

Executive Agency for Health and Consumers

Consumer market study on the functioning of
e-commerce and Internet marketing and selling
techniques in the retail of goods

Final Report

Part 1: Synthesis Report

Prepared by

Civic Consulting

Subcontractors: TNS opinion – Euromonitor International

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Key conclusions

The Executive Agency for Health and Consumers, acting on behalf of the Directorate General for Health and Consumers of the European Commission, commissioned a consumer market study on the functioning of e-commerce and Internet marketing and selling techniques in the retail of goods. The study was conducted by Civic Consulting with support of TNS Opinion and Euromonitor International. The study focuses on three main questions:

1. Is e-commerce of goods in the EU delivering its full potential in terms of consumer welfare (price, choice, quality and adequate protection) across the entire retail sector in the internal market?
2. If not, what is the size of the missing potential, what are the main obstacles, and what corresponding remedies should be envisaged?
3. Why has e-commerce developed more extensively in some Member States, and not others?

The study reaches the following main conclusions:

Missing potential of e-commerce

- ⇒ Lower online prices and increased online choice can increase EU consumer welfare. The economic analysis conducted for this study indicates that total welfare gains for EU consumers resulting from lower online prices and increased online choice under a hypothetical situation of a 15% share of Internet retailing (currently 3.5%) and a Single EU consumer Market in the e-commerce of goods amount to 204.5 billion Euro per year (equivalent to 1.7% of EU GDP). This is four times higher compared to a situation where, with a similar share of Internet retailing, the fragmented national consumer markets of the 27 Member States would continue to exist.
- ⇒ This analysis is based on a price collection exercise, which covered 17 EU countries and 15 sub-categories. The key findings of the price collection are that there are significant differences in the prices of products online and offline across the various product sub-categories. Online prices were lower than offline prices in 13 of the 15 sub-categories studied. Including delivery costs clearly reduces the apparent savings available online, however even in this case online prices remained lower than offline in 10 of the 15 sub-categories studied.
- ⇒ Two-thirds of consumer welfare gains are due to increased online choice, which is considerably larger across borders. We estimate that the difference in choice offline vs. online at a national level is 1:2.5 (i.e. on average an online shop offers 2.5 times more similar products compared to a large offline retailer). The difference in choice offline vs. online across the 17 EU Member States is 1:16.3, when the national market with the largest choice for each product sub-category is used as a benchmark.

Consumer shopping behaviour

- ⇒ This study finds more differences between the behaviour of frequent and occasional online shoppers, and greater similarities between occasional shoppers and non-online shoppers. Those consumers who shop online frequently are more confident, and also shop more cross-border. While they do worry about issues such as delivery and returning goods, they also tend to be savvier on how to solve problems when they do

occur. Therefore encouraging and developing online shopping at national level is likely to increase cross-border shopping as well.

- ⇒ Online shoppers use offline methods to research products, such as going to shops, or reviewing mail order catalogues. Conversely, online sources, such as sellers' or manufacturers' websites, online review or price comparison websites are used by consumers who make offline purchases.
- ⇒ There is a clear tendency for cross-border shoppers to spend more money than respondents who only shop within their own country: Those online shoppers who also shop cross-border spent on average 1,667 Euro altogether on their domestic and cross-border online purchases during the last 12 months, compared to 778 Euro for those respondents that only shopped online domestically.

Price comparison websites

- ⇒ More than four out of five respondents to our consumer survey¹ have used price comparison websites (PCWs) in the past 12 months. PCWs are largely perceived by users to be doing a good, unbiased job in finding correct information about prices and delivery charges from different sellers. We compared the average cheapest offers identified by PCWs in a country during a mystery shopping exercise with the average online price of the same product in the same country obtained from the price collection. Once aggregated across countries, the overall average savings using the price comparison websites examined in this study are found to be 7.8%.
- ⇒ Although PCWs therefore can help consumers find cheaper offers, the mystery shopping also revealed significant shortcomings in PCW practices, including a lack of adequate information on aspects like delivery costs, delivery time, taxes, and availability of products. There is a lack of clarity and choice about default rankings; and importantly a lack of information about payments from traders for ranking placements and listings.
- ⇒ Only a minor proportion of identifiable default rankings in the mystery shopping exercise were rankings by price. In 29% of the trials, the PCW did not offer the customer the option to rank products according to price. The default ranking presented the cheapest correct offer among the top five about two-thirds of the time. In our trials, we found the risk of missing the cheapest offer to be roughly one in six, if a consumer only checks the first page of search results.

Factors affecting Internet retail experiences

- ⇒ Consumer concerns regarding e-commerce cross-border, as expressed in the survey, are similar to those regarding e-commerce in their own country, with slight differences in priority. Delivery and concerns regarding returning a product or replacing and repairing a faulty product are the issues dominating, followed by concerns regarding misuse of payment card details and personal data.
- ⇒ The level of development of e-commerce in the various Member States, and the overall measurements of consumer confidence and willingness to engage seem to be related. Other key factors that make some countries more advanced than others in the e-commerce field are more related to the overall quality of the shopping experience.

¹ The survey was targeted at consumers with Internet access at home. The sample is therefore made up mostly of online shoppers. However, a considerable number of non-online shoppers were also covered, as not everyone with Internet access uses the Internet for shopping purposes (see Chapter 1 below and Part 2 of this study).

These include: goods delivery, payment systems, high speed broadband penetration, retailer engagement and culture and traditions.

Measures to increase consumers' confidence

⇒ Consumers regard “online sellers having secure online payment systems and ensuring that my payment data is not stolen or misused” as the measure most likely of all those listed to make them feel more confident about buying online. Additionally, ensuring the same consumer rights across the EU and the protection of personal data and measures against fraudulent online sellers join the list of the top confidence-boosting measures. The majority of respondents to our consumer survey would be willing to solve a dispute with an online seller through an online dispute resolution body.

Recommendations

⇒ This study has identified a total of nine recommendations to tap the “missing potential of e-commerce”. These are:

- Continue actions at EU level to address fragmentation of consumer protection rules and other regulatory barriers;
- Reduce costs and time for cross-border delivery and increase convenience and quality;
- Focus on developing e-commerce at national level to indirectly promote cross-border transactions by consumers and retailers;
- Encourage retailers to offer goods cross-border to consumers in other Member States;
- Address other obstacles for cross-border e-commerce, including confidence in payment systems;
- Promote faster and improved complaint handling and customer service;
- Create effective redress mechanisms for cross-border e-commerce;
- Improve the quality of information that intermediaries such as price comparison websites provide to consumers;
- Address the challenges of mobile e-commerce.

Executive summary

The benefits of e-commerce are well documented: E-commerce enables consumers to save money and to choose among an increased range of products, especially when products are not available locally or nationally. However, while the use of online shopping is developing at national level, this is less so for cross-border sales. Because of the fragmented online internal market, consumers may fail to take advantage of the increased choice and cheaper prices that e-commerce can deliver. These circumstances require a better understanding of consumer experience with online shopping and related internet marketing and selling techniques in the retail sector. The Executive Agency for Health and Consumers, acting on behalf of the Directorate General for Health and Consumers of the European Commission, therefore commissioned a consumer market study on the functioning of e-commerce and Internet marketing and selling techniques in the retail of goods. The study was conducted by Civic Consulting with support of TNS Opinion (consumer survey) and Euromonitor International (price collection). The study focuses on three main questions:

1. Is e-commerce of goods in the EU delivering its full potential in terms of consumer welfare (price, choice, quality and adequate protection) across the entire retail sector in the internal market?
2. If not, what is the size of the missing potential, what are the main obstacles, and what corresponding remedies should be envisaged?
3. Why has e-commerce developed more extensively in some Member States, and not others?

These main questions – and more than 60 detailed questions provided in the Terms of Reference – are answered on the basis of research conducted between December 2010 and February 2011 in all 27 Member States of the European Union, comprising of a an online consumer survey, a price collection survey, a mystery shopping exercise, interviews, literature review, and surveys of business associations, consumer protection authorities, consumer organisations and European Consumer Centres. The study consists of four parts: Part 1 presents the main findings from the study, whereas the other parts present detailed methodology and results of the consumer survey (Part 2), the collection of online and offline prices (Part 3) and the mystery shopping exercise (Part 4).

Lower prices and more choice: The missing potential of e-commerce

Lower online prices and increased online choice can increase EU consumer welfare. The economic analysis conducted for this study indicates that **total welfare gains for EU consumers resulting from lower online prices and increased online choice under a hypothetical situation of a 15% share of Internet retailing (currently 3.5%) and a Single EU consumer Market in the e-commerce of goods amount to 204.5 billion Euro per year (equivalent to 1.7% of EU GDP)**. This is four times higher compared to a situation where, with a similar share of Internet retailing, the fragmented national consumer markets of the 27 Member States would continue to exist. Two-thirds of consumer welfare gains are due to increased online choice, which is considerably larger across borders.

Our analysis is based on a price collection exercise, which covered 17 EU countries and 15 sub-categories, with two or more products defined at brand/model level from each sub-category. The key findings of the price collection are that there are significant differences in the prices of products online and offline across the various product sub-categories. When delivery costs are excluded, online prices in our sample ranged from 20% lower to 15% higher than offline prices, but online prices were lower than offline prices in 13 of the 15

sub-categories studied. Including delivery costs clearly reduces the apparent savings available online, however even in this case online prices remained lower than offline in 10 of the 15 sub-categories studied.

During the price collection exercise, price collectors also assessed the average choice in online or offline shops across the 17 Member States in which prices were collected. The results indicate that consumers have much more choice online than offline, when considering the average choice of similar products in a particular online or offline shop. We estimate that the difference in choice offline vs. online at a national level is 1:2.5 (i.e. on average an online shop offers 2.5 times more similar products compared to a large offline retailer). The difference in choice offline vs. online across the 17 EU Member States is 1:16.3, when the national market with the largest choice for each product sub-category is used as a benchmark. This greater online choice is also confirmed by our retailer interviews.

For the economic analysis, we have compared consumer welfare gains under the current share of Internet retailing for each country and consumer welfare gains under a hypothetical situation in which the share of Internet retailing in the EU would be 15% of total retailing. This benchmark of 15% of total retailing to assess the “missing potential” is about twice the current share of Internet retailing in the UK, which is the most developed e-commerce market in the EU. In this country in some sectors, such as consumer electronics, the share of Internet retailing was already 11% in 2009 and the benchmark assumed by this study can be expected to be reached soon. In other sectors and countries, this will likely take longer.

The detailed results of the economic analysis include:

- Consumer welfare gains in domestic markets from *lower online prices* with the current share of Internet retailing in the EU are 2.5 billion Euro, and total welfare gains resulting from lower online prices under a hypothetical situation of a 15% share of Internet retailing and a Single EU consumer Market are 70.4 billion Euro per year (equivalent to 0.6% of EU GDP).
- In addition, consumer welfare gains in domestic markets from *increased online choice* with the current share of Internet retailing in the EU are 9.2 billion Euro, and total welfare gains resulting from larger online choices under a hypothetical situation of a 15% share of Internet retailing and a Single EU consumer Market are 134.1 billion Euro per year (equivalent to 1.1% of EU GDP).
- Welfare gains under a hypothetical situation of a 15% share of Internet retailing and a continuation of the current fragmented national consumer markets of the 27 Member States would be much lower, namely 11.0 billion Euro from lower online prices and 39.5 billion Euro from increased online choice. We therefore estimate the additional consumer welfare gains from a *Single EU consumer Market in e-commerce in goods* to be 59.4 billion Euro from lower online prices and 94.6 billion Euro from increased choice per year (in total 154 billion Euro or 1.3% of EU GDP).

When interpreting these figures, the basis of the estimate has to be taken into account: The “missing potential” of e-commerce in goods is calculated for a given point in time, not considering possible future market developments. The idea of a “missing potential” implies a comparison with a hypothetical situation in which current obstacles such as higher delivery costs between countries no longer exist. These have not been considered and would tend to reduce possible consumer welfare gains of a Single EU consumer Market.²

² To understand how delivery costs impact on welfare, we also considered a situation in which additional cross-border delivery costs would be on average 5% of the product price in a country thereby reducing the saving through cross-border

On the other hand, our estimates regarding the extent to which online prices are lower and online choices are increased appear to be fairly conservative when compared with results of other research.³

Consumer shopping behaviour

This study finds more differences between the behaviour of frequent and occasional online shoppers, and greater similarities between occasional shoppers and non-online shoppers. **Those consumers who shop online frequently are more confident, spend more money when they shop online in their home country, and also shop more cross-border.** While they do worry about issues such as delivery and returning goods, they also tend to be savvier on how to solve problems when they do occur. **Therefore encouraging and developing online shopping at national level is likely to increase cross-border shopping as well.**

The key findings of the consumer survey are that:

- The percentage of frequent online shoppers (those who shop online at least once a month) tends to be highest in countries which have large markets and high levels of Internet penetration such as the UK, Germany, and France. Also in Austria and Poland the share of respondents that frequently shops online exceeds the EU average.
- On average frequent online shoppers spent significantly more than occasional online shoppers (those who shop online less than once per month). Taking purchases made over the last year, frequent online shoppers in our sample spent 1,615 Euro and occasional online shoppers 643 Euro. Average spending online across all online shoppers was 1,163 Euro (including domestic and cross-border spending).
- While frequent online shoppers are particularly likely to shop across countries, occasional online shoppers are more likely to avoid cross-border online shopping. There is a clear tendency for cross-border shoppers to spend more money than respondents who only shop within their own country: Those online shoppers who also shop cross-border tended to spend the most, spending on average 1,667 Euro altogether on their domestic and cross-border online purchases during the last 12 months, compared to 778 Euro for those respondents that only shopped online domestically.
- The results for cross-border shopping to some extent reflect language skills and ties with other countries. Most cross-border online shoppers in Belgium and Luxembourg do their online shopping in France or Germany, while cross-border online shoppers in Ireland and Malta tend to shop in the UK. Portuguese cross-border shoppers shop in Spain, while Danish cross-border shoppers shop in Sweden. There is also significant cross-border shopping between the Czech Republic and Slovakia, between Finland and Sweden, between Austria and Germany and between Belgium and the Netherlands.

shopping by 5%. The results of the calculation show that this would reduce welfare gains from lower prices from 70.4 billion Euro to 63.4 billion Euro.

³ For instance, Brynjolfsson, Hu, and Smith (2003) find that the offline-vs.-online choice difference in the U.S. is 1:23.0 for the book category, 1:25.0 for the music CD category, 1:18.0 for the movie DVD category, 1:5.9 for the digital camera category, 1:8.0 for the portable MP3 player category, and 1:13.2 for the flatbed scanner category. The estimates in this study are well within this range of estimates (see Chapter 6).

- Many consumers research information on products and prices offline and then buy them online: Nearly one in five online shoppers (18%) reported visiting a shop in person when researching the most recent online purchase of 30 Euro or more. The reverse – i.e. researching online but then buying in brick-and-mortar stores – is also common. For example, 15% of all respondents visited seller websites to research their most recent purchase of 30 Euro or more in a shop.
- Use of mobile phones for online shopping is currently rather uncommon. Occasional online shoppers are less likely than frequent online shoppers to use their mobile phone to purchase a product online, or to say that they will use it to purchase products in the future.

Price comparison websites

A major benefit of online shopping is the ease of price comparison relative to offline shopping. The consumer survey shows that finding cheaper prices online is the single most important reason for shopping online and frequent online shoppers in the survey, especially the more educated ones, particularly praise the convenience of the Internet marketplace in terms of price comparison. The research for this study therefore comprised a mystery shopping exercise covering 233 price comparison websites (PCWs, also called shopbots). PCWs are essentially search tools designed ostensibly to help consumers obtain price information from many retailers through a single portal. They are popular in the EU27 as information sources for online shopping, although consumers usually do not make purchases solely based on what they find from PCWs. More than four out of five respondents to our survey (81%) have used price comparison websites in the past 12 months. A large majority (48%) use those websites at least once a month, and fewer than one in ten of them have only used them once in the last year (8%). PCWs are largely perceived by users to be doing a good, unbiased job in finding and listing correct information about prices and delivery charges from different sellers. Consumers expect that PCWs will help them to make purchases at cheaper prices than if they buy from online retailers without using PCWs and without intensive search. To examine to which extent this is true, we compared the average cheapest offers identified by PCWs in a country (collected during our mystery shopping exercise)⁴ with the average online price of the same product in the same country obtained from the price collection. Once aggregated across countries, the overall average savings of the mystery shopping exercise prices are found to be 7.8%. As the online prices in the price collection exercise are found to be generally cheaper than offline prices, **PCWs seem to be able to inform consumers better on cheaper deals than casual online, as well as offline, shopping.**

Although PCWs therefore can help consumers finding cheaper offers, the mystery shopping also revealed **significant shortcomings in PCW practices, including a lack of adequate information on aspects like delivery costs, delivery time, taxes, and availability of products. There is a lack of clarity and choice about default rankings; and importantly a lack of information about payments for ranking placements and listings.**

Other key findings are that:

- Only a minor proportion of identifiable default rankings in the mystery shopping exercise were ranking by price. In 29% of the trials, the PCW did not offer the

⁴ The cheapest (correct) offer was defined as the lowest priced offer listed on a PCW that met the minimal criteria for the target product as given on the mystery shopper's product list (see Part 4 of this study).

customer the option to rank products according to price. The default ranking presented the cheapest correct offer on the first place about one-third of the time, and among the top five offers about two-thirds of the time. In our trials, we found the risk of missing the cheapest offer to be roughly one in six, if a consumer only checks the first page of search results.

- In more than half of the trials, PCWs were not informative on delivery costs, delivery time, and/or product availability.
- The two main sources of revenue identified by the mystery shoppers were advertising on PCW and pay-per-click. Secondary to these, payment for prominent placing in results and payment for listing on the PCW are also common sources of revenue.

The mystery shopping exercise and interviews suggest that PCWs do not consider it easy to incorporate cross-border comparisons in their operations, nor are they highly motivated to surmount the difficulties. PCWs are currently not playing a direct role in fostering cross-border shopping because they do not normally list businesses in another country. Clearly if consumers do not see cross-border traders in the ranking, then consumers are unlikely to choose one. PCWs are currently failing to provide a direct entry-point for cross-border e-commerce, except in cases where retailers actively target consumers in other Member States, in which case they often develop an online shop front in the local language. They therefore serve an **indirect role as contact points through which a retailer establishes a presence in a country that is different from where it is based**. Our mystery shopping exercise has indicated that this is a common approach for specialised retailers with a pan-European approach that use PCWs as a marketing tool for their national online shop fronts. During our mystery shopping exercise, mystery shoppers noted the location of the retailer, and found a surprisingly high number of offers from retailers that were registered in countries other than the Member State to which the PCW was targeted (in 21% of trials the retailer with the lowest correct offer listed by the PCW provided a business address outside this Member State).

Factors affecting Internet retail experiences

In this study we have scrutinised a variety of factors that affect the Internet retail experience for both consumers and retailers, and given indications regarding obstacles to e-commerce in goods existing in EU Member States.

As a first step, we explored *consumer concerns* related to buying products online from sites in their home country or abroad, as well as (related) reasons for shopping or not shopping online. Key findings include:

- Only one in five respondents to our survey has no concerns when shopping online – although most of them buy products online.
- **Consumer concerns regarding e-commerce cross-border, as expressed in the survey, are similar to those regarding e-commerce in their own country, with slight differences in priority.** Delivery and concerns regarding returning a product or replacing and repairing a faulty product are the issues dominating. The greatest concern of respondents when shopping online in the home country is that returning a product they did not like and getting reimbursed is not easy. For cross-border shopping, while this concern remains very important, long delivery times are the top concern.

- For respondents who do shop online, concerns related to solving problems when things go wrong with the products they buy as well as concerns related to misuse of personal information/payment card details are quite high on the agenda, while for those with Internet access at home who do not shop online, such fears are among the main reasons for non-engagement.
- **The difference between frequent, occasional and non-online shoppers seems to be that for frequent shoppers concerns are over-ridden by the reasons why they want to buy online, such as cost, convenience and quality;** while for occasional shoppers or those who do not shop online at all, the overriding reason is that they actually like going shopping and touching before they buy, therefore the concerns become a barrier to engagement.

We then compared how consumer concerns relate to the types of *consumer complaints* reported by them. The key findings are that:

- Respondents purchasing online were more likely to say that they experienced a problem with a purchase in the last 12 months (24%) than those making an offline purchase in a shop or buying a product otherwise, for example by mail order (in total 20%).
- A vast majority of participants in the online survey experienced no problems while shopping online (76%) and a majority of those who had experienced a problem during the last 12 months said that they experienced this problem in their own country (17%), compared to a smaller percentage that experienced problems when buying outside their country (7%).
- Comparison of the nature of the problems that online shoppers had actually experienced with the worries that all respondents have when it comes to buying online shows that the latter seem to be justified only to some extent, as the problems experienced and the concerns expressed do not always match. **The most important concerns which are also reflected in the problems encountered by consumers relate to the delivery of the products purchased online.** Long delivery times are the problem most mentioned by online shoppers who experienced problems while shopping online. The second most mentioned problem that online shoppers faced is delivery of damaged products.
- **Concerns regarding payment card details and privacy are only to a very limited extent reflected in the actual problems experienced.** 1% of those who encountered a problem online had their personal data misused and a further 1% had their payment card details stolen – or, when compared to the overall sample: in both cases the problem was reported by less than 0.2% of all consumers surveyed.

Both quantitative and qualitative research was carried out to assess *differences in Internet retail experiences* that may affect the level of online shopping in the different Member States. In particular, and to enable deeper analysis beyond the results in the consumer survey and the broad assessments of national frameworks in the stakeholder survey, in-depth interviews with retailers and trade associations were carried out. Key findings are that:

- It is clear from available Eurobarometer surveys, that consumers in northern European countries, in particular the UK, Germany, the Netherlands and Sweden are more confident online and shop more. Countries least advanced in terms of numbers of consumers engaged in e-commerce include the southern Mediterranean countries, and some of the Eastern European Member States, in particular Bulgaria, Greece, Italy, Portugal and Romania.

- The level of development of e-commerce in the various Member States, and the overall measurements of consumer confidence and willingness to engage seem to be related. A recent consumer empowerment survey which takes into account how confident, knowledgeable and protected by law consumers feel, shows once more that the highest scores on all three come from Northern European countries and lowest from Southern and Eastern European states.
- Other **key factors that make some countries more advanced than others** in the e-commerce field are more related to the overall quality of the shopping experience. These **include: goods delivery, payment systems, high speed broadband penetration, retailer engagement and culture and traditions.**

Internet retail experience regarding cross-border shopping is also affected by the extent retailers are willing to sell to consumers located in other Member States. From our price collection, complementary research and interviews with retailers it can be concluded:

- Geographical price discrimination is widespread in the Internet, as retailers with online shop fronts in more than one country may price differently at different country shop fronts. There are significant variations in pricing and average online savings available for specific products across countries. While significant price variations for identical products between EU countries are detected, prices both online and offline show more convergence between Euro Member States than across the EU Member States as a whole. There is no evidence to suggest that online prices are any more or less convergent across countries than offline prices.
- Companies have different approaches when it comes to selling globally versus locally. While some companies are truly international and sell in almost every Member State, others operate only nationally. While some retailers are prepared to deliver to non-domestic customers, the **reluctance of many retailers to allow cross-country sales clearly does restrict the ability of consumers to benefit from potential savings available through shopping online in other Member States.**

Effective *enforcement* may affect consumer concerns. It includes monitoring of retailer practices, advice, complaint resolution and redress, and enforcement by authorities. We asked stakeholders to assess their national framework through the stakeholder survey, and explored basic information on consumer rights provided on retailer websites during the mystery shopping exercise. In addition, respondents to the online survey who had a problem were asked what action they took and how satisfied they were. The key findings are that:

- When checking retailer websites in a mystery shopping exercise conducted for this study, **only three in five retailers provided a full business address, and only four in five provided information regarding the right to return goods without giving a reason.** In half of the trials mystery shoppers were not able to find information explaining the customer's right to have a faulty product repaired.
- Additional data regarding (perception of) retailer compliance is provided by Eurobarometer surveys, that ask both consumers and retailers to give their views on retailer compliance with consumer legislation in their countries. Retailers overwhelmingly agree that they comply with consumer legislation (97%), but are more sceptical when asked the same question about their competitors (70% agree overall). Consumers' opinion is somewhat different too: 65% agreed with this statement overall.

- The consumer survey conducted for this study allowed a combination of questions related to types of action consumers took in case of a problem, and levels of satisfaction with the outcomes. A large majority of respondents who consulted a consumer association or a consumer help desk, or a lawyer were satisfied with the results they achieved (75% to 77%, excluding pending cases). From those respondents who complained to the seller 67% were satisfied with the final outcome (again excluding pending cases). Likewise, the respondents who filed a complaint to a government authority and those who filed a complaint with an alternative dispute resolution body were more often satisfied with the outcome they achieved than dissatisfied. Respondents who took the matter to court were least satisfied with the results.

Measures to increase consumers' confidence

Consumers responding to the online survey were given a range of options and asked how likely each option would be to increase their confidence when buying products online. They were asked to rank each measure listed according to its likeness to increase confidence. Complementary questions were asked to stakeholder organisations across the EU. The key findings are that:

- Consumers regard “online sellers having secure online payment systems and ensuring that my payment data is not stolen or misused” as the measure most likely of all those listed to make them feel more confident about buying online. Additionally, ensuring the same consumer rights across the EU and the protection of personal data and measures against fraudulent online sellers join the list of the top confidence-boosting measures.
- The majority of respondents to our consumer survey would be willing to solve a dispute with an online seller through an online dispute resolution body (52%).
- Business and consumer organisations as well as authorities consider trustmarks more important than consumers themselves. In stakeholder interviews pan-European trust marks that combine with alternative dispute resolution systems were suggested as potential winners from a retailer perspective.

Recommendations

This study of the functioning of e-commerce in the retail market for consumer goods in the European Union has identified that:

- The e-commerce of goods in the EU is not delivering its full potential in terms of consumer welfare;
- The size of the missing potential is considerable and based on the economic analysis conducted for this study it can be concluded that establishing a Single EU consumer Market in e-commerce in goods would result in large consumer welfare gains, due to differences in prices and choice between Member States;
- The level of development of e-commerce in the various Member States, and the overall measurements of consumer confidence and willingness to engage seem to be related. Other relevant factors to the development of e-commerce relate to the quality of the shopping experience and include: goods delivery, payment systems, high speed broadband penetration, retailer engagement and culture and traditions.

In the following paragraphs we summarise the recommendations provided in Section 8 of this report.

- ⇒ *Recommendation 1 – Continue actions at EU level to address fragmentation of consumer protection rules and other regulatory barriers, as outlined in relevant European Commission documents such as the Communication on Cross-Border E-commerce.*⁵
- ⇒ *Recommendation 2 – Reduce costs and time for cross-border delivery and increase convenience and quality.* Long delivery times are the most important concern voiced by consumers in our survey regarding cross-border shopping. Reduced delivery costs and improved delivery convenience across borders would be a precondition to reap the benefits of a Single EU consumer Market. On the other hand, regional retailing patterns are more efficient in an environmental perspective and some modes of transport are more energy intensive than others. Delivery costs should therefore reflect distance and modes of transport rather than whether national borders are crossed or not.
- ⇒ *Recommendation 3 – Focus on developing e-commerce at national level to indirectly promote cross-border transactions by consumers and retailers.* This study finds more differences between frequent and occasional online shoppers, and greater similarities between occasional shoppers and non-online shoppers. Encouraging and developing online shopping at national level is likely to increase cross-border shopping as well. In order to encourage the development of online shopping at the national level, those Member States where e-commerce is currently still weak could be specifically targeted, e.g. through measures for improving broadband access. Better developed markets are likely to attract large numbers of cross-border shoppers from other Member States. Therefore in these Member States it could be beneficial to raise retailers' awareness of issues such as language, consumer legislation and potential benefits of cross-border sales.
- ⇒ *Recommendation 4 – Encourage retailers to offer goods cross-border to consumers in other Member States.* At the EU level, provision of a platform for sharing of innovations, ideas, experience and best practices for retailers with regard to operating in a multi-lingual and multi-cultural environment could be beneficial. Options to encourage retailers include: issuing European Commission guidelines and providing information materials (particularly for SMEs and start-ups) concerning the legal requirements retailers have to adhere to when operating in other EU countries; requiring Member States to provide a checklist and assistance portals to online shops located in other EU Member States that provide specific rules they must conform to when operating in their countries; producing and regularly updating one set of model EU terms and conditions and a model online shop front that could be used for free by retailers and that would be based on the most stringent conditions in any of the Member States, as long as such differences continue to exist. A retailer would know that following the templates is sufficient to comply with all relevant regulations in all Member States. Finally, it would even be possible to create a virtual marketplace for or an online community of e-commerce businesses that wish to operate across the EU, providing relevant guidance to all participating traders regarding specific cross-border challenges, including legislative requirements, logistics, fulfillment services etc.
- ⇒ *Recommendation 5 – Address other obstacles for cross-border e-commerce, including payment systems.* Payment systems are a key concern for consumers when shopping online, as has again been indicated by our survey. Payment systems can also produce a barrier to cross-border shopping since a method which is widely accepted in one Member State may not, for example, be accepted by businesses trading from other

⁵ Communication on Cross-Border Business to Consumer E-Commerce in the EU, COM(2009)557 final.

Member States. Banks and other financial institutions could be encouraged to accept the use of intermediaries to facilitate cross-border shopping where the consumer would traditionally use a different type of payment method. At the European level it may be beneficial to strengthen the dialogue between banks, financial institutions, intermediaries and businesses in order to share best practices and monitor and facilitate the development of more innovative methods of payment.

