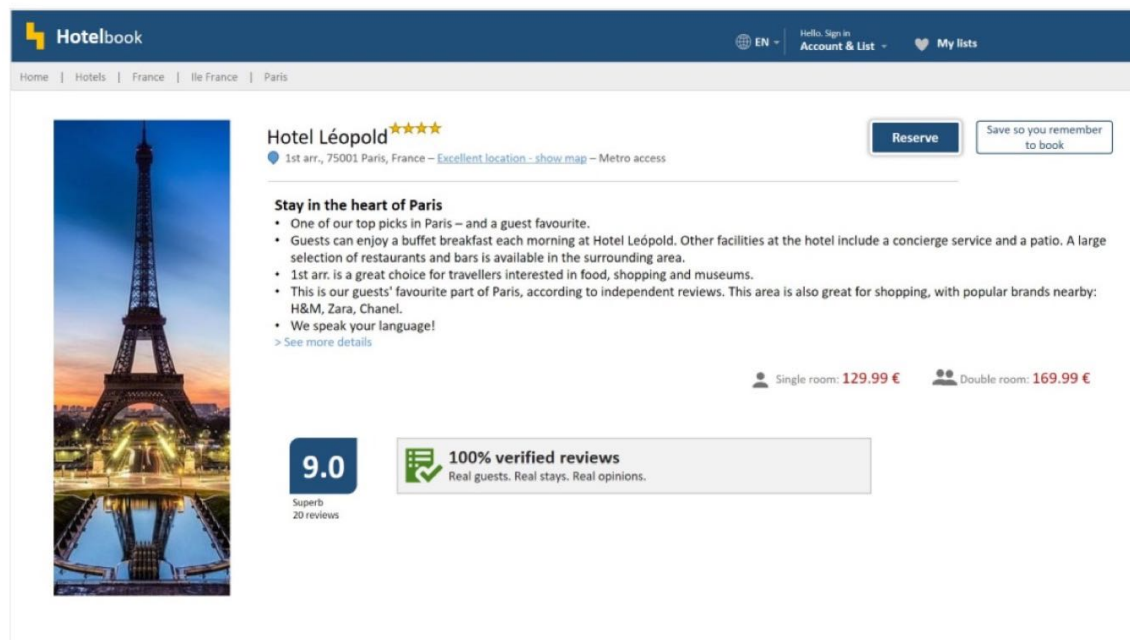
	Strongly agree	Agree	Indifferent	Disagree	Strongly disagree
All platforms should include information on who is actually selling the goods or services presented in the platform	47%	37%	14%	2%	0%
Internet platforms should be required by law to include information on who is actually selling the goods or services presented in the platform	46%	37%	14%	2%	1%
Knowing who is actually selling the goods or services presented in the platform would make users more confident and trusting in this platform	34%	47%	16%	2%	1%
Providing information on who is actually selling the goods or services presented in a platform would give users a better service	34%	45%	18%	2%	1%

Source: Q2b05, Q2b06, Q2b07, Q2b08

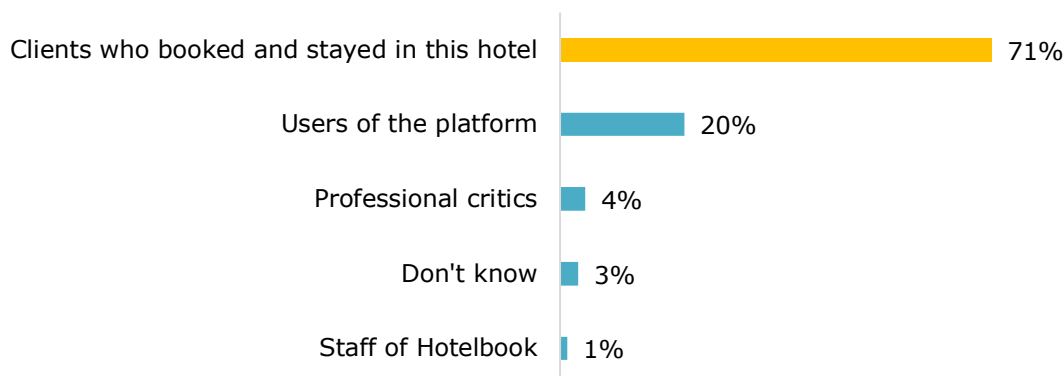
There is a widespread view that platforms should include information on who is selling the good or service (47% strongly agree – 37% agree) and that it should be required by law (46% strongly agree – 37% agree). Furthermore, the majority of respondents agreed that such information would make users more confident and trusting in platforms (34% Strongly agree – 47% Agree), and in general that this would translate in a better service for users (34% Strongly agree – 45% Agree).

## Transparency of consumers reviews, rating and endorsement systems

After the experiment, all users participating in this experiment (n=1601) were asked to quickly look once again at one of the screens. Then they were asked whether or not they could remember who was indicated as the source of rating on the website. Around 64% of respondents stated that they could remember who was actually rating the hotel.



Those remembering who was indicated as the source of rating on the website (n=1030), were asked to identify, among several options (see figure below), who was rating the hotel. Around 71% of them selected the right option (i.e. Clients who booked and stayed in the hotel).

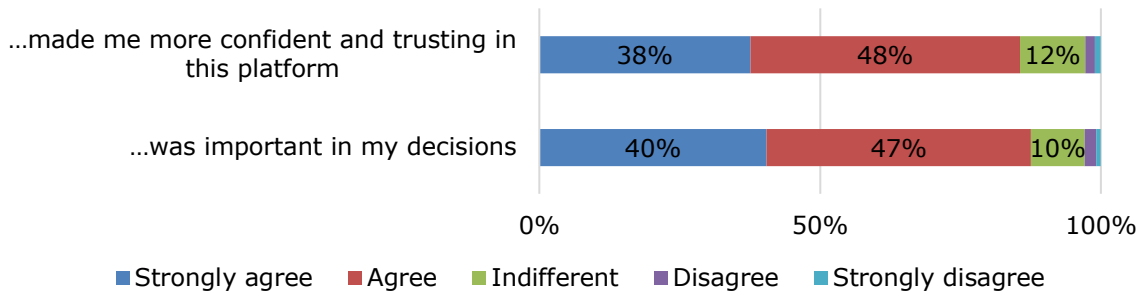


Source: Q2a02

After that, these respondents (n=1030) were asked "Please indicate whether you agree or disagree with the following statements related to how did you actually make your selections between the 10 pairs options of hotel and booking platforms presented before":

- Knowing who was rating the hotel in the platform was important in my decisions (Q2a03)
- Knowing who was rating the hotel in the platform made me more confident and trusting in the platform (Q2a04)

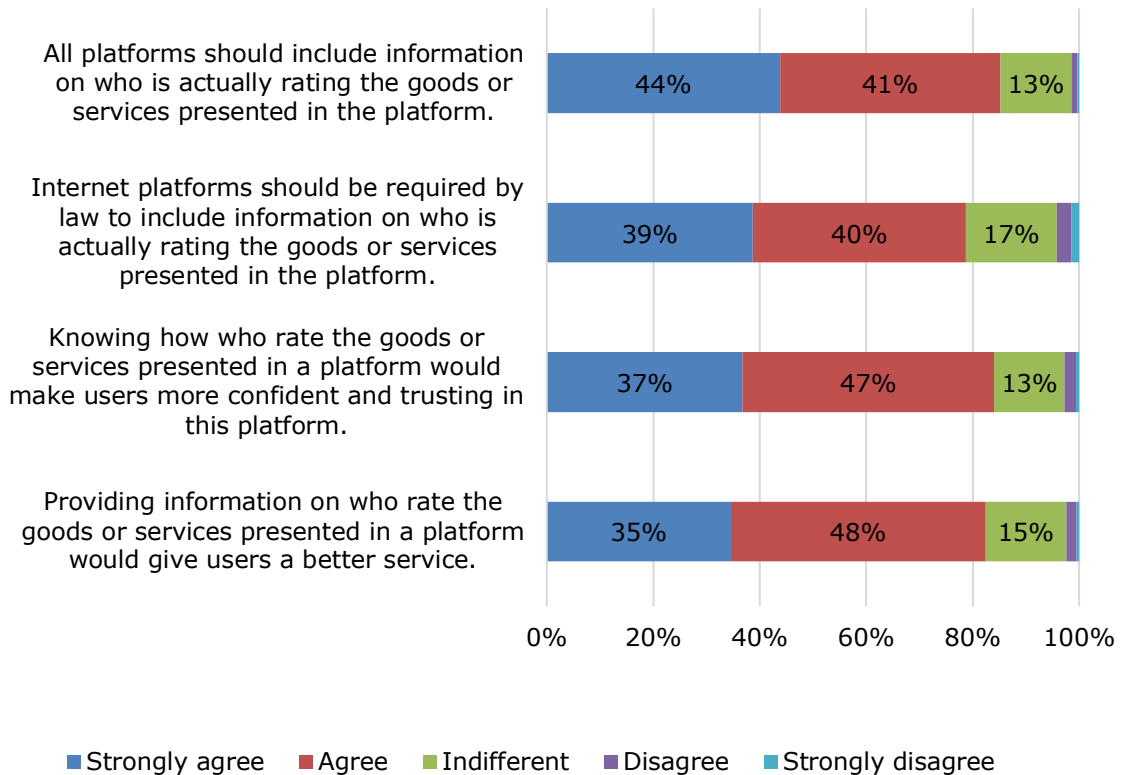
Around 86% of the respondents (n=1030) believe that knowing who was rating the hotel made them more confident and trusting in the platform (strongly agree and agree). Around 87% states that such information was important in their decision (strongly agree and agree)



	Strongly agree	Agree	Indifferent	Disagree	Strongly disagree
...made me more confident and trusting in this platform	38%	48%	12%	1%	1%
...was important in my decision	40%	47%	10%	2%	1%

Source: Q2a03, Q2a04

All respondents (n=1601) were asked about information provided by the platform. There is a general consensus that platforms should include such information (85% agree or strongly agree), that it should be subject to legislation (79% agree or strongly agree), that this would make users more confident and trusting in platforms (84% agree or strongly agree), and in general that this would translate in a better service for users (83% agree or strongly agree).





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	Strongly agree	Agree	Indifferent	Disagree	Strongly disagree
All platforms should include information on who is actually selling the goods or services presented in the platform	44%	41%	13%	1%	1%
Internet platforms should be required by law to include information on who is actually selling the goods or services presented in the platform	39%	40%	17%	3%	1%
Knowing who is actually selling the goods or services presented in the platform would make users more confident and trusting in this platform	37%	47%	13%	2%	1%
Providing information on who is actually selling the goods or services presented in a platform would give users a better service	35%	48%	15%	2%	0%

*Source: Q2b05, Q2b06, Q2b07, Q2b08*

## Annex 7. Factor analysis

Factor analysis (FA) is used mostly for data reduction purposes to summarise the information contained in a large number of variables into a smaller number of factors. Basically, FA investigates whether a number of variables of interest are related through some linear function to a smaller number of unobservable factors (latent variables or constructs). In the special vocabulary of FA, the parameters of these linear functions are referred to as factor loadings.

Factor analysis usually proceeds in three stages. The first stage comprises the analysis of the correlation matrix with two different tests: Bartlett's test of sphericity and Kaiser Meyer Olkin. Bartlett's test of sphericity is used to test the hypothesis that the correlation matrix is an identity matrix (all diagonal terms are one and all off-diagonal terms are zero). The significance should be less than .05 because all items should be perfectly correlated with themselves (one) and have some level of correlation with the other items. If they are not correlated with the other items then they cannot be part of the same factor. Kaiser Meyer Olkin (KMO) is a measure of sampling adequacy and is used to compare the magnitudes of the observed correlation coefficients in relation to the magnitudes of the partial correlation coefficients. Large KMO values are good because correlations between pairs of variables (i.e. potential factors) can be explained by the other variables. If the sum of the partial correlation coefficients between all pairs of variables is small when compared to the observed correlation coefficients, the KMO measure will be close to one. If KMO is below .5, then FA is not recommended. A partial correlation is a measure of the strength of the relationship between any two variables when the other variables are held constant.

In the second stage, one set of loadings is calculated which yields theoretical variances and covariance that fit the observed ones as closely as possible according to a certain criterion. These loadings, however, may not agree with the prior expectations, or may not lend themselves to a reasonable interpretation.

Thus, in the third stage, the first loadings are "rotated" in an effort to arrive at another set of loadings that fit equally well the observed variances and covariances but are more consistent with prior expectations or more easily interpreted. An optimal structure exists when all variables have high loadings only on a single factor. Variables that cross-load (load highly on two or more factors) are usually deleted unless theoretically justified or if the objective is strictly data reduction. A method widely used for determining a first set of loadings is the principal component method. This method seeks values of the loadings that bring the estimate of the total communality as close as possible to the total of the observed variances (the communality of a variable is the part of its variance that is explained by the common factors, while the specific variance is the part of the variance of the variable that is not accounted for by the common factors). Varimax rotation method, the most widely used for rotation, help the detection of factors each of which is related to few variables, and at the same time, it prevents the detection of factors influencing all variables.

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	1	2	3	4	5	6	7	8
Technical failure of website during ordering or payment	1							
Difficulties in finding information concerning guarantees and other legal rights	0.606	1						
Speed of delivery slower than indicated	0.487	0.539	1					
Final costs higher than indicated (e.g. higher delivery costs, unexpected transaction fees)	0.521	0.489	0.511	1				
Wrong or damaged goods/services delivered	0.504	0.458	0.483	0.564	1			
Problems with fraud encountered (e.g. no goods/services received at all, misuse of credit card details, etc.)	0.531	0.438	0.426	0.558	0.606	1		
Complaints and redress were difficult or no satisfactory response after complaint	0.513	0.516	0.495	0.559	0.593	0.639	1	
Lack of clarity about whether contracts are concluded with the online marketplace itself or with a third party supplier	0.488	0.567	0.479	0.538	0.504	0.541	0.59	1
Lack of clarity about who is responsible for the performance of the relevant contracts	0.489	0.565	0.473	0.541	0.517	0.561	0.599	0.836

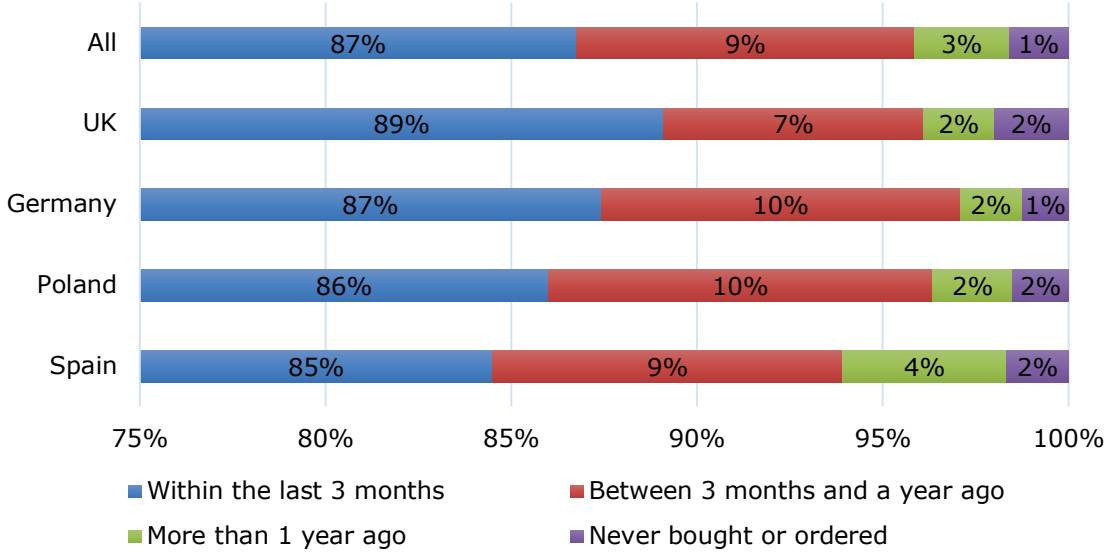
	Factor 1 Emphasis on the platform and its services, such as the product or value	Factor 2 Emphasis on the contractual identification
Technical failure of website during ordering or payment	0.755	
Wrong or damaged goods/services delivered	0.748	
Final costs higher than indicated (e.g. higher delivery costs, unexpected transaction fees)	0.706	
Speed of delivery slower than indicated	0.703	
Problems with fraud encountered (e.g. no goods/services received at all, misuse of credit card details, etc.)	0.671	
Complaints and redress were difficult or no satisfactory response after complaint	0.639	
Difficulties in finding information concerning guarantees and other legal rights	0.591	
Lack of clarity about who is responsible for the performance of the relevant contracts		0.888
Lack of clarity about whether contracts are concluded with the online marketplace itself or with a third party supplier		0.891
% Variance explained (67%)	59%	8%