- ⇒ *Recommendation 6 – Promote faster and improved complaint handling and customer service.* Concerns related to solving problems when things go wrong are similar when shopping online both domestically and cross-border. Returning a product and getting reimbursed remained one of the most important concerns in both cases. Better customer services and complaint handling procedures of retailers would be beneficial to consumers and would help to decrease consumer concerns. European Commission guidelines and related information materials for retailers (Recommendation 4) should therefore also highlight best practices concerning complaint handling and customer service in a multi-lingual environment.
- ⇒ *Recommendation 7 – Create effective redress mechanisms for cross-border e-commerce.* When something goes wrong, effective mechanisms to obtain redress need to be available for consumers shopping cross-border. One way to do this is to develop Alternative Dispute Resolution (ADR) schemes, especially those with an online or cross-border element. It is, however, well known that ADR is currently not available or fully effective in some Member States. Solutions to this situation are difficult, but measures to reinforce ADR systems are on the EU political agenda since some time, including the introduction of online dispute resolution bodies (ODR), which is even more important for cross-border transactions.
- ⇒ *Recommendation 8 – Improve the quality of information that intermediaries such as price comparison websites provide to consumers.* Cooperation between policy-makers and industry players across Europe might help raise the profile of price comparison websites (PCWs) in cross-border shopping in the future. To address problems identified by this study, such as a lack of clarity about default rankings and a lack of information about payments for ranking placements, rules for PCW practices could be developed. These could initially take the form of best practice guides or a European code of conduct which could be voluntarily adhered to through self-regulation. A dialogue between interested parties at EU level could discuss approaches for improvement of standards for price comparison websites and other intermediaries that are used for product searches (such as auction websites offering new products) across the EU.
- ⇒ *Recommendation 9 – Address the challenges of mobile e-commerce.* Mobile commerce has high potential for e-commerce trade expansion, and may make switching between different sales channels even more easy in the future. However, vulnerabilities have been identified in this sector by stakeholders such as consumer organisations and enforcement authorities. Mobile payment methods will have to prove that they are as secure as more traditional online payment methods. Mobile phones are more easily portable and therefore more easily stolen than, for example, a desktop computer, which can cause problems where consumers have saved personal information such as payment card details. Further problems have been identified with even basic consumer protection rules: for example, it can be very difficult for consumers to read terms and conditions or pre contractual information on a small mobile screen. Because of the expected increase in the use of mobile commerce in the future, it is recommended to monitor this area carefully and to identify vulnerabilities of this platform early on with industry representatives, enforcement authorities and consumer organisations.

1. Introduction

The Executive Agency for Health and Consumers, acting on behalf of the European Commission (DG SANCO, Directorate Consumer Affairs), commissioned a consumer market study on the functioning of e-commerce and Internet marketing and selling techniques in the retail of goods to Civic Consulting, of the Consumer Market Studies Consortium (CMSC). The study was implemented with the support of two subcontractors, TNS Opinion (consumer survey) and Euromonitor International (price collection).

Objectives and scope of the study

The study focuses on the functioning of e-commerce in the retail market for consumer goods in the European Union, and addresses three main questions:

1. Is e-commerce of goods in the EU delivering its full potential in terms of consumer welfare (price, choice, quality and adequate protection) across the entire retail sector in the internal market?
2. If not, what is the size of the missing potential, what are the main obstacles, and what corresponding remedies should be envisaged?
3. Why has e-commerce developed more extensively in some Member States, and not others?

Part 1 of this report is structured according to more than 60 detailed questions provided in the Terms of Reference (TOR), grouped into six areas: Consumer shopping behaviour; Price comparison websites; Prices online and offline; Consumer choice; Missing potential of e-commerce; Factors affecting Internet retail experiences.

Thematic coverage

This study focuses on the functioning of e-commerce in the retail market for consumer goods in the EU. Services sold online (such as airline tickets and content/music downloading) are not covered. The definition of 'e-commerce' is limited to business-to-consumer (B2C) e-commerce only. Peer-to-peer e-commerce is not included.

Time period

The study and collection of data refer to the current functioning of e-commerce in the European Union. The analysis is based on data collected in the framework of this study between December 2010 and February 2011, complemented by data collected through other studies.

Approach

The main questions of the study were answered on the basis of research conducted in all 27 Member States of the European Union. The research comprised:

- A *consumer survey* covering all 27 Member States. The objective of this (mainly) online survey was to explore the habits and attitudes of consumers with Internet access at home. Besides the main target group, online shoppers, a considerable number of non-online shoppers were also covered, as not everyone with Internet

access uses the Internet for shopping purposes. Close to 30,000 respondents participated in the survey altogether;⁶

- A *price collection survey* in 17 EU Member States, consisting of collection and analysis of online and offline prices for a selection of popular product categories already sold online. In each country, analysts collected price data for 30 products defined by brand/model, which were then supplemented by similar products depending on availability. This resulted in 4,559 observations of online and offline prices for a selection of seven major product categories, as well as comprehensive data regarding consumer choice;⁷
- A *mystery shopping exercise* covering approximately 1,500 detailed website checks in all 27 EU Member States (233 checks of price comparison websites (PCWs) with five product searches on each PCW, 15 checks of online marketplaces and approximately 1,200 checks of retailer websites);
- About 70 *interviews* with experts and stakeholders, including PCWs and retailers, in order to best include the perspectives of these groups of stakeholders within the study;
- A *survey of stakeholder organisations* (business associations, consumer protection authorities, consumer organisations and European Consumer Centres) in all 27 EU Member States. The survey sought opinions regarding consumer and retailer awareness of consumer rights, information on consumer complaints, and opinions regarding measures to increase consumer confidence in the 27 Member States.

Structure of the report

Part 1 of this report presents the main findings from the study and is structured as follows:

- *Chapter 1* (this chapter) contains an introduction and brief methodology;
- *Chapter 2* describes and analyses consumer shopping behaviour online and offline;
- *Chapter 3* presents the use and the functioning of price comparison websites;
- *Chapter 4* provides findings of a comparison of online and offline price levels and pricing behaviour;
- *Chapter 5* considers how consumer choice is affected by domestic and cross-border online shopping;
- *Chapter 6* provides an economic analysis of the missing potential of e-commerce by estimating consumer welfare gains through lower online prices and increased online choice;
- *Chapter 7* describes the factors affecting Internet retail experiences for consumers and businesses;
- *Chapter 8* provides conclusions and recommendations concerning the functioning of e-commerce and Internet marketing and selling techniques in the retail of goods from a consumer perspective;

⁶ The consumer survey was conducted online in 25 EU Member States, complemented by a phone based (CATI) survey in Malta and Cyprus. In total, 29,010 consumers participated.

⁷ The price collection methodology is explained in detail in Part 3 Section 2.1.

- *Annexes* are also provided, containing country fact sheets, the detailed methodology of the economic analysis, survey results regarding retailers' attitudes towards cross-border trade, and literature used.

Part 2 of this report comprises the methodology and results of the consumer survey.

Part 3 of this report comprises the methodology and results of the collection of online and offline prices.

Part 4 of this report contains the methodology and results of the mystery shopping exercise on price comparison websites.

Acknowledgements

Civic Consulting would like to express its gratitude to all its supporters, without whom this study would not have been possible. We would like to thank all the stakeholders that responded to our survey or provided valuable input through interviews. This included consumer organisations, consumer protection authorities, European Consumer Centres, price comparison websites, trade associations, and individual businesses. We would like to thank the members of our expert group who provided advice and expertise throughout the study: Dr. J. Rupert J. Gatti, Professor Erik Brynjolfsson, Assistant Professor Yu Jeffrey Hu, Anna Fielder, Andrew Starkey, and Professor Susanne Augenhofer. Finally, we thank the Directorate General for Health and Consumers of the European Commission and the other Commission services for the support provided throughout the study.

2. Consumer shopping behaviour

*How much do consumers use the Internet to research products, information and prices?
How easy is it for consumers to find the best price, quality and choice online?*

The key findings are that:

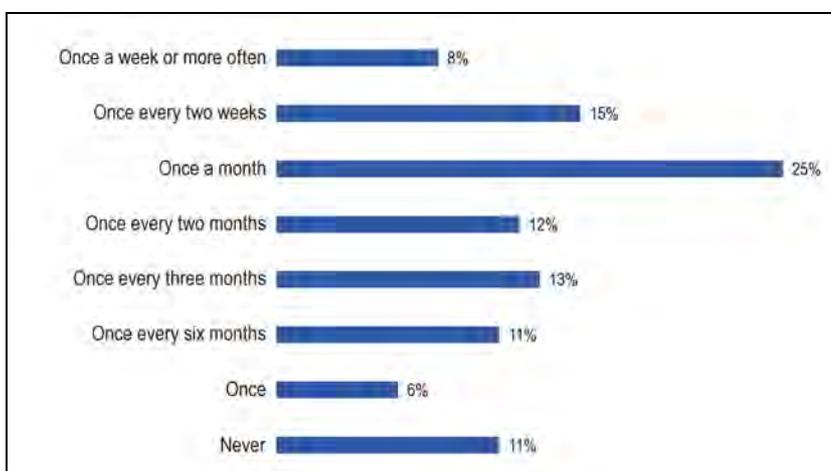
- (1) The percentage of frequent online shoppers (those who shop online at least once a month) tend to be highest in countries which have large markets and high levels of Internet penetration such as the UK, Germany, and France. Also in Austria and Poland the share of respondents that frequently shops online exceeds the EU average.
- (2) On average frequent online shoppers spent significantly more than occasional online shoppers (those who shop online less than once per month). Taking purchases made over the last year, frequent online shoppers in our sample spent 1,615 Euro and occasional online shoppers 643 Euro. Average spending online across all online shoppers was 1,163 Euro (including domestic and cross-border spending).
- (3) While frequent online shoppers are particularly likely to shop across countries, occasional online shoppers are more likely to avoid cross-border online shopping. There is a clear tendency for cross-border shoppers to spend more money than respondents who only shop within their own country: Those online shoppers who also shop cross-border tended to spend the most, spending on average 1,667 Euro altogether on their domestic and cross-border online purchases, compared to 778 Euro for those respondents that only shopped online domestically.
- (4) The results for cross-border shopping to some extent reflect language skills and ties with other countries. Most cross-border online shoppers in Belgium and Luxembourg do their online shopping in France or Germany, while cross-border online shoppers in Ireland and Malta tend to shop in the UK. Portuguese cross-border shoppers shop in Spain, while Danish cross-border shoppers shop in Sweden. There is also significant cross-border shopping between the Czech Republic and Slovakia, between Finland and Sweden, between Austria and Germany, between Belgium and the Netherlands, and the Netherlands and Germany.
- (5) Many consumers research information on products and prices offline and then buy them online: Nearly one in five online shoppers (18%) reported visiting a shop in person when researching the most recent online purchase of 30 Euro or more. The reverse – i.e. researching online but then buying in brick-and-mortar stores – is also common. For example, 15% of all respondents visited seller websites to research their most recent purchase of 30 Euro or more in a shop.
- (6) Use of mobile phones for online shopping is currently rather uncommon. Occasional online shoppers are less likely than frequent online shoppers to use their mobile phone to purchase a product online, or to say that they will use it to purchase products in the future.

2.1. Frequency and reasons for buying products online

Frequency of online shopping

Close to 90% of respondents to this online survey bought products online over the last 12 months. The online shoppers were grouped into two categories, frequent online shoppers and occasional online shoppers. A frequent online shopper shops at least once a month online, whereas an occasional online shopper uses the online mode less often – for this study an occasional online shopper was defined as making purchases online less than once a month, but did buy online at least once during the last 12 months.

Figure 1: Consumer survey – Over the last 12 months, how many times on average have you bought products ONLINE?



Note: Based on all respondents (N=29010)

A higher than average proportion of frequent online shoppers can be observed in the UK (71%), Germany (62%), Austria (54%) and France (53%). The proportion of frequent online shoppers is lowest in Cyprus, Romania, Slovenia, Hungary, and the Baltic countries (with less than or around 20%, see Figure 2).

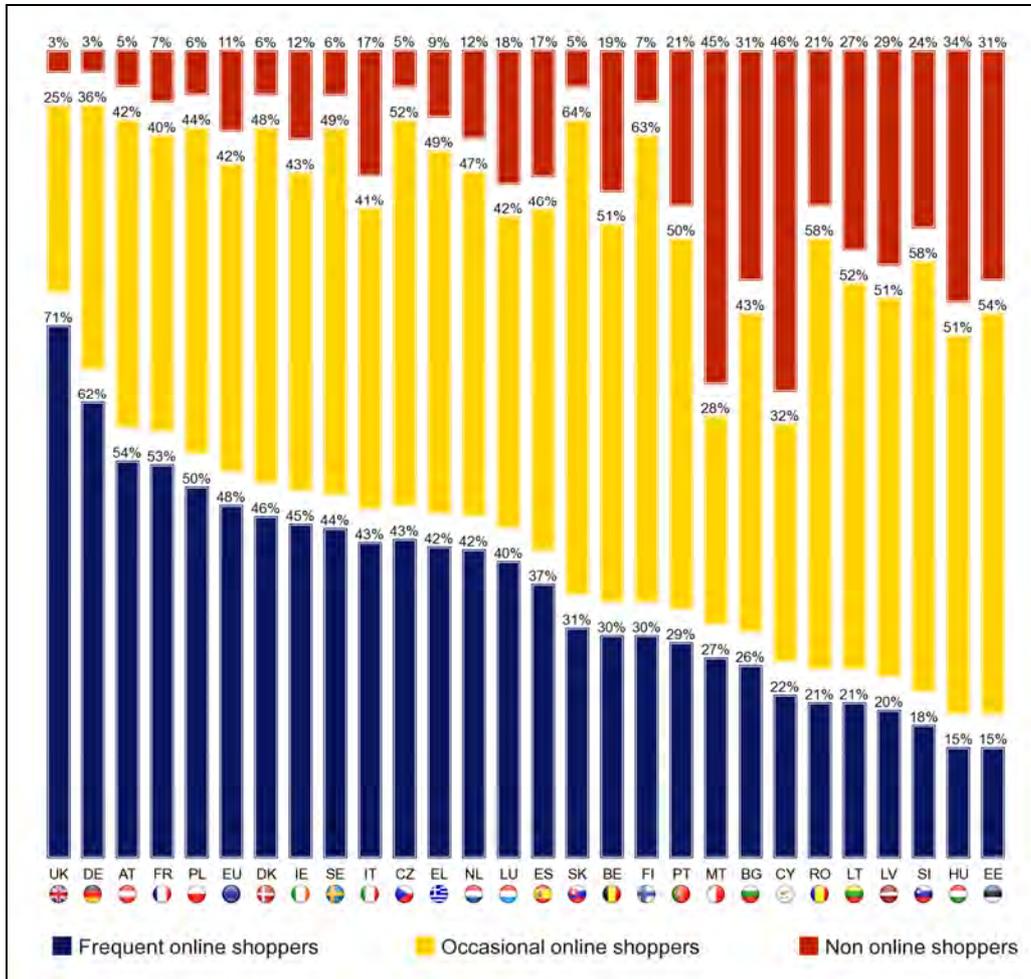
It should be mentioned that the fraction of very frequent online shoppers, who shop online once a week or more, is rather low on average (8%) but is somewhat higher in Germany (12%) and the UK (15%). Most of the respondents in the group of frequent online shoppers use the Internet once a month to shop, rather than more often. For the occasional shoppers, most of the respondents are nearly equally grouped in the 'once every two' or 'once every three months' category (12% and 13%).

In most of the countries in eastern⁸ Europe around a third (Bulgaria, Estonia, Latvia and Hungary) of respondents do not shop online. The highest proportions of non-online shoppers were recorded in Malta and Cyprus with more than 40% non-online shoppers.⁹

⁸ 'Western' countries were in this study defined as: AT, BE, CY, DE, DK, EL, ES, FI, FR, IE, IT, LU, MT, NL, PT, SE and UK while 'eastern' countries were defined as: BG, CZ, EE, HU, LV, LT, PL, RO, SK and SI.

⁹ When interpreting the results for Malta and Cyprus it must be remembered that the low Internet penetration rate in these two countries forced a different survey mode. In Malta and Cyprus interviews were held by phone.

Figure 2: Consumer survey – Distribution of frequent, occasional and non- online shoppers, by country¹⁰



Note: Based on all respondents (N=29010)

When social demographic variables are taken into account, we observe that men are more likely to be frequent online shoppers, whereas women tend to be occasional online shoppers. Respondents aged 55 and over tend to be occasional online shoppers compared with respondents aged 25 to 54 who are more likely to be frequent online shoppers.

The propensity to shop online is also to some extent associated with levels of education. Frequent online shoppers tend to be well-educated, with those who hold a PhD shopping online most frequently and those with a low level of education least likely to shop online at all.

It is interesting to note that frequent online shoppers are more likely to shop abroad whereas occasional online shoppers prefer to shop in their own countries.

¹⁰ Question used: Over the last 12 months, how many times on average have you bought products ONLINE?

Domestic spending on online purchases

Respondents to the survey spent on average 939 Euro on online purchases over the last 12 months while shopping online within their own country. Countries in which online shoppers reported a higher spending are Cyprus (1713 Euro), Denmark (1207 Euro), Germany (1126 Euro), Spain (1113 Euro), the UK (1093 Euro), the Netherlands (1029 Euro), Greece (1007 Euro), Italy (990 Euro), and France (987 Euro).

The table below clearly indicates an east-west pattern. In order to compare the results for the countries, the table shows the median and average spent while shopping domestically, in Euro. Most of the western European countries show at least a median of 300 Euro, whereas in eastern Europe the median spending is generally less than 300 Euro.

In Denmark (13%), and Germany, Spain, Italy and the UK almost 10% of online shoppers spent more than 2500 Euro, whereas in Bulgaria, Estonia, Hungary and other eastern European countries one-quarter or more spent no more than 100 Euro while shopping online.

Table 1: Consumer survey – Money spent while shopping within own country¹¹

MS	0-20	21-50	51-100	101-200	201-500	501-1000	1001-2500	2501-5000	More than 5000	Median (Euro)	Average (Euro)
EU27	0%	4%	11%	14%	27%	19%	17%	4%	3%	439	939
AT	0%	4%	13%	15%	28%	19%	17%	3%	2%	400	793
BE	0%	4%	18%	19%	29%	15%	12%	2%	1%	300	631
BG	0%	11%	29%	29%	18%	7%	2%	0%	3%	123	358
CY	1%	12%	9%	18%	27%	13%	13%	6%	2%	342	1713
CZ	0%	3%	8%	13%	29%	25%	19%	2%	1%	466	831
DE	0%	2%	9%	12%	25%	22%	20%	6%	3%	540	1126
DK	0%	3%	5%	15%	25%	20%	18%	6%	7%	545	1207
EE	0%	12%	28%	19%	22%	11%	4%	3%	1%	153	434
EL	0%	3%	13%	13%	31%	18%	16%	4%	2%	440	1007
ES	0%	4%	13%	13%	27%	18%	18%	4%	4%	420	1113
FI	0%	5%	18%	18%	28%	17%	10%	2%	1%	300	790
FR	0%	2%	9%	14%	27%	21%	20%	5%	2%	500	987
HU	0%	13%	12%	19%	23%	18%	11%	3%	0%	220	514
IE	0%	5%	13%	18%	28%	18%	13%	3%	2%	360	765
IT	0%	2%	12%	16%	26%	20%	16%	4%	4%	440	990
LT	0%	8%	21%	21%	27%	12%	5%	1%	5%	192	631
LU	49%	8%	12%	10%	12%	4%	5%	1%	0%	30	245
LV	0%	3%	22%	23%	30%	13%	7%	2%	0%	231	458
MT	13%	18%	33%	10%	14%	8%	3%	2%	0%	100	301
NL	0%	2%	15%	17%	28%	16%	13%	4%	4%	360	1029
PL	0%	5%	14%	12%	32%	19%	13%	4%	1%	301	626

¹¹ Question used: How much have you spent on online PURCHASES OF PRODUCTS FROM WEBSITES IN (OUR COUNTRY) over the last 12 months? (Remember: this doesn't include money spent for services such as music/film downloads, travel, entertainment, banking, insurance, and other financial services.)

PT	0%	7%	23%	20%	27%	12%	8%	1%	2%	200	597
RO	0%	8%	18%	16%	31%	15%	9%	1%	1%	241	529
SE	0%	7%	7%	15%	27%	17%	21%	4%	1%	400	754
SI	0%	7%	18%	22%	28%	14%	8%	1%	2%	260	518
SK	0%	4%	15%	18%	33%	19%	10%	1%	1%	300	556
UK	0%	2%	6%	11%	25%	22%	24%	7%	2%	585	1093

Note: Based on online shopper subsample (N=25909)

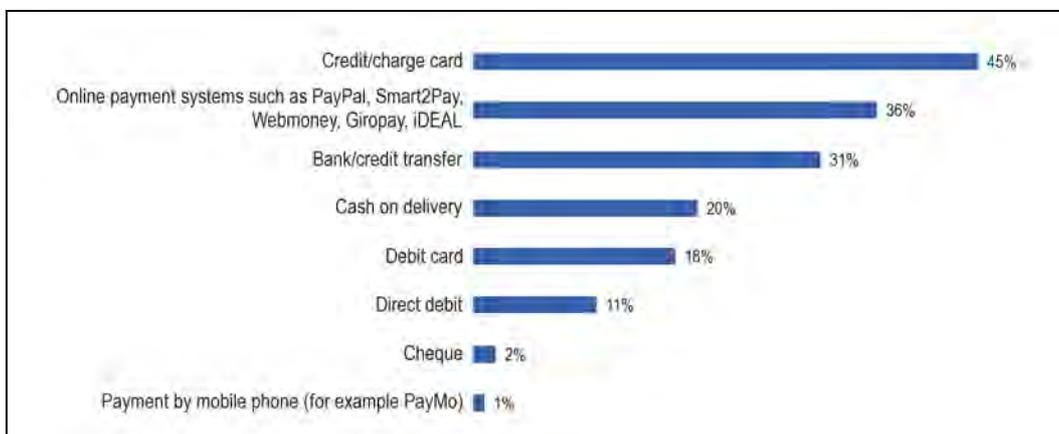
Men tend to spend an average of around 240 Euro more than women, and older online shoppers tend to spend more than younger online shoppers do. There is, on average, a gap of almost 80 Euro between what 18-24 and 55 + year olds spend when shopping online.

Users of price comparison websites tend to spend more money online than non-users.

Payment methods

The results of this survey indicate that several payment methods could be considered as dominant modes when shopping online. On average, 45% of online shoppers use a credit or charge card. However a closer look into the data suggests that this average is somewhat misleading, as a credit or charge card is the most common payment method in almost all western European countries, but not in eastern Europe.

Figure 3: Consumer survey – Which of the following PAYMENT METHODS have you used for your online purchases over the last 12 months?¹²



Note: Based on online shopper subsample (N=25940)

The results across the European Union show that online payment systems, such as Paypal, Smart2pay, Webmoney, Giropay or iDEAL were used by a little more than one-third of all online shoppers. Almost the same proportion of online shoppers used the bank or credit transfer option. It is uncommon in all European countries to use mobile phone or cheques to pay when shopping online.

¹² The question was asked to respondents as a multiple response question.

In countries such as Bulgaria, Spain, Sweden and Ireland debit cards were used by between 25% and 35% of the respondents, while in the UK 56% of respondents used this method. The table below indicates payment methods used by country:

Table 2: Consumer survey – Payment methods used for online shopping¹³

MS	Credit/ charge card	Online payment systems such as PayPal, iDEAL	Bank/ credit transfer	Cash on delivery	Debit card	Direct debit	Cheque	Payment by mobile phone such as PayMO
EU27	45%	36%	31%	20%	18%	11%	2%	1%
AT	55%	33%	56%	23%	5%	18%	1%	2%
BE	56%	26%	37%	11%	21%	5%	1%	2%
BG	29%	24%	11%	59%	28%	2%	0%	1%
CY	62%	29%	9%	3%	13%	2%	1%	0%
CZ	21%	14%	61%	68%	9%	1%	0%	2%
DE	39%	44%	60%	10%	4%	33%	1%	1%
DK	79%	21%	21%	7%	13%	8%	1%	1%
EE	28%	15%	65%	12%	15%	11%	1%	1%
EL	50%	36%	7%	45%	24%	3%	0%	1%
ES	50%	37%	17%	17%	26%	3%	0%	1%
FI	51%	27%	40%	26%	27%	12%	0%	1%
FR	71%	32%	7%	3%	11%	5%	8%	1%
HU	19%	10%	33%	67%	7%	4%	8%	2%
IE	66%	45%	5%	3%	35%	4%	3%	2%
IT	50%	41%	20%	20%	8%	4%	1%	2%
LT	35%	30%	42%	29%	15%	4%	0%	2%
LU	85%	31%	30%	4%	2%	2%	0%	0%
LV	55%	31%	23%	21%	15%	5%	3%	2%
MT	50%	66%	2%	1%	3%	2%	0%	0%
NL	24%	62%	35%	7%	7%	20%	1%	1%
PL	18%	19%	75%	38%	6%	9%	0%	1%
PT	48%	29%	35%	27%	19%	4%	1%	1%
RO	20%	11%	13%	70%	21%	3%	0%	4%
SE	55%	29%	38%	25%	30%	2%	0%	1%
SI	38%	19%	22%	55%	8%	2%	0%	3%
SK	23%	15%	53%	71%	12%	1%	2%	1%
UK	53%	53%	4%	2%	56%	6%	2%	0%

Note: Based on online shopper subsample (N=25940)

¹³ Question used: Which of the following PAYMENT METHODS have you used for your online purchases over the last 12 months?

To summarise, it can be concluded that credit based payments such as credit cards, and online payment systems, are popular in most of the western European countries. In many eastern European countries cash on delivery is the preferred option when shopping online.

Men and women show slight differences, but the sex of an online shopper does not explain the choice of a payment method. Online shoppers between 25 and 54 years of age use credit cards more often, whereas younger online shoppers are particularly likely to use bank and credit transfer as well as cash on delivery. Bank and credit transfers are slightly more common among less educated online shoppers, whereas more educated online shoppers use credit cards and online payment systems.

Online shoppers who also shop abroad are more likely to use credit and charge cards, whereas those who shop online in their own country are more likely to use the cash on delivery option.

Reasons for frequently buying products online

In the following paragraph the reasons why shoppers use the Internet to buy products will be discussed. The respondents in this survey had the opportunity to choose three reasons from 16 possible answers. Furthermore, the question appeared in three different formats as it was linked to the type of online shopper (frequent, occasional and non-online shopper). Some of the items appeared with slight adaptations in all three questions.

First, we focus on frequent online shoppers. Two latent factors appear in the data: (1) price advantages and (2) individual shopping expectations about time savings, ease of price comparisons and time flexibility. What does this mean?

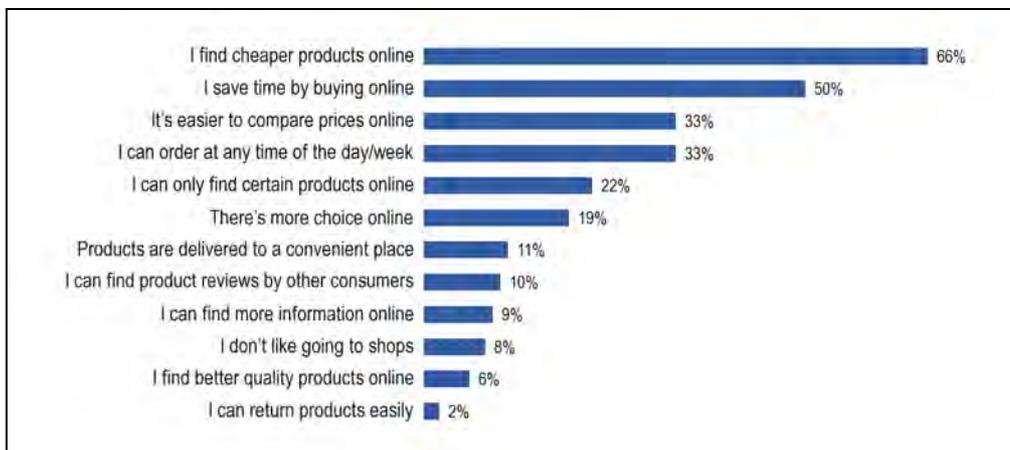
Two-thirds of frequent online shoppers state that they shop online because they find cheaper products online. This is especially true in those countries which have a higher proportion of online shoppers, such as the UK, Spain, France, and Italy. However, in the Czech Republic, Lithuania, Slovakia, Sweden and Denmark more than 70% of the frequent online shoppers are also attracted by lower prices. In general, this was the most frequently mentioned reason for shopping online in all countries (66% indicated this answer).

Frequent online shoppers also like having the opportunity to compare prices online. One-third of the frequent online shoppers answer that it is easier to compare prices online.

The second dimension, *individual shopping expectations* about time savings, ease of price comparisons and time flexibility, becomes apparent when we focus on three items: "I save time by buying online", "It's easier to compare prices online", and "I can order at any time of the day/week". The first answer was chosen by 50% of online shoppers on average. Furthermore, frequent online shoppers also say that it is easier to compare price online and that they like the ability to order at any time during the day/week (both answers marked by 33% of respondents).¹⁴

¹⁴ Again, it is interesting to note that the two offline surveys for Malta and Cyprus show slightly different results, especially with regard to saving time when shopping online. But both countries show the same four item structure, as that found in the whole sample.

Figure 4: Consumer survey – What are your three most important REASONS for buying products online?



Note: Based on frequent online shopper subsample (N=13872)

On a second, much deeper, look into the data several differences between countries show up. In certain countries, especially in eastern and southern Europe, but also in some smaller countries, the availability of products is another important reason for shopping online. 39% in Luxembourg, 32% in Portugal, 29% in Estonia and 31% in Greece chose this answer. Around one-fifth of respondents (19%) use the Internet for shopping because they see a wider choice of products online, while a slightly higher percentage (22%) noted certain products only being available online as a reason to buy online.

Bearing in mind that the question allows only three answers, the other listed reasons, such as “I don’t like to go to shops”, “Products are delivered to a convenient place” or “I find better quality products online”, were not chosen as often as those already mentioned. Only around 10% or less of the frequent online shoppers mentioned these aspects.

Among frequent online shoppers men tend to pay more attention to price, whereas women tend to highlight flexibility, citing being able to order at any time and products being delivered to a convenient place more than men. But the differences remain rather small. Age differences are more important: more frequent online shoppers in the younger age groups tend to cite price, whereas ‘saving time’ is mentioned more often the older people are. Older people are more likely to say that it is easier to compare prices online.

More educated frequent online shoppers tend to raise the time saving and price comparison aspects more often than less educated frequent online shoppers.

The comparison of cross-border and non-cross-border online shoppers is also interesting. Cross-border shoppers tend to highlight price savings while shopping online (69% of cross-border shoppers to 62% of non-cross-border shoppers). Meanwhile non-cross-border shoppers are more concerned about saving time while shopping online – 55% highlight this as an advantage compared to 46% of cross-border shoppers (see the following table).