*Note: Extraction Method: Principal Component Analysis. Rotation Method: Varimax with KMO 0.911 Bartlett Chi<sup>2</sup>24091 sig. 000.*

**Annex 8. Further complementary analysis**

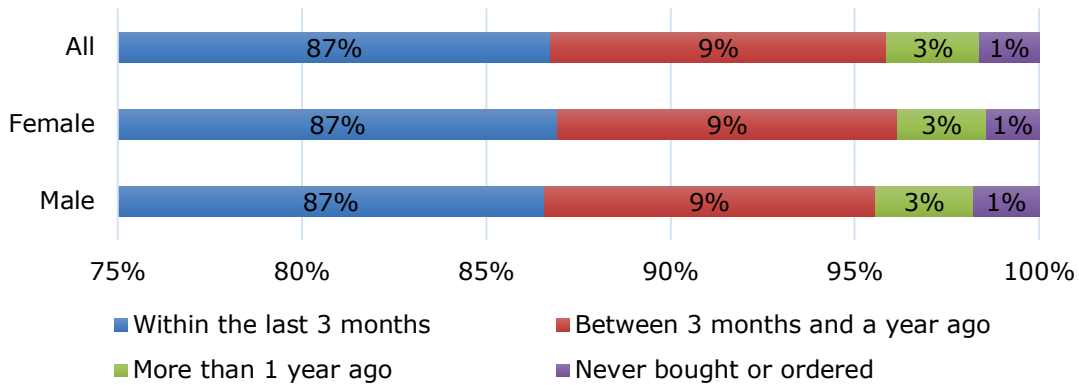
**When did you last buy or order goods or services for private use over the Internet characterisation**

The following figure shows that participants from the UK appear to be purchasing online more often (89% in the three months prior to the survey). Germany has average purchasing rate across the countries selected, while respondents from Poland and Spain have lower-than-average purchasing rates (86% and 85% respectively).



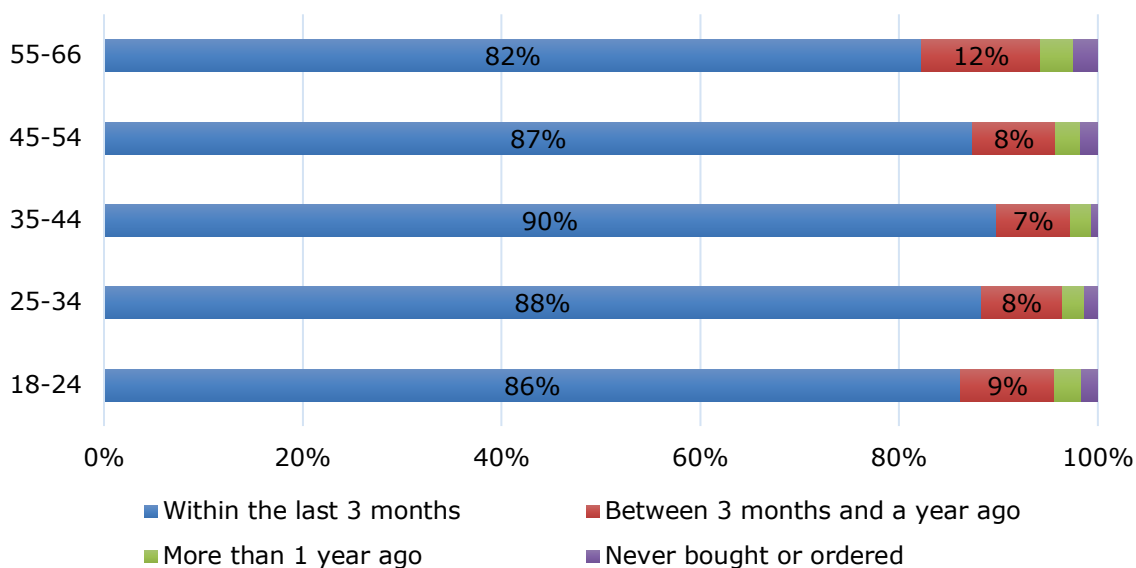
Source: Q1a05

The following figure shows no gender differences.



Source: Q1a05

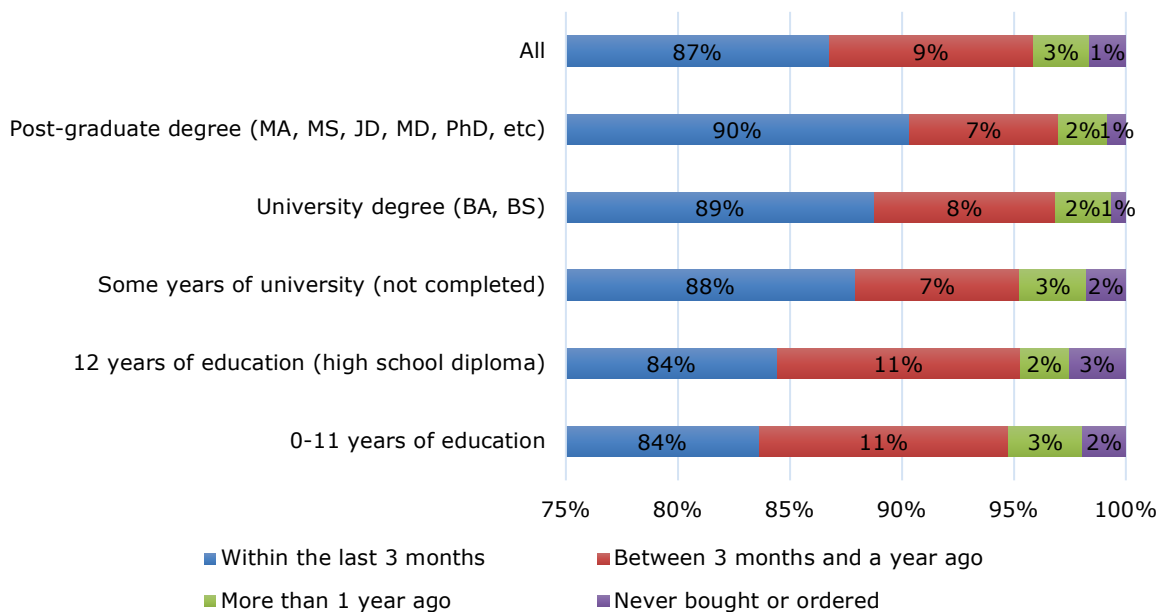
In addition, age group breakdowns suggest a slight generational digital divide. Older participants (aged 55 and older) have a lower-than-average share of purchasing in the three months prior to the survey (82%). The share of participants who recently purchased online is the largest in the 35-44 age group (90%), followed by the 25-34 age group (88%), the 45-54 age group (87%), and the 18-24 age group (86%).



	Within the last 3 months	Between 3 months and a year ago	More than 1 year ago	Never bought or ordered
55-66	82%	12%	3%	3%
45-54	87%	8%	3%	2%
35-44	90%	7%	2%	1%
25-34	88%	8%	3%	1%
18-24	86%	9%	3%	2%

Source: Q1a05

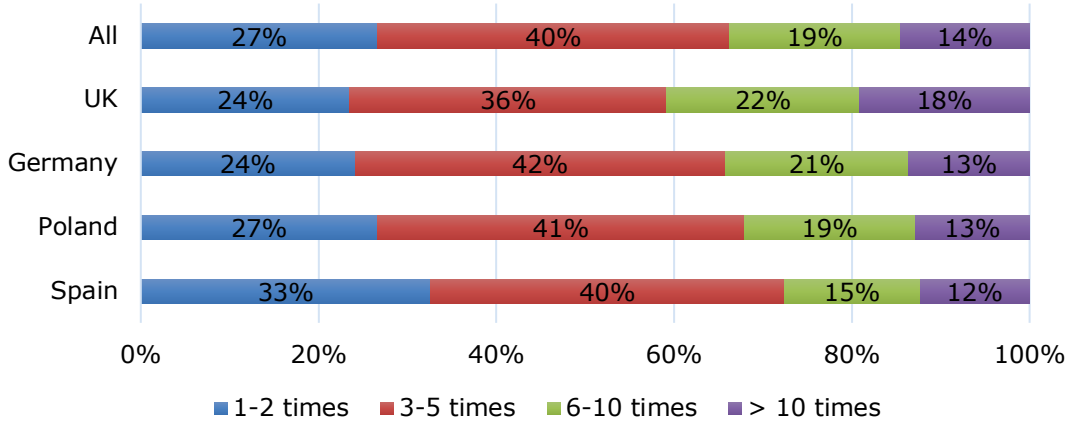
In terms of education, highly-educated respondents tend to use the internet to buy goods and services more frequently. The share of participants who bought over the internet in the three months prior to the survey is higher than the average among those with a post-graduate degree (90%), a Bachelor’s degree (89%), or with some years of university attended (87%).



Source: Q1a05

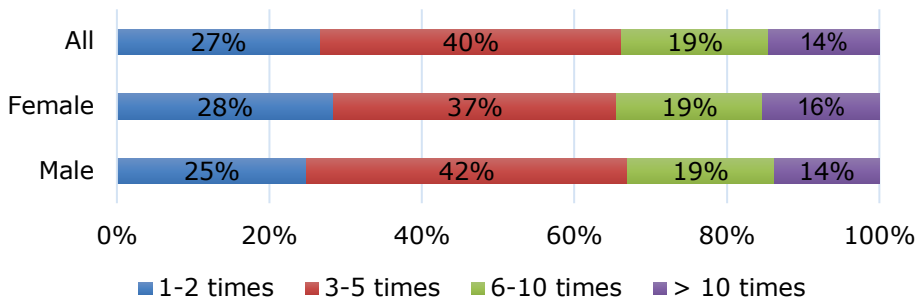
**How many times did you order or buy goods or services over the Internet for private use in the last 3 months characterisation**

The share of respondents who purchased online more than 10 times in the previous three months is the higher in the UK (18%), whereas in all other participating countries, the share is lower than the average.



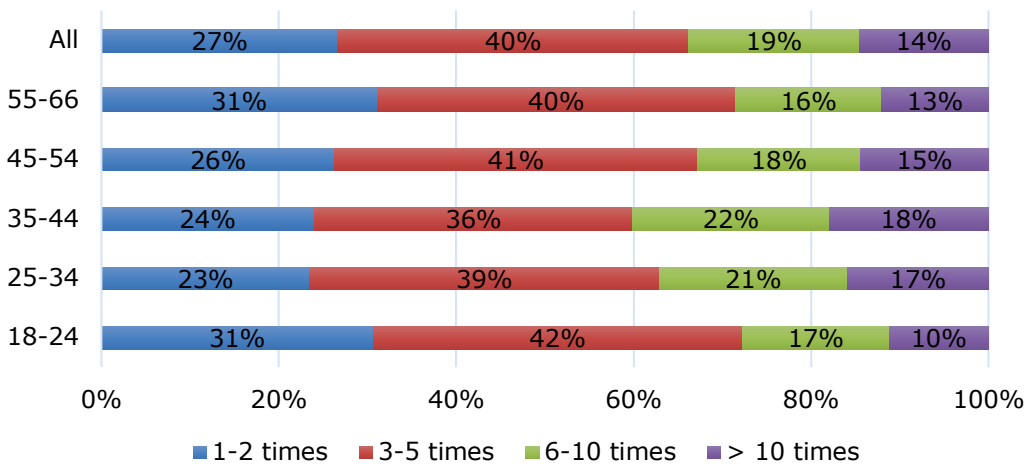
Source: Q1a06

The gender gap is negligible.



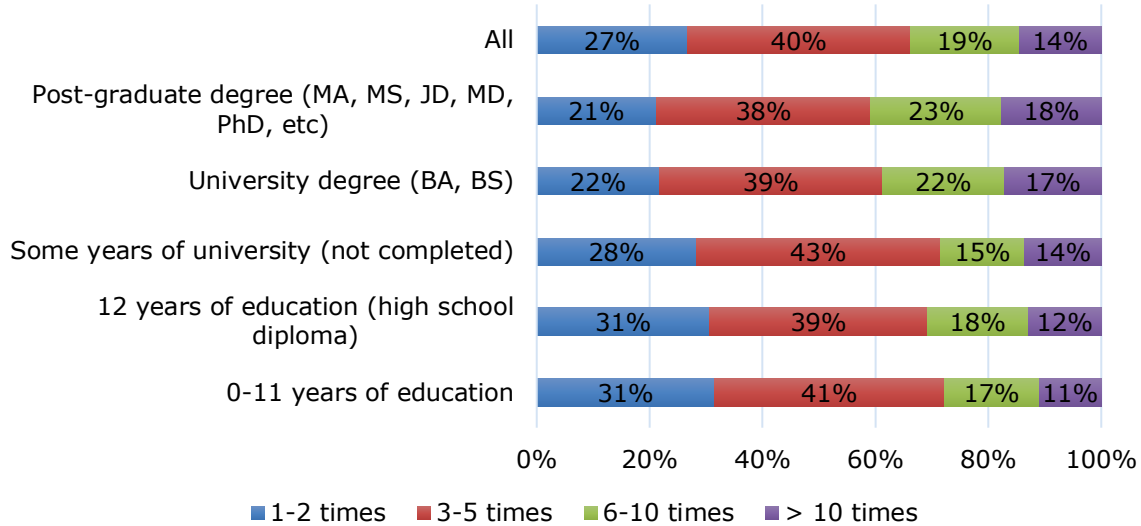
Source: Q1a06

Frequency of purchasing peaks in the 35-44 age group (40% having bought items more than six times), and drops among both younger and older participants (the value is 27% and 29% in the 18-24 and the 55-66 age groups).



Source: Q1a06

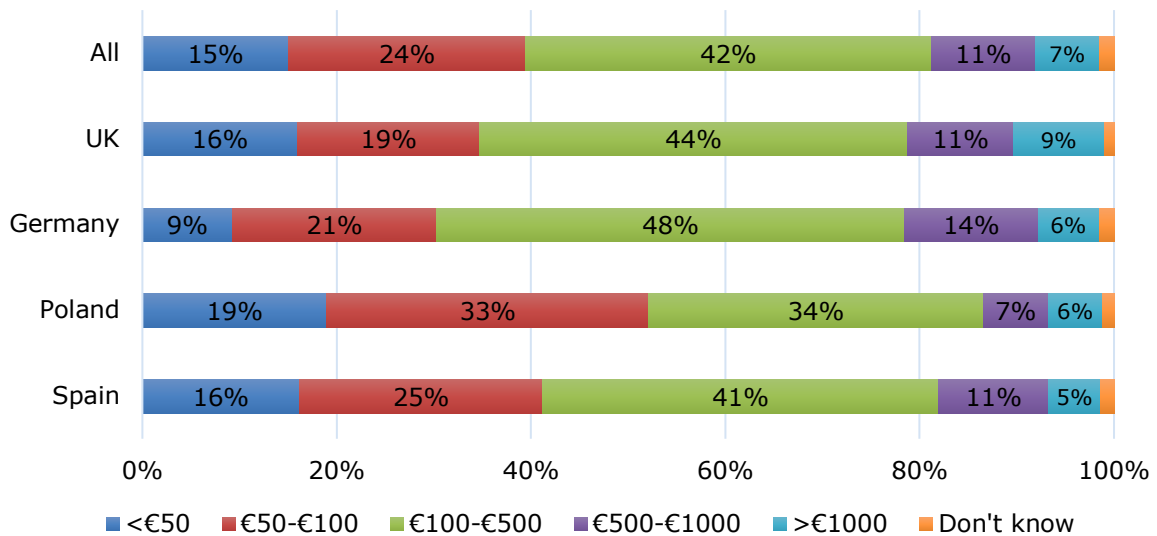
Among higher educated participants, frequent buyers (with six or more purchases) are more common than among those with less education. Among Master’s degree holders, around 41% of those who purchased over the last three months did so more than six times. Among Bachelor’s degree holders, around 39% of those who purchased over the last three months did so more than six times. On the other hand, the share of one- or two-time buyers is higher than average among participants with a high school diploma or less.



Source: Q1a06

**How much as an estimate did you spend buying or ordering goods or services over the Internet (excluding shares or other financial services) for private use in the last 3 months characterisation**

Shopping for expensive goods or services (over €1,000) is relatively higher in the UK (9%). Shopping for commodities, or goods or services priced at €50 or less, is relatively more common among Polish participants (19%) and relatively less common among German participants (9%). More specifically, in Poland, more than half of respondents (52%) spends €100 or less online.

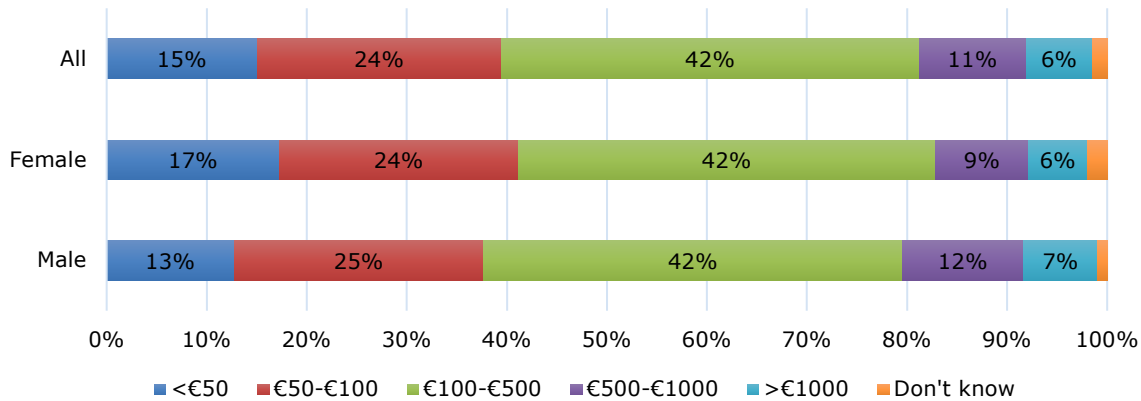




	<€50	€50-€100	€100-€500	€500-€1000	>€1000	Don't know
All	15%	24%	42%	11%	6%	2%
UK	16%	19%	44%	11%	9%	1%
Germany	9%	21%	48%	14%	6%	2%
Poland	19%	33%	34%	7%	6%	1%
Spain	16%	25%	41%	11%	5%	2%

Source: Q1a07

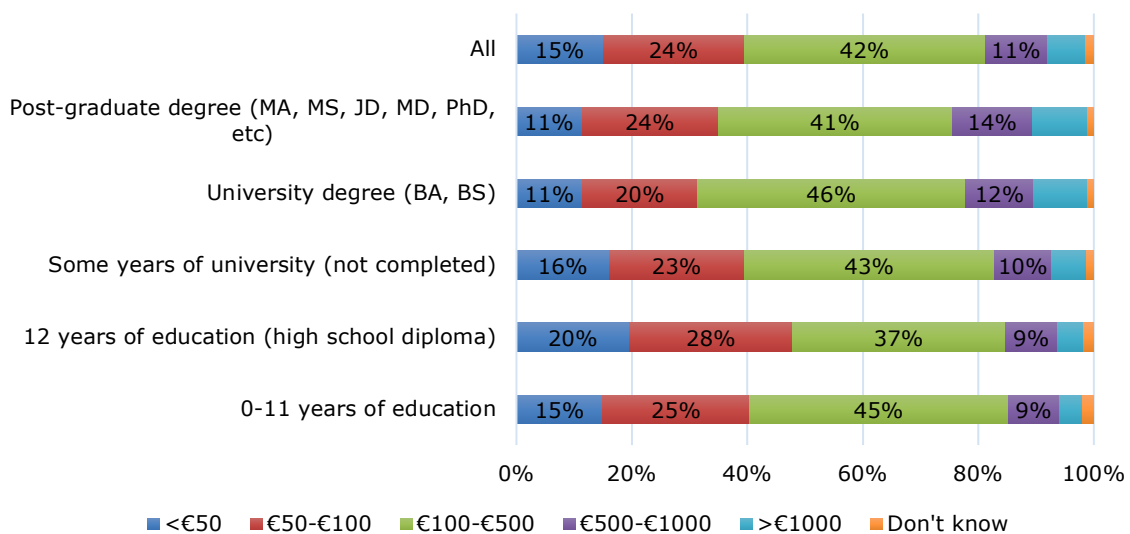
Female participants tend to use the internet to buy less expensive goods or services (41% at €100 or less, versus 38% of male participants) whereas male participants tend to use the internet to buy more expensive goods or services (19% at €500 or more, versus 15% of female participants).



	<€50	€50-€100	€100-€500	€500-€1000	>€1000	Don't know
All	15%	24%	42%	11%	6%	2%
Female	17%	24%	42%	9%	6%	2%
Male	13%	25%	42%	12%	7%	1%

Source: Q1a07

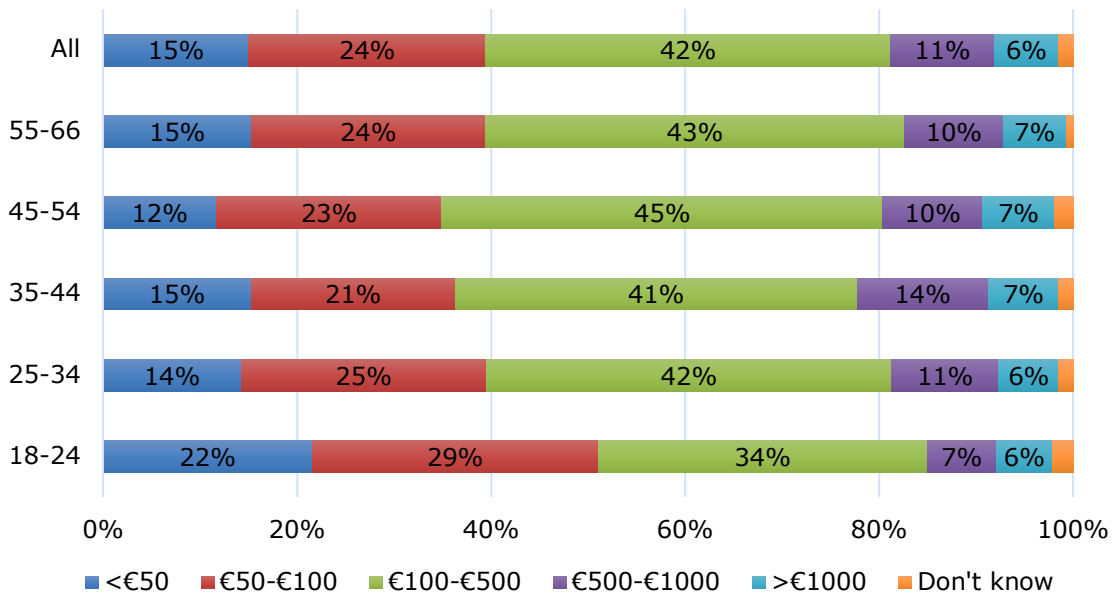
Higher educated participants tend to use the internet to buy more expensive goods. Results are above than average (which is 18% for €500 or more) among those with a post-graduate degree (23%) and those with a bachelor's degree (21%). Participants with lower education levels tend to use the internet to buy less expensive goods. Results are above average (which is 39% for €100 or less) among those with a high school diploma (48%) or less (40%).



	<€50	€50-€100	€100-€500	€500-€1000	>€1000	Don't know
All	15%	24%	42%	11%	6%	2%
0-11 years of education	11%	24%	41%	14%	9%	1%
12 years of education (high school diploma)	11%	20%	46%	12%	9%	2%
Some years of university (not completed)	16%	23%	43%	10%	6%	2%
University degree (BA, BS)	20%	28%	37%	9%	4%	2%
Post-graduate degree (MA, MS, JD, MD, PhD)	15%	25%	45%	9%	4%	2%

Source: Q1a07

Compared to the average, younger participants tend to buy less expensive goods or services: 51% of participants in the 18-24 age group spent less than €100. Respondents in the 35-44 age group tend to buy more expensive goods or services (21% spent more than €500) compared to the average (18%).

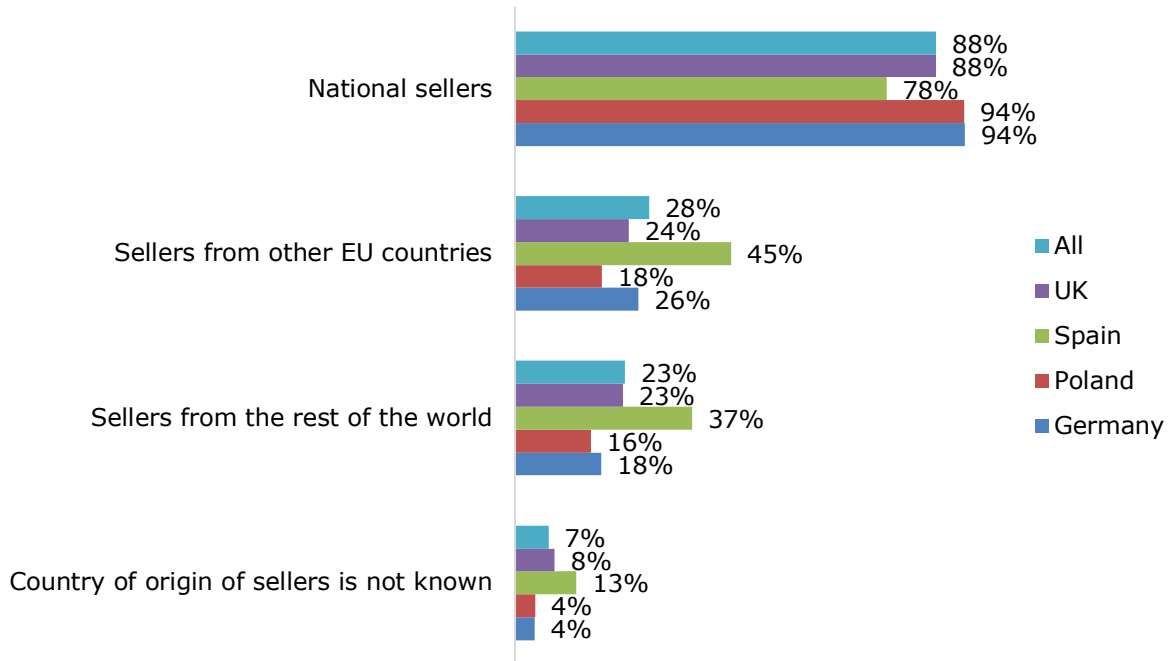


	<€50	€50-€100	€100-€500	€500-€1000	>€1000	Don't know
All	15%	24%	42%	11%	6%	2%
55-66	15%	24%	43%	10%	7%	1%
45-54	12%	23%	45%	10%	7%	3%
35-44	15%	21%	41%	14%	7%	2%
25-34	14%	25%	42%	11%	6%	2%
18-24	22%	29%	34%	7%	6%	2%

Source: Q1a07

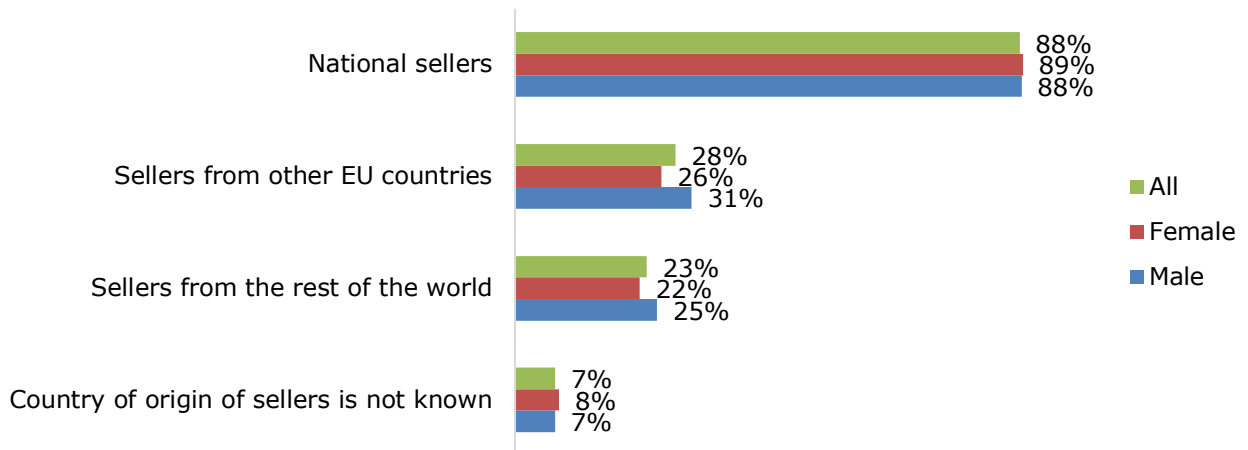
**From whom did you buy or order goods or services for private use over the Internet in the last 12 months? characterisation**

The share of participants who ordered from national sellers is the highest in Germany and Poland (94%) and the lowest in Spain (78%). Conversely, participants from Spain report the highest shares relative to buying from foreign sellers, both from other EU Member States (45%) and for third countries (37%). Participants from Poland report the lowest shares for third-country (16%) and other EU country (18%) purchases.