Table 3: Consumer survey – Reasons to buy online¹⁵

Reason	EU average	Cross-border online shoppers	Non-cross-border online shoppers
I find cheaper products online	66%	69%	62%
I save time by buying online	50%	46%	55%
I can order at any time of the day/week	33%	30%	37%
It's easier to compare prices online	33%	33%	33%
I can only find certain products online	22%	25%	18%
There's more choice online	19%	20%	18%
Products are delivered to a convenient place	11%	9%	13%
I can find product reviews by other consumers	10%	9%	10%
I can find more information online	9%	9%	10%
I don't like going to shops	8%	8%	9%
I find better quality products online	6%	8%	3%
I can return products easily	2%	2%	3%
Other	1%	1%	1%

Note: EU average based on frequent online shoppers subsample; Cross-border online shopper subsample; Non-cross-border online shopper subsample

Reasons for only occasionally buying products online

Moving on to the occasional online shoppers, we examined the factors that hold them back from engaging more in e-commerce. The factors were more oriented towards offline shopping and some included factors could explain offline shopping. Again, respondents were asked to choose the three most important reasons why they only occasionally shop online.

Occasional online shoppers prefer to see what the product they intend to buy really looks like and to take it with them right away. This is, without doubt, something online shopping cannot offer.

¹⁵ Question used: What are your three most important REASONS for buying products online?

Figure 5: Consumer survey – What are your three most important reasons for only OCCASIONALLY buying products online?



Note: Based on occasional shopper subsample (N=12068)

It is also interesting that one-third of the respondents mention possible difficulties to resolve problems in case something goes wrong with an online transaction.

41% in Bulgaria and around a quarter of respondents in Greece, Spain, Portugal and Slovenia are afraid of the misuse of their personal and payment details. Around 20% of respondents in Denmark, Finland and Slovenia prefer to have in-person sales services when buying products (see the following table).

Table 4: Consumer survey – Reasons to only buy occasionally online¹⁶

MS	I like going to shops and seeing the products	It's more difficult to solve any problems if something goes wrong	I want the products immediately	I have concerns regarding misuse of my personal/payment details
EU27	38%	32%	29%	19%
AT	46%	31%	37%	15%
BE	42%	32%	27%	19%
BG	37%	49%	29%	41%
CY	6%	2%	8%	4%
CZ	49%	33%	31%	12%
DE	38%	21%	28%	22%
DK	43%	37%	31%	12%
EE	47%	34%	42%	13%
EL	39%	32%	30%	26%
ES	36%	40%	22%	21%
FI	45%	39%	30%	19%
FR	41%	41%	27%	26%
HU	23%	13%	16%	3%

¹⁶ Question used: What are your three most important reasons for only OCCASIONALLY buying products online? Only the four most frequent answers are listed.

IE	40%	32%	37%	19%
IT	33%	39%	22%	16%
LT	37%	26%	48%	22%
LU	35%	36%	23%	21%
LV	25%	21%	29%	11%
MT	31%	8%	13%	2%
NL	41%	19%	24%	13%
PL	35%	29%	41%	13%
PT	43%	42%	29%	31%
RO	43%	23%	38%	15%
SE	35%	27%	29%	14%
SI	27%	33%	38%	32%
SK	31%	47%	42%	18%
UK	46%	25%	32%	14%

Note: Based on occasional online shopper subsample (N=12068)

In the group of occasional online shoppers, women in particular tend to say that they prefer to go to shops and see the products. Younger people are more likely to shop online only occasionally, because they would like to get the product immediately. They also prefer to go into shops and see the products.

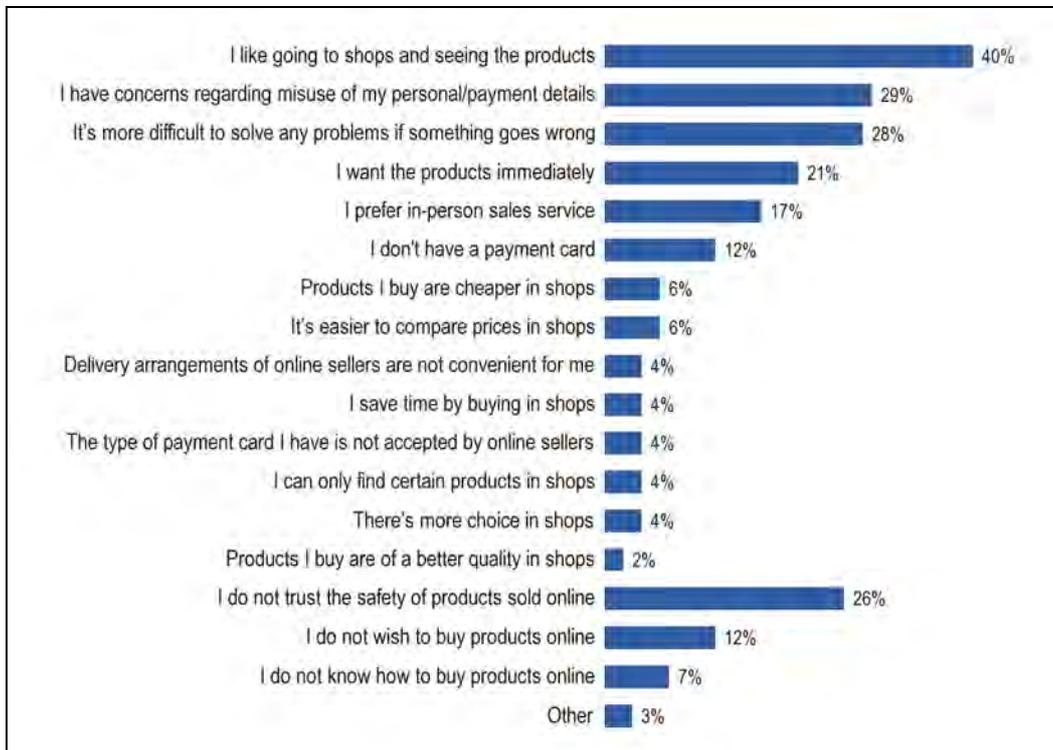
Reasons for not shopping online

The reasons for not shopping online can only be interpreted on the basis of the whole sample, as in some countries the number of cases is too small to offer a meaningful analysis. The European average indicates that occasional online shoppers and non-online shoppers have a lot in common.

Again, it is noteworthy that as well as wanting to see a product and to take it home immediately, respondents are also often afraid of misuse of personal/payment details and difficulty in resolving problems if something goes wrong, leading to scepticism when considering buying products online (see the following figure). This seems to be an important aspect, which will be further discussed in Section 7.3.4 of this report, addressing measures to increase consumers' confidence.

Among the non-online shoppers, women more frequently prefer to see the product in a shop. The youngest non-online shoppers do not shop online because they do not have a payment card and do not trust the safety of the products sold online.

Figure 6: Consumer survey – What are your three most important reasons for NOT buying products online?



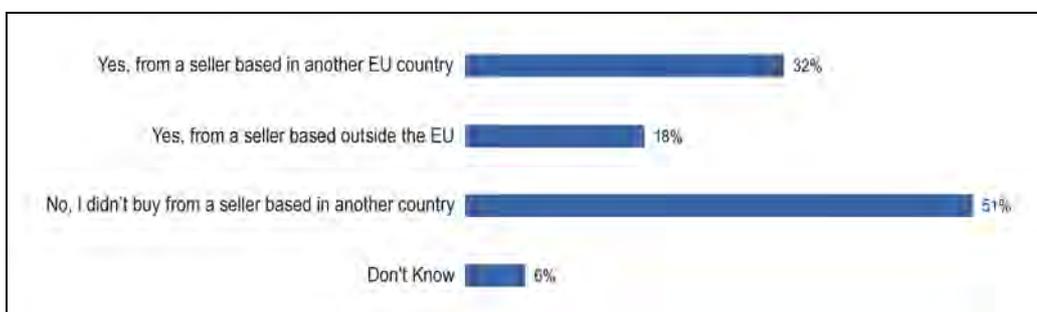
Note: Based on non-online shopper subsample (N=3070)

2.2. Frequency and reasons for buying products online cross-border

Frequency of online shopping cross-border

Online shopping makes it much easier for consumers to shop across countries. A potential seller or shop can be in another country of the EU or somewhere else in the world.

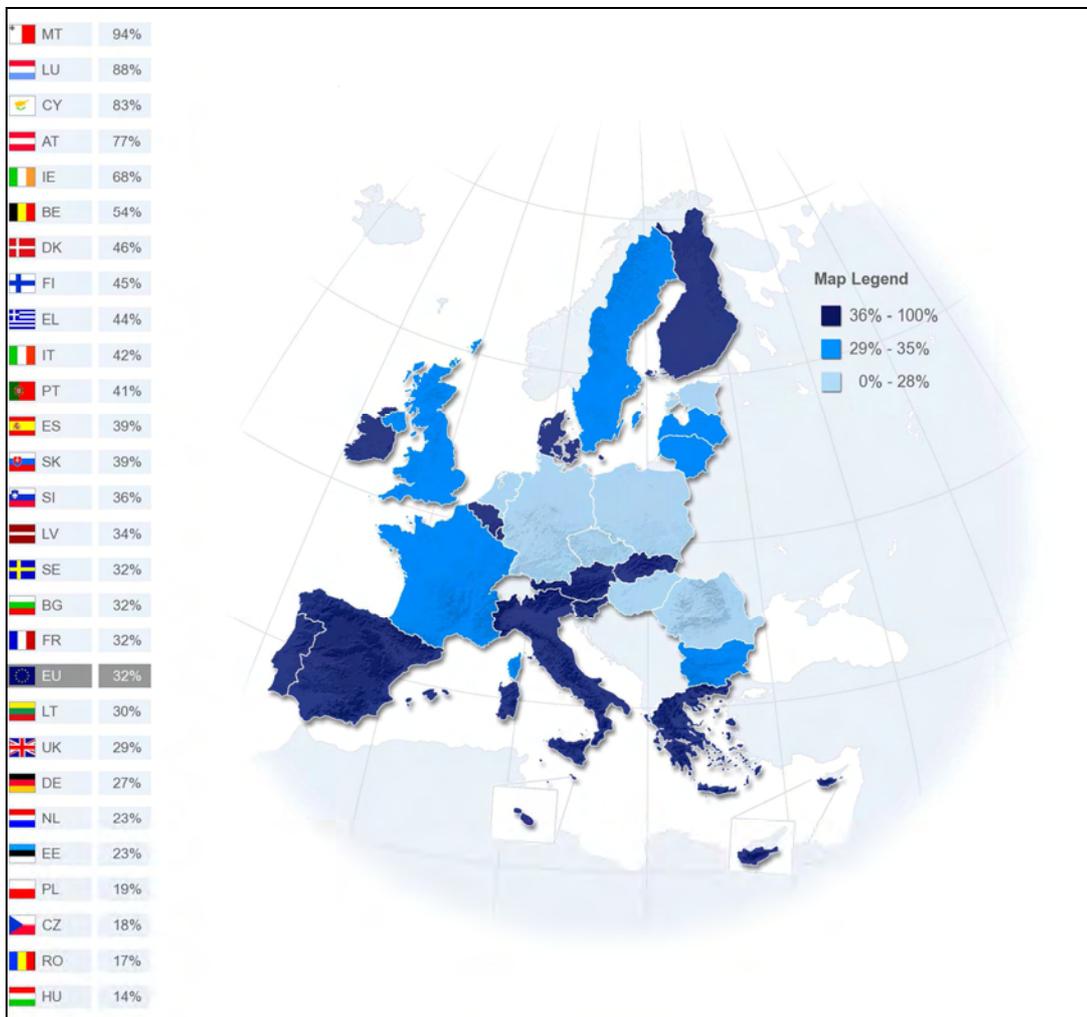
Figure 7: Consumer survey – Over last 12 months, have you bought products online from a SELLER based IN ANOTHER COUNTRY?



Note: Based on online shopper subsample (N=25940)

The online shoppers in this survey were asked whether they also buy products in EU countries other than their home country and/or in non-EU countries. Half of the online shoppers in this sample do not buy products in countries other than their own.¹⁷ The result indicates that 32% of online shoppers buy products in other EU countries, while around 18% buy products in countries outside the EU. It is important to mention that countries which share a common language and close ties with another country have relatively high levels of cross-border online shopping within the EU. So Belgium (54%), Cyprus (83%), Austria (77%), Ireland (68%), Malta (94%), Luxembourg (88%) record rather high rates of cross-border shoppers who buy products in other EU countries (see following figure).

Figure 8: Consumer survey – Over last 12 months, have you bought products online from a SELLER based IN ANOTHER COUNTRY? Yes, from a seller based in another EU country



Note: Based on online shopper subsample (N=25940)

¹⁷ The share of cross border shoppers in the Flash Eurobarometer 299 published in 2011 indicates that nearly one in four (domestic) online shoppers also shops cross-border (45% of all those with Internet access at home do domestic online shopping, 10% do cross-border shopping, p. 15). The Special Eurobarometer 298 from 2008 reported that 51% of those with Internet access at home did (domestic) online shopping, compared to 13% shopping cross-border within the EU and 7% from a seller located outside the EU (p. 20). Both these data sets were collected through different sampling methods and cannot therefore be directly compared with each other, or with this online sample.

The proportion of cross-border online shoppers who buy outside the EU is highest in Malta (53%) and Cyprus (48%). Greece (31%) and Ireland (40%) also record results above the European average of 18% in our sample.

As already mentioned, the results for cross-border shopping to some extent reflect language skills and ties with other countries (see following table). Most cross-border online shoppers in Belgium do their online shopping in France, the Netherlands or Germany, while cross-border online shoppers in Luxembourg shop online mostly in Germany and France, and cross-border online shoppers in Ireland and Malta tend to shop in the UK (74% and 93%). Portuguese cross-border online shoppers shop in Spain (21%), while Finnish and Danish cross-border online shoppers purchase in Sweden (in both cases 22% of cross-border shoppers). Danish cross-border online shoppers also shop in Germany and the UK.

In some countries which are geographically and culturally fairly close cross-border online shopping takes place in both directions. For example, there is significant cross-border shopping between the Czech Republic and Slovakia (19% and 59% of respondents that shopped cross-border in the other country) and between Austria and Germany (90% and 31%).

In general, the UK and Germany are evidently the two favourite countries as destination for cross-border online shopping in the European Union. 27% of online cross-border shoppers bought products in Germany, and around 24% bought products in the UK. Only France, with a share of 14%, comes anywhere near these two countries.

Almost a quarter of the responding cross-border shoppers (23%) indicate that they bought products in the USA, whereas 17% say that they bought products in China. In eastern Europe in particular, online shoppers tend to shop online in the US and China. In almost all eastern and southern European countries we find online shoppers who shop online in these two countries.

Socio-demographic categories also yield some interesting results. Male online shoppers tend to buy products in both EU and non-EU countries, whereas female online shoppers tend to concentrate on EU countries and especially on their own country when shopping online. The younger the online shoppers are, the more likely they are to buy in other EU countries. More than 50% of online shoppers aged 40-54 prefer to shop in their own country, whilst this is also true for more than 60% of those aged 55+. The higher the education the more likely online shoppers are to shop abroad, both in other EU countries and outside the EU.

Table 5: Consumer survey – Cross-border online shopping: target countries

Origin of cross-border shopper	Target country																			
	Germany	United Kingdom	United States	China	France	Austria	Netherlands	Belgium	Spain	Italy	Ireland	Luxembourg	Czech Republic	Denmark	Sweden	Switzerland	Poland	Greece	Portugal	Finland
EU27	27%	24%	23%	17%	14%	8%	6%	5%	5%	4%	3%	3%	2%	2%	2%	2%	2%	2%	1%	1%
AT	90%	13%	9%	7%	5%	--	4%	2%	1%	4%	1%	2%	1%	0%	1%	3%	2%	0%	0%	0%
BE	26%	20%	14%	9%	42%	2%	38%	--	2%	3%	0%	2%	1%	0%	1%	1%	0%	0%	0%	0%
BG	19%	41%	23%	21%	15%	5%	2%	3%	1%	6%	1%	1%	1%	1%	1%	1%	1%	2%	1%	1%
CY	10%	74%	40%	20%	8%	0%	2%	1%	1%	5%	1%	0%	0%	0%	1%	0%	0%	15%	0%	0%
CZ	24%	17%	23%	15%	9%	5%	2%	0%	1%	1%	1%	0%	--	1%	0%	2%	18%	1%	0%	1%
DE	--	20%	17%	17%	9%	31%	11%	4%	4%	5%	1%	7%	3%	4%	2%	5%	3%	1%	0%	1%
DK	32%	48%	30%	8%	5%	3%	8%	1%	2%	2%	2%	0%	0%	--	22%	1%	1%	0%	1%	2%
EE	27%	35%	30%	16%	5%	2%	3%	1%	1%	2%	1%	1%	1%	4%	6%	1%	3%	1%	1%	11%
EL	27%	49%	37%	22%	10%	3%	2%	2%	3%	9%	2%	1%	1%	0%	1%	1%	0%	--	1%	1%
ES	22%	28%	22%	22%	27%	2%	2%	5%	--	8%	5%	2%	1%	2%	1%	1%	0%	1%	5%	2%
FI	38%	40%	32%	14%	5%	4%	7%	2%	2%	3%	2%	0%	1%	5%	22%	0%	1%	0%	0%	--
FR	41%	29%	18%	15%	--	1%	3%	15%	5%	3%	2%	5%	1%	2%	1%	2%	1%	1%	2%	1%
HU	26%	27%	24%	16%	3%	10%	1%	1%	2%	1%	2%	1%	3%	0%	1%	3%	1%	0%	0%	1%
IE	15%	74%	33%	17%	9%	1%	4%	2%	4%	3%	--	0%	1%	1%	2%	0%	4%	1%	1%	0%
IT	36%	29%	23%	12%	26%	4%	4%	4%	7%	--	3%	2%	1%	2%	2%	4%	2%	3%	1%	2%
LT	17%	39%	30%	29%	5%	4%	1%	1%	2%	1%	4%	0%	1%	0%	1%	1%	8%	2%	1%	1%
LU	78%	19%	0%	0%	43%	4%	5%	19%	2%	5%	2%	--	0%	1%	1%	4%	0%	0%	1%	0%
LV	23%	33%	30%	29%	4%	2%	1%	1%	1%	3%	3%	0%	0%	1%	5%	1%	4%	0%	0%	3%
MT	7%	93%	32%	33%	2%	1%	1%	1%	0%	9%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%
NL	43%	21%	23%	11%	11%	3%	--	15%	4%	3%	2%	1%	1%	2%	1%	2%	2%	1%	1%	0%
PL	33%	23%	17%	14%	8%	2%	3%	2%	3%	1%	3%	1%	4%	1%	1%	1%	--	2%	0%	0%
PT	18%	41%	26%	19%	16%	1%	3%	1%	21%	4%	4%	2%	1%	1%	1%	0%	0%	1%	--	0%
RO	22%	19%	28%	11%	9%	7%	2%	1%	5%	13%	1%	0%	0%	0%	0%	0%	2%	2%	2%	2%
SE	32%	34%	26%	15%	9%	3%	3%	2%	3%	3%	1%	0%	2%	15%	--	0%	2%	1%	1%	3%
SI	45%	34%	25%	15%	4%	16%	3%	1%	1%	5%	1%	1%	1%	0%	1%	0%	2%	0%	0%	0%
SK	15%	15%	11%	13%	7%	5%	1%	0%	0%	1%	1%	1%	59%	0%	0%	0%	4%	0%	0%	0%
UK	21%	--	39%	25%	17%	2%	6%	3%	8%	6%	9%	2%	2%	2%	2%	1%	3%	1%	1%	1%

Note: Based on cross-border online shopper subsample (N=11224). Highlighted cells indicate that 10% or more of cross-border shoppers target this country. Countries are ranked from those most targeted by cross-border shoppers on the left. Several countries are not included in the table as the percentage of shoppers targeting them was in most cases negligible.

Spending on online purchases cross-border

Online shoppers spent on average 693 Euro in other EU countries. For western European countries the range for cross-border shopping goes from around 500 Euro spent by Swedish shoppers, up to almost 1000 Euro on average spent by Italian shoppers. The highest average amount spent online in other EU countries was reported by cross-border online shoppers from Cyprus (close to 1900 Euro on average).

Table 6: Consumer survey – Money spent for online purchases in other EU countries¹⁸

MS	0-20	21-50	51-100	101-200	201-500	501-1000	1001-2500	2501-5000	More than 5000	Median (Euro)	Average (Euro)
EU27	4%	6%	15%	19%	26%	13%	10%	4%	2%	260	693
AT	4%	4%	16%	17%	28%	13%	12%	4%	2%	280	665
BE	6%	4%	17%	19%	26%	14%	12%	1%	1%	260	540
BG	4%	7%	27%	23%	20%	12%	2%	0%	3%	153	464
CY	2%	4%	3%	20%	25%	21%	15%	6%	4%	500	1891
CZ	2%	8%	14%	17%	34%	14%	10%	1%	1%	223	464
DE	10%	6%	20%	19%	19%	10%	10%	5%	1%	200	625
DK	2%	6%	10%	22%	27%	14%	10%	2%	5%	279	840
EE	3%	6%	16%	21%	25%	12%	10%	7%	0%	249	640
EL	2%	1%	13%	16%	33%	17%	14%	4%	1%	380	728
ES	4%	4%	17%	15%	25%	15%	14%	4%	2%	316	954
FI	3%	6%	17%	21%	30%	14%	7%	2%	0%	260	448
FR	5%	8%	17%	20%	30%	12%	7%	2%	1%	220	459
HU	0%	17%	13%	24%	22%	15%	7%	1%	1%	198	436
IE	2%	2%	11%	16%	31%	19%	12%	4%	1%	380	719
IT	2%	3%	10%	17%	29%	17%	11%	7%	4%	360	962
LT	3%	4%	12%	16%	27%	17%	11%	4%	6%	290	1018
LU	4%	5%	8%	11%	32%	20%	13%	5%	1%	500	809
LV	3%	4%	17%	22%	20%	20%	9%	4%	1%	282	586
MT	2%	7%	19%	15%	28%	20%	6%	2%	1%	300	641
NL	4%	6%	19%	20%	20%	15%	11%	4%	2%	240	721
PL	6%	7%	24%	18%	21%	10%	9%	2%	3%	161	604
PT	2%	7%	17%	17%	26%	14%	11%	3%	2%	300	624
RO	2%	4%	8%	18%	42%	15%	7%	2%	2%	278	592
SE	3%	9%	16%	22%	22%	13%	11%	3%	1%	192	503
SI	2%	5%	16%	25%	30%	13%	7%	1%	1%	240	570
SK	5%	7%	20%	21%	28%	11%	6%	0%	1%	200	444
UK	1%	15%	10%	21%	24%	10%	13%	5%	2%	234	664

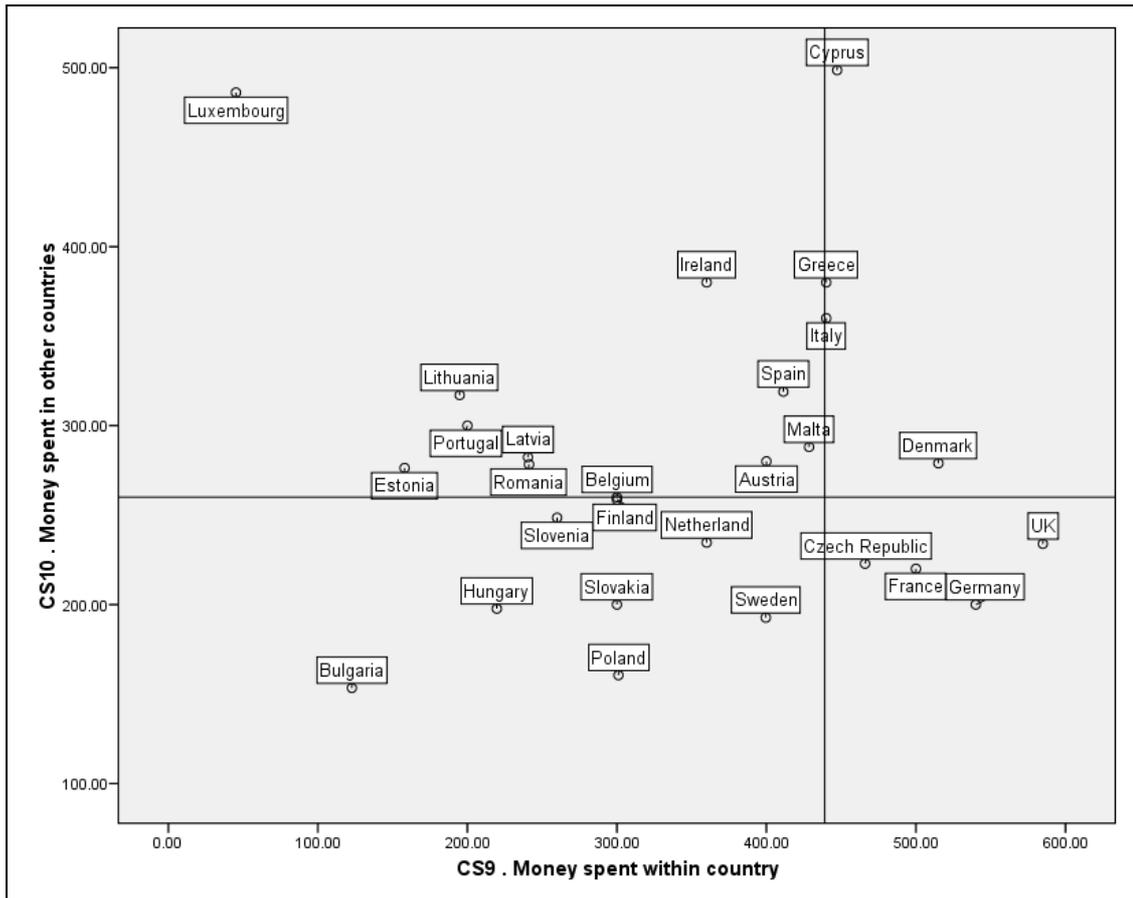
Note: Based cross-border online (N=11224)

¹⁸ Question used: How much have you spent on online PURCHASES OF PRODUCTS FROM WEBSITES IN OTHER EU COUNTRIES over the last 12 months?

Men and younger respondents spend more money when shopping abroad than women or older online shoppers do.

The following figure graphically depicts the amount spent within a country and in other (EU) countries, based on the median values reported.

Figure 9: Consumer survey – Money spent within country and in other EU countries (online shopping)¹⁹



Note: Based on online shopper subsample (N=25940), own calculation based on median, the reference lines represent the weighted EU27 median for CS9 and CS10

The reference lines, which represent the median for the EU27, indicate that smaller countries in particular are grouped above the EU27 median for shopping in other EU countries. The figure also highlights the fact that online shopping is not very prominent in Bulgaria, Hungary, Poland and Slovakia as online shoppers in these four countries are far below the EU27 median.

The figure indicates that online shoppers in the bigger online markets, such as France, Germany and UK, do not typically purchase products in other EU countries. They are above the EU27 median for shopping in their own country and significantly below the EU27 median for shopping in other EU countries. On the other hand online shoppers in

¹⁹ Questions used: How much have you spent on online PURCHASES OF PRODUCTS FROM WEBSITES IN (OUR COUNTRY) over the last 12 months?; How much have you spent on online PURCHASES OF PRODUCTS IN OTHER EU COUNTRIES over the last 12 months?

Luxembourg spent much more money in other EU countries. Online shoppers in Ireland, Greece and Italy spent approximately as much money in their own country as they did in other EU countries.

Interestingly, women spent almost the same amount within their own country as abroad when shopping online. Men spent less money when shopping outside of their own country.

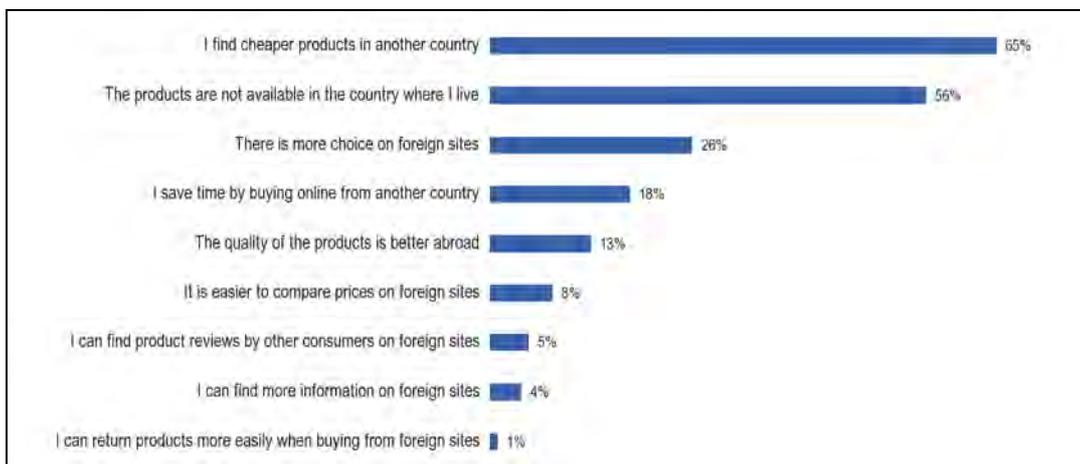
Reasons for buying products online cross-border

The main reasons for buying products from an online seller in another country are similar to the reasons why online shoppers buy products online (Section 2.1).

Again, price is mentioned as the main argument. While an EU average of 65% state that they buy abroad because of cheaper products, in some countries, such as Finland, Portugal, Lithuania, Latvia, Greece and the Czech Republic, almost around 80% of respondents mentioned this argument. Only in a few countries – Germany, the Netherlands, Luxemburg and Poland – did fewer than 60% of cross-border online shoppers cite this answer.

56% of the respondents say that they shop cross-border because the products are not available in the country where they live, making this the second most important reason for shopping cross-border.

Figure 10: Consumer survey – What are your three most important reasons for BUYING products from an online seller in another country?



Note: Based on cross-border shopper subsample (N=11224)

The third most important reason for cross-border online shopping is the wider choice on foreign websites. One-quarter of cross-border online shoppers cite this item. Again, cross-border online shoppers in Germany are less likely to give this reason, which is not surprising, as Germany is one of the two biggest markets for online shopping according to the data presented above.