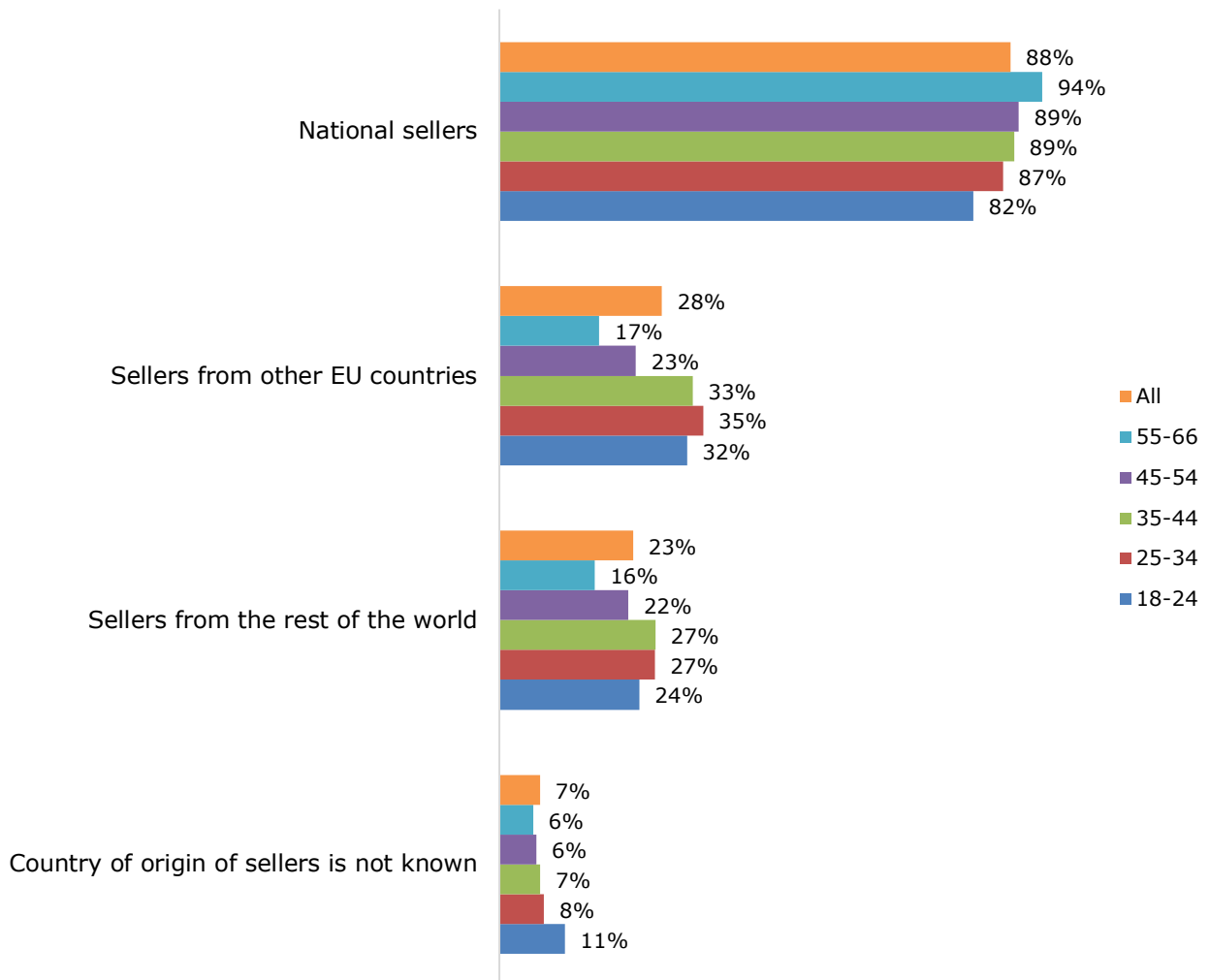
Source: Q1b09

The gender difference is negligible



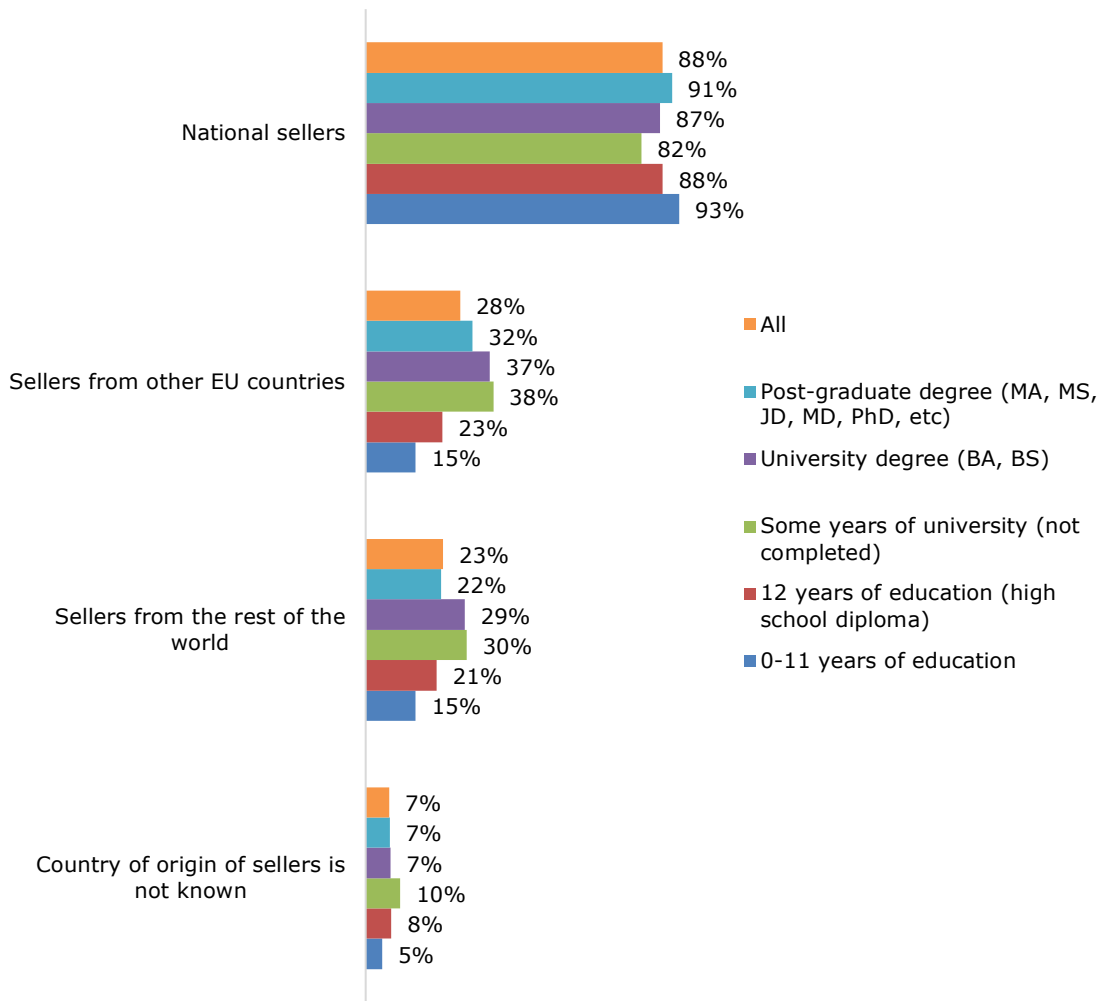
Source: Q1b09

The share of participants who ordered from national sellers is the highest among older people (94% in the 55-66 age group). Older participants are those who tend to shop the least from foreign sellers (17% from other EU countries, 16% from third countries). Conversely, the share of buyers from foreign sellers is the highest among younger participants.



Source: Q1b09

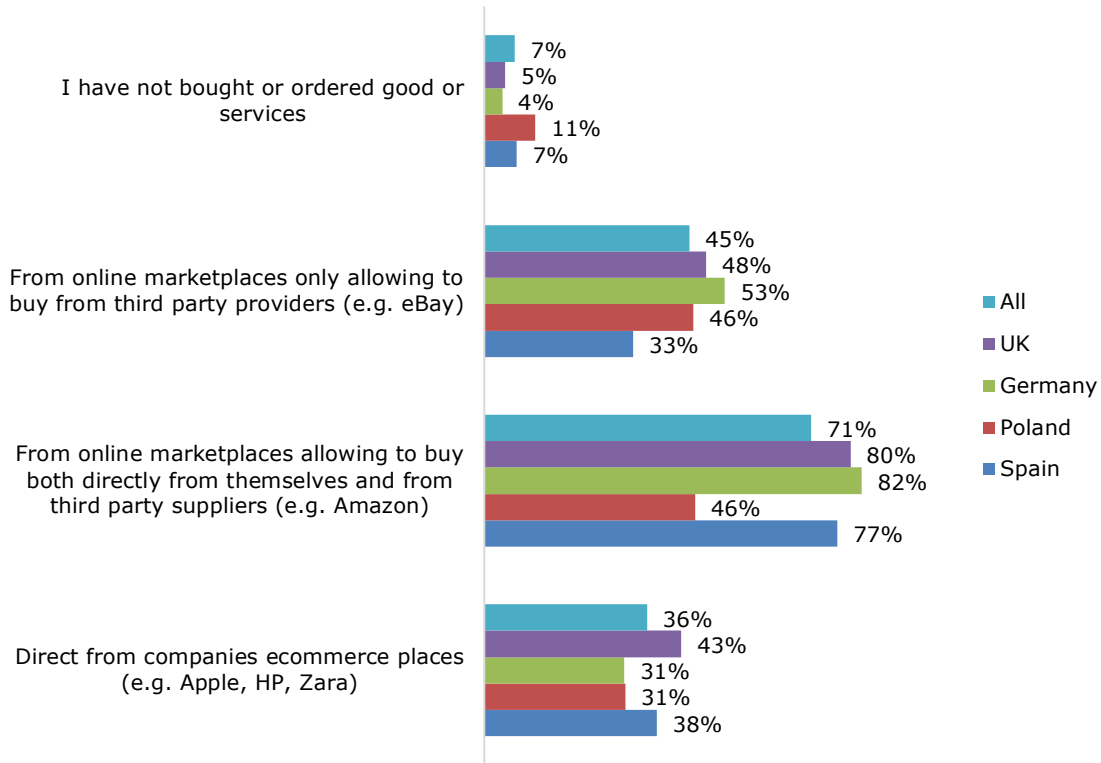
The share of participants who ordered from foreign sellers is higher among more educated people, peaking at 38% (other EU country) and 30% (third country) among those with some years of university. Conversely, less educated people buy more than others from national sellers (93% among those with 0-11 years of education).



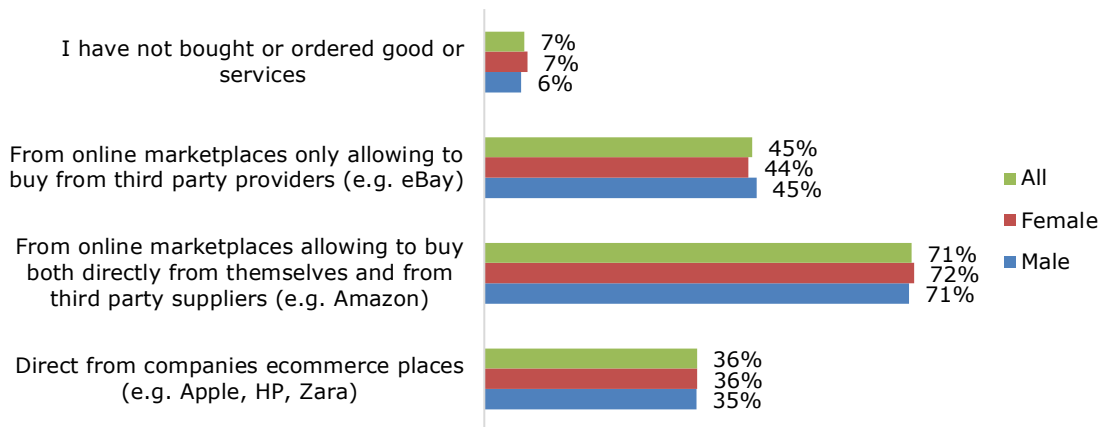
Source: Q1b09

**Where did you buy or order goods or services for private use over the Internet in the last 12 months characterisation**

The share of participants buying from online marketplaces that allow in-house and third-party purchase (e.g. Amazon) is the highest in Germany (82%) and the UK (80%), and the lowest in Poland (46%). Buying from marketplaces that only offer third-party purchase, such as eBay, is likewise more popular among German participants (53%), and less popular among Spanish participants (33%). Gender differences are negligible.

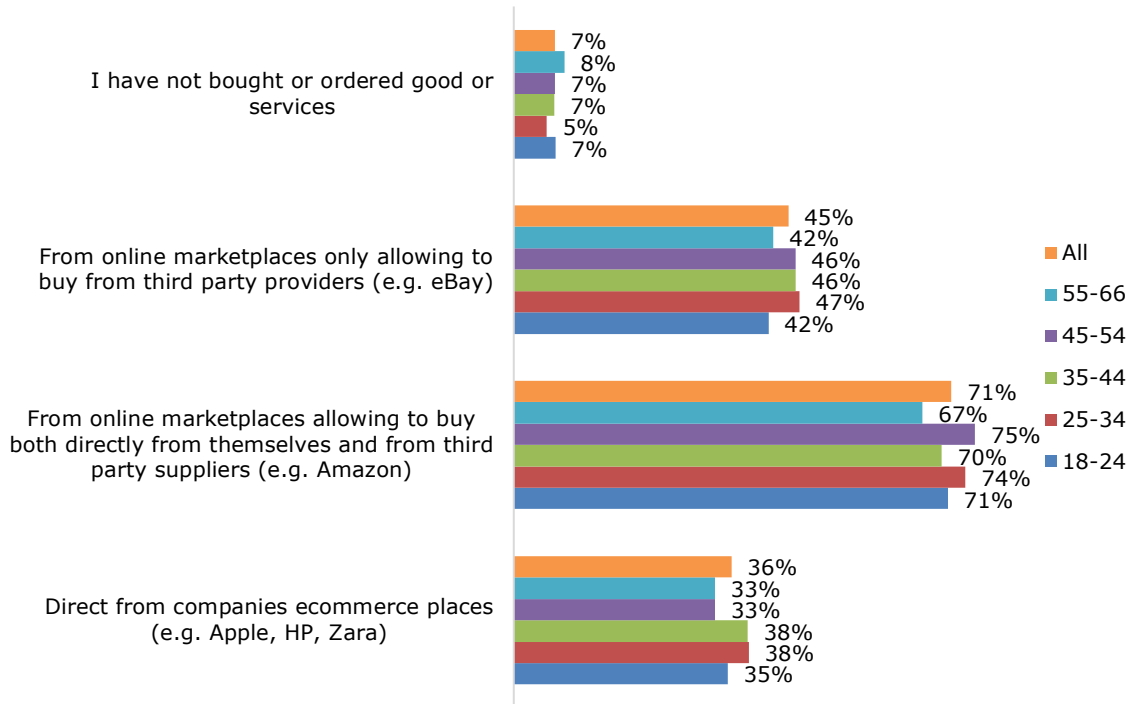


Source: Q2b09



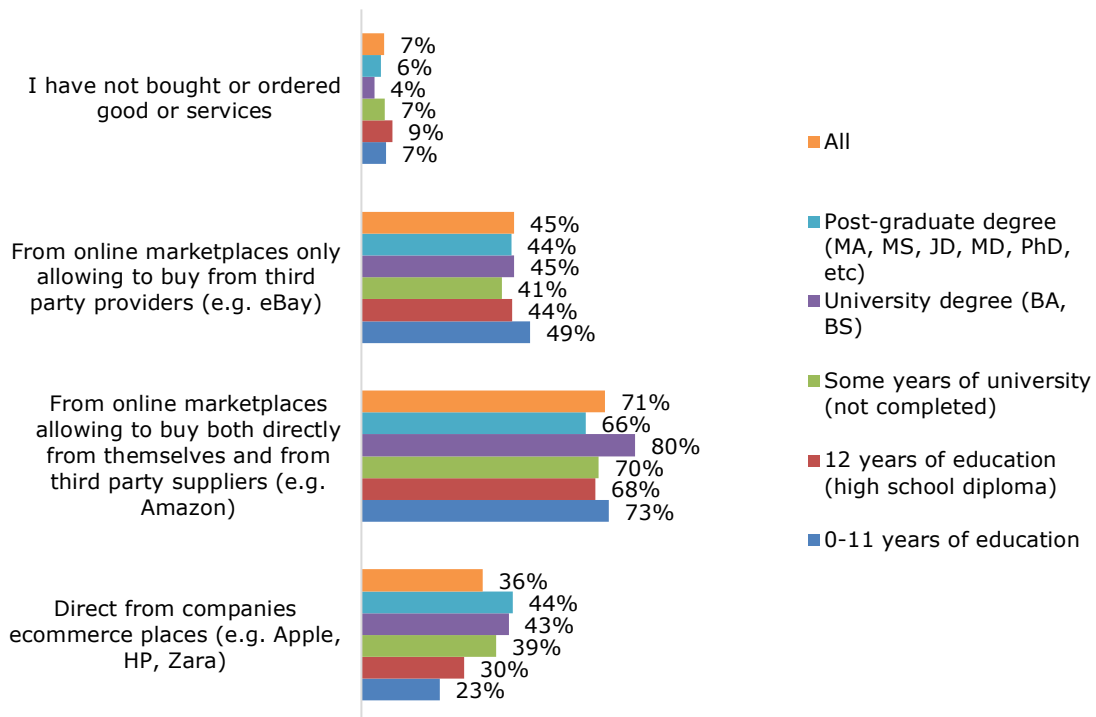
Source: Q2b09

The share of participants buying from online marketplaces that allow in-house and third-party purchase (e.g. Amazon) is the highest among participants in the 45-54 age group (75%) and the lowest among those in the 55-66 age group (67%). Buying from company ecommerce places (e.g. Apple store) is slightly more popular among younger participants in the (38% in the 25-34 and 35-44 age groups).