In Bulgaria (41%), Romania (53%) and Poland (31%) the better quality of foreign products was also mentioned.

Table 7: Consumer survey – Reasons for buying products from an online seller in another country²⁰

MS	I find cheaper products in another country	The products are not available in the country where I live	There is more choice on foreign sites	I save time by buying online from another country	The quality of the products is better abroad	It is easier to compare prices on foreign sites	I can find reviews by other consumers on foreign sites	I can find more information on foreign sites	I can return products more easily when buying from foreign sites
EU27	65%	56%	26%	18%	13%	8%	5%	4%	1%
AT	65%	55%	33%	23%	3%	8%	10%	6%	1%
BE	68%	61%	33%	12%	4%	8%	10%	5%	1%
BG	75%	46%	41%	19%	41%	5%	12%	9%	5%
CY	80%	45%	19%	16%	10%	5%	1%	2%	2%
CZ	78%	47%	33%	31%	10%	6%	4%	5%	1%
DE	52%	53%	12%	17%	10%	8%	2%	4%	1%
DK	78%	64%	44%	21%	4%	3%	5%	5%	0%
EE	70%	63%	45%	18%	11%	3%	9%	8%	2%
EL	82%	57%	38%	15%	9%	13%	10%	7%	2%
ES	67%	47%	33%	20%	11%	10%	5%	5%	1%
FI	81%	65%	51%	29%	4%	11%	2%	2%	1%
FR	65%	62%	24%	14%	7%	4%	6%	1%	1%
HU	63%	61%	34%	21%	17%	5%	3%	5%	0%
IE	77%	60%	39%	28%	10%	11%	15%	6%	1%
IT	63%	54%	22%	11%	14%	7%	2%	5%	1%
LT	79%	48%	48%	17%	26%	8%	11%	13%	3%
LU	56%	65%	44%	28%	3%	12%	13%	11%	2%
LV	76%	59%	34%	19%	26%	5%	9%	8%	4%
MT	89%	41%	22%	27%	13%	8%	1%	4%	1%
NL	56%	51%	27%	13%	14%	5%	3%	5%	3%
PL	59%	58%	30%	25%	31%	6%	3%	5%	2%
PT	79%	57%	49%	18%	3%	10%	10%	7%	2%
RO	66%	57%	25%	15%	53%	8%	7%	5%	3%
SE	68%	64%	31%	22%	8%	4%	3%	5%	0%
SI	70%	64%	47%	20%	11%	4%	8%	6%	1%
SK	73%	54%	38%	18%	16%	3%	9%	5%	1%
UK	66%	58%	21%	22%	14%	8%	8%	4%	1%

Note: Based on cross-border online shopper subsample (N=11224)

A social demographic analysis shows that a wider choice of products attracts less educated people. Older online shoppers buy in other countries because they save time, whereas

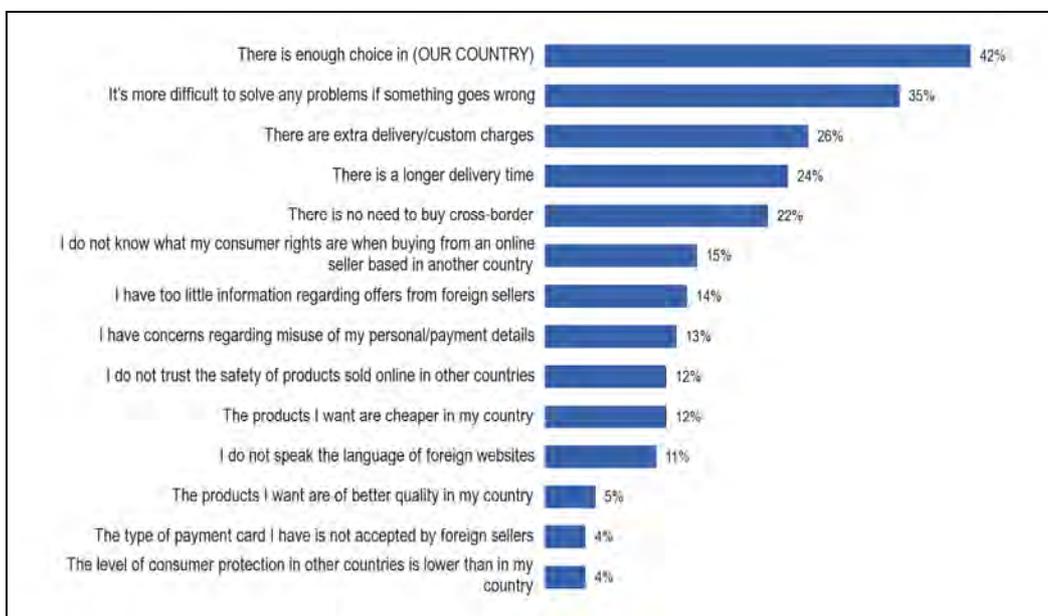
²⁰ Question used: What are your three most important reasons for BUYING products from an online seller in another country?

younger cross-border online shoppers expect to find cheaper products and also say that certain products are not available in their own country.

Additionally, there appear to be some rather interesting differences between frequent online shoppers and occasional online shoppers. Firstly, frequent online shoppers represent more than two-thirds of the cross-border shoppers in this sample. While frequent online shoppers are particularly likely to shop across countries, occasional online shoppers are more likely to avoid cross-border online shopping. Secondly, frequent online shoppers are more likely to highlight cheaper prices and the better quality of products as reasons to purchase products in other countries.

Moving on to reasons for not buying abroad, the arguments look quite similar to those advanced for not buying online at all (see following figure).

Figure 11: Consumer survey – Why DIDN'T YOU BUY from an online seller based in another country? (Choose the three most important reasons)



Note: Based on non-cross-border shopper subsample (N=14716)

More than one-third of respondents state that there is enough choice in their own countries. Unsurprisingly, respondents in the two biggest online markets, Germany and the UK, show high levels of support for this argument. Online shoppers in the Netherlands, Denmark, Poland and France also do not shop in other countries because of the availability of products in their own countries.

Once again, the argument that it is more difficult to solve any problems if something goes wrong appears in the list of the three most important reasons why people do not shop in another country (35%). Support for this item only falls below 30% in Belgium (27%), the Netherlands (24%) and Poland (24%).

Around one quarter of respondents (24%) fear longer delivery times. Respondents in Bulgaria (40%), Latvia (39%) and Romania (44%) were especially likely to choose this argument.

Again roughly a quarter of the respondents state that they fear extra delivery or additional customs charges when shopping abroad. The language of foreign websites does not appear to be a major obstacle to buying abroad, but it was more often mentioned in eastern Europe, where in almost all countries more than 10% of respondents chose this item; in the Czech Republic, Hungary, Lithuania and Slovakia this figure was higher than 20%.

As has already been mentioned, younger non-online shoppers prefer to get the products immediately and the same motive dissuades them from cross-border shopping. Younger people that do not shop cross-border assume there will be longer delivery times and extra costs. Older online shoppers think that there is enough choice in their own country and that there is no need to shop abroad. More educated people are particularly likely to say that the extra delivery and customs charges are their reasons for not shopping cross-border.

It is also interesting to observe that the same arguments in favour of or against online shopping appear in a qualitative study of cross-border shopping.²¹ The study was conducted on behalf of the European Commission and concludes that price benefits, a wider choice of products and better quality are important reasons to shop cross-border. Furthermore, the respondents expressed their reservations about cross-border shopping by highlighting issues of post-transaction problems, transport difficulties and costs and uncertainty about the quality of delivered products.

What is the influence of languages?

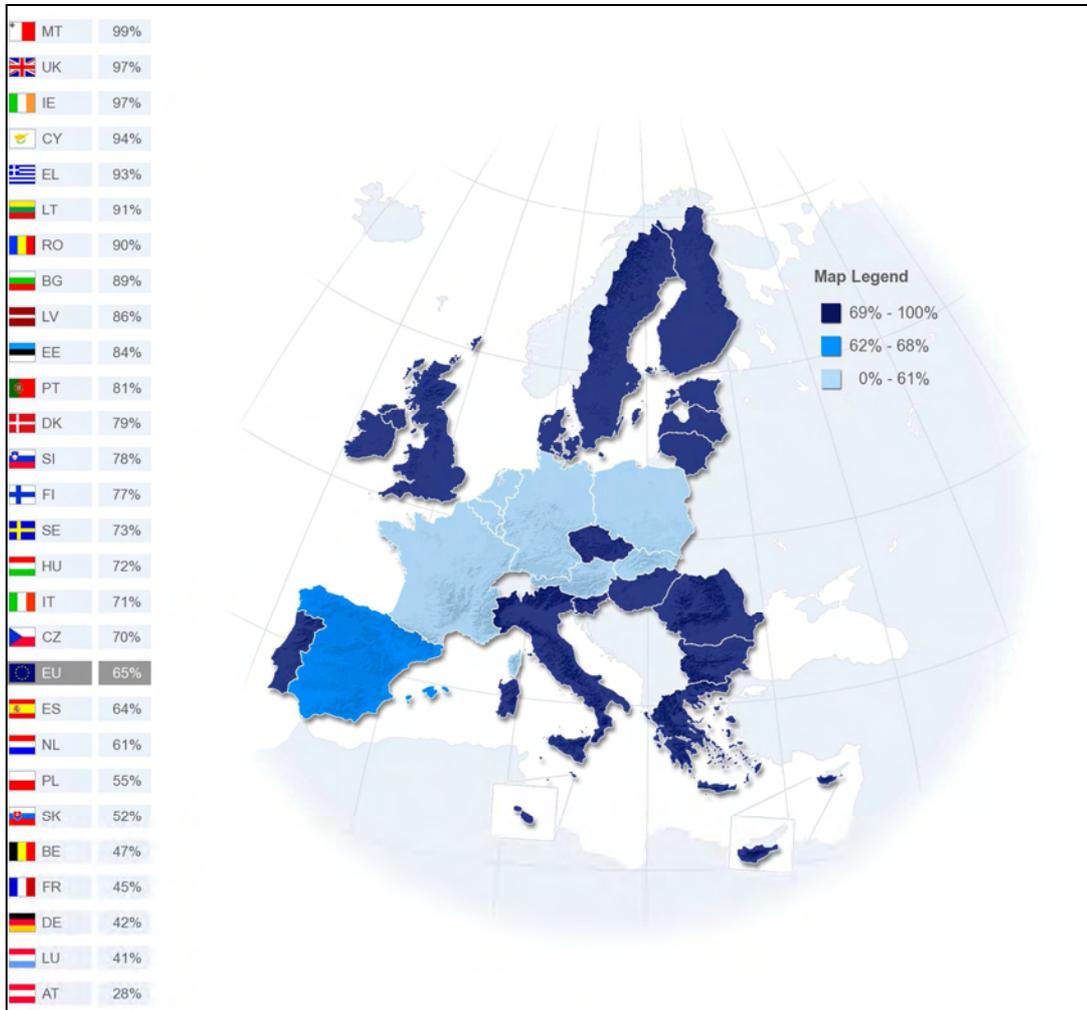
Two-thirds of cross-border online shoppers bought from websites which use English as the main language (see following figure). German, at 21% and French at only 14%, lag far behind. Younger cross-border shoppers in particular visited websites in English. The prevalence of English as the dominant language for Internet use is supported by other studies such as the Flash Eurobarometer (May 2011) which found that “48% of Internet users in the EU mentioned using English for reading or watching content on the Internet and 29% said the same for writing on the Internet”. The same Eurobarometer found that in general 57% of respondents had used a language other than their own, at least occasionally, when searching for and buying products and services on the internet.²²

A shared language also has a significant impact on cross-border shopping. In particular, online shoppers in western Europe are able to shop in their own language cross-border. As already mentioned, there is lively cross-border online shopping between Germany and Austria, Luxembourg and Germany, Ireland and the UK, Belgium and France, and Belgium and the Netherlands. Looking at Table 5 above, the results show that many respondents bought products in the “bigger” market using the same language. This is true of the German, French, English and Czech-Slovak language clusters.

²¹ Optem. 2004. Qualitative study on cross border shopping in 28 European countries.

²² Flash Eurobarometer, User language preferences online, May 2011, p. 5

Figure 12: Consumer survey – Percentage of cross-border shoppers that purchased on an English language sellers' website²³



Note: Based on cross-border shopper subsample (N=11224), percentages refer to answers of "English"

Total spending on online purchases

Taking the total of purchases made over the last year, it can be seen that based on the sample of all online shoppers average spending online was 1,163 Euro (including domestic and cross-border spending). Frequent online shoppers spent more (1,615 Euro) than occasional online shoppers (643 Euro). Those online shoppers who also shop cross-border tended to spend the most, spending on average 1,667 Euro altogether on their domestic and cross-border online purchases, compared to 778 Euro for those respondents that only shopped online domestically (see following table).

²³ Question used: When you bought products online in another country (than your own), what was the language of the sellers' website? [Percentages refer to answers of English].

Table 8: Consumer survey – Spending of EU shoppers over the last year

	EU	Frequent online shoppers	Occasional online shoppers	Cross-border online shoppers	Non-cross-border online shoppers
Average	1,163	1,615	643	1,667	778
Median	500	840	280	820	340

Note: EU average based on all online shoppers (N=25940); Frequent online shoppers (N=13872); Occasional online shoppers (N=12068); Cross-border online shoppers (N=11224); Non-cross-border online shoppers (N=14716)

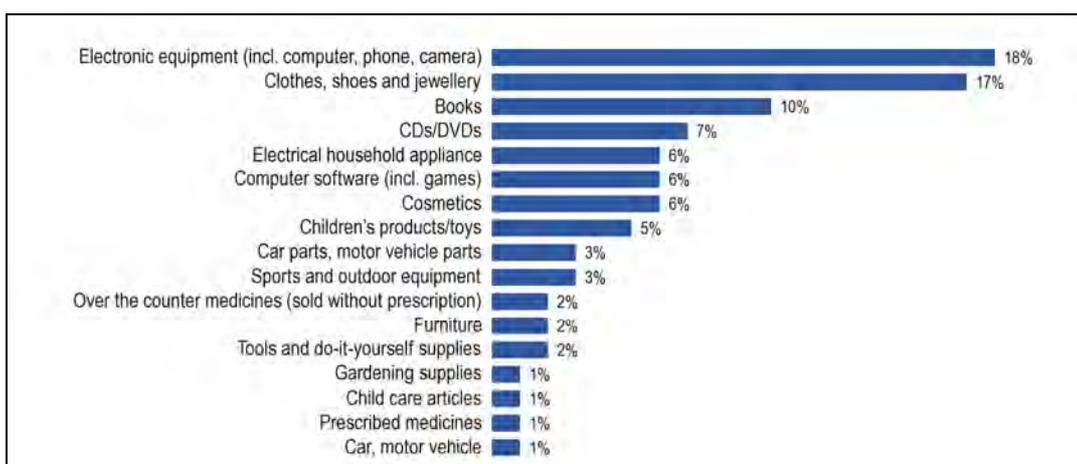
2.3. Shopping process online and offline

In order to assess the entire shopping process as a whole and the impact of e-commerce on the retail market as a whole (including online and offline purchases), respondents to the consumer survey were asked about the types of product they had bought most recently, how much money they spent, and how they purchased the product. Respondents were also asked to assess whether they had saved money by shopping online or offline. This section describes the preferences of online and non-online shoppers throughout the shopping process.

Type of products bought most recently

The most frequently purchased items bought by respondents to this survey *online* in their home country costing 30 Euro or more were: electronic equipment, clothes, shoes and jewellery, and books.

Figure 13: Consumer survey – Thinking only about occasions when you spent 30 Euro or more, what TYPE OF PRODUCTS did you purchase online MOST RECENTLY in (OUR COUNTRY) (excluding food and groceries)?



Note: Based on online shopper subsample (N=25908)

The following table shows the type of product bought online in the home country, differentiated by cross-border and non-cross-border shoppers. Differences are very minor.

Table 9: Consumer survey – Type of product bought online²⁴

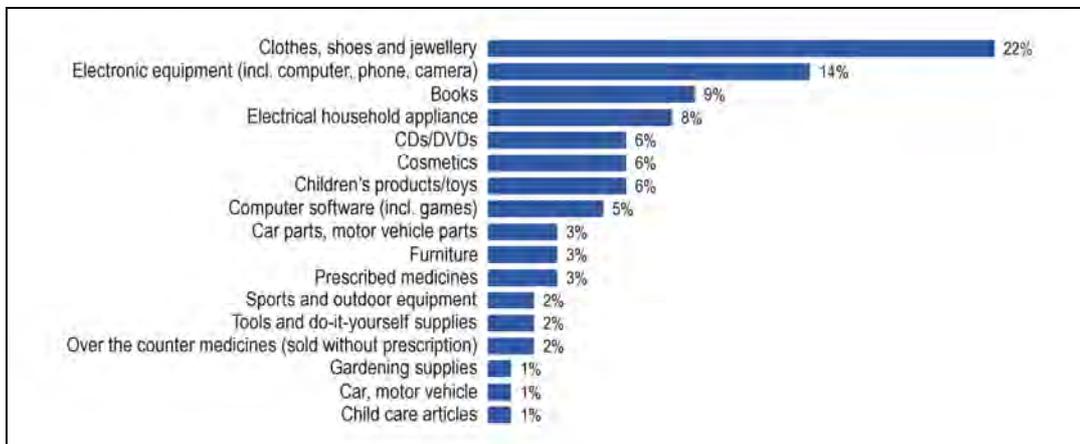
Type	EU average	Cross-border online shoppers	Non-cross-border online shoppers
Electronic equipment (incl. computer, phone, camera)	18%	19%	17%
Clothes, shoes and jewellery	17%	17%	18%
Books	10%	10%	10%
CDs/DVDs	7%	8%	6%
Electrical household appliance	6%	6%	7%
Computer software (incl. games)	6%	8%	5%
Cosmetics	6%	6%	7%
Children's products/toys	5%	4%	6%
Sports and outdoor equipment	3%	4%	3%
Car parts, motor vehicle parts	3%	3%	3%
Over the counter medicines (sold without prescription)	2%	2%	3%
Furniture	2%	2%	2%
Tools and do-it-yourself supplies	2%	2%	2%
Gardening supplies	1%	1%	1%
Child care articles	1%	1%	0%
Prescribed medicines	1%	1%	1%
Car, motor vehicle	1%	1%	<1%
Other	9%	7%	10%

Note: EU average based on online shoppers responding to the question, cross-border online shopper subsample, non-cross-border online shopper subsample

It is interesting that the same product categories that are most popular in online shopping also appear in the top three (with a slightly different order) when respondents were asked about their last purchase *in a shop* costing 30 Euro or more (see following figure). There are some national differences, but these are small and follow the general trend.

²⁴ Question used: Thinking only about occasions when you spent 30 Euro or more, what TYPE OF PRODUCTS did you purchase online MOST RECENTLY in (OUR COUNTRY) (excluding food and groceries)?

Figure 14: Consumer survey – Now, about your experience shopping in person at SHOPS: Thinking only about occasions when you spent 30 Euro or more, what TYPE OF PRODUCT did you purchase in a shop MOST RECENTLY in (OUR COUNTRY) (excluding food and groceries)?



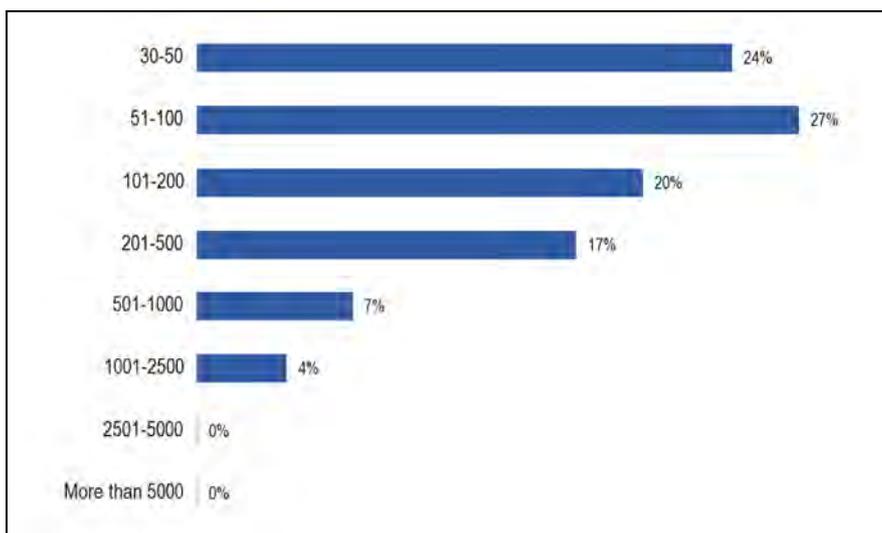
Note: Based on all respondents (N=29010)

Another interesting aspect of the product categories of online purchases is that users of price comparison websites buy electronic equipment, whereas non-PCW users buy clothes, shoes and jewellery.

Money spent

The amount spent by respondents on their last purchase costing 30 Euro or more *in a shop* is on average 343 Euro. Online shoppers spent an average 254 Euro on their last *online* purchase costing 30 Euro or more (in both cases excluding food and groceries). The amount of money spent online on the last purchase is depicted in the following figure.

Figure 15: Consumer survey – Money spent online on last purchase²⁵



Note: Based on online shopper subsample (N=25908)

²⁵ Question used: For this online purchase, how much MONEY did you spend?

Frequent online shoppers spent more on their last online purchase than occasional online shoppers, cross-border online shoppers spent more than non-cross-border online shoppers (see following table).

Table 10: Consumer survey – Money spent online on most recent purchase²⁶

	Frequent online shoppers	Occasional online shoppers	Cross-border online shoppers	Non-cross-border online shoppers
Average	302	198	282	233
Median	117	88	115	95

Note: Frequent online shopper subsample (N=13858); Occasional online shopper subsample (N=12050); Cross-border online shopper subsample (N=11193); Non-cross-border online shopper subsample (N=14716)

The table below shows the median amount of money spent online and offline for the last purchase by product category. Consumers buying offline and online spent almost the same amount of money on children’s products and toys, child care articles, cosmetics, and gardening supplies. The median amount for furniture, cars and motor vehicles, and car parts and motor vehicle parts is higher for online purchases.

Table 11: Consumer survey – Most recent purchase online/offline costing 30 Euro or more

Product	Amount of money spent for most recent purchase online in Euro (EU27)	Amount of money spent for most recent purchase offline in Euro (EU27)
	Median	Median
Books	60	85
CDs/DVDs	60	82
Computer software (incl. games)	80	115
Children’s products/toys	85	85
Child care articles	176	180
Electronic equipment (incl. computer, phone, camera)	165	111
Electrical household appliance	181	130
Clothes, shoes and jewellery	100	90
Cosmetics	90	88
Prescribed medicines	80	95
Over-the-counter medicines (sold without prescription)	67	90
Furniture	304	150
Sports and outdoor equipment	145	117
Gardening supplies	115	110
Tools and Do it yourself supplies	140	100
Car, motor vehicle	330	251
Car parts motor vehicle parts	140	115

Source: Calculation using the weighted data set; the median is displayed

²⁶ Question used: For this online purchase, how much MONEY did you spend?

The value of purchases made online tended to be fairly low; approximately 70% of the online shoppers spent less than 200 Euro. Frequent online shoppers spent around 104 Euro more than occasional online shoppers on the most recent purchase costing 30 Euro or more.

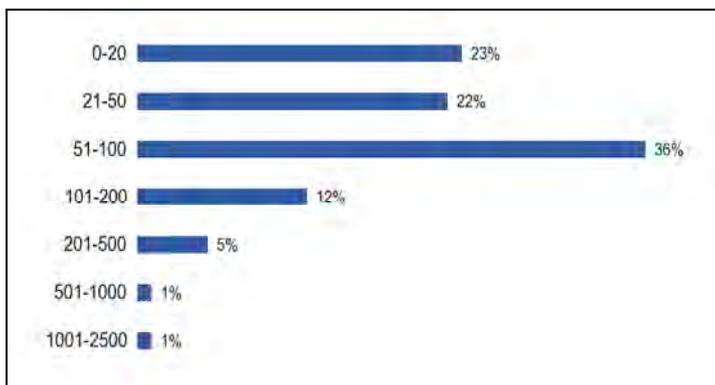
Perceived savings

The estimated savings while shopping online are put at 136 Euro on average by online shoppers. Most of the respondents are grouped in the categories 0-20, 21-50, and 51 to 100 Euro. 81% of all online shoppers state that their savings are not above 100 Euro.

The reported savings appear to be much higher than those this study identified when comparing online and offline prices in 17 Member States for selected products, possibly highlighting a perception bias of consumers regarding savings relating to a purchase decision.²⁷

It is interesting to see that especially frequent online shoppers report higher savings than occasional online shoppers – around 100 Euro on average. But, also those who indicated they shopped only once online, report a considerably higher amount of savings than those respondents who used online shopping several times in a couple of months. One can interpret these results to say that frequent online shoppers developed a self-concept of a price advantage while shopping online. On the other hand those who shop infrequently online represent a case, where the shopper used the online mode to save money on a particular product. This is supported by the fact that those who only shopped online once show the same pattern of products bought online as other groups do – so they only shopped once, but bought almost the same products as more frequent online shoppers did.

Figure 16: Consumer survey – For this online purchase, how much did you SAVE (approximately) compared to buying the same product in a shop?



Note: Based on online shopper subsample (N=25908)

It is also interesting that the perceived saving while shopping online or offline is fairly similar.

²⁷ One has also to bear in mind that the questionnaire did not ask for a source of information regarding the price comparison. The instrument was clearly focused on the perception fact in order to compare the results of the price collection exercise and the survey.

Table 12: Consumer survey – Perceived savings while buying online or offline²⁸

	Online shopping	Offline shopping		
	EU average*	EU average**	Online shoppers	Non-online shoppers
Mean	136	106	105	111
Median	70	97	97	97

Note: *EU average based on all online shopper subsample (N=25908); **EU average based on all respondents (N=28932); Online shopper subsample (N=25893); Non-online shopper subsample (N=3039)

The highest amounts saved are reported for electronic equipment (when buying online) and prescribed and over-the-counter medicines (when buying offline). Again, respondents in eastern European countries estimate their possible savings somewhat lower.

2.4. Purchasing the product

How intensive is the use of e-commerce/Internet search in preparing and conducting purchases? This includes the following aspects: How much of their day-to-day interactions with traders are conducted online? How is this reflected in terms of spending, time, exposure to advertisement, and other metrics?

How consumers prepare to make a purchase

Consumers use different research strategies when preparing to purchase a product. The consumer survey was designed to allow evaluation of these different strategies. Respondents were asked which steps they took first, second and third, when researching their most recent online purchase costing 30 Euro or more (excluding food and groceries). The various steps which respondents could choose included common online strategies such as using search engines, visiting retailer websites, or visiting price comparison websites, as well as common offline strategies such as visiting shops, viewing reports and advertisements in media, or discussing with friends or colleagues.

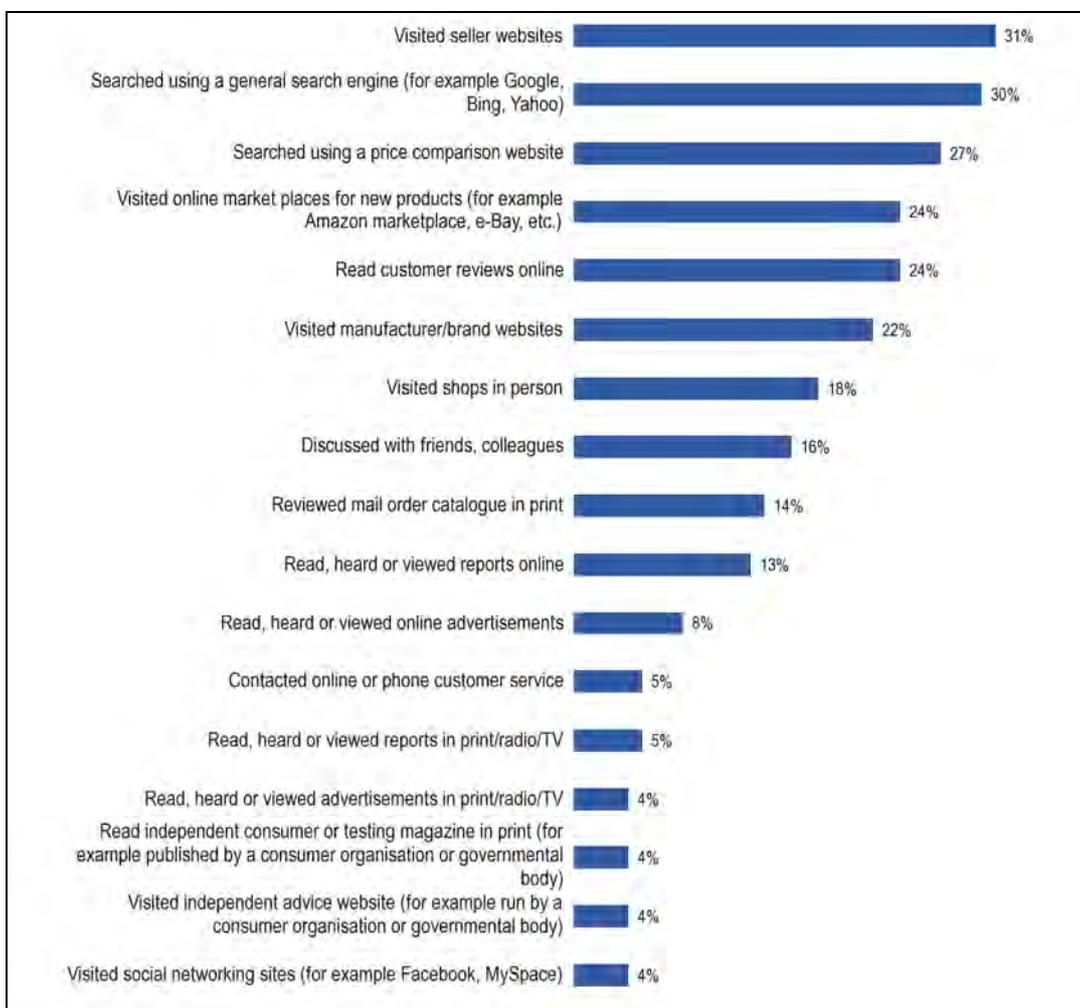
When the three steps were combined, the most popular strategies for online shoppers researching a purchase were all online strategies: visiting seller websites (31%), using a general search engine such as Google, Bing or Yahoo (30%) and using a price comparison website (27%).²⁹ Also popular were visiting online market places for new products (for example Amazon marketplace, eBay, etc), and reading customer reviews online.

However, online shoppers also used offline methods to research products. For example 18% visited the shops in person and 16% discussed with friends and colleagues when making their last online purchase costing 30 Euro or more.

²⁸ Question used: For this online purchase, how much did you SAVE (approximately) compared to buying the same product in a shop / online?

²⁹ The combined results of research steps taken by consumers do not show the total use of search engines or price comparison websites overall. For example 81% of consumers used a price comparison website when making purchases in the last year, whereas only 27% of respondents to this multiple response question selected the option of using a price comparison when researching their most recent purchase costing more than 30 Euro.

Figure 17: Consumer survey – Which of the following did you do to RESEARCH THIS ONLINE PURCHASE? What did you do? (aggregated results)



Note: Based on online shopper subsample (N=25908), combining the answers of the questions which asked for research strategies in a three step logic “what did you do first, second, third”. Question was asked as in a multiple response logic.

Frequent online shoppers (those who shop at least once a month), are more likely to use general search engines, whereas occasional online shoppers are more likely to look for information on manufacturers’ and brand websites. One major observation appears to differentiate frequent and occasional online shoppers. Frequent online shoppers use online market places that sell new products not only for their shopping, but also to research products. They also read online product reviews more often than occasional online shoppers.

Cross-border online shoppers are even more likely to visit online market places (27%) than all other types of shoppers in this study (see following table).

Table 13: Consumer survey – Research strategies to prepare for an online purchase³⁰

Strategy	Online shoppers	Cross-border online shoppers	Non-cross-border shoppers
Visited seller websites	31%	29%	33%
Searched using a general search engine (for example Google, Bing, Yahoo)	30%	31%	29%
Searched using a price comparison website	27%	27%	28%
Read customer reviews online	24%	25%	24%
Visited online market places for new products (for example Amazon marketplace, e-Bay, etc.)	24%	27%	21%
Visited manufacturer/brand websites	22%	21%	23%
Visited shops in person	18%	20%	17%
Discussed with friends, colleagues	16%	14%	18%
Reviewed mail order catalogue in print	14%	13%	14%
Read, heard or viewed reports online	13%	15%	11%
Read, heard or viewed online advertisements	8%	9%	8%
Contacted online or phone customer service	5%	5%	6%
Read, heard or viewed reports in print/radio/TV	5%	7%	4%
Visited independent advice website (for example run by a consumer organisation or governmental body)	4%	4%	4%
Visited social networking sites (for example Facebook, MySpace)	4%	5%	3%
Read independent consumer or testing magazine in print (for example published by a consumer organisation or governmental body)	4%	6%	3%
Read, heard or viewed advertisements in print/radio/TV	4%	5%	3%

Note: Based on online shopper subsample (N=25909); Cross-border online shopper subsample (N=11193); Non-cross-border online shopper subsample (N=14716)

The national differences in research methods are quite interesting. Online shoppers in eastern Europe are more likely to use customer reviews available online, whereas active online shoppers (in terms of money and frequency) in Germany or the UK use online market places to obtain information. Price comparison websites are prominent in Greece, France, the Czech Republic, Hungary, Poland, Slovakia, Sweden, and Latvia, where they are consulted by one-third of online shoppers or more.

But online shoppers also use offline methods to research products, such as going to shops, or reviewing mail order catalogues, and offline shoppers do online research before buying a product in a shop. The research steps indicated by respondents are provided in the following tables in more detail, for both online and offline purchases.

³⁰ Question used: Which of the following did you do to RESEARCH THIS ONLINE PURCHASE?

Table 14: Consumer survey – Research strategies for online purchase (aggregated results – European countries)³¹

MS	What did you do first?						And second?						And third?						
	Searched using a general search engine (e.g. Google, Bing)	Visited seller websites	Visited online market places for new products (e.g. eBay)	Searched using a price comparison website	Read customer reviews online	Visited shops in person	Visited seller websites	Searched using a general search engine (e.g. Google, Bing)	Searched using a price comparison website	Read customer reviews online	Visited manufacturer/brand websites	I did not take any other action to research this online purchase	Visited seller websites	Searched using a price comparison website	Visited manufacturer/brand websites	Discussed with friends, colleagues	Read customer reviews online	Searched using a general search engine (e.g. Google, Bing)	I did not take any other action to research this online purchase
EU27	13%	12%	11%	10%	9%	8%	10%	10%	9%	9%	8%	12%	10%	10%	9%	8%	8%	8%	13%
AT	13%	18%	16%	6%	4%	4%	13%	7%	8%	7%	8%	15%	11%	9%	8%	8%	7%	7%	16%
BE	16%	12%	7%	7%	6%	6%	10%	11%	7%	8%	6%	14%	8%	8%	9%	8%	6%	10%	14%
BG	16%	11%	14%	5%	11%	3%	10%	12%	8%	11%	8%	4%	10%	9%	12%	14%	10%	4%	10%
CY	5%	10%	17%	1%	2%	17%	4%	1%	8%	0%	4%	22%	0%	0%	0%	6%	0%	2%	54%
CZ	12%	13%	6%	22%	9%	7%	17%	8%	14%	12%	9%	6%	14%	13%	9%	9%	8%	6%	13%
DE	12%	13%	20%	8%	4%	7%	11%	11%	7%	6%	5%	19%	10%	10%	8%	7%	7%	7%	14%
DK	20%	23%	5%	12%	3%	3%	17%	8%	8%	4%	12%	28%	15%	7%	9%	5%	4%	5%	38%
EE	13%	15%	5%	5%	11%	6%	11%	8%	6%	11%	7%	7%	9%	6%	7%	13%	12%	7%	10%
EL	12%	6%	14%	16%	7%	10%	7%	11%	11%	9%	6%	6%	7%	10%	6%	10%	9%	10%	15%
ES	15%	9%	11%	6%	7%	7%	10%	12%	7%	6%	10%	8%	8%	8%	9%	8%	5%	9%	12%
FI	12%	22%	6%	9%	6%	3%	13%	8%	10%	6%	7%	21%	11%	11%	10%	6%	5%	8%	24%
FR	18%	11%	9%	16%	6%	8%	11%	12%	10%	9%	9%	11%	11%	9%	9%	9%	8%	9%	15%
HU	18%	12%	4%	14%	9%	3%	9%	11%	11%	10%	9%	12%	10%	10%	11%	9%	8%	8%	18%
IE	11%	13%	13%	3%	11%	12%	12%	11%	5%	9%	6%	8%	9%	7%	8%	8%	9%	11%	12%
IT	8%	7%	7%	6%	8%	17%	6%	9%	9%	8%	7%	4%	9%	11%	7%	8%	6%	6%	10%
LT	13%	12%	8%	3%	17%	9%	15%	9%	5%	14%	8%	5%	12%	8%	7%	16%	13%	6%	10%
LU	17%	7%	7%	4%	3%	6%	9%	12%	7%	9%	9%	14%	14%	10%	12%	0%	7%	10%	15%
LV	14%	7%	10%	12%	12%	7%	7%	9%	12%	14%	7%	1%	9%	12%	9%	14%	10%	8%	3%
MT	8%	23%	23%	0%	0%	4%	16%	5%	0%	0%	4%	55%	0%	0%	0%	0%	0%	0%	100%
NL	9%	10%	5%	13%	8%	7%	7%	7%	10%	7%	7%	20%	8%	8%	8%	5%	5%	9%	20%
PL	9%	11%	11%	10%	26%	4%	10%	8%	12%	17%	10%	3%	12%	12%	11%	10%	11%	6%	5%
PT	22%	12%	8%	8%	4%	7%	8%	13%	9%	5%	11%	11%	9%	8%	10%	10%	3%	8%	19%
RO	22%	17%	1%	6%	9%	6%	13%	13%	10%	8%	13%	3%	10%	8%	11%	14%	10%	9%	6%

³¹ Question used: Which of the following did you do to RESEARCH THIS ONLINE PURCHASE? What did you do first? You will be given the option of identifying three actions. Only the most frequent answers are listed.

MS	What did you do first?						And second?						And third?						
	Searched using a general search engine (e.g. Google, Bing)	Visited seller websites	Visited online market places for new products (e.g. eBay)	Searched using a price comparison website	Read customer reviews online	Visited shops in person	Visited seller websites	Searched using a general search engine (e.g. Google, Bing)	Searched using a price comparison website	Read customer reviews online	Visited manufacturer/ brand websites	I did not take any other action to research this online purchase	Visited seller websites	Searched using a price comparison website	Visited manufacturer/ brand websites	Discussed with friends, colleagues	Read customer reviews online	Searched using a general search engine (e.g. Google, Bing)	I did not take any other action to research this online purchase
SE	12%	20%	6%	17%	4%	6%	13%	8%	10%	4%	8%	34%	11%	7%	7%	5%	5%	4%	35%
SI	15%	14%	9%	9%	11%	5%	15%	10%	8%	13%	9%	4%	12%	11%	10%	7%	11%	7%	8%
SK	18%	10%	5%	21%	8%	7%	16%	10%	16%	14%	7%	4%	12%	12%	10%	14%	10%	8%	8%
UK	11%	13%	15%	7%	11%	9%	9%	7%	7%	11%	6%	18%	12%	8%	8%	5%	10%	8%	15%

Note: Based on online shopper subsample (N=25909)

Table 15: Consumer survey – Research strategies for offline purchase (aggregated results – European countries)³²

MS	What did you do first?						And second?						And third?								
	Visited shops in person	Reviewed mail order catalogue in print	Discussed with friends, colleagues	Visited seller websites	Searched using a general search engine (e.g. Google, Bing)	Other	Visited shops in person	Discussed with friends, colleagues	Read customer reviews online	Searched using a general search engine (e.g. Google, Bing)	Reviewed mail order catalogue in print	Visited seller websites	Visited manufacturer/ brand websites	Discussed with friends, colleagues	Visited seller websites	Visited manufacturer/ brand websites	Searched using a price comparison website	Searched using a general search engine (e.g. Google, Bing)	Visited shops in person	Read customer reviews online	Visited online market places for new products (e.g. eBay)
EU27	38%	8%	6%	5%	5%	10%	10%	6%	5%	5%	5%	5%	5%	9%	7%	7%	7%	6%	6%	6%	5%
AT	43%	6%	6%	4%	3%	14%	10%	6%	3%	3%	4%	5%	5%	11%	7%	7%	4%	4%	7%	4%	5%
BE	43%	8%	5%	5%	5%	13%	11%	6%	4%	6%	7%	4%	4%	9%	7%	6%	5%	6%	6%	4%	4%
BG	41%	5%	8%	4%	7%	3%	10%	13%	9%	5%	5%	5%	4%	14%	6%	7%	7%	7%	5%	6%	3%
CY	61%	3%	2%	0%	1%	8%	9%	3%	1%	1%	2%	1%	1%	1%	0%	1%	1%	0%	5%	0%	0%
CZ	26%	12%	6%	8%	7%	7%	10%	8%	6%	5%	5%	12%	6%	10%	11%	10%	10%	7%	5%	5%	4%
DE	41%	5%	6%	4%	3%	17%	7%	5%	3%	5%	4%	4%	3%	8%	7%	6%	6%	5%	6%	5%	5%
DK	44%	5%	3%	7%	6%	23%	10%	3%	1%	3%	2%	5%	3%	4%	7%	9%	3%	5%	4%	2%	2%
EE	43%	5%	6%	6%	4%	6%	15%	10%	6%	5%	7%	6%	5%	17%	10%	7%	3%	7%	5%	6%	1%
EL	27%	6%	8%	4%	8%	6%	9%	7%	6%	6%	3%	5%	5%	11%	6%	6%	8%	8%	6%	6%	5%

³² Question used: Which of the following did you do to RESEARCH THIS PURCHASE IN A SHOP? What did you do first? You will be given the option of identifying three actions. Only the most frequent answers are listed.

MS	What did you do first?						And second?							And third?							
	Visited shops in person	Reviewed mail order catalogue in print	Discussed with friends, colleagues	Visited seller websites	Searched using a general search engine (e.g. Google, Bing)	Other	Visited shops in person	Discussed with friends, colleagues	Read customer reviews online	Searched using a general search engine (e.g. Google, Bing)	Reviewed mail order catalogue in print	Visited seller websites	Visited manufacturer/brand websites	Discussed with friends, colleagues	Visited seller websites	Visited manufacturer/brand websites	Searched using a price comparison website	Searched using a general search engine (e.g. Google, Bing)	Visited shops in person	Read customer reviews online	Visited online market places for new products (e.g. eBay)
ES	34%	11%	7%	5%	5%	8%	12%	9%	3%	7%	8%	4%	7%	8%	6%	7%	6%	8%	5%	5%	4%
FI	49%	5%	4%	4%	3%	14%	11%	4%	3%	5%	3%	6%	3%	10%	6%	8%	6%	4%	7%	4%	1%
FR	45%	10%	7%	5%	4%	8%	13%	5%	4%	7%	8%	4%	4%	10%	8%	6%	7%	7%	8%	5%	6%
HU	40%	5%	7%	4%	6%	8%	14%	8%	4%	6%	4%	4%	5%	11%	5%	7%	8%	7%	6%	4%	2%
IE	49%	7%	9%	4%	3%	7%	12%	10%	5%	4%	5%	6%	3%	10%	8%	4%	3%	5%	7%	5%	5%
IT	36%	11%	4%	3%	3%	7%	11%	5%	7%	6%	5%	4%	4%	8%	7%	6%	7%	6%	5%	6%	6%
LT	40%	5%	7%	6%	6%	7%	9%	12%	10%	6%	4%	5%	4%	11%	10%	5%	5%	8%	5%	8%	3%
LU	49%	10%	0%	2%	2%	3%	12%	0%	3%	5%	6%	5%	5%	0%	8%	8%	4%	6%	8%	5%	5%
LV	43%	4%	6%	4%	6%	5%	11%	14%	7%	5%	7%	6%	4%	16%	9%	6%	7%	9%	7%	8%	5%
MT	72%	2%	2%	2%	1%	0%	11%	4%	0%	2%	1%	2%	1%	6%	3%	1%	1%	2%	15%	0%	2%
NL	31%	6%	5%	6%	4%	18%	10%	4%	5%	5%	5%	4%	3%	7%	6%	6%	8%	6%	7%	7%	4%
PL	32%	7%	5%	3%	4%	3%	8%	6%	12%	5%	5%	6%	8%	10%	8%	13%	10%	5%	3%	9%	5%
PT	48%	6%	5%	5%	8%	7%	12%	9%	3%	6%	5%	4%	6%	11%	8%	8%	7%	9%	7%	4%	3%
RO	40%	8%	6%	9%	9%	3%	11%	14%	6%	8%	6%	8%	8%	14%	7%	9%	7%	9%	6%	5%	1%
SE	24%	5%	8%	9%	6%	29%	10%	4%	2%	3%	3%	4%	3%	4%	7%	6%	6%	3%	7%	4%	2%
SI	39%	12%	6%	7%	5%	6%	18%	8%	7%	3%	6%	7%	3%	11%	11%	7%	5%	5%	8%	6%	2%
SK	36%	13%	6%	5%	11%	4%	11%	10%	9%	8%	6%	7%	6%	13%	10%	6%	10%	6%	11%	6%	3%
UK	38%	5%	7%	8%	3%	14%	11%	5%	7%	3%	3%	7%	4%	6%	7%	5%	6%	7%	8%	8%	6%

Note: Based on all respondents (N=29010)

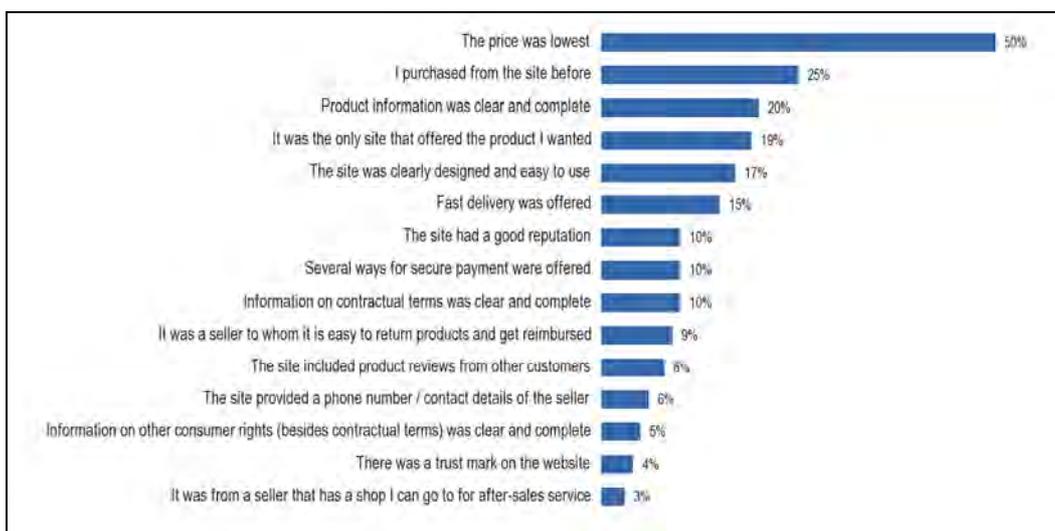
The tables above offer interesting insights into the three step structure of research activities to prepare a purchase. Online shoppers tend to mostly rely on research methods using the Internet, as in all three questions these methods are the most prominent options. For offline shopping the picture changes dramatically as around 53% on average go to shops to see the products. The second most often mentioned research method is to discuss a purchase with friends or colleagues (19%). However, online research methods are also relevant (see discussion of cross-channel purchasing behaviour below).

Deciding where to buy online

42% of online shoppers buy products from a seller's website, while 27% buy from online market places that sell new products (for example Amazon marketplace or e-Bay). Buying after visiting a price comparison website was generally relatively unusual (7%). However, around one-fifth of online shoppers in the Czech Republic, Latvia and Slovakia bought products online after visiting a price comparison website.³³

Frequent online shoppers have a slightly stronger tendency to use online market places that sell new products. Online shoppers in Sweden, Finland, Slovenia and Slovakia more often buy directly on seller's websites.

Figure 18: Consumer survey – Why did you choose the site from which you finally bought this product?



Note: Based on online shopper subsample (N=25909)

As previously, flexible shopping and delivery arrangements seem to be important motivations. But, price remains the main argument for choosing a certain supply channel.

With 50%, “the price was lowest” is the answer most frequently mentioned by online shoppers. Around a quarter of the respondents state that they bought the products from websites they used before and another fifth say that only the website they bought from offered the wanted product.

³³ Question used: When you finally BOUGHT this product online, which of the following applied?

Besides price advantages and individual experiences with certain websites, between 17% and 20% of online shoppers also mention the fact that the website was clearly designed and easy to use, and that the product information was clear and complete.

Again, frequent online shoppers and those who spent more money online are more likely to buy products on sites they already know.

The existence of physical shops where consumers can go for after-sales service, and businesses belonging to a trustmark, were not found to be important factors for consumers when deciding which websites to buy goods from.

Cross-channel purchasing behaviour

In general, seeing a product in a shop seems to be a relatively frequent method of preparing for an online purchase. On average around 18% of online shoppers visited shops before they bought a product online. This pattern is especially common in Estonia (22%), Ireland (26%) and Italy (29%).

Conversely, online information channels, such as sellers' or manufacturers' websites, online consumer reviews or price comparison websites may be used to prepare for a purchase in a shop (see the following table).

Table 16: Consumer survey – Research strategies to purchase offline, using online techniques (aggregated results)³⁴

MS	Visited seller websites	Searched using a general search engine (e.g. Google, Bing)	Read customer reviews online	Visited manufacturer/brand websites	Searched using a price comparison website	Visited online market places for new products (e.g. eBay)	Read, heard or viewed reports online
EU27	15%	15%	14%	13%	13%	12%	11%
AT	13%	8%	8%	12%	9%	11%	11%
BE	15%	15%	8%	12%	8%	7%	8%
BG	14%	18%	19%	13%	14%	12%	14%
CY	1%	1%	1%	2%	1%	5%	2%
CZ	29%	17%	16%	18%	29%	11%	9%
DE	12%	12%	8%	9%	9%	14%	11%
DK	14%	11%	2%	8%	6%	4%	2%
EE	20%	15%	16%	14%	6%	6%	17%
EL	13%	21%	15%	13%	21%	19%	16%
ES	14%	18%	11%	18%	10%	12%	11%
FI	13%	10%	7%	10%	9%	3%	8%
FR	14%	16%	11%	12%	14%	10%	5%
HU	11%	17%	10%	16%	16%	5%	7%
IE	16%	10%	11%	8%	5%	12%	8%
IT	12%	14%	15%	11%	14%	14%	23%

³⁴ Question used: Which of the following did you do to RESEARCH THIS PURCHASE IN A SHOP? The question was asked in the following way: what did you do first, second and third? Offline research strategies are not listed in the table.

LT	19%	19%	23%	12%	8%	9%	16%
LU	10%	10%	6%	11%	5%	7%	9%
LV	18%	19%	21%	12%	17%	11%	14%
MT	4%	4%	0%	1%	0%	5%	1%
NL	15%	12%	13%	10%	15%	8%	8%
PL	17%	14%	33%	23%	21%	15%	13%
PT	15%	20%	7%	14%	12%	9%	3%
RO	24%	25%	15%	20%	14%	4%	6%
SE	17%	10%	5%	8%	13%	3%	4%
SI	22%	12%	15%	12%	11%	6%	7%
SK	20%	23%	17%	13%	26%	7%	9%
UK	20%	10%	18%	10%	9%	14%	8%

Note: Based on all respondents (N=29010)

Not only online shoppers, but also non-online shoppers regularly use research methods based on the Internet. These may be regarded as a second block of common research methods for offline shopping. Interestingly enough, online research methods become more important at a second and third stage in preparing for a purchase offline.

Table 17: Consumer survey – Research strategies for offline shopping (three steps combined)

Strategy	Research strategies offline shopping
Internet based research action	59%
Visited shops in person	53%
Discussed with friends, colleagues	19%
Reviewed mail order catalogue in print	15%
Read, heard or viewed advertisements in print/radio/TV	8%
Read, heard or viewed reports in print/radio/TV	7%
Read independent consumer or testing magazine in print (for example published by a consumer organisation or governmental body)	5%
Contacted online or phone customer service	3%

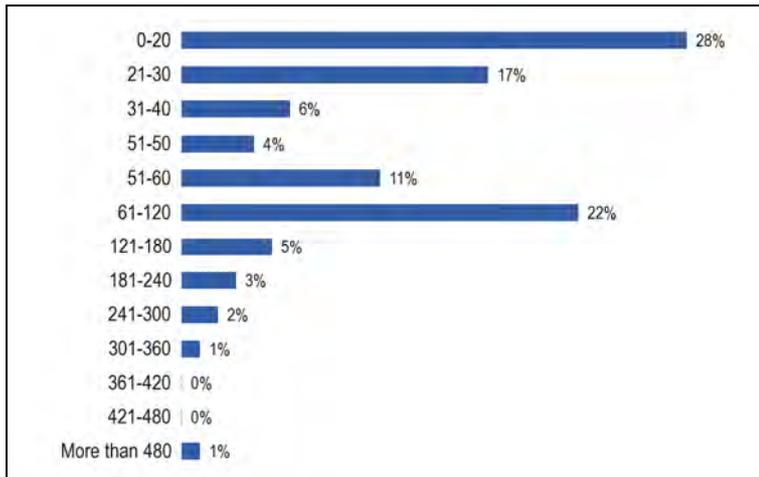
Note: Based on all respondents (N=29010), multiple answers possible, categories representing online research strategies are combined

The table above presents an overview of research strategies for offline shopping, in which all Internet research strategies have been integrated. It indicates the importance of Internet based research action for offline shopping, when purchasing goods of 30 Euro or more (excluding food and groceries).

Time spent shopping

Consumers were asked how much time they spent shopping for their last purchase costing 30 Euro or more. 66% of online shoppers took up to an hour to purchase a product online. 22% needed between one and two hours.

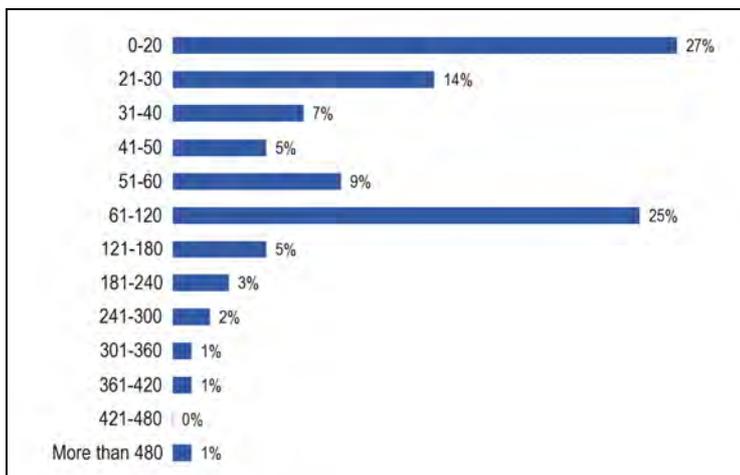
Figure 19: Consumer survey – Roughly how much TIME did you spend shopping for this product (from initial research through final purchase)?



Note: Based on online shopper subsample (N=25897)

Comparing these results with offline shopping, it appears that the average time spent on online and offline shopping is almost the same. 62% of respondents took up to an hour to purchase a product in a shop, with a further 25% of the respondents taking up to two hours when shopping offline. Interestingly men spent significantly more time on offline and online shopping than women do.

Figure 20: Consumer survey – Roughly how much TIME did you spend shopping for this product (from initial research through final purchase)?



Note: Based on all respondents (N=29010)

What innovations have been particularly successful with consumers?

Use of mobile phones in online shopping is not widespread as yet. 7% of respondents indicated they would likely use their mobile phone to find information on products they want to buy in the next year. The proportion is highest in Cyprus (30%), Denmark (12%), Malta (11%), Romania, the UK and Sweden (10%), Portugal (8%), Poland and Luxembourg (7%), Germany and Italy (6%). Also, 6% of respondents say that they are likely to use their mobile phone to buy a product online in the next year.

Table 18: Consumer survey – Online shopping via mobile devices³⁵

MS	In the next year, I will likely use my mobile phone to find information about a product I want to buy	In the next year, I will likely use my mobile phone to buy a product online
EU27	7%	6%
AT	7%	4%
BE	2%	1%
BG	8%	9%
CY	30%	22%
CZ	3%	4%
DE	6%	5%
DK	12%	7%
EE	2%	1%
EL	9%	8%
ES	8%	5%
FI	8%	6%
FR	4%	4%
HU	2%	2%
IE	12%	8%
IT	6%	4%
LT	5%	3%
LU	7%	4%
LV	5%	5%
MT	11%	7%
NL	5%	4%
PL	7%	6%
PT	8%	7%
RO	10%	11%
SE	10%	8%
SI	5%	3%
SK	5%	5%
UK	10%	7%

Note: Based on all respondents (N=29010)

³⁵ Question used: Which of the following applies to you?

Occasional online shoppers are less likely than frequent online shoppers to say that they will use their mobile phone to purchase products in the future. What is more, frequent online shoppers are more likely to consider the possibility of using a mobile phone to look up information on products they want to buy. The same holds true for cross-border online shoppers as they also indicate that they will use their mobile phone to look for information or to purchase products in the future. Once again, occasional online shoppers respond more like non-online shoppers. They are not that interested in using their mobile phones to look for information or to purchase products via their mobile phones.

3. Price comparison websites

Are price comparison websites available, accurate, complete and truthful?

A major benefit of online shopping is the ease of carrying out price comparisons relative to offline shopping. The consumer survey shows that the discovery of cheaper prices online is the single most important reason for shopping online and frequent online shoppers in the survey, especially the more educated ones, particularly praise the convenience of the Internet marketplace in terms of price comparison. The question then arises as to how price comparison websites (PCWs, also called shopbots) feature in online search and shopping behaviour. PCWs are essentially search tools designed ostensibly to help consumers obtain price information from many retailers through a single portal. As the representative of a major PCW expressed in our interviews, PCWs have become much more popular with consumers over the past decade:

“The larger demographic profile of people using search engines has changed significantly over the past years. While in the past it was mostly tech-savvy people using search engines, they are now a commodity that any kind of person will use to get information about a product. The kind of products people search for has changed significantly as well. In the past, it was all more tech-related products, consumer electronics mainly; today, people search for any kind of good, services, tools – whatever. It's used for any kind of search today.”

In this section, we first discuss results from the consumer survey that reveal how European consumers use and perceive PCWs. Following that is a look at the results from the mystery shopping exercises and interviews of PCWs to offer a more objective view of PCWs.

3.1. Use of price comparison websites

How do consumers use and access price comparison websites? What is the role of horizontal search engines?

To investigate these questions, all respondents in the consumer survey were asked about their use of price comparison websites. The results are reported in the following three sections, which cover the popularity of PCWs in EU27, the reasons that motivate consumers to use or not use PCWs, and lastly, consumer experience with using PCWs.