Source: Q2b09

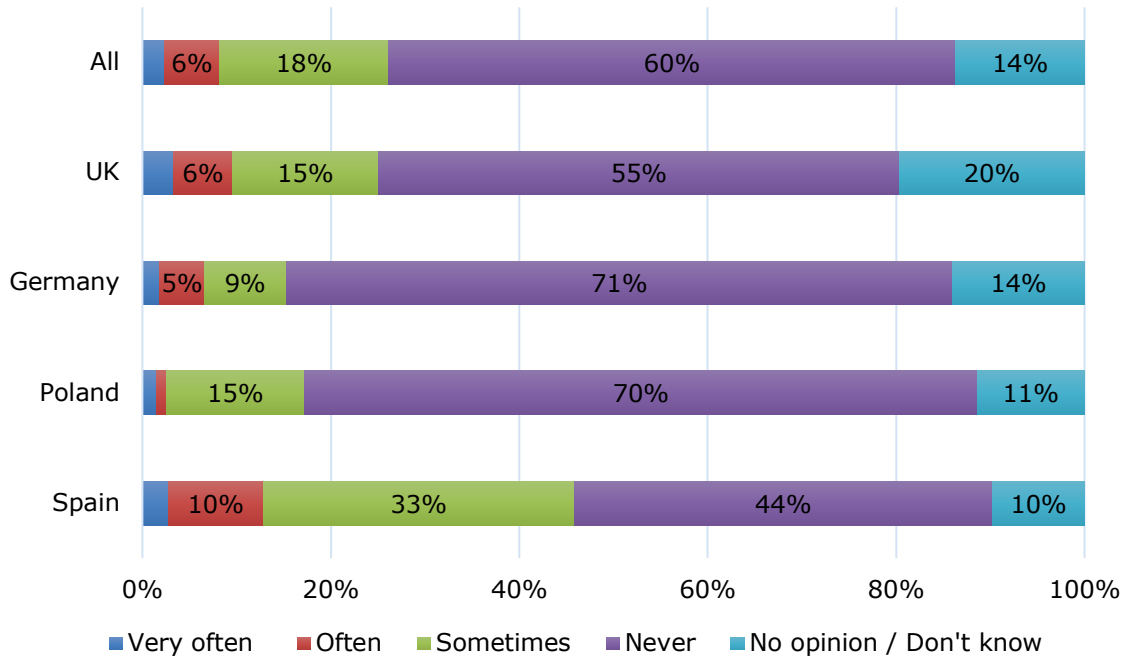
The share of participants who bought from online marketplaces that allow in-house and third-party purchase (e.g. Amazon) is higher among more educated participants (80% among those with a Bachelor’s Degree). The share of participants buying from company ecommerce places (such as the Apple store) increases with the level of education, peaking at 44% among post-graduates from 32% among those with less than 12 years of education.



Source: Q2b09

**Personally experienced problems with getting individual redress when in a situation of unfair commercial practices, or experiencing problems because a foreign retailer did not sell to their countries characterisation**

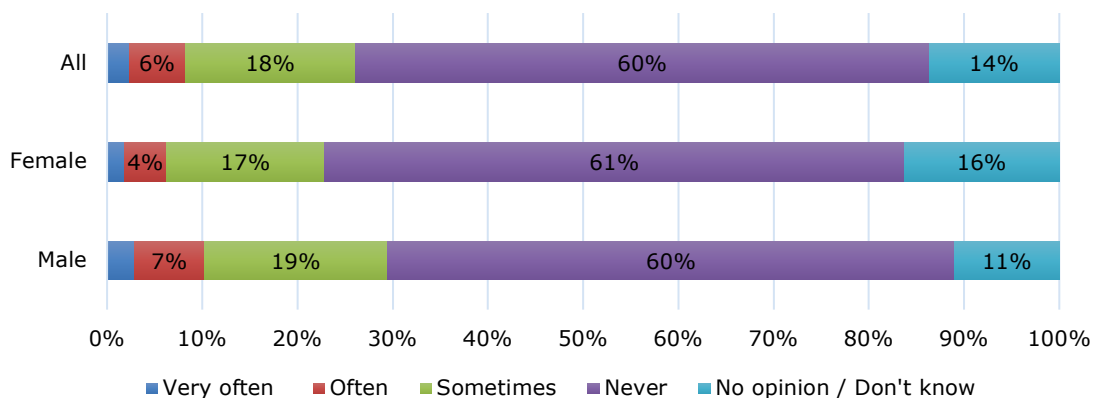
With regards to the statement “How often have you personally suffered detriment when concluding contracts for online services for which you do not pay with money?” the share of participants never suffering detriment is highest in Germany (71%), followed by Poland (70%). Conversely, less than half of respondents in Spain (44%) has never suffered detriment. In Spain, the share of respondents who have experienced such issue often or very often is the highest (13%, compared to 8% overall).



	Very often	Often	Sometimes	Never	No opinion / Don't know
All	2%	6%	18%	60%	14%
UK	4%	6%	15%	55%	20%
Germany	1%	5%	9%	71%	14%
Poland	2%	2%	15%	70%	11%
Spain	3%	10%	33%	44%	10%

Source: Q1a12

The share is higher among males (10%) than females (6%).

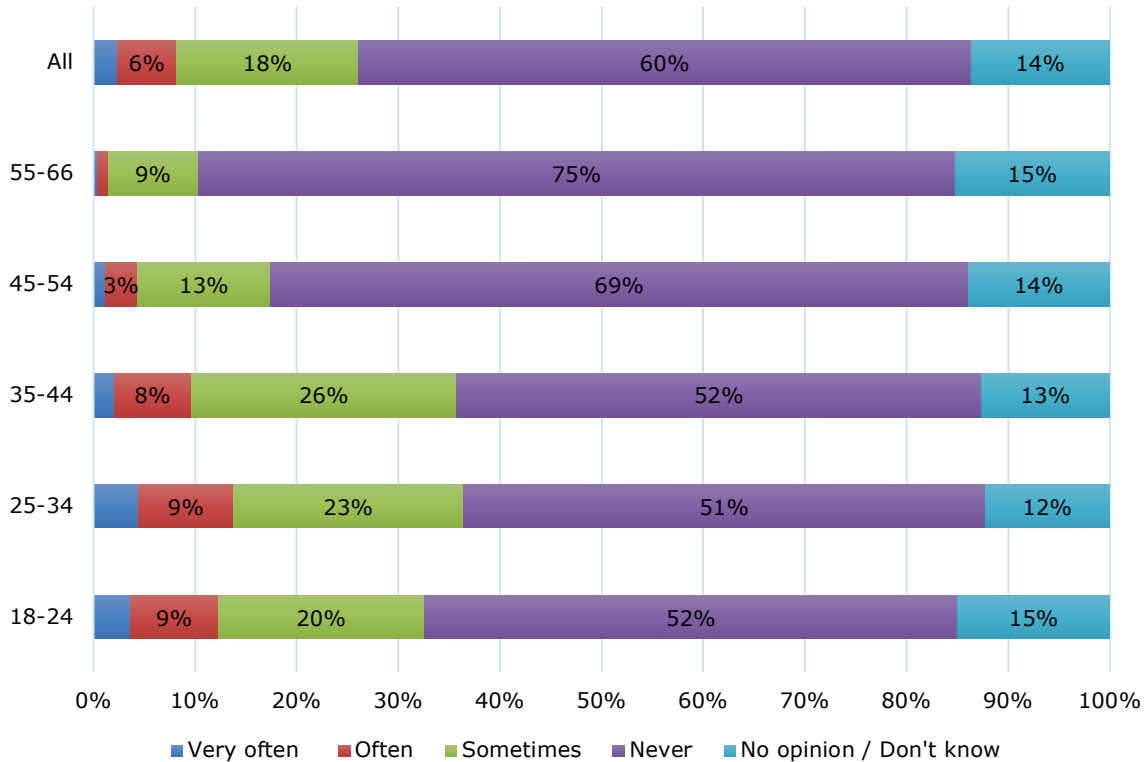




	Very often	Often	Sometimes	Never	No opinion / Don't know
All	2%	6%	18%	60%	14%
Female	2%	4%	17%	61%	16%
Male	3%	7%	19%	60%	11%

Source: Q1a12

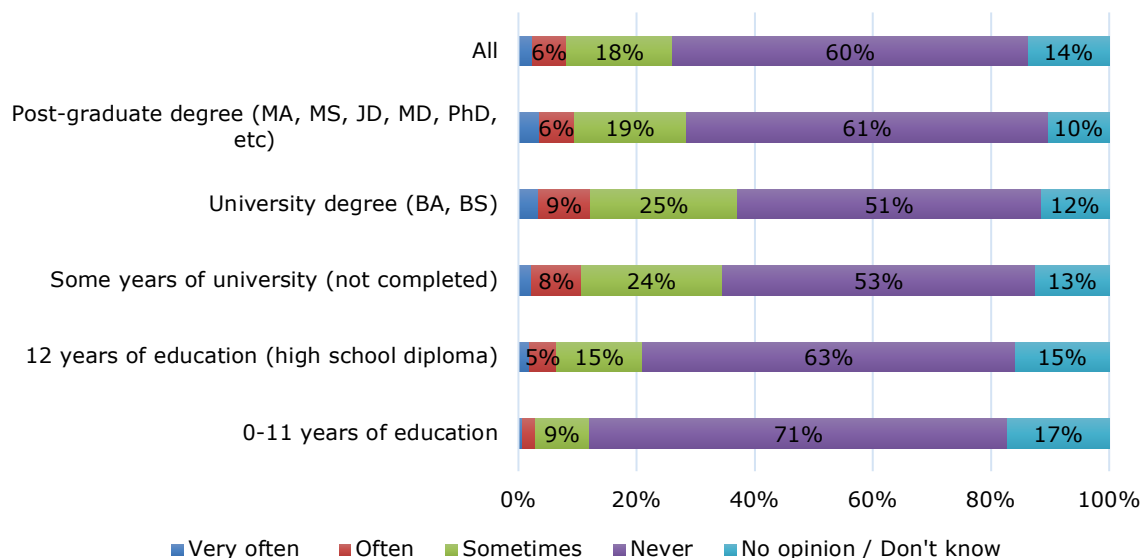
Older people, on average, suffer less while purchasing online. Around three-fourth of the total respondents aged 55 or older have never suffered this detriment. Conversely, the share lowers to around half among those younger than 45: 52% in the 35-44 age group, 52% in the 25-34 age group, and 52% in the 18-24 age group.



	Very often	Often	Sometimes	Never	No opinion / Don't know
All	2%	6%	18%	60%	14%
55-66	0%	1%	9%	75%	15%
45-54	1%	3%	13%	69%	14%
35-44	1%	8%	26%	52%	13%
25-34	5%	9%	23%	51%	12%
18-24	4%	9%	20%	52%	15%

Source: Q1a12

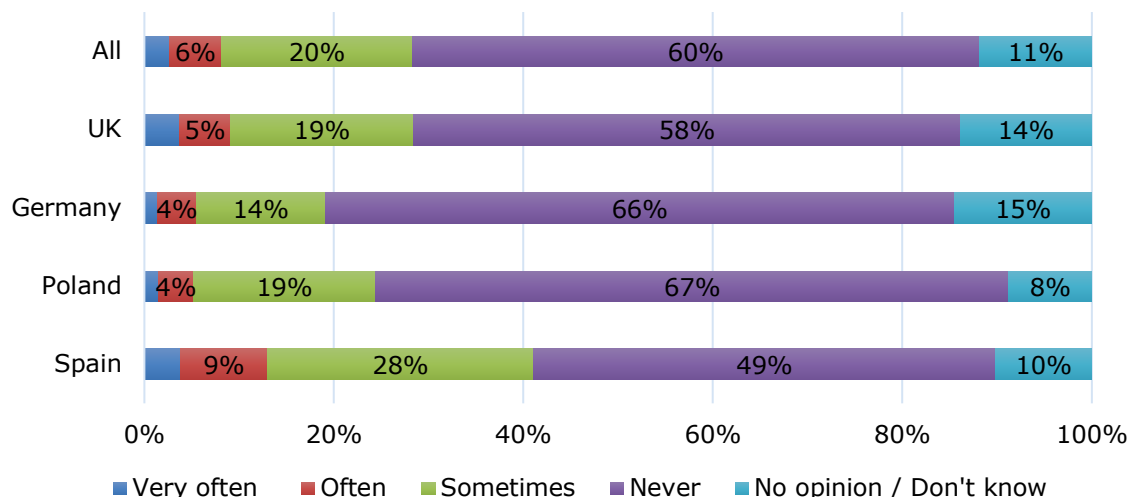
These issues tend to occur more often among more educated respondents. The share of respondents who at least sometimes suffered detriment (26% on average) is the highest for those with a university degree (37%), followed by those with some years of university (34%) and those with a post-graduate degree (29%), and is the lowest among those without a high school diploma (12%).



	Very often	Often	Sometimes	Never	No opinion / Don't know
All	2%	6%	18%	60%	14%
Post-graduate degree (MA, MS, JD, MD, PhD, etc)	4%	6%	19%	61%	10%
University degree (BA, BS)	3%	9%	25%	51%	12%
Some years of university (not completed)	2%	8%	24%	53%	13%
12 years of education (high school diploma)	2%	5%	15%	63%	15%
0-11 years of education	1%	2%	9%	71%	17%

Source: Q1a12

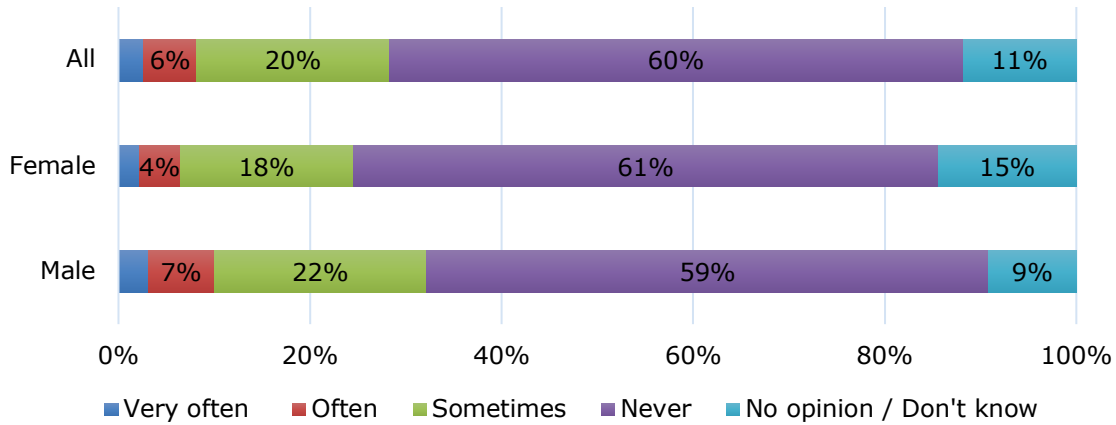
With regards to the statement “**How often have you personally experienced problems with getting individual redress when you have been victim of unfair commercial practices?**” the share of participants never experiencing problems is highest in Poland (67%), followed by Germany (66%). Conversely, less than half of respondents in Spain (49%) has never experienced such problems. In Spain, the share of respondents who have experienced such problems often or very often is the highest (13%, compared to 9% overall).