The key findings are that:

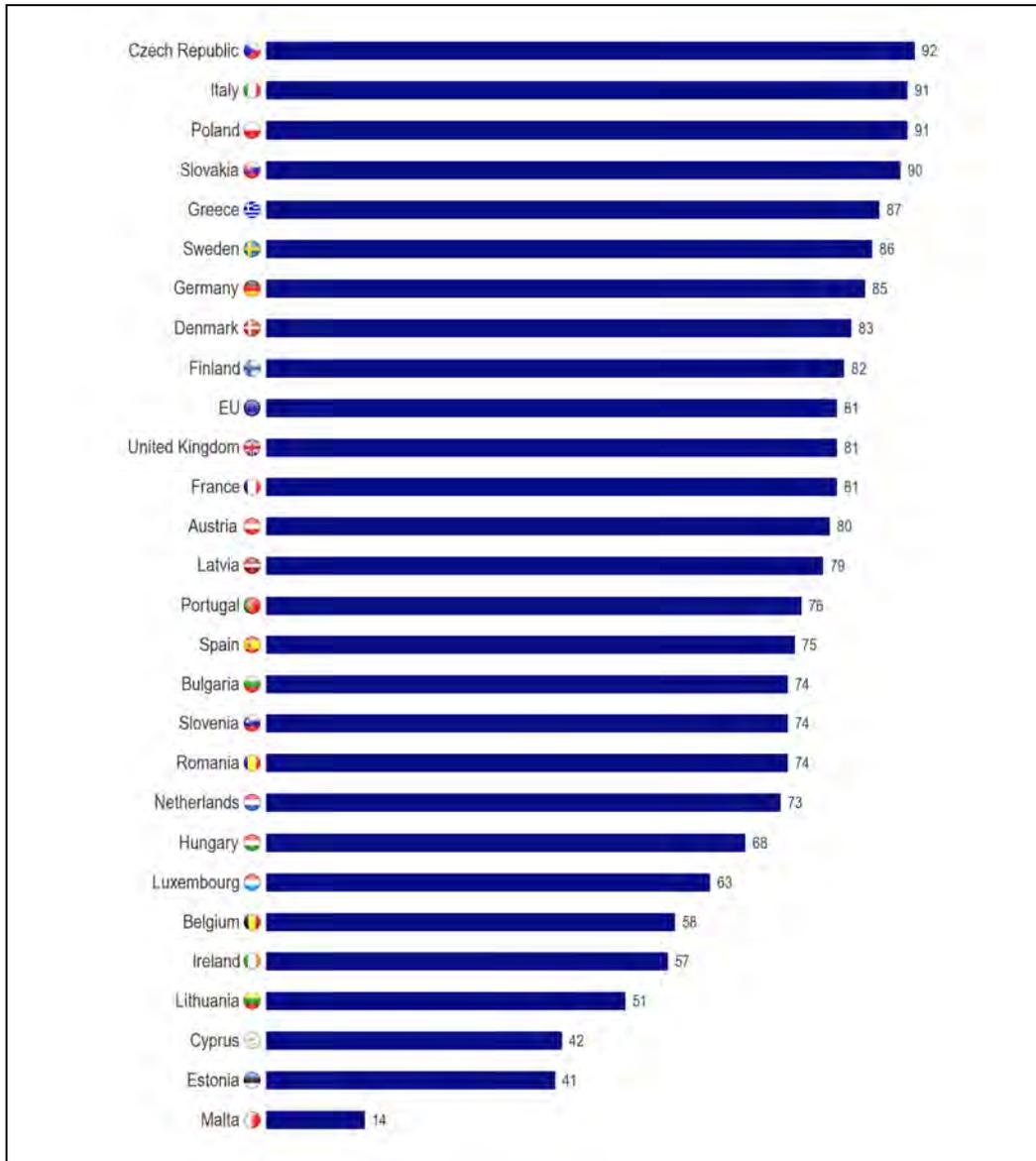
- (1) PCWs are popular in the EU27 as information sources for online shopping, although consumers usually do not make purchases solely based on what they find from PCWs. More than four out of five respondents to the consumer survey had used a PCW in the last 12 months. 48% of these PCW users use the websites at least once per month.
- (2) PCWs are largely perceived by users to be doing a good, unbiased job in finding and listing correct information about prices and delivery charges from different sellers.

3.1.1. Frequency of use of PCWs

How popular are price comparison sites? What percentages of Internet users / online shoppers use these sites to find the best price, for which products?

The most important finding is that price comparison websites are widely used and generally popular among EU27 citizens. To be more specific, more than four out of five respondents to our survey (81%) have used price comparison websites in the past 12 months.

Figure 21: Consumer survey – Percentage of consumers who used a price comparison website in the last 12 months³⁶



Note: Based on all respondents (N=29010)

³⁶ Question used: "Over the last 12 months, HOW OFTEN on average have you used a price comparison website?" [Percentage of respondents whose answers are "maybe once a year" or more often.].

A large majority (48%) of PCW users use those websites at least once a month, and fewer than one in ten of them have only used them once in the last year (8%). As such, the findings corroborate with a recent study that focuses only on the UK insurance industry,³⁷ which shows similar level of popularity with PCWs among UK consumers shopping for home or motor insurance quotes.

Geographical differences. While overall a high proportion of respondents have used PCWs, there are some geographical variations. The previous figure lists the percentage of respondents by country who have used a price comparison website in the past 12 months. The figure illustrates that in most countries the percentage of consumers who used a price comparison website in the last 12 months stands around the EU average. But in a number of countries in central Europe it is especially high, with at least nine out of ten respondents in the Czech Republic (92%), Poland (91%), and Slovakia (90%) having used PCWs in the past year. At the other end of the spectrum, in eight EU countries (Hungary, Luxembourg, Belgium, Ireland, Lithuania, Cyprus, Estonia and Malta) less than 70% of respondents have used price comparison websites in the past 12 months. It is worth noting that the three countries with the lowest proportions of users – Cyprus (42%), Estonia (41%) and Malta (14%) are also countries where the lowest numbers of price comparison websites were identified.

Correlation with online shopping frequency. If the data are examined separately for frequent and occasional online shoppers, among frequent online shoppers only 15% have not used any PCWs in the past 12 months; this proportion is significantly higher (26%) among occasional online shoppers. That is, users of price comparison websites are in general more frequent online shoppers, and indeed tend to spend more money online than non-users, as the survey data separately confirm.

The following table provides the number of price comparison websites identified and included in our mystery shopping exercise.

Table 19: Number of PCWs Identified by Country

Country	Number of PCWs identified
Austria	9
Belgium	6
Bulgaria	6
Cyprus	2
Czech Republic	14
Denmark	9
Estonia	2
Finland	4
France	22
Germany	19
Greece	9
Hungary	5
Ireland	7
Italy	10
Latvia	3
Lithuania	4

³⁷ Knight, E. 2010. The use of price comparison sites in the UK general insurance market. White paper, Consumer Intelligence.

Luxembourg	1
Malta	0
Netherlands	10
Poland	10
Portugal	5
Romania	9
Slovakia	11
Slovenia	2
Spain	12
Sweden	12
United Kingdom	30
Total	233

Note: This is the number of PCW included in the mystery shopping exercise, sorted according to the country a given PCW was targeted at.

As the table shows, the mystery shopping exercise included 233 PCWs throughout the EU. Numbers of PCWs identified in individual Member States ranged from high in those larger Member States which generally tend to have higher levels of Internet penetration, larger markets and higher numbers of frequent online shoppers, to relatively low in those markets where shoppers tend to spend lower amounts online and shop online less frequently. Therefore the countries with the highest numbers of PCWs were the UK, France, Germany and the Czech Republic. Those with the lowest number of PCWs identified were Luxembourg, Cyprus, Estonia, Slovenia, and Latvia. In Malta no PCWs were identified.

Educational and other demographic differences. Postgraduate respondents and respondents who live in metropolitan areas use price comparison websites in higher proportions than those respondents with only elementary education and those living in a rural area, respectively. There is no notable difference in PCW usage frequency among male and female respondents.

Purchasing through price comparison websites. After confirming the popularity of PCWs in the EU27 countries, a crucial question that follows is whether users of PCWs make purchases based on what they find on PCWs. Evidence from previous studies³⁸ suggest that many shoppers use PCWs as a springboard for further search, rather than relying solely on the information provided by the price comparison website to make purchases. Research for the Advertising of Prices market study, carried out in 2010 in the UK by the Office of Fair Trading (OFT), found that 73% of respondents had used a PCW in the last 12 months, compared with 81% of respondents to this study. However, only 15% of those surveyed by the OFT then went on to purchase through the PCW.³⁹ Similarly, the consumer survey results for the EU27 in this study show low use of PCWs to make a purchase - less than one in ten respondents used these sites to identify the seller for the last product bought online (7%).

A country-by-country breakdown – as shown in the following figure – reveals similar geographical variations as that for PCW usage. For example, more people in the Czech Republic (20%), Slovakia (17%), and Latvia (17%) used these sites to identify the seller for

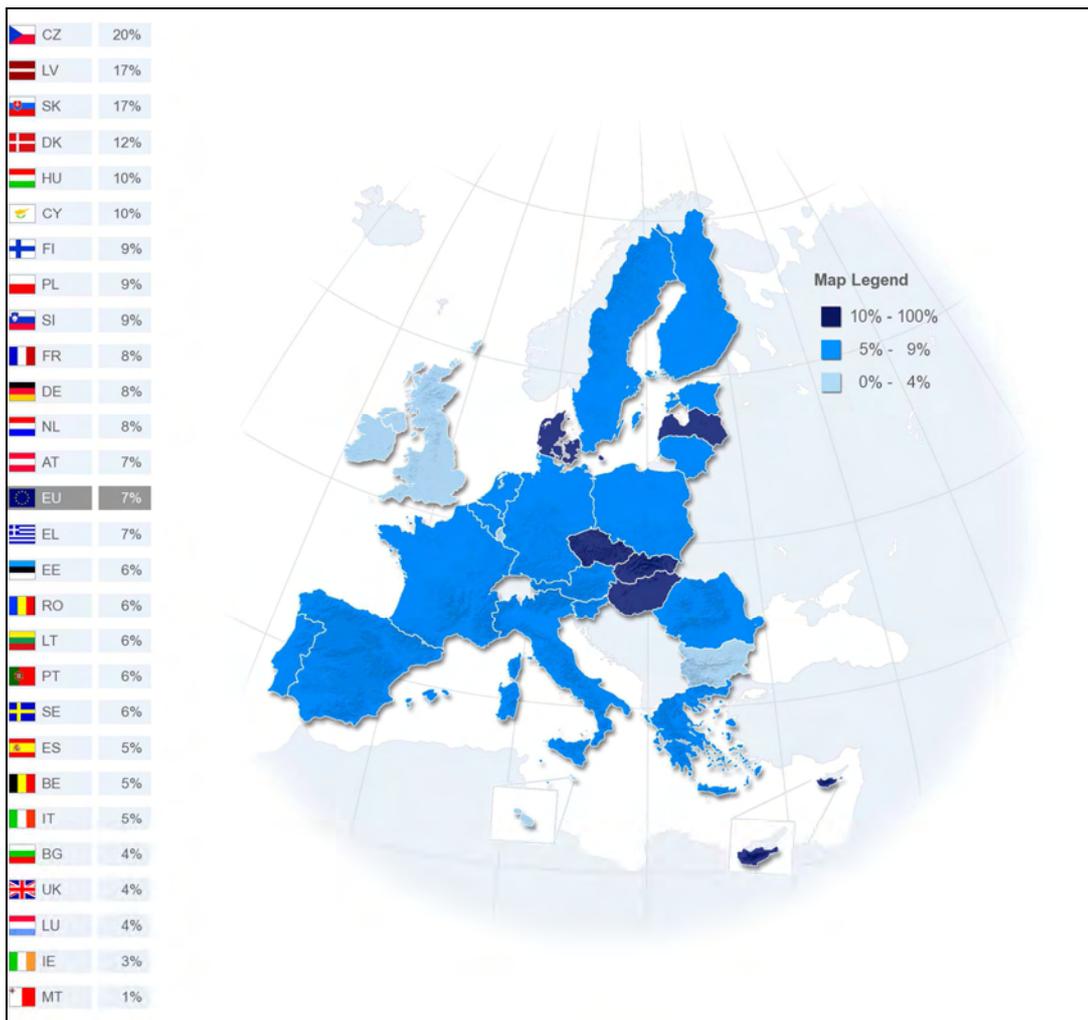
³⁸ See, for example: Zhang, J. and Jing, B. 2007. The impacts of shoppots on online consumer search. NET Institute Working Paper No. 07-34.

³⁹ Office of Fair Trading. 2010. Advertising of Prices Market Study.

the last product bought online than the European average in this survey; these countries are also among those with the highest proportion of PCW users.

In general, online shoppers use price comparisons websites to purchase child care articles, medicines (prescribed as well as over-the-counter), electrical household appliances, electronic equipment, sports and outdoor equipment, CDs and DVDs.

Figure 22: Consumer survey – Percentage of consumers who bought the product through a seller found through a price comparison website⁴⁰



Note: Based on online shoppers (N=25509)

Although it does not seem that consumers simply buy what they find on PCWs, the popularity of PCWs suggests that they are often used as an information source when consumers search for the best deal. Note that shoppers may also use information from PCWs to make purchases offline. This mix of shopping and research modes is used in particular by occasional online shoppers.

⁴⁰ Question used: “When you finally BOUGHT this product online, which of the following applied?” [Percentages refer to consumers who answered: “I bought it through a seller through a price comparison website”.]

3.1.2. Consumer experience with PCWs

Why do consumers use PCWs?

According to the survey results, the majority of respondents who use price comparison websites say it is the quickest way to compare prices (56%), and slightly more than half find it helpful in order to find the cheapest price (51%). Next to these, a sizeable proportion (22%) use PCWs to find out more about the range of offers, a result that corroborates with the findings on consumer experience with PCWs (see the next subsection). The least mentioned reason is finding customer comments, product reviews and ratings; only 13% users use PCWs in this way (see the following figure). Given that quality and brand reputation remain important considerations for consumers in online markets⁴¹ this reinforces the belief that consumers are visiting retailer specific sites to determine this information, rather than relying on price comparison sites to provide it. Respondents who use price comparison websites to compare prices are more likely to be men, younger (aged between 25-39 years), and relatively highly educated.

Figure 23: Consumer survey – Why do you use price comparison websites?



Note: Based on PCW users (N=23619)

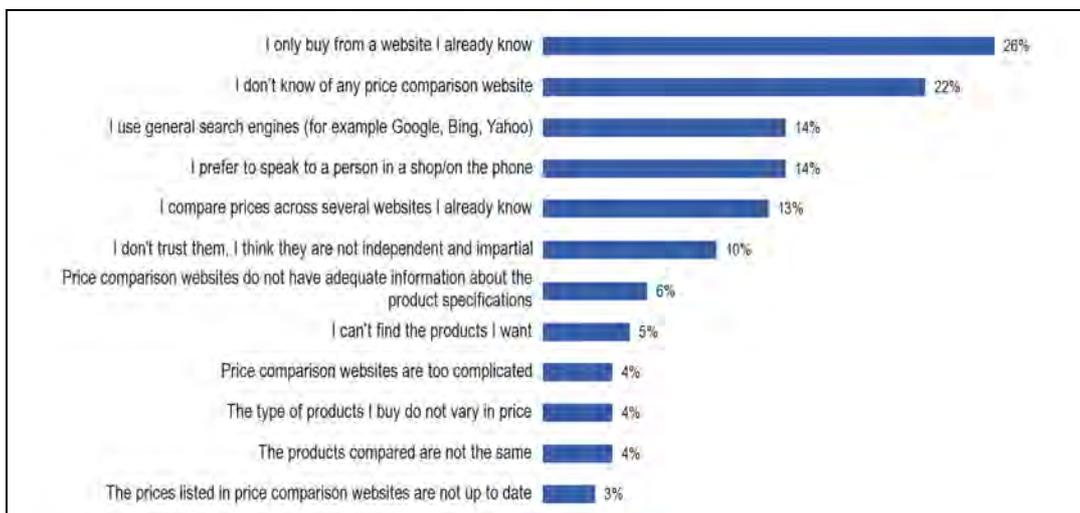
In countries that use price comparison websites the least, there are also lower proportions of PCW users who cite “the quickest way to compare prices” as a major reason for PCW usage; for example, these proportions are 43% in Ireland, 41% in Lithuania, and 40% in Estonia, respectively, compared with the average EU proportion of 56%. On the other hand, high proportions of PCW users in the high usage countries Greece and Slovakia use price comparison websites in order to compare prices (69% and 70% respectively).

Why do consumers not use PCWs?

Among those respondents who have not used PCWs in the past year, 26% explain that that is because they only buy from a website they already know, making this reason the most popular one for not using PCWs (see the following figure). The second most commonly mentioned reason is that the respondent does not know of any PCWs (22%).

⁴¹ See: (1) Baye, M. R. and Morgan, J. 2009. Brand and price advertising in online markets. *Management Science* 55(7) 1139–51. (2) Brynjolfsson, E. and Smith, M. 2001. Consumer decision-making at an Internet shopbot: Brand still matters. *Journal of Industrial Economics* XLIX(4) 541-558.

Figure 24: Consumer survey – Why don't you use price comparison websites?



Note: Based on non-PCW users (N=5391)

A notable observation as to geographical variations is that, in the low PCW-usage countries Cyprus, Malta, and Lithuania, high proportions of respondents who do not use price comparison websites state their reasons as not knowing any (68%, 54% and 46% respectively); these are well above the EU average of 22%. The study identified low numbers of PCWs in these countries.

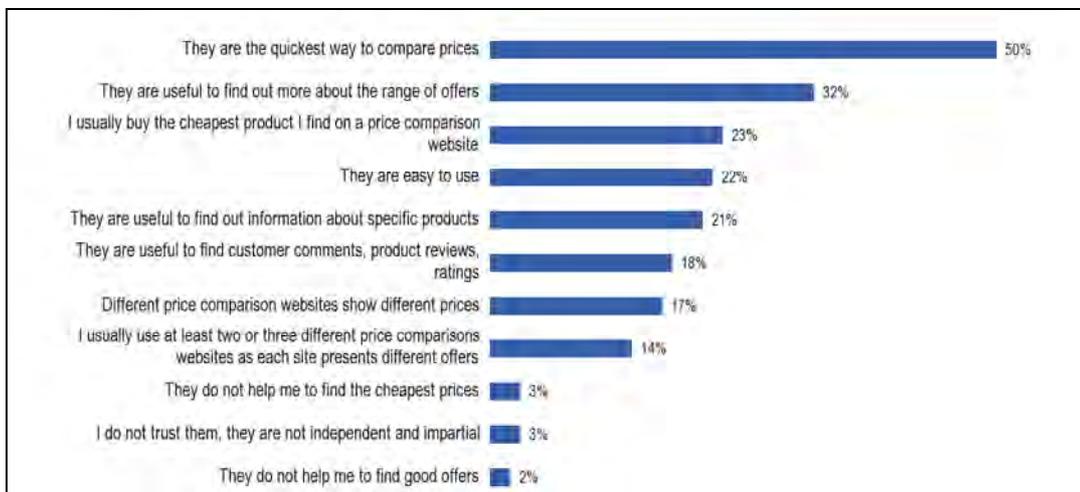
Do consumers trust PCWs? Is lack of trust an important factor affecting consumers' decision to use PCWs?

For policy makers, a major concern is whether PCWs are trusted, (and whether they should be trusted), by consumers or not. But, as can be seen in the above figure, only 10% of respondents who do not use PCWs cite lack of trust as a reason. It seems that trust is not a major de-motivating factor that drives consumers away from PCWs; the survey results on consumer experience (to be discussed in detail in the next section) show similarly that consumers seldom find PCWs untrustworthy. However, these results may also reflect that, while consumers may not exactly distrust PCWs, they place more trust on other information sources than PCWs, such as familiar sellers' websites, general search engines, or offline sales channels – so that trust of the latter, rather than distrust of PCWs per se, are popular reasons for not using PCWs.

PCW users are further asked to characterise their actual experience with PCWs. As shown in the following figure, consumer experience in using PCWs has been largely positive. Half of the PCW-user respondents in the survey say that those sites are the quickest way to compare prices (50%) and a third (32%) indicate that they give useful information about the range of offers available. As reported earlier, fewer people find PCWs a useful source of information on products and quality, although one in five do value PCWs for this service.

A very small percentage of users describe their experience negatively, saying that PCWs do not help them find the cheapest price or good offers, or are not trustworthy due to perceived bias (3%, 2% and 3% respectively).

Figure 25: Consumer survey – According to YOUR EXPERIENCE using price comparison websites, what reflects your opinion?



Note: Based on PCW users (N=23619)

This pattern of answers is largely similar regardless of countries or other demographic variations. Several observations are worth mentioning. First, although PCWs are not highly popular among respondents in Cyprus and Malta, those who do use PCWs in these countries stand out as having highly positive experiences. Secondly, a very high (64%) percentage of PCW users in Greece find that those websites are the quickest way to compare prices. Lastly, respondents in the youngest group (18-24 years), who have completed elementary education and who are online shoppers are most likely to say that they usually buy the cheapest products they find on a price comparison website.

Have consumers felt misled by PCWs? If so, why?

We also seek to find out whether users of PCWs have felt misled by PCWs. One in eight respondents felt they had been misled by PCWs. In addition almost one in five answered “do not know” to this question. This reflects that, perhaps not surprisingly, many consumers do not have the information to know whether they have been misled by PCWs or not. Of those who feel able to answer this question, the number of users who have not felt misled are more than five times the number of those who have. Different EU countries show similar patterns. The few exceptions include Bulgaria, Latvia, Lithuania, Ireland, and Romania, in which the number of those who have not felt misled are only around two to three times the number of those who have. Respondents who have felt misled by a price comparison website are more frequently the youngest respondents (18-24 years) and respondents who have finished postgraduate studies – that is, respondents who probably are more Internet savvy and shop online/use PCWs more frequently.

The small number of users who have felt misled by PCWs are asked to offer reasons for their feeling. The majority (49%, see the following figure) state that they found a cheaper price elsewhere. This proportion is especially high in Denmark, Slovenia, and Finland (59%, 67%, and 70% respectively). The second most popular reason is that the price indicated did not correspond to the price on the seller’s website (32%), while misleading information about products, delivery time and delivery charges are identified by less than 16% of disillusioned respondents. The recent OFT study on Advertising of Prices found similar reasons for consumers not to be fully satisfied with PCWs - 64% of those who

considered PCWs to be poor for some products said this was because added extras were charged once the consumer had clicked through to the supplier.⁴²

Figure 26: Consumer survey – Why have you felt you were misled when using a price comparison website?



Note: Based on respondents who have felt being misled (N=2832)

3.2. Clarity and representativeness of price comparison websites

Are price comparison websites clear about what they are comparing?

Despite the label given to them in this study, PCWs do not always claim to just compare prices. One PCW interviewee claimed that their function was to “allow visitors to compare products, compare prices, compare merchants, read other peoples’ experiences, etc.” in order to “find the best buy.” In fact, their internal mission statement was to “Make people proud of their purchase”. But it is sometimes not entirely clear from the interviews exactly what information the PCWs used as their input and how they generated the comparison output (most importantly the ranking of products) from the input.⁴³

An even more fundamental issue is whether they report prices truthfully at all. Previous research on price comparison websites usually assumes that they report price information truthfully.⁴⁴ However, there has been recent research showing that online retailers engage in obfuscation of information to make consumer search more difficult.⁴⁵ It is then a natural question to ask whether price comparison websites themselves might be engaged in similar

⁴² Office of Fair Trading. 2010. Advertising of Prices Market Study.

⁴³ The default rankings of search results as claimed by the interviewed PCW representatives include price (lowest to highest), relevance, and popularity, sometimes a combination of them. In one case a “suggested merchant” would be ranked high regardless of the price of its product.

⁴⁴ For example, Baye, M. R. and Morgan, J. 2001. Information gatekeepers on the Internet and the competitiveness of homogenous product markets. *American Economic Review* 91(3) 454-474; Baye, M. R., Gatti, J. R. J., Kattuman, P. and Morgan, J. 2009. Clicks, discontinuities, and firm demand online. *Journal of Economics and Management Strategy* 18(4) 935-975.

⁴⁵ Ellison, G. and Ellison, S. F. 2009. Search, obfuscation, and price elasticities on the Internet. *Econometrica* 77(2) 427-452.

practices too – or whether PCWs have not been able to avoid retailers listing non-truthful information on PCWs.⁴⁶

In the UK, which currently has the most developed market for PCWs in Europe, the Financial Services Authority (FSA) issued a warning to firms operating online PCWs in June 2011. In particular, in the case of insurance, the FSA highlighted that where PCWs “go beyond pure introductions, they must provide details about the firm, whether it is financially interested or linked to a given insurer, and procedures for making complaints”.⁴⁷ The recent OFT study on Advertising of Prices found that because of inexact and out-of-date information, consumers may be unable to accurately compare products. Similarly, partitioned pricing (which refers to the practice of advertising a price for a product and adding extra charges during the purchasing process) may cause consumers to make purchasing and searching errors. These practices may lead to consumer detriment. The study therefore advised that prices displayed on PCWs should be accurate and up-to-date, and it should be clear whether the price includes extra charges such as accessories or delivery. Furthermore the study recommended that it should be clear both on whose behalf the PCW is acting (on behalf of a trader or independently) and where a trader has paid for prominence.⁴⁸

Although the consumer survey suggests that consumers are largely satisfied with price comparison websites and do not often feel misled (Section 3.1), the mystery shopping exercise shows a different picture. It seems that, when one looks *carefully* at the practices of many PCWs (as the mystery shoppers did), one can find loopholes, shortcomings, and ambiguities that elude consumers who use PCWs simply as one out of a few information sources.

The key findings are that:

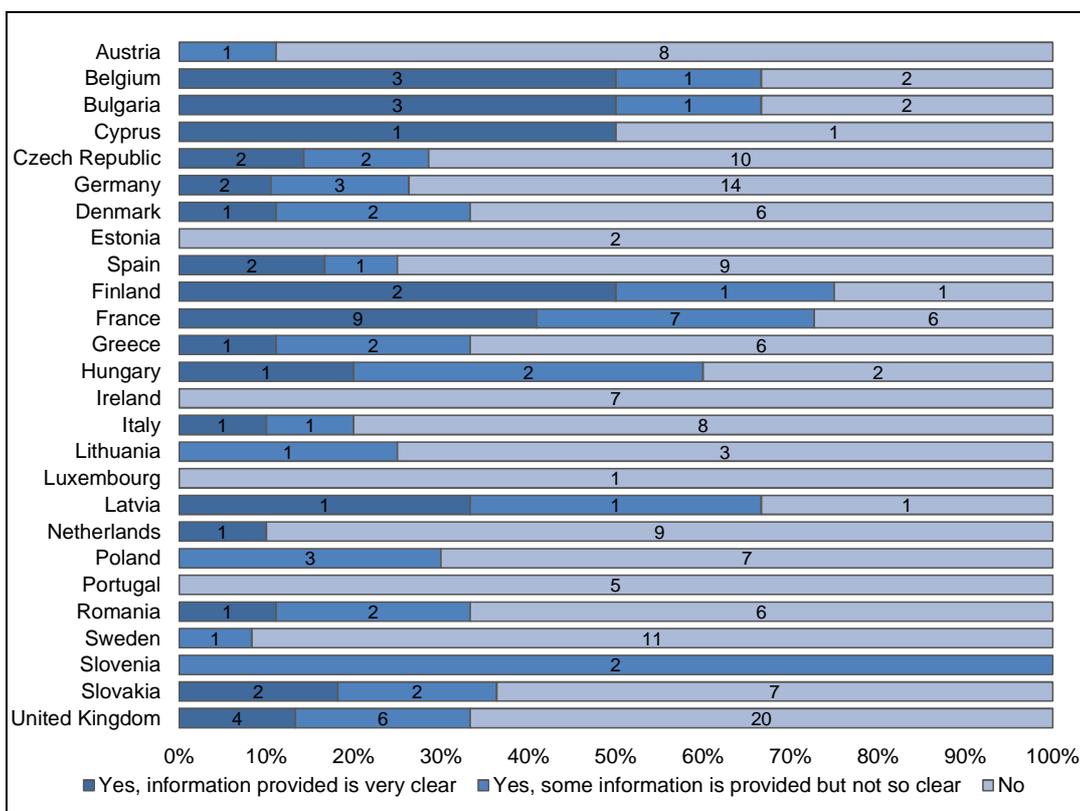
- (1) PCWs in the mystery shopping exercises were often unclear about their default rankings of offers, their business models, and/or their policies regarding consumer protection.
- (2) Only a minor proportion of identifiable default rankings in the mystery shopping exercise were ranking by price. In 29% of the trials, the PCW did not offer the customer the option to rank products according to price. The default ranking presented the cheapest offer among the top five in about two-thirds of the time.
- (3) In more than half of the trials, PCWs were not informative on delivery costs, delivery time, taxes, and/or product availability. Information not always being readily available from PCWs or not being reliable when it is provided can contribute to consumer detriment.
- (4) The two main sources of revenue identified by the mystery shoppers were advertising on PCW and pay-per-click. Secondary to these, payment for prominent placing in results and payment for listing on the PCW are also common sources of revenue.

⁴⁶ This monitoring issue has indeed been mentioned by a number of PCW interviewees.

⁴⁷ Financial Services Authority. 2011. Guidance Consultation. Proposed Guidance on the: Selling of General Insurance Policies through Price Comparison Websites.

Each mystery shopper was asked a number of general questions about the PCW he/she was assigned to, before carrying out specific search trials. Of the general questions, one asked if there was information clearly explaining why some retailers were listed but others not. Overall 66% of PCWs earned a “No” to this question from the mystery shoppers. Another 18% earned a “Yes, some information is provided but not so clear”. Only 16% PCWs gave clear information about why some retailers were listed but others not. The following chart offers a breakdown of these statistics by target countries of the PCWs,⁴⁹ showing some variations but generally the same picture as from the aggregate results.

Figure 27: Mystery shopping – Could you find information with the PCW clearly explaining to the consumer why certain retailers and their offers are listed and not others?