	Very often	Often	Sometimes	Never	No opinion / Don't know
All	3%	6%	20%	60%	11%
UK	4%	5%	19%	58%	14%
Germany	1%	4%	14%	66%	15%
Poland	2%	4%	19%	67%	8%
Spain	4%	9%	28%	49%	10%

Source: Q1a13

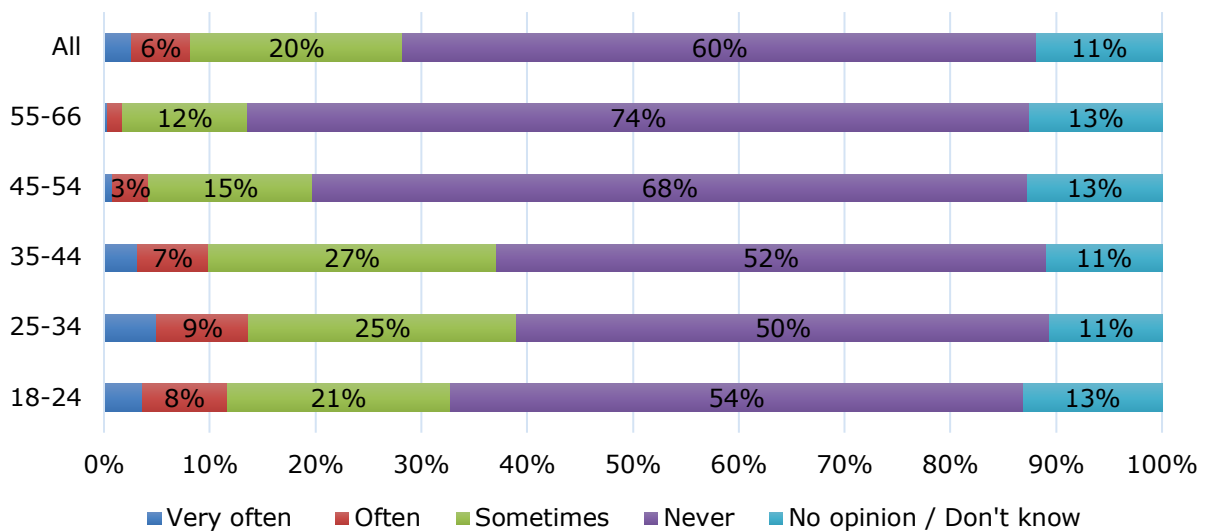
The share is higher among males (32%) than females (24%).



	Very often	Often	Sometimes	Never	No opinion / Don't know
All	3%	6%	20%	60%	11%
Female	2%	4%	18%	61%	15%
Male	3%	7%	22%	59%	9%

Source: Q1a13

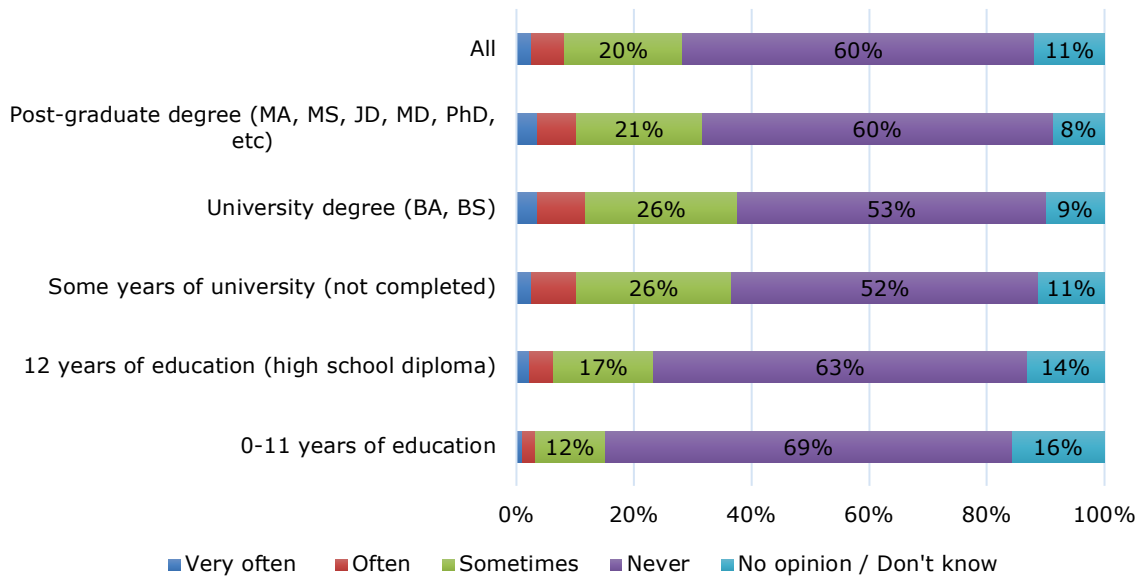
Older people, on average, experience fewer problems while purchasing online. Around three-fourth of the total respondents aged 55 or older (74%) have never experienced such problems. Conversely, the share lowers to around half among those younger than 45: 52% in the 35-44 age group, 50% in the 25-34 age group, and 54% in the 18-24 age group.



	Very often	Often	Sometimes	Never	No opinion / Don't know
All	3%	6%	20%	60%	11%
55-66	0%	1%	12%	74%	13%
45-54	1%	3%	15%	68%	13%
35-44	3%	7%	27%	52%	11%
25-34	5%	9%	25%	50%	11%
18-24	4%	8%	21%	54%	13%

Source: Q1a13

These issues tend to occur more often among more educated respondents. The share of respondents who at least sometimes experienced problems (29% on average) is the highest for those with a university degree (38%), followed by those with some years of university (33%) and those with a post-graduate degree (32%), and is the lowest among those without a high school diploma (15%).

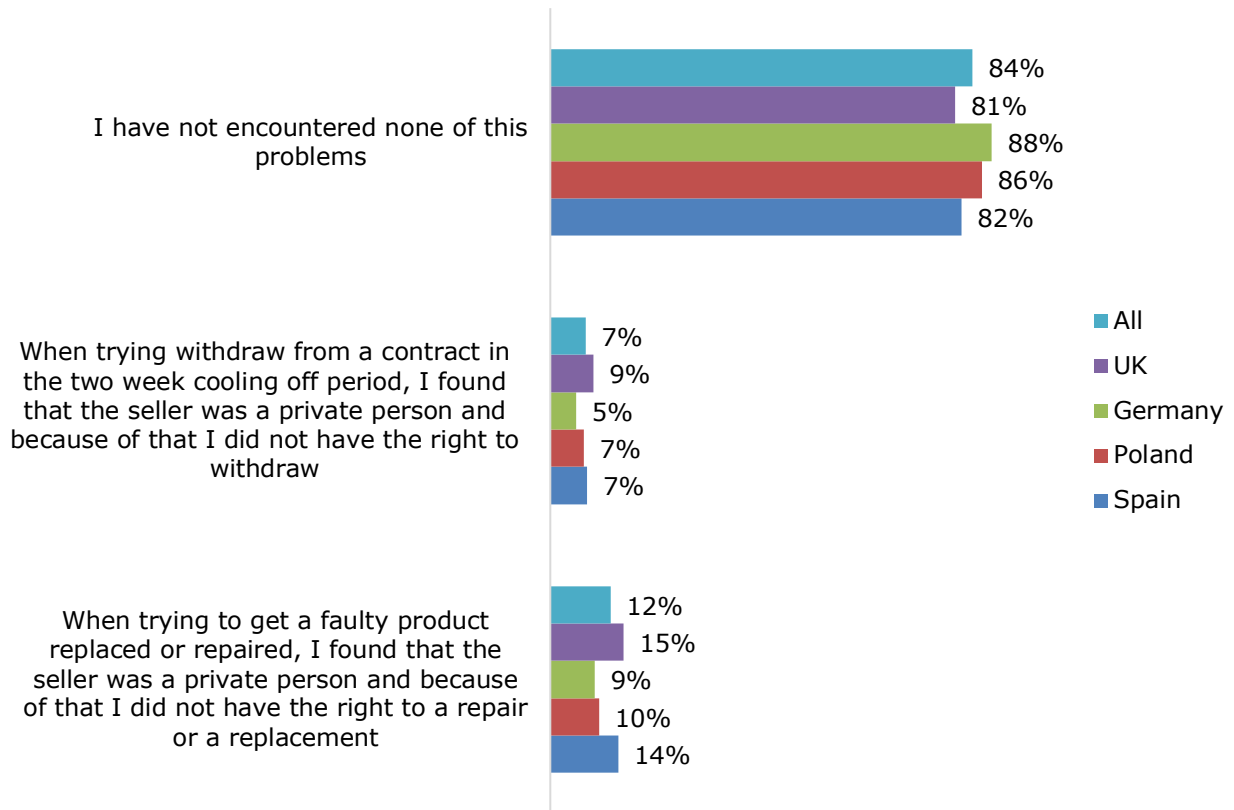


	Very often	Often	Sometimes	Never	No opinion / Don't know
All	3%	6%	20%	60%	11%
Post-graduate degree (MA, MS, JD, MD, PhD, etc)	4%	7%	21%	60%	8%
University degree (BA, BS)	4%	8%	26%	53%	9%
Some years of university (not completed)	3%	8%	26%	52%	11%
12 years of education (high school diploma)	2%	4%	17%	63%	14%
0-11 years of education	1%	3%	12%	69%	16%

Source: Q1a13

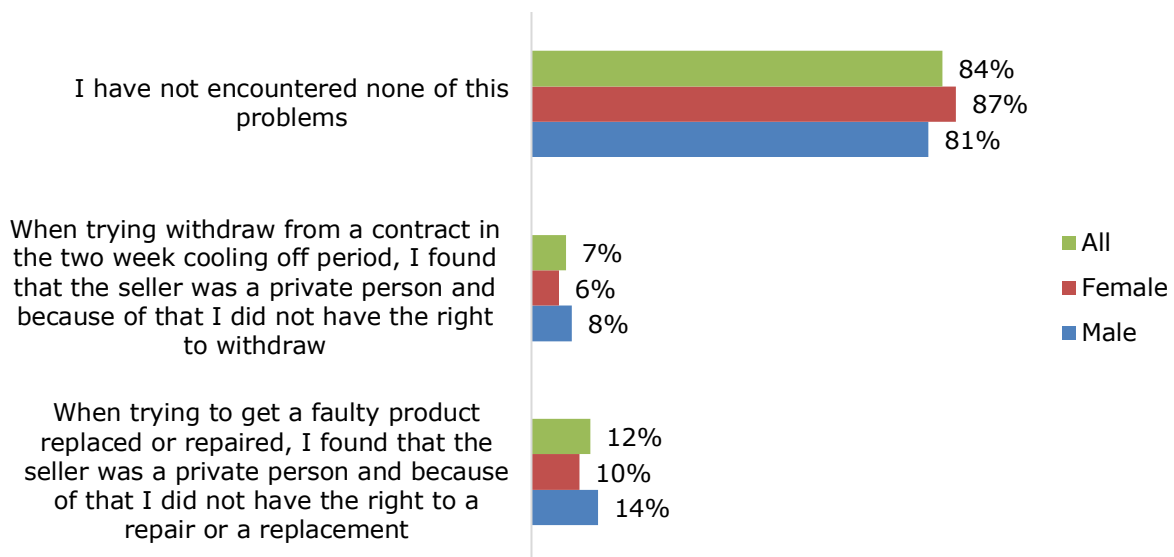
**Problems related to the identification of contractual parties**

The share of participants never encountering problems upon finding out the contractual party identity is highest in Germany (88%), followed by Poland (86%). Conversely, around 81% of participants in the UK (81%) have never encountered such problem.



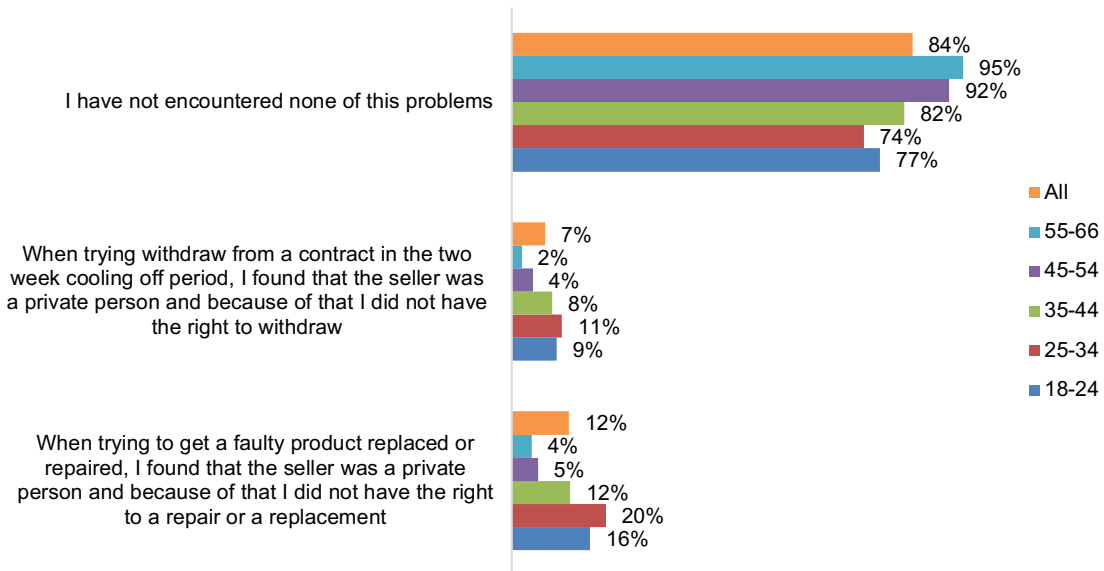
Source: Q2b10

Country and gender differences are negligible (see figures below)



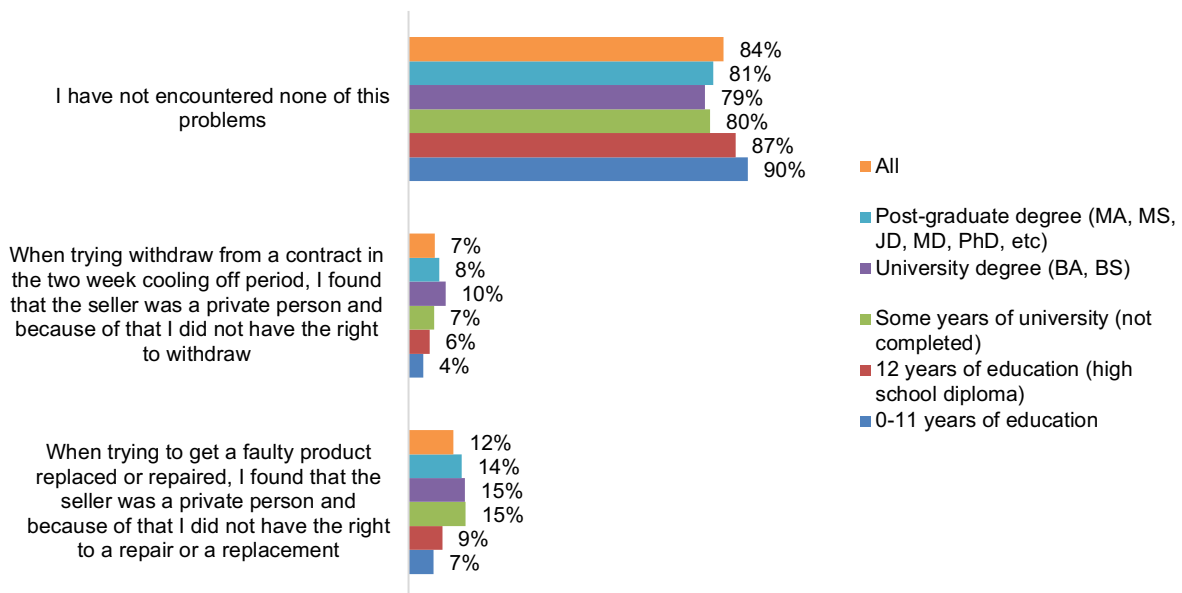
Source: Q2b10

The share of participants who tried unsuccessfully to get a faulty product replaced or repaired due to the seller being a third party is the highest in the 25-34 age group (20%), followed by the 18-24 age group (16%). Conversely, less than 5% of participants in the 55-66 age group encountered such problem. As for participants who could not withdraw from a contract in the two-week cooling off period, the share is similarly the highest among younger participants (11% in the 25-34 age group) compared to older participants (2% in the 55-66 age group).