Note: N=233

Of those PCWs who offered some type of explanation of their listing systems, many revealed that companies needed to pay to be listed on the PCW or to have a more prominent position on the website. Some of these PCWs gave detailed explanations, such as that companies paid on a per-click or per-visit basis, or that free listings appeared at the bottom of the page. Others, however, gave a very vague description of their method for choosing companies (e.g. that they must be “reputable”) or did not address the question of whether

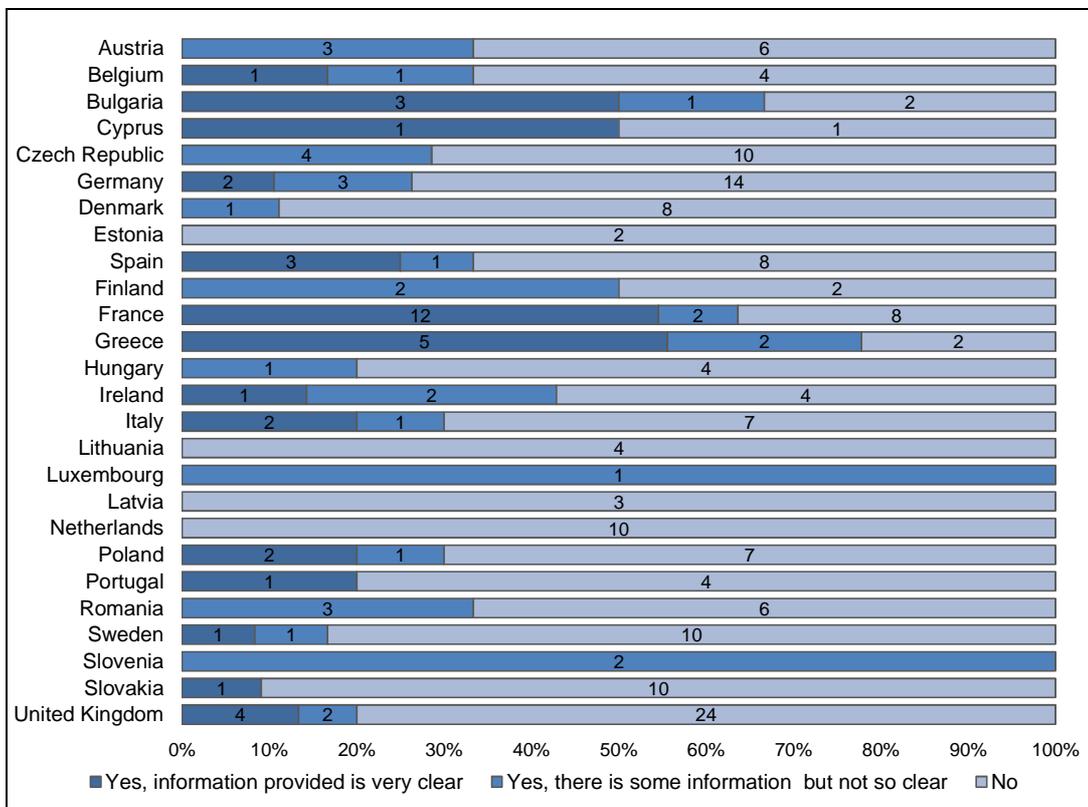
⁴⁸ Office of Fair Trading. 2010. Advertising of Prices Market Study.

⁴⁹ A PCW was considered to be targeted at a country’s market according to the country code in its web address (.at for Austria, or .bg for Bulgaria for example). If the PCW had a general (.com, .net, etc.) web address or was an international website, the target country was judged by the language of the PCW. If this was still ambiguous (for example French is a language which is spoken in more than one Member State) then thirdly the VAT Identification Number was checked to provide a final conclusive target country.

they received a fee, but rather listed other conditions that must be fulfilled by the company, such as that they must offer products to buy online or that they must be legally registered. A small number of PCWs appeared to claim that they listed every shop on the Internet, such as one UK website, which states “thanks to its unique technology... [the website] thoroughly and automatically catalogues every offer from every online shop”. Another issue is that, although on some websites information was available about their listings systems, this was often placed in a section of the website designed for retailers, rather than consumers. Internet-savvy mystery shoppers were able to find this information as they were willing to thoroughly search the website for information, but it is quite likely that the average consumer, especially when pressed for time, would miss this information and receive the impression that there was no fee for a retailer to be listed on the website.

The mystery shoppers were also asked whether there was a clear explanation behind the default ranking of the PCWs’ search results (i.e. the ranking the PCW used when the user had not selected any preference), and if so, how offers were ranked. The responses are equally worrying. In 69% of cases there was no explanation at all for the default ranking of search results. In about one-third of cases there was at least some type of explanation provided, but only 17% of websites offered very clear information. The following chart offers a breakdown of these statistics across countries. Again there are some variations among the countries, but only in France and Greece was clear information available in over 50% of the cases.

Figure 28: Mystery shopping – Could you find a clear explanation of the default ranking of search results (the default view)?



Note: N=233

Where the mystery shopper had some information from the PCW about its default ranking, only in one-fifth of the cases was it purely determined by price, while most others were ranking by relevance (an ambiguous metric by itself) or “other”. Some sites claimed to rank their results according to one particular factor, such as price or relevance, while others described their ranking system as a mixture of various factors, including price, popularity and relevance. Some PCWs also made it clear that price paid by the retailer was a determining factor in the ranking of results. A few sites were particularly candid about this, including one website which revealed that in the default ranking only retailers who had paid were likely to appear, and certain others which indicated that companies that had paid no fee would be placed at the bottom of the listings. Many PCWs made it clear that companies who had paid a fee would receive advertising space, but claimed they would not receive a prominent position in the ranking itself. While a few websites revealed the importance of retailer fee, others went out of their way to claim that this was entirely irrelevant, and that ranking was determined strictly by other factors. Often these sites compared themselves favourably with the others, for example “other Price Comparison Sites use sophisticated tricks to 'fix' their results - so they're biased in favour of stores that pay the most. This means you never know if you're seeing the best prices available, or just the 'best prices' they're paid to show you”. Some of these made it clear which factors were used, but a few simply claimed to list them “objectively” or according to their own system, without actually revealing what this meant.

The interviews with PCWs revealed similar issues. A number of the interviewed PCWs said their default ranking was based on a composite measure that depended on a number of factors such as product relevance and popularity, but could not clearly explain in the interview how the ranking was arrived at. In such cases, it might be expected that a mystery shopper would not be able to find sufficiently clear information about the ranking method nor able to figure it out by him or herself either.

Two other statistics offer related poor impression about the transparency of PCW operations. First, 73% PCWs provided no information to users about how often the PCW updated its price. With 6% of PCWs there was some information provided, but this information was unclear. Some common examples of this were where the PCW explained that it updated prices “regularly”, “constantly” or “periodically”. On websites where there was a clear explanation of the updating of prices this appeared to be done quite frequently – prices usually appeared to be updated daily or twice a day.

Next, 66% provided no information about their policy in regards to fraudulent or rogue traders. As such, users of many PCWs were not even guaranteed explicitly that they were viewing the most updated offers, nor were they explicitly informed about what the PCWs would do if the retailers listed on their sites cheated consumers.

It was very rare for PCWs to have a trust mark, or indicating that they belong to an industry code of good conduct. These included:

- *Businesspartner thuiswinkel.org* (the Netherlands, www.thuiswinkel.org)⁵⁰
- *Qshops Partner* (the Netherlands, www.qshops.org)
- *Charte des sites comparateurs* (France, www.fevad.com)⁵¹

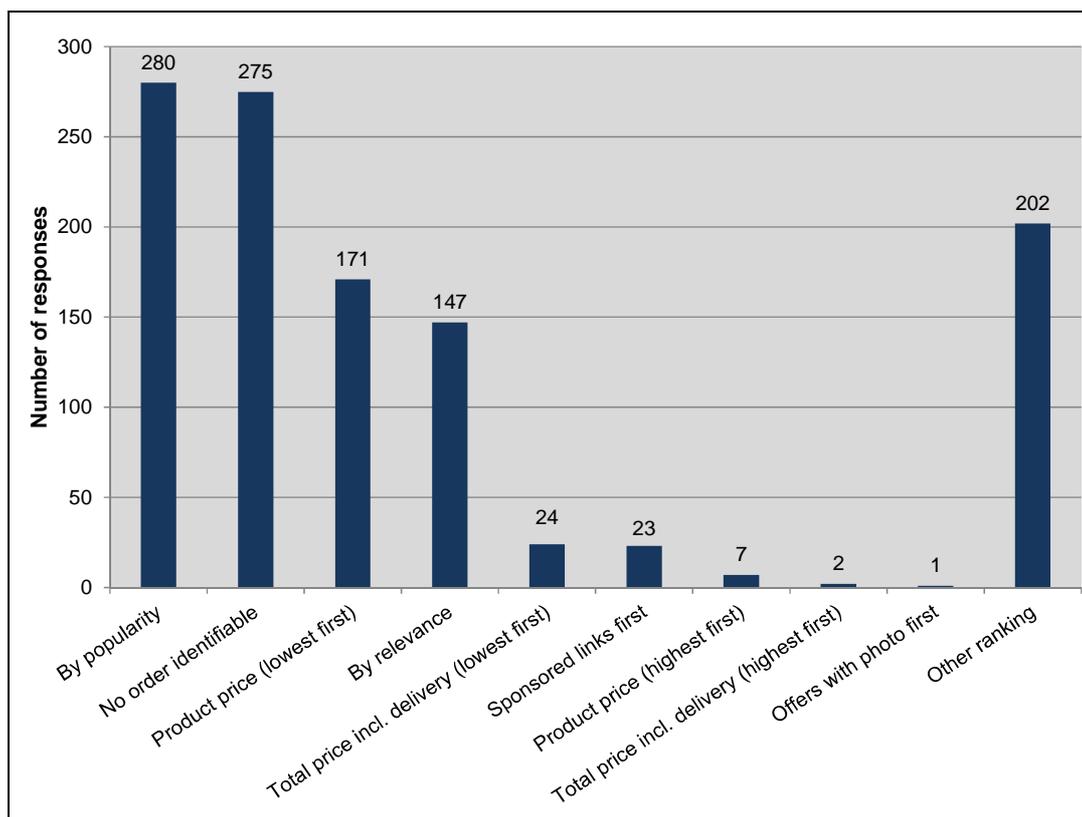
⁵⁰ A Dutch PCW indicated with a logo that it is a registered businesspartner of [thuiswinkel.org](http://www.thuiswinkel.org). This organisation also administers the Thuiswinkel Waarborg, a quality mark for buying products and services via the Internet, catalogue or mail. See <https://beheer.thuiswinkel.org/businesspartner/index.asp?bedrijfid=2229>.

⁵¹ The Charter is the result of work undertaken by main comparison sites with Fevad, the French *fédération du e-commerce et de la vente à distance*, see http://www.fevad.com/index.php?option=com_content&task=view&id=397&Itemid=754.

However, the existence of codes of conduct or trust marks did not appear to have an appreciable effect on consumer behaviour: on average 81% of respondents to this survey had used a PCW in the last 12 months. French users of PCWs were exactly on the average with 81% having used a PCW in the last 12 months, while numbers of Dutch consumers who had used a PCW in the last 12 months was actually lower than the average, at 73%.⁵² Also, the percentage of respondents that felt they were misled when using a PCW was with 13% in both countries even slightly higher than the EU average (12%).

To reinforce the above observations regarding mystery shoppers' overall view of the PCWs, we also look at whether mystery shoppers were able to find out (either on their own or using information provided by the PCW) how offers were ranked by default in each of their search trials. The result is that in more than 24% of these trials the mystery shoppers were unable to identify the default ranking of offers. Where default ranking was identifiable, it was often *not* ranking by price. As shown in the following chart and corroborating with the information about default ranking when available from the PCWs, offers were *not* ranked by price by default in more than four-fifths of the cases.

Figure 29: Mystery shopping – Default search result ranking

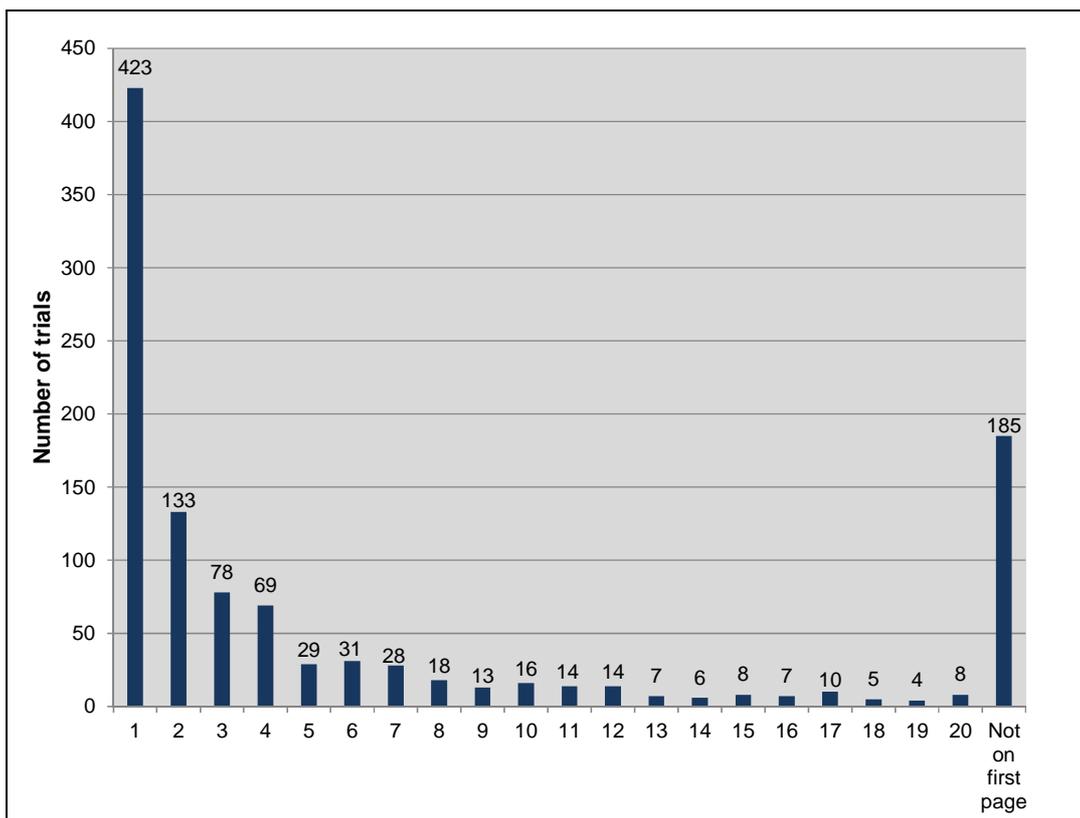


Note: N=1132

⁵² The Dutch regulator Consumentenautoriteit may decide to take action against Dutch energy price comparison sites for not disclosing their business connections with certain companies: <http://www.consumentenautoriteit.nl/nieuws/2010/prijsvergelijkers-en-energiebedrijven-moeten-samen-verbeterslag-maken-informatieverschaf> (website visited 7 July 2011).

In a large number of trials (423) the cheapest correct offer was in the first place in the default ranking (see figure below),⁵³ and in two-thirds of the trials it was among the top five. However, in 268 mystery shopping trials the cheapest correct offer was not visible within the top ten offers, and in most of these cases (185) it was not displayed on the first page.

Figure 30: Mystery shopping – Rank of the cheapest correct offer in the default view⁵⁴



Note: N=1106

In the following table, these results are compared to the results of the original product search, for which mystery shoppers were using the lowest price view, where available, to identify the cheapest correct offer. The table clearly indicates the advantages of the lowest price view when identifying the cheapest correct offer – however, even when the offers were ranked according to price with the lowest offer first, the cheapest *correct* offer appeared at the top of the list for less than half of the time, and appeared within the top five for less than three-quarters of the time. The difference between product search using lowest price view and default view is indeed less dramatic than one might expect. In both cases the risk of missing the cheapest correct offer is roughly one in six, if a consumer only checks the first page of search results.

⁵³ A “correct offer” was a product that met the minimal criteria for the target product as given on the mystery shopper’s product list.

⁵⁴ Question used: What is the rank of the cheapest correct offer, identified in Q27, in the default view?

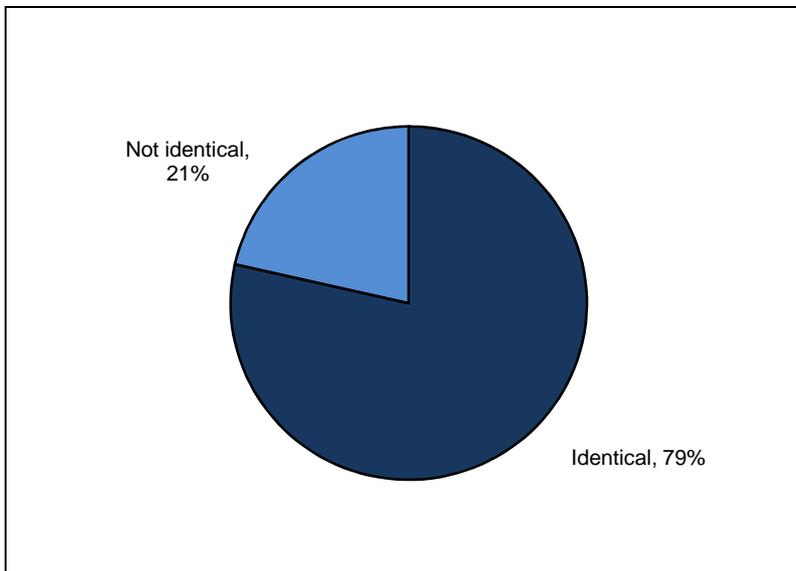
Table 20: Rank of cheapest correct offer during mystery shopping trial (using lowest price view, if available) and default view

Rank of cheapest correct offer	Product search using lowest price view, if available (Percentage of trials)	Default view (Percentage of trials)
First offer listed (Rank 1)	47%	38%
Listed among the first five offers (Rank 1-5)	72%	66%
Listed among the first ten offers (Rank 1-10)	81%	76%
Not listed on first page	15%	17%

When interpreting these figures, however, it must also be noted that even if the mystery shopper wanted to manually switch to ranking by price, in 29% of the trials a lowest price view was not even available. Thus in these cases the default view had to be used. This distorts the picture somewhat.

Checking the accuracy of price quotations on the PCWs by comparing a selection of observed prices with the actual prices charged at the retail outlet, we found that the prices quoted by PCWs are inaccurate in over 20% of cases (see following figure).

Figure 31: Mystery shopping – Retailer page: Does the retailer's price, including VAT, match the one provided by the PCW?⁵⁵



Note: N=829 (based on trials in which a price including VAT was provided by PCW)

As PCWs do not continuously update prices and online retailers change prices frequently, some short term inaccuracies between the prices listed by the PCWs and the actual price charged by the retailer are inevitable. However this does not appear to be the whole explanation. The majority of PCWs providing this information claimed that prices were

⁵⁵ Question used: Is the information about the offer listed on the retailer website identical to that listed on the PCW for the first correct offer identified in question 27? [The figure presents the sub-set 'Price (incl. VAT and other taxes)', i.e. whether it was the same on the retailer's website as on the PCW.]

updated either daily or more regularly – but suggesting that 20% of prices change in this time seems unrealistic.⁵⁶

Apart from the product price itself, the PCWs might not make available directly the other aspects of the full price structure of the purchase. Taxes and delivery costs of the product chosen by the mystery shopper were not indicated in the PCWs in more than half of the trials. Nevertheless, whenever the PCW provided such information, it matched that on the retailer's website more than 6 out of 10 times.

Similarly, non-price information such as delivery time and product availability were not available at the PCWs in more than 60% of the trials. Whenever available, delivery time matched the information on the retailer's page about half the time and product availability four-fifths of the time.

When consumers expend time and energy searching for information in order to make an informed purchase, and when this information is not readily available, is not easily verifiable, or is later found to be wrong, consumers will be left in the position of not knowing how or where to look for information. Consumers will also be unable to accurately compare products. This can lead to detriment. According to the OFT market study on Advertising of Prices, consumer detriment can take two forms: "purchasing errors (such as paying too much) and emotional detriment (such as annoyance and regret)". "Partitioned pricing" and "bait pricing", which are two forms of pricing which may be seen with offers advertised on PCWs, can lead to these types of detriment.⁵⁷ The consequent effect on consumer behaviour can range from reduced amounts of shopping being undertaken, to greater difficulties in comparing final prices, and reporting frustration yet buying another, different product anyway.

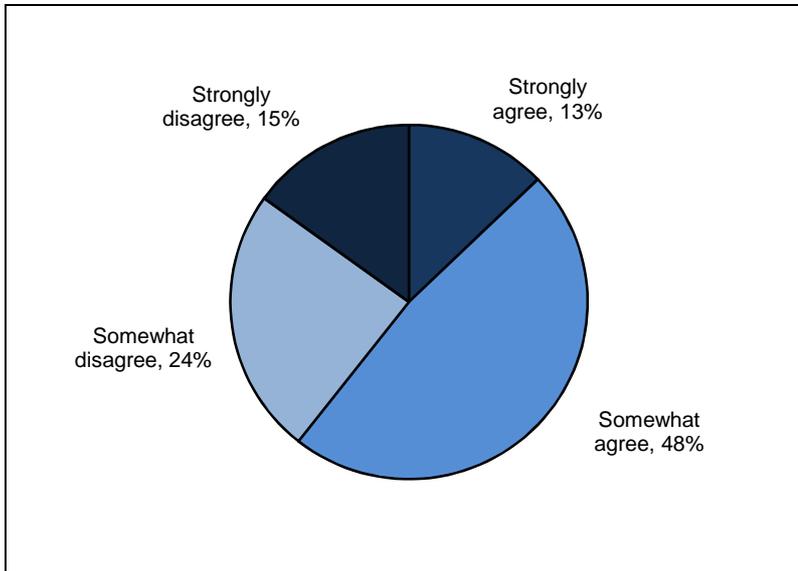
Overall, the mystery shoppers' impression of PCWs was less positive than that of the respondents to the consumer survey. As the chart below indicates, almost half of the mystery shoppers (48%) "somewhat" agreed that they found the PCW to be useful in making an informed choice, and 39% disagreed to various extent. Only 13% strongly agreed.⁵⁸

⁵⁶ In a previous study, it was estimated that up to 10% of the prices at Kelkoo (a PCW) changed daily (Reference: Lünemann, Patrick, and Wint, Ladislav. 2006. Are Internet prices sticky? ECB Working Paper 645).

⁵⁷ "Partitioned pricing" refers to the practice of advertising a price for a product and adding extra charges during the purchasing process. "Bait pricing" is the practice of traders offering a limited volume of stock at the offer price which is obviously too small to meet the expected demand in response to the offer. For more information see Office of Fair Trading. 2010. Advertising of Prices Market Study.

⁵⁸ 50% of respondents to the consumer survey found that PCWs are the quickest way to compare prices. 32% of respondents found PCWs useful to find out about the range of offers available, 21% considered PCWs to be useful for finding information about specific products, and 18% said they were useful to find customer comments, product reviews, ratings. For more information see Section 3.1.

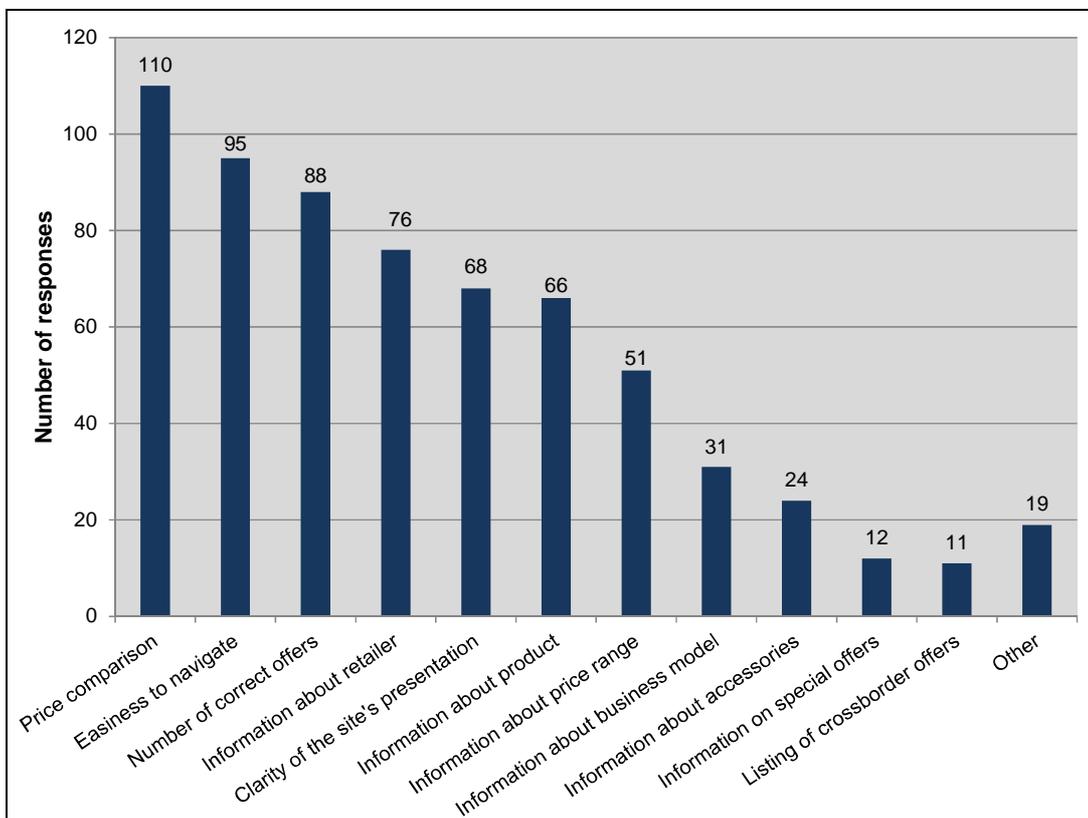
Figure 32: Mystery shopping – Level of agreement with statement: “I found this PCW to be useful in allowing me to make an informed choice”



Note: N=227

When asked which aspects of the surveyed PCWs they found *most useful*, the most common reply was the price comparison function (110 of 233 PCWs tested, see below).

Figure 33: Mystery shopping – What aspects of this PCW did you find most useful?



Note: Multiple answers were possible.

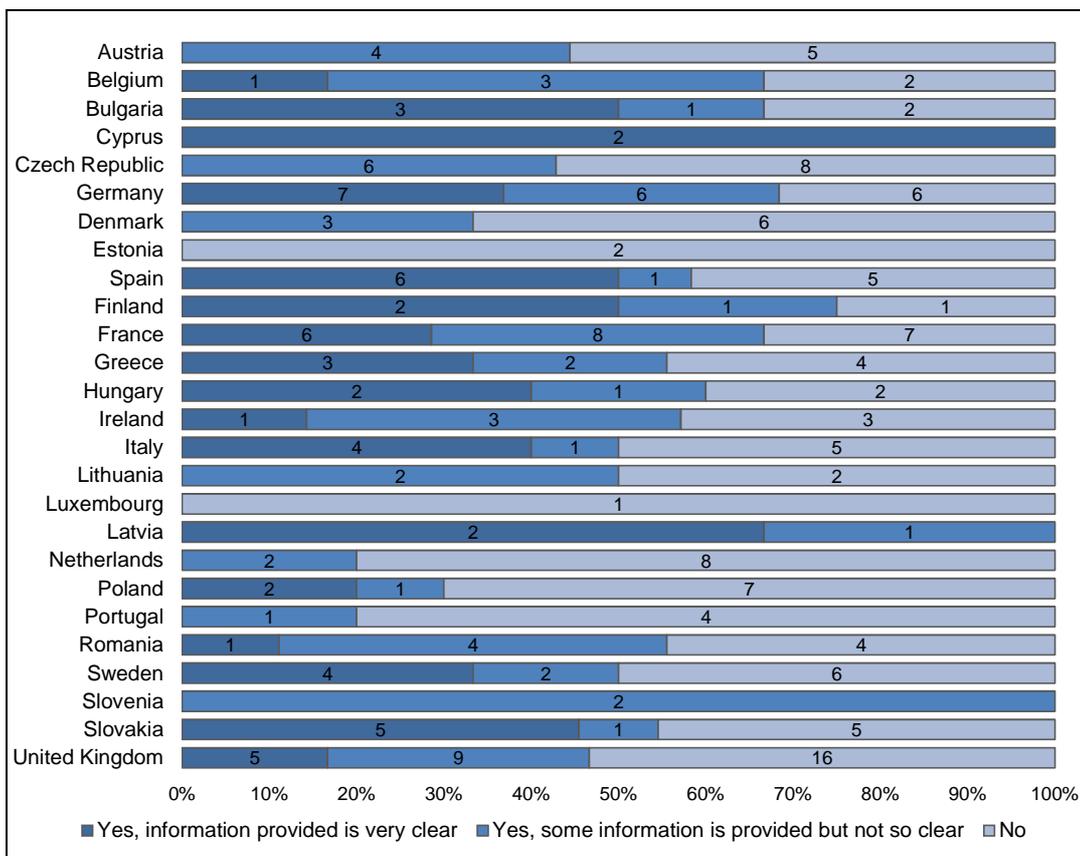
Thus the mystery shopping exercise suggests that less than half of the PCWs perform price comparison satisfactorily. Much less frequently did mystery shoppers answer that they were impressed by information about the range of prices (51 PCWs). This suggests that although they found it useful to be able to place many different price offers next to each other, the mystery shoppers perhaps did not feel that the websites gave them an exhaustive range of prices and therefore did not necessarily help them find the cheapest offer.

3.2.1. Business models of PCWs

What different business models exist in terms of financing i.e. either through advertising revenues or through listing fees or sponsorship by suppliers? How does this affect the independence of price comparison websites? For example, are they clear enough about the brands or retailers they represent, and about third-party sponsorship or commercial links?

Information about how PCWs earn their revenues from retailers (or other parties) is crucial to users in surmising whether listings could be biased. However, 48% of the PCWs in the mystery shopping exercise provided no information about their business models, and another 28% provided unclear information. The country breakdown below displays a similar pattern despite some geographical variations.

Figure 34: Mystery shopping – Could you find clear information for consumers on the PCW's business model?