Source: Q2b10

The share of participants who tried unsuccessfully to get a faulty product replaced or repaired due to the seller being a third party is higher among more educated participants (15% among those with a Bachelor’s Degree and those who attended some years of university). As for participants who could not withdraw from a contract in the two-week cooling off period, the share is similarly higher among more educated respondents (peaking at 10% among those with a Bachelor’s Degree).



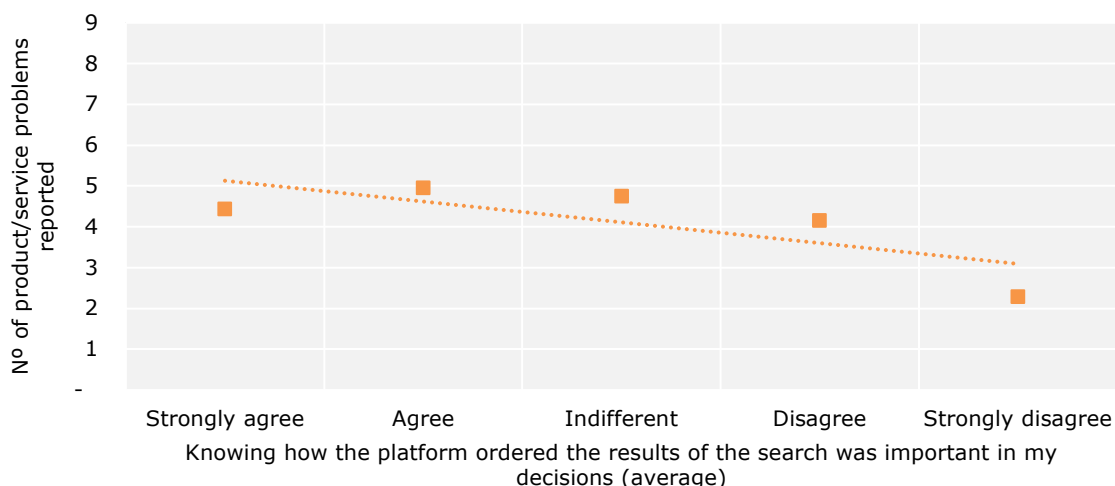
Source: Q2b10

### Content and presentation features of search results descriptive statistics: confident, trust and importance

Annex 5 shows the percentage of respondents who reported problems buying or ordering goods over the internet in the last 12 months. These problems divide into two broad categories; problems with products and services (9 examples) and problems with contractual information (2 examples). For each respondent a count of the number of problems reported in each category was computed. Then it has been assessed whether the experience of problems buying goods and services on the internet is related to users' views about internet control and regulation. It is worth mentioning that in this case the number of problems reported grouped in two main categories instead of the factors has been used due to the fact that the analysis uses a sub-sample of respondents, those who participated in the first experiment, instead of the whole sample as reported.

By combining these responses with the total number of platform and its services problems reported (max. 9)<sup>31</sup>, it is possible to analyse the extent of the relationship between the personally reported problems and impact of knowing how the platform ordered the results on confidence, trust and decision-making.

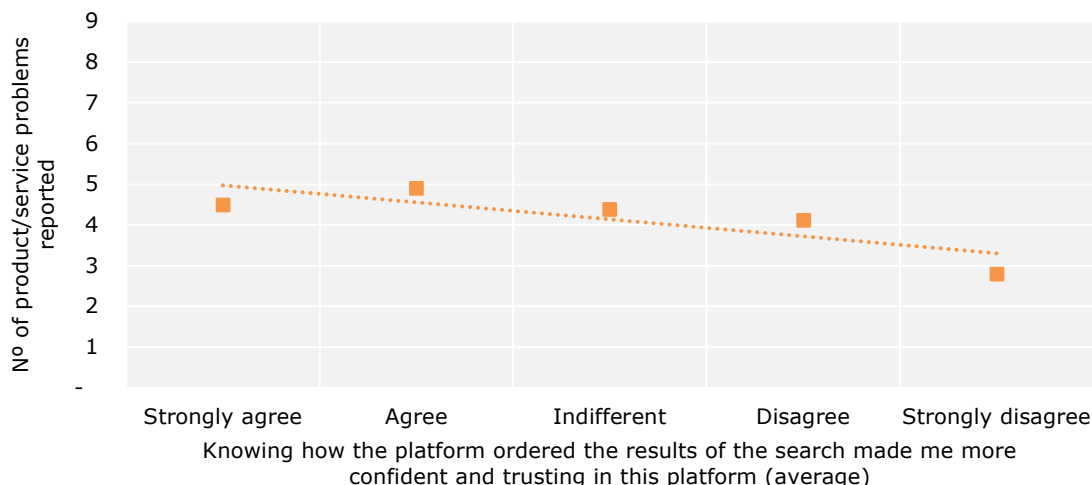
The following figure shows that on average there are significant differences<sup>32</sup>. Those who value the additional information on how results were ranked, tend to have reported more purchasing problems in the past.



The following figure reveals the same pattern with regards to trust and confidence<sup>32</sup>. On average respondents who did not think that knowing the results ranking criteria made them more confident and trusting (Disagree and Strongly disagree) tended to be those with little purchasing-related problem history.

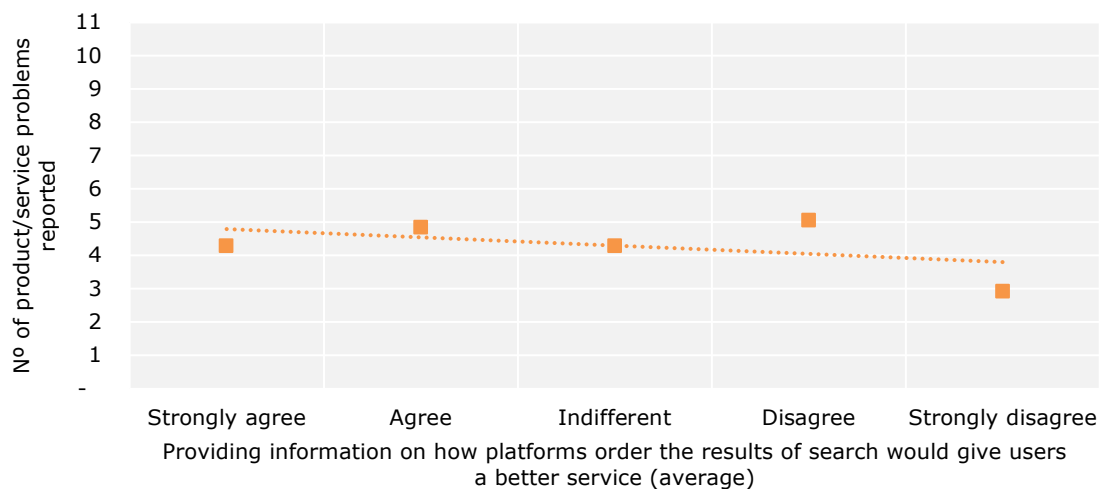
<sup>31</sup> Technical failure of website during ordering or payment (Q1b11a); Difficulties in finding information concerning guarantees and other legal rights (Q1b11b); Speed of delivery slower than indicated (Q1b11c); Final costs higher than indicated (e.g. higher delivery costs, unexpected transaction fees) (Q1b11d); Wrong or damaged goods/services delivered (Q1b11e); Problems with fraud encountered (e.g. no goods/services received at all, misuse of credit card details, etc.) (Q1b11f); Complaints and redress were difficult or no satisfactory response after complaint (Q1b11g); Foreign retailer did not sell to my country (Q1b11h) and Other (Q1b11k).

<sup>32</sup> ANOVA test ( $p < 0.001$ )



**Content and presentation features of search results descriptive statistics: additional information**

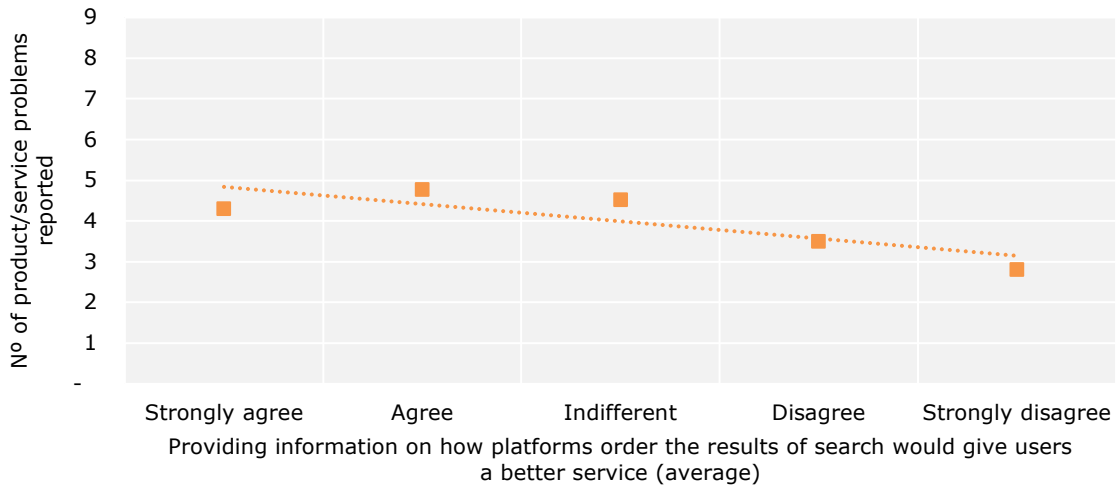
By combining these responses with the problems encountered, it is possible to analyse the extent of the relationship between the personally reported problems and respondents’ opinion on additional information in platforms. The statistical analysis performed reveals that there are significant differences between the product/services problems<sup>33</sup>. On average, participants reporting more problems tend to be more in favour (Strongly agree and Agree) about the positive impact of platform information on better services provision.



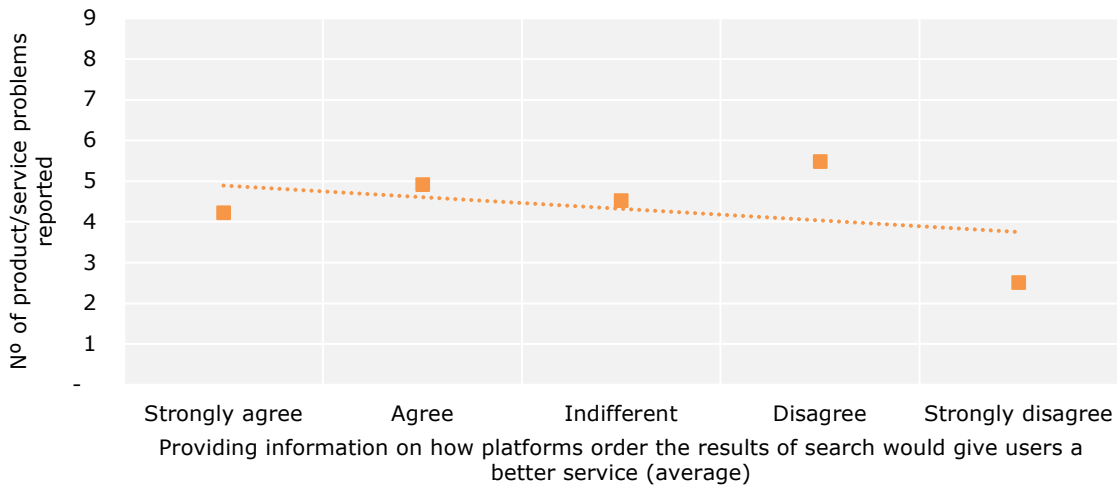
This relationship is also found in the case of the impact of knowing how platforms order the result of a search. Participants who strongly agree and agree with the positive impact of this information in confident and trust tend to report more problems than those who do not recognise such and impact (Disagree – Strongly disagree).

<sup>33</sup> ANOVA test p<0.001

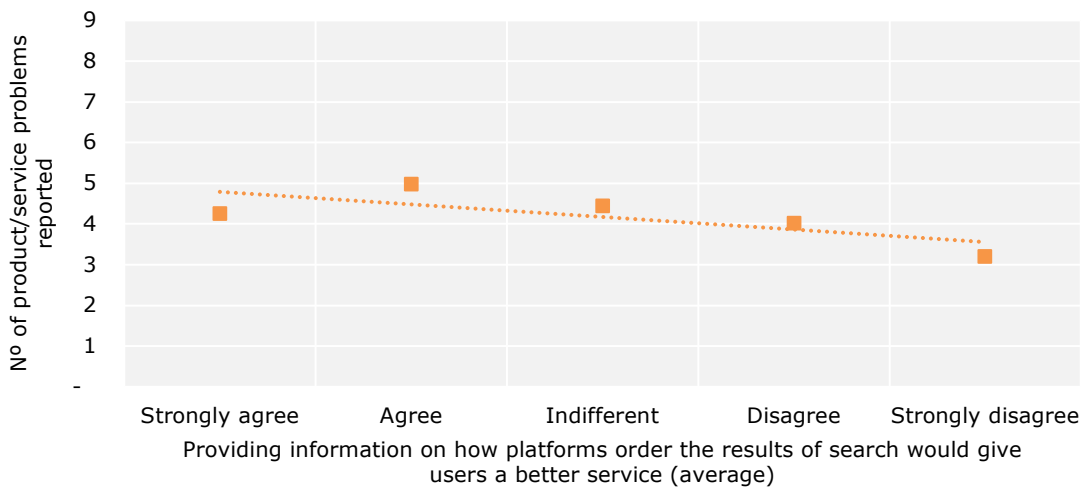




Due to the positive effect of platform information provision, participants reporting more problems declare to be more in favour (Strongly agree and agree), than those who have reported less problems, about the convenience of making explicit for the users the criteria used by the platform to order the results.

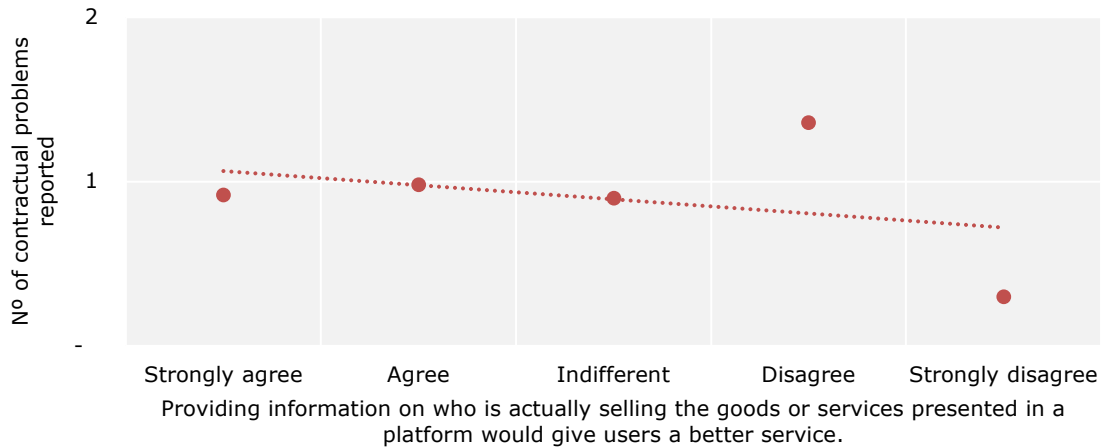


In addition, this type of participants even consider that platforms should be required by law to include such information



**Identification of contractual parties’ descriptive statistics: additional information**

By combining these responses with the problems related to contractual parties identification, it is possible to analyse the extent of the relationship between the personally reported problems and respondents’ opinion on additional information. All the relationship found were statistically significant<sup>34</sup>. On average, participants experiencing more problems tend to consider that providing information on who is actually selling the goods or services presented in a platform would give users a better service.

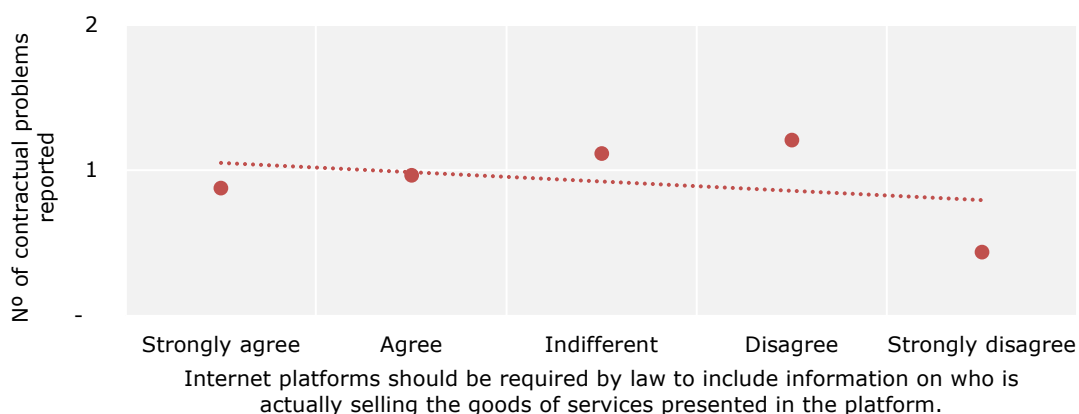
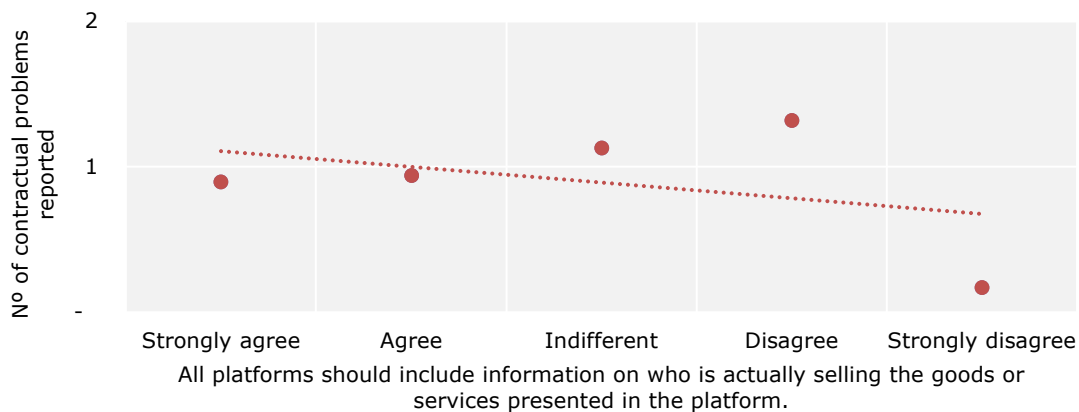


The same relationship has been found in the case of the statement related to confident and trust. On average participants reporting more problems related to contractual parties, tend to consider that transparency about who is actually selling the goods or services would make users more confidence and trusting in this platform.



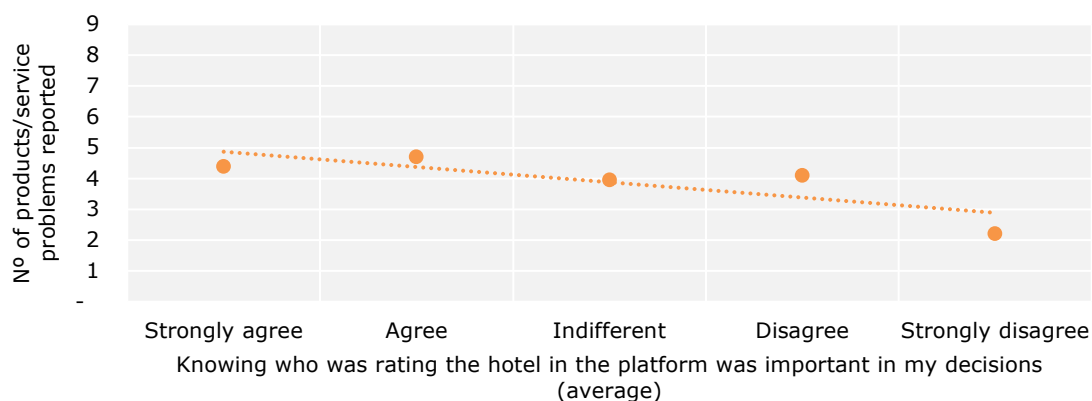
Lastly, and in line with the relationship reported above, participants reporting more problems related to contractual parties tend to consider that all platforms should include information on who is actually selling the goods or services, even by law

<sup>34</sup> ANOVA test p<0.02



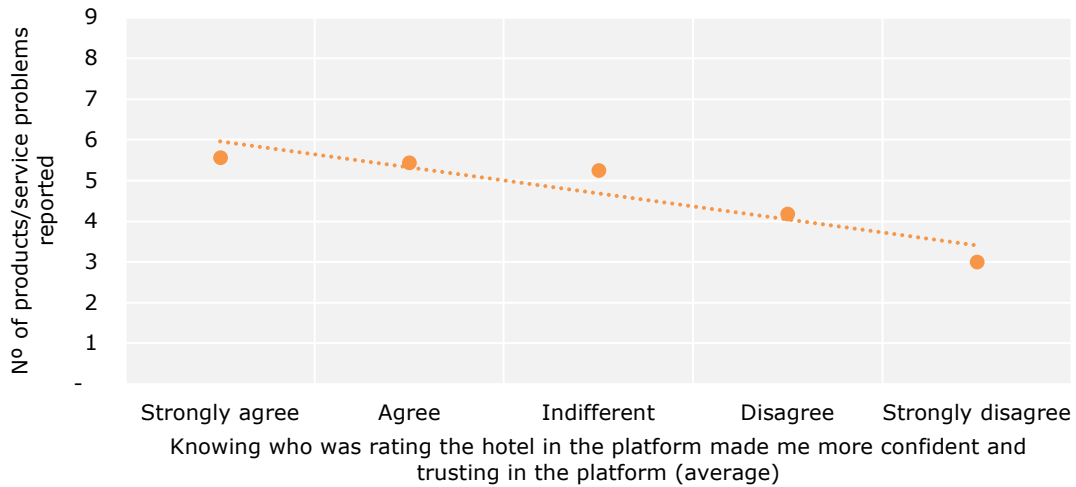
**Quality controls on the entries into consumer review, rating, and endorsement systems: confident, trust and importance**

By combining these responses with the product/service problems encountered, it is possible to analyse the extent of the relationship between personally-experienced problems and the impact on trust and decision-making of knowing who was actually doing the rating. Both relationships were statistically significant<sup>35</sup>. On average, those who value the additional information for their decision making, seem to have had a different contractual identification problem history than those who do not value it (see figure below)



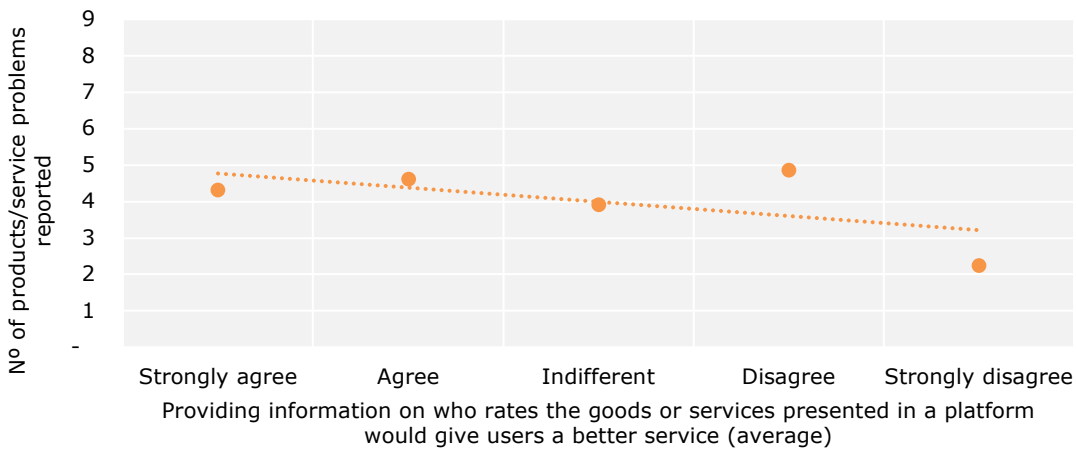
<sup>35</sup> ANOVA test  $p < 0.012$  and  $p < 0.09$

With regards to trust and confidence, on average, respondents who think that knowing who sold the item made them more confident and trusting tend to be those with higher purchasing-related problem history.



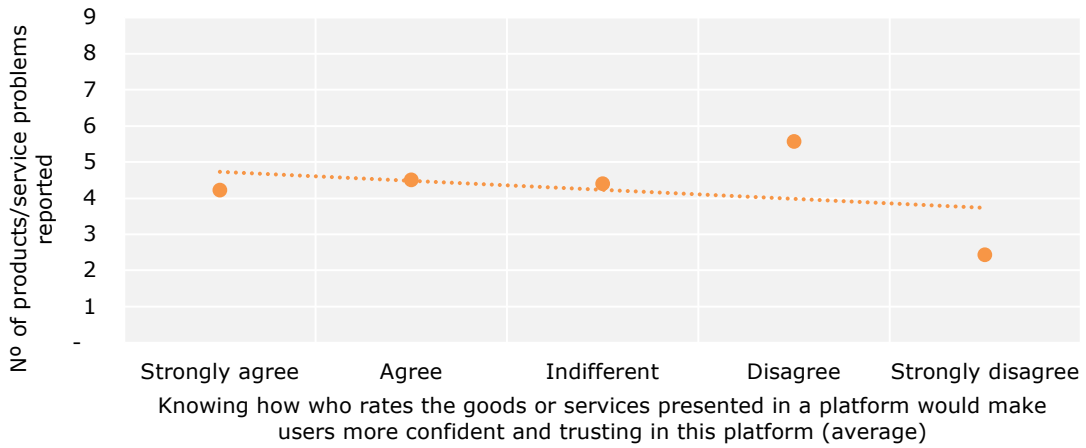
**Quality controls on the entries into consumer review, rating, and endorsement systems: additional information**

By combining these responses with the product/services problems encountered, it is possible to analyse the extent of the relationship between the personally experienced problems and respondents’ opinion on additional information in platforms. All combinations were statistically significant<sup>36</sup> on average, participants reporting more problems tend to consider that providing information on who rates the goods or services presented in a platform would give users a better service.

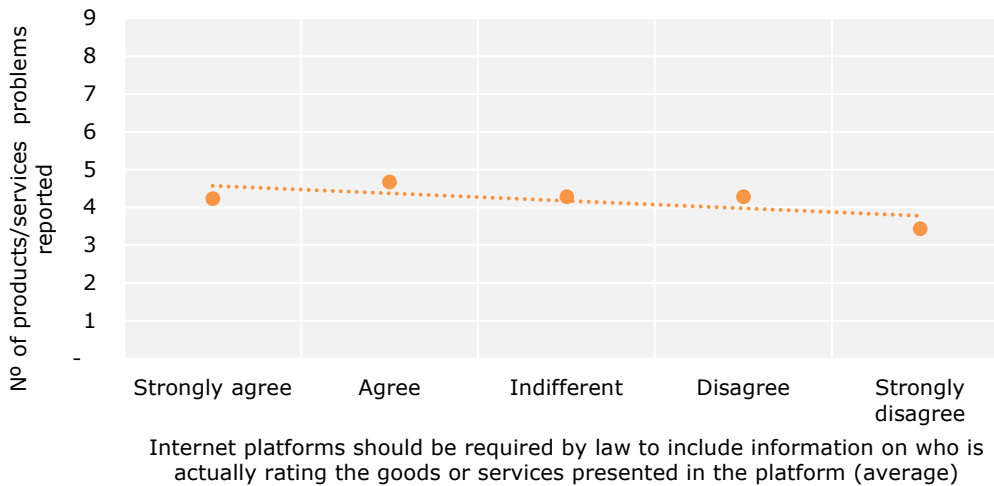
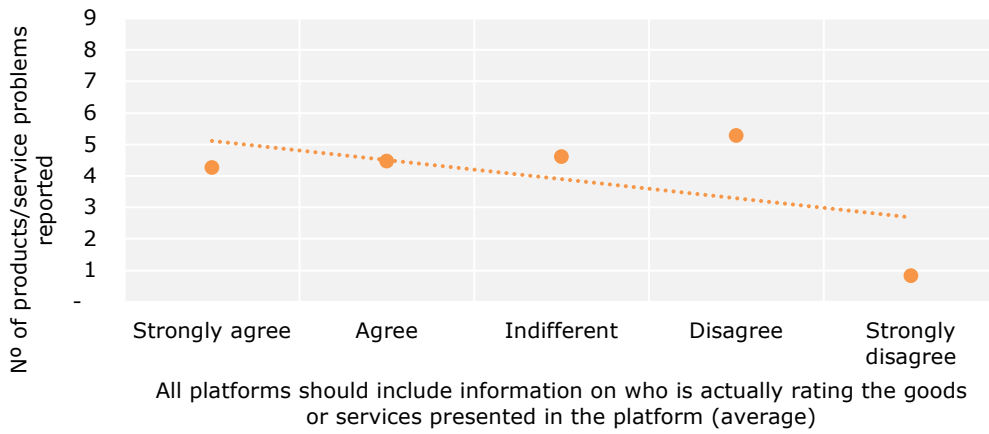


The same relationship has been found in the case of the statement related to confident and trust. On average participants reporting more problems related to products/services, tend to consider that transparency about who is actually selling the goods or services would make users more confidence and trusting in this platform.

<sup>36</sup> ANOVA test p<0.04



Lastly, and in line with the relationship mentioned above, participants reporting more problems tend to consider that all platforms should include information on who is actually selling the goods or services, even by law.



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