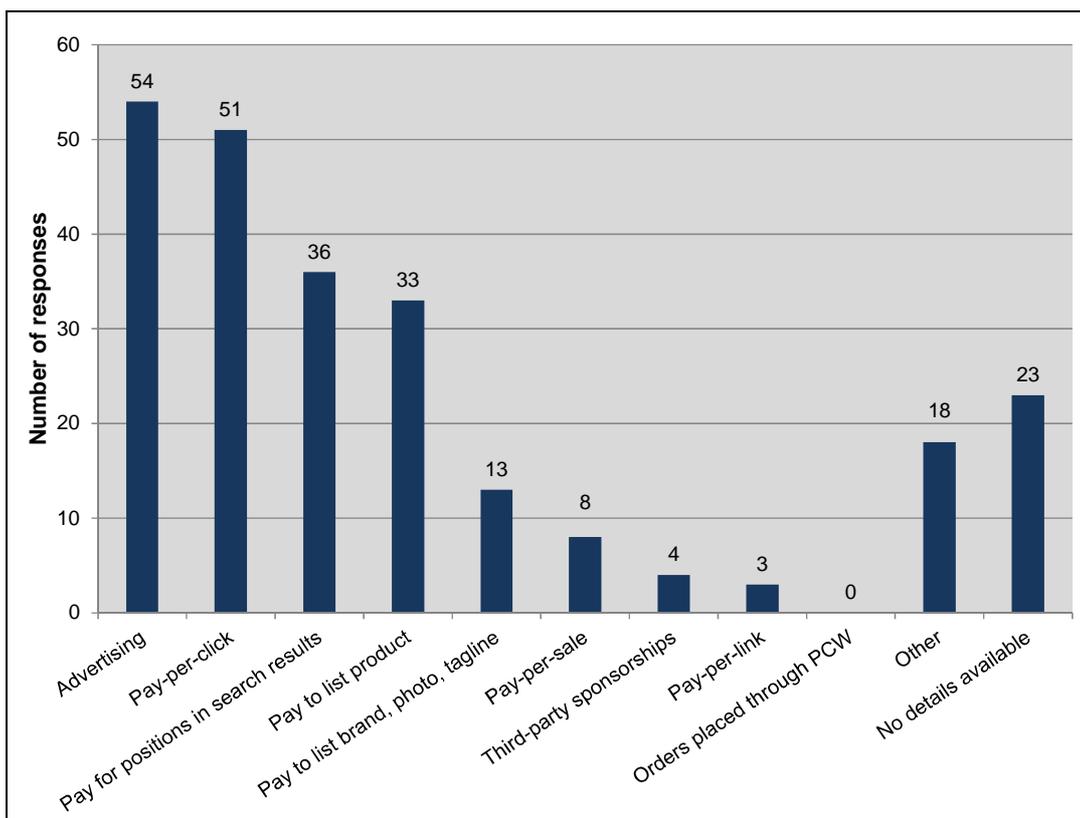


Note: N=232

The high proportion of PCWs with little or no information about their business models raises questions about the level of consumer protection. Essentially, users of PCWs in most of the cases would have little idea about their independence, their commercial links, or where they obtain third-party sponsorships from (if any).

Whenever a mystery shopper managed to find some (however incomplete) information about the business models of a PCW, he/she was then asked about the revenue sources of the PCW. The results, summarised in the chart below, corroborate with the PCW interviews. The two main sources of revenue were advertising on PCW and pay-per-click.⁵⁹ Also quite common were the payment for prominent placing in results and simply for listing on the website. Other possible but less significant sources of revenue were payment for the listing of brand, photo and tagline, pay-per-sale,⁶⁰ third-party sponsorships and pay-per-link.⁶¹ In a number of cases the mystery shoppers found information on some further source of revenue which they categorised as “other”. This included a registration fee from retailers (once they had signed up they did not need to pay any further fees), market research activities, payment of a fee for placing a link, the payment of a fee for inclusion of products on PCW newsletter and payment for “enhanced listing” (i.e. with high visibility, company logo, etc.).

Figure 35: Mystery shopping – Source(s) of PCW revenue, if information is available



Note: Mystery shoppers were asked to select all the answers that applied to the particular PCW.

⁵⁹ Pay-per-click means that a retailer pays each time a consumer clicks on the link to its website listed on the PCW.

⁶⁰ Pay-per-sale means that a retailer pays each time a sale results from a consumer following an offer listed by the PCW.

⁶¹ Pay-per-link means that a retailer pays each time the link to the retailer is listed on the PCW.

3.2.2. Representativeness of the wider market

Are the comparisons proposed representative of the wider market, including offline? How can consumers verify such claims and when do they become deceptive?

The key findings are that:

- (1) Consumers expect that PCWs will help them to make purchases at cheaper prices than if they buy from online retailers without using PCWs and without intensive search. To examine to which extent this is true, we compared the average cheapest offers identified by PCWs in a country with the average online price of the same product in the same country obtained from the price collection exercise. Once aggregated across countries, the overall average savings of the mystery shopping exercise prices are found to be 7.8%.
- (2) As the online prices in the price collection exercise are found to be generally cheaper than offline prices (see Section 4), PCWs seem to be able to inform consumers of cheaper deals than casual online, as well as offline, shopping.

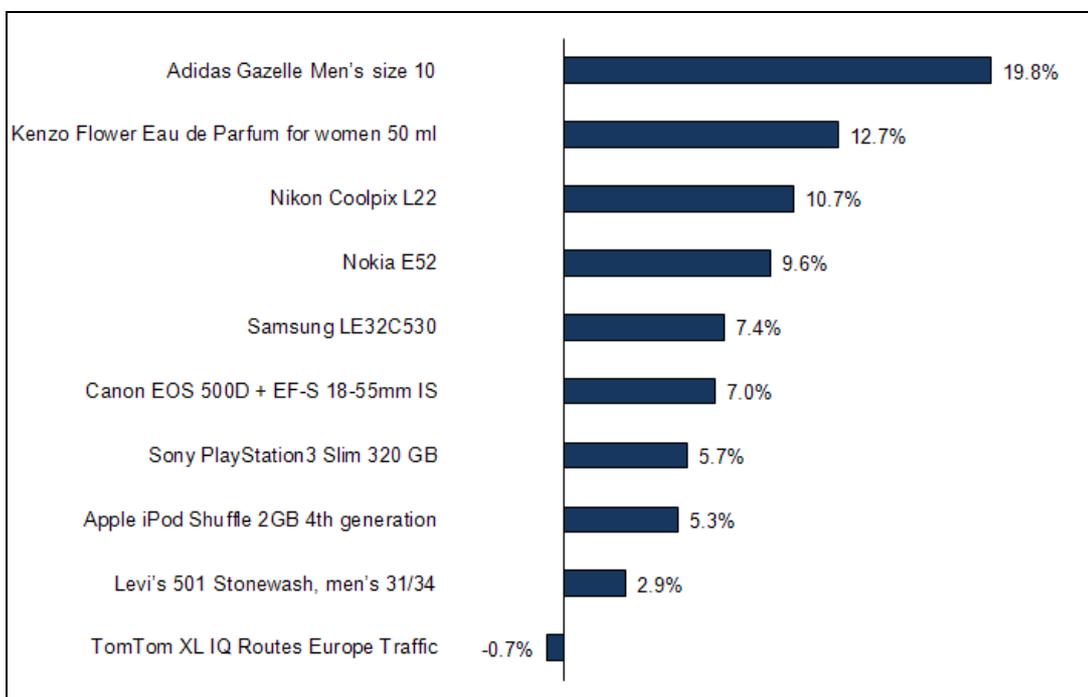
If PCWs function efficiently, they could help consumers make purchases at cheaper prices than if consumers buy from online retailers casually without using PCWs and without intensive search. To examine if this is the case, for each product and each country, we first calculate the average of the cheapest retailer prices inclusive of delivery costs (whenever such prices are clearly available) found on retailer websites obtained from the mystery shopping exercise among PCWs targeted at that country.⁶² We then work out the percentage savings of this average relative to the average online price of the same product in the same country obtained from the price collection exercise to be discussed in detail in Section 4.⁶³ Once aggregated across products and countries, the overall average savings of the mystery shopping exercise prices are found to be 7.8%. Note also that the online prices in the price collection exercise are found to be generally cheaper than offline prices (see Section 4.1.1). Thus, in general, PCWs seem to be able to inform consumers of cheaper deals than casual online, as well as offline, shopping.

When the aggregates are carried out product by product, there are significant variations. As can be seen in the following chart, using PCWs saves more for some products than for others, and in the case of TomTom GPS, the mystery shopping prices are on average slightly *more* expensive than the online prices from the price collection exercise. On the other hand, the biggest savings (almost 20%) are in Adidas Gazelle trainers. Thus, while PCWs help consumers find better deals in most cases, their information collection capability is not equally good with different products, and may do a disservice to consumers in some cases. With the lack of transparency among PCWs about how they search and list offers as reported in previous subsections, it is not easy for consumers to find out if the offers they obtain from PCWs are indeed good offers relative to the market at large – that is, unless they carry out intensive retailer-by-retailer price searches themselves, which then defeats the purpose of using PCWs.

⁶² In the mystery shopping exercise, mystery shoppers registered the cheapest correct offer identified by each PCW for five products from a list of ten products defined at brand/model level, see Part 4 of this study.

⁶³ Detailed data regarding the price collection is presented in Part 3 of this study.

Figure 36: Savings by product – Lowest price identified by price comparison websites compared to average online prices



3.3. Role of price comparison sites in fostering cross-border comparisons

How can price comparison sites help foster cross-border comparisons?

It has been proclaimed that the Internet would bring about “the death of distance”.⁶⁴ If this is true, cross-border purchases should proliferate in the online consumer market, and price comparison websites should become important facilitating agents of cross-border purchases. Indeed, the consumer survey reveals rather active cross-border purchases in the EU (Section 2.2). It is also evident that a number of major online retail platforms also operate across countries.

However, the mystery shopping exercise and interviews suggest that PCWs in the EU do not play a significant *direct* role in fostering cross-border shopping: PCWs do not consider it easy to incorporate cross-border comparisons in their operations, nor are they highly motivated to surmount the difficulties. That said, there is evidence that PCWs may be playing an *indirect* role in providing a contact point for retailers to attempt to expand their businesses across borders.

The key findings are that:

- (1) PCWs are currently *not* playing a *direct* role in fostering cross-border shopping, although they may serve an *indirect* role as contact points through which a retailer may establish a presence in a country that is different from where it is based. PCWs can be

⁶⁴ See e.g. Pitt, L., Berthon, P. and Berthon, J.-P. 1999. Changing channels: The impact of the Internet on distribution strategy. *Business Horizons* March-April 19-28.

viewed as reducing the entry costs for a foreign based retailer and thus facilitating cross-border price comparison indirectly.

- (2) Differences in pricing strategies, regulations, and product specifications across borders, the need for increased investment in technology, as well as consumers' preference to buy from local retailers, all discourage PCWs from directly incorporating cross-border comparisons as a major part of their operations.

Findings from the mystery shopping exercise

PCWs are currently *not* playing an important *direct* role in fostering cross-border shopping, concentrating their listings on websites specifically targeting consumers in their “home” country. Whilst many of the price comparison websites target only one EU country, there are also a number of price comparison sites which operate separate national specific sites in multiple EU countries. The prices and listings on these sites are country specific, with significant price differences existing between countries, so a consumer in one country may be able to find a significantly cheaper price for the same product on a different national page of the same price comparison company. Of the 233 PCWs visited, only 11 are reported by the mystery shoppers to be “most useful” in terms of listing of cross-border offers.⁶⁵ Interestingly, a similarly small number (20) of PCWs are reported by the mystery shoppers to be “not useful” in terms of listing of cross-border offers.⁶⁶ These results have a number of possible implications:

- (1) PCWs currently are not playing an important role in fostering cross-border shopping.
- (2) Even the mystery shoppers, as sample consumers, are not aware of the potential that PCWs could list and compare offers across borders. Thus the mystery shoppers do not consider that the lack of cross-border comparisons is particularly “not useful”.
- (3) Other problems with PCW usage are more worrisome to the mystery shoppers than the lack of cross-border comparisons. For example, information about the business model of the PCW, information about the products, and information about the retailer are the most popular “not useful” aspects of the PCWs visited by the mystery shoppers – 91, 86, and 81 of the 233 PCWs tested are not found to be useful regarding these three attributes.

That said, a retailer interested in establishing a retail presence and selling to consumers in a country different from its own might use PCWs to do this. In nearly three-quarters (73%) of trials the retailer appeared to be registered in the country at which the PCW is targeted.⁶⁷ Nonetheless, a fairly large share of surveyed retailers (21%) provided a business address outside the country at which the PCW is targeted. In some cases these were large multinationals with significant presence in each country (for example Amazon.co.uk, which is registered in Luxembourg) but it was particularly the case in smaller countries, such as Belgium and Ireland where the majority of retailers were local but a significant number operated from other countries – particularly France in the case of Belgium and the UK in the case of Ireland. As these examples suggest, retailers located outside of the PCW’s target

⁶⁵ Four of these PCWs are based in Ireland and two are based in Cyprus. The remaining five PCWs are based in Denmark, Estonia, Malta, Poland, and Portugal, respectively.

⁶⁶ Five of these PCWs are based in Lithuania and three in Spain. Austria, Greece, Hungary, and Ireland each has two PCWs that contribute to this statistic. The remaining four PCWs are based in Bulgaria, Cyprus, Denmark, and Malta, respectively.

⁶⁷ See footnote 49.

country were often located in countries that are geographically near and/or share the same language, particularly where these states were larger and economically more significant. In some cases, however, the retailer was located in a more distant and unrelated country; several PCWs targeted at the Greek market linked to retailers with a business address in Germany, a German PCW listed a retailer located in Thailand, and a New Zealand based retailer was found listing on a PCW in the UK.

Overall, the above observations suggest that, while PCWs are not playing a direct role in cross-border trade, they may be playing an *indirect* role in providing a contact point for retailers to attempt to expand their businesses across borders. Indeed, if a retailer based in another country is willing to pay for a PCW to generate leads and display their product – then they are probably also willing to create a “local” shop front to process this. What we see is a number of retailers such as Pixmania and Amazon actively using PCWs to generate sales across a range of EU countries but at the same time creating local retail outlets. Thus PCWs can be viewed as reducing the entry costs for a foreign based retailer and thus facilitating cross-border price comparison indirectly.

Findings from interviews of consumer bodies, trade associations, and PCWs

One stakeholder pointed out that there is practical difficulty in directly providing cross-border price comparisons, as information from different countries needs to be collated and compared with reliability, accuracy, and clarity. The interview with the Interactive Media in Retail Group (IMRG), an association of e-retailers, suggests that differences in regulations and consumer rights protection across countries hinder the development of cross-border e-commerce within the EU; it may then be deduced that PCWs would also have concerns about listing cross-border offers without making clear what consumer-related regulations those offers entail for their users.

Similar issues were expressed by the 16 interviewed representatives of PCWs.⁶⁸ With one exception (a PCW based in France and Belgium), cross-border comparisons do not feature prominently in the interviewed PCWs’ imminent expansion plans. In general, the problems with cross-border comparisons, as expressed by the PCWs, can be summarised as follows:

- Regulations regarding cross-border shopping in the EU need to be improved and made more transparent so as to increase consumer confidence in buying across border. For example, consumers could be afraid to order from a cross-border retailer because of concerns whether their consumer rights are respected. The PCWs’ need to maintain good reputation thus means that they would be careful with listing cross-border offers.
- Some markets are more mature than others, so that, for example, it is easy for a PCW to obtain price and product information from the retailers in some countries but not others.
- The same product model when manufactured or sold in different countries often has different attributes and specifications (e.g. safety standards, power cords, adapters, phone connections etc.) that are customised for usage in its major target market. If a product from across the border appears to be cheaper than the same model sold by local retailers, it is difficult for a PCW to enable local consumers to be sufficiently informed about possible trade-off in ease of usage.

⁶⁸ Some interviewees represented groups of PCWs.

- There is often a significant difference in prices for similar products between local and cross-border retailers. This means that: (a) if cross-border retailers price lower than local retailers, the PCWs would be wary that listing cross-border offers would kill the local market and perhaps turn local clients (who are their major clients) away; (b) if cross-border retailers price higher than the local retailers, the cross-border retailers would not be inclined to list their offers on the PCWs.
- Although there are big, multinational players among PCWs, some of them are in fact small businesses with limited data management capability. It would take time and capital for the small PCWs to make further technological investment to support comprehensive cross-border comparisons.
- Consumers are making more cross-border purchases than before, but cross-border shopping is still not as popular as purchasing from a local retailer in the online market. One possible reason is the increased delivery costs when purchasing across border. Consumers might also have an intrinsic preference for local retailers. A third possible reason has to do with language: an interviewed PCW stated that it is only willing to list a retailer who has an online shop front in the local language, since otherwise consumer experience would be hampered. PCWs that operate in more than one country typically choose to set up different operations in different countries rather than centralised operations.

One of the interviewed PCWs summed up succinctly that “there’s simply no good solution available yet” for the improvement of cross-border shopping within the EU,⁶⁹ and suggested the formation of a consortium involving EU representatives and industry players across Europe to “open up the European market and make the market transparent”. This could well be the only next step forward if PCWs are to take a prominent part in directly fostering cross-border shopping through pan-European multi-lingual sites.

⁶⁹ A mystery shopping exercise carried out for DG SANCO in 2009 found it is worthwhile for consumers to shop cross-border. Cross-border shopping offered greater choice and lower prices in the majority of cases. However, the study also pointed out that orders often fail at some point during the ordering process. Reference: YouGov Psychonomics. 2009. Mystery Shopping Evaluation of Cross-Border E-Commerce in the EU (on behalf of the European Commission Health and Consumers Directorate-General). See pp36-41.

4. Prices online and offline

4.1. Comparison of price levels online and offline

This report provides a systematic comparison between online and offline retail prices. Our price comparison exercise, which was carried out towards the end of 2010, covered 17 EU countries and 15 sub-categories with two or more products defined at brand/model level from each sub-category.

The key findings are that:

- (1) There are significant differences in the prices of products online and offline across the various product sub-categories.
- (2) When delivery costs are excluded, online prices in our sample ranged from 20% lower to 15% higher than offline prices, but online prices were lower than offline prices in 13 of the 15 sub-categories studied.
- (3) Including delivery costs clearly reduces the apparent savings available online, however even in this case online prices remained lower than offline in 10 of the 15 sub-categories studied.
- (4) There are also significant variations in pricing and average online savings available for specific products across countries. These results are in line with findings of previous studies.⁷⁰
- (5) While significant price variations for identical products between EU countries are detected, prices both online and offline show more convergence between Euro Member States than across the EU Member States as a whole. There is no evidence to suggest that online prices are any more or less convergent across countries than offline prices.

4.1.1. Prices of common products online and offline

Are prices of common products cheaper online or offline? How much can consumers save by shopping online?

We found considerable variation in the level of savings that can be made by consumers purchasing online rather than offline – across both: categories and countries. The following two tables show the relative cost of purchasing products online and offline for each sub-category in each country.

⁷⁰ See for example YouGov Psychonomics. 2009. Mystery Shopping Evaluation of Cross-Border E-Commerce in the EU (conducted for the Health and Consumers Directorate-General of the European Commission). According to this study, excluding all the offers for which the ordering process failed, consumers in Belgium, Estonia, Finland, Greece, Malta and Portugal found cross-border offers that were at least 10% cheaper in more than 50% of the product searches. Consumers in Belgium, the Czech Republic, Estonia, Finland, France, Greece, Italy, Malta, Portugal, Romania, Slovenia, Spain and Sweden found cross-border offers that were at least 10% cheaper in more than 40% of the product searches.

Table 21: Price collection – Average price difference online vs. offline (in %) by product sub-category, excluding delivery costs

Member State	Mobile phones	Laptops	Digital cameras	In-car navigation	LCD TVs	Portable MP3 players	Premium women's fragrances	Video games hardware	Traditional toys	Men's outerwear	Women's outerwear	Footwear	Power tools and accessories	Instant standard coffee	Standard milk formula
Austria	-10.0	-4.1	0.6	-15.8	-10.5	-4.6	-4.5	-6.5	-4.5	-0.2	4.9	-2.5	-7.1	86.8	1.1
Belgium	-0.9	-4.5	-1.6	-8.1	-11.1	-4.1	-16.5	-7.6	-13.9	1.5	-1.8	No data	-6.4	4.0	8.7
Czech Republic	-5.0	-2.0	-5.5	-15.5	-13.1	-5.7	-49.9	-2.8	-21.9	-12.7	-22.6	-23.8	-8.8	-0.1	-6.1
Denmark	-9.0	-4.0	0.4	0.2	-4.7	-1.5	-20.7	-9.8	2.8	-11.3	-27.1	-21.1	-16.1	2.9	1.6
France	-2.7	-3.7	-9.4	-12.4	-9.2	-2.7	5.1	-3.9	-10.0	-3.8	8.5	-6.3	-17.7	19.7	-1.2
Germany	-10.3	-6.7	-5.1	-9.3	-7.0	6.6	-7.9	-3.6	-5.9	-5.2	13.9	-11.7	-9.1	14.1	28.6
Greece	-4.8	-0.3	5.1	-3.8	-10.8	-2.8	-2.6	3.0	-4.2	-9.6	3.9	-29.8	-2.6	1.3	8.3
Hungary	-20.1	-24.7	-1.0	-13.7	-9.5	-13.9	-53.1	-19.1	30.3	0.0	0.0	3.7	-15.6	29.4	2.6
Italy	-8.1	-6.9	-2.1	-8.6	-4.7	-2.3	-15.6	-9.7	11.2	-17.6	-12.1	-17.8	3.8	14.7	18.1
Netherlands	-6.2	-1.4	-1.0	-9.7	-6.5	-10.0	-13.8	-5.9	-15.4	-2.1	16.3	-14.6	-4.0	47.5	54.2
Poland	-2.4	-3.2	-8.4	-3.3	-13.4	-8.5	-47.4	-9.5	-23.5	-11.1	-13.5	-13.2	-6.5	5.7	7.2
Portugal	-4.1	0.7	4.2	-4.9	-1.5	0.3	2.6	-2.5	-2.5	-3.7	-16.1	17.8	6.6	-2.4	9.5
Romania	-6.0	-2.0	4.9	-5.8	0.0	2.6	-32.8	-2.6	1.9	19.1	-8.2	5.8	-21.6	29.6	23.7
Slovakia	2.4	-3.3	8.4	-21.6	-7.0	-3.2	-32	0.8	-0.8	-3.7	0.5	-6.8	-10.1	5.2	7.5
Spain	-1.5	1.6	-17.9	-6.3	-10.7	2.0	-7.8	-3.3	0.5	-0.9	0.8	-10.4	-13.5	0.0	-10.3
Sweden	-12.4	-1.5	-3.8	-12.8	-9.7	-3.3	-41.0	-8.3	-21.4	-3.4	4.5	-10.6	-7.9	4.3	21.3
United Kingdom	-6.2	3.4	0.0	-3.0	7.0	-1.8	-0.8	-4.2	-18.9	-9.8	-5.1	0.8	2.6	-6.7	-2.3
Average	-6.3	-3.7	-1.9	-9.1	-7.2	-3.1	-19.9	-5.6	-5.6	-4.4	-3.1	-9.2	-7.9	15.0	10.1

Notes: Based on a total number of 4559 observations. Data collected in December 2010. Negative values mean that the online price is lower than the offline price of the product (shaded). Positive values mean that the online price is higher than the offline price

Table 22: Price collection – Average price difference online vs. offline (in %) by product sub-category, including delivery costs

Member State	Mobile phones	Laptops	Digital cameras	In-car navigation	LCD TVs	Portable MP3 players	Premium women's fragrances	Video games hardware	Traditional toys	Men's outerwear	Women's outerwear	Footwear	Power tools and accessories	Instant standard coffee	Standard milk formula
Austria	-8.6	-3.7	3.5	-13.5	-9.6	3.4	1.2	-5.2	16.8	2.5	8.7	1.1	-1.3	189.8	62.8
Belgium	0.7	-3.1	2.6	-5.2	-8.9	1.7	-9.3	-6.3	8.5	7.8	5.3	No data	-0.5	46.9	40.8
Czech Republic	-3.8	-1.4	-2.6	-13.4	-12.0	3.4	-47.6	-1.6	-5.0	-7.3	-18.3	-19.0	-4.5	106.9	17.3
Denmark	-8.1	-3.5	4.5	3.5	-3.2	4.1	-12.6	-8.7	30.7	-6.7	-23.2	-16.5	-8.8	160.3	80.0
France	-1.1	-2.8	-7.6	-12.1	-6.5	1.3	5.7	-3.3	21.9	-2.0	8.5	-5.2	-6.7	243.4	32.7
Germany	-9.0	-6.5	-1.9	-6.5	-4.3	10.8	-5.1	-1.5	14.9	-1.9	15.2	-8.5	-3.5	116.2	67.9
Greece	-4.8	0.0	5.7	-3.0	-10.5	-2.0	-0.4	4.0	10.6	-9.6	3.9	-25.5	-1.2	105.2	21.7
Hungary	-19.3	-24.4	1.4	-12.0	-8.4	-9.1	-52.1	-17.7	51.1	0.0	0.0	3.7	-11.0	177.7	61.0
Italy	-5.8	-5.6	4.6	-4.4	0.2	5.2	-7.6	-6.9	40.5	-11.3	-9.6	-13.1	11.7	118.2	45.8
Netherlands	-5.6	-1.0	2.6	-7.4	-3.3	-1.5	-8.6	-4.5	5.0	-1.0	16.3	-10.3	0.0	97.7	58.0
Poland	-1.3	-2.8	-6.3	-0.9	-11.8	-2.3	-43	-7.9	-7.6	-7.4	-10.1	-9.1	-0.2	99.5	43.9
Portugal	-2.4	1.6	9.1	-1.0	1.0	8.7	6.0	0.3	25.1	5.6	-11.3	22.4	12.5	111.4	58.8
Romania	-4.4	-1.3	7.1	-3.5	1.3	9.6	-26.5	-1.5	20.4	24.1	-4.2	16.0	-16.7	135.8	70.1
Slovakia	3.7	-3.0	10.5	-20.0	-6.2	2.8	-29.2	1.9	21.2	0.9	4.1	-1.5	-6.0	107.2	63.3
Spain	0.6	2.6	-12.5	-1.5	-7.4	6.3	1.4	-1.0	28.7	1.8	2.2	-0.2	-4.6	199.3	50.0
Sweden	-11.8	-0.3	-0.3	-9.5	-7.3	6.9	-38.1	-6.7	1.1	-1.2	7.7	-6.9	0.2	168.7	475.3
United Kingdom	-6.2	3.6	2.0	-1.6	8.6	0.2	-0.4	-3.2	-6.4	-8.4	-1.4	2.5	8.8	155.2	41.3
Average	-5.1	-3.0	1.3	-6.6	-5.2	2.9	-15.7	-4.1	16.3	-0.8	-0.4	-4.8	-1.9	137.6	75.9

Notes: Based on a total number of 4559 observations. Data collected in December 2010. Negative values mean that the online price is lower than the offline price of the product (shaded). Positive values mean that the online price is higher than the offline price

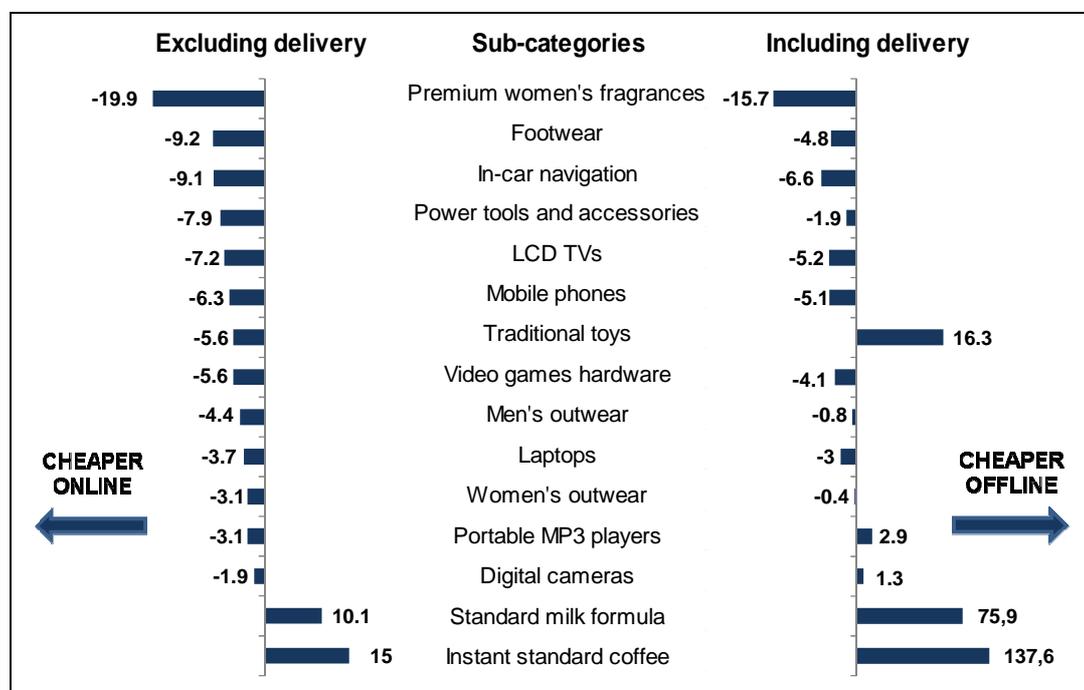
Generally we find prices cheaper online than offline, but this is by no means always the case and, as the two tables on the previous pages show, it varies across products and countries. On one extreme we find that, even allowing for delivery costs, it was cheaper to purchase in-car navigation systems online in every country except Denmark. Meanwhile, standard milk formula and instant coffee were *more* expensive online than offline in the vast majority of countries, even *before* delivery charges are taken into consideration.

Including delivery costs when comparing online and offline prices has a natural appeal, but is not necessarily the fairest means of comparison. Some products (e.g. standard milk formula and instant coffee) are typically purchased within a larger consumer shopping basket, mitigating the delivery costs that should be applied to the specific products. But, more generally, consumers need to travel physically to stores for offline shopping and usually need to carry the product back home, which should all be counted as transaction costs. However, only delivery costs for online products could be clearly measured, and if a comparison exercise between online and offline prices included the delivery costs of online products (only), the comparison results would be too conservative as a measure of how much consumers benefit from online shopping. Hence, in this and the next sections, savings both including and excluding delivery costs are reported.

4.1.2. Goods where consumers could save most by means of online shopping

What are the goods where consumers could save most by means of online shopping?

Figure 37: Price collection – Average price differences online vs. offline (in % savings based on offline price), by sub-category



Note: Based on a total number of 4559 observations; data collected in December 2010

The variation among sub-categories regarding how much (or whether) consumers can save by shopping online, as can be seen more easily in the chart above – showing the average

price difference between online and offline prices across all the EU countries studied – and taken directly from the two previous tables.⁷¹ Notably, premium women's fragrance provides the highest average percentage savings shopping online both including and excluding delivery costs, followed by footwear and in-car navigation systems.

As noted above, consumers actually have to pay more online than offline for instant coffee and standard milk, even when delivery costs are ignored. For the 13 other sub-categories, however, shopping online saves money if delivery costs are not included. If delivery costs are included, online shopping still saves money with most sub-categories, although the savings are understandably less than when delivery costs are excluded.

Some explanations for the differences in potential savings from online purchases were provided by interviews with product manufacturers, distributors, and (online and offline) retailers. The following observations are extracted from the interviews; although they are not fully borne out by our data, they can nevertheless assist forming insights into the industry:

- Central warehousing and distribution systems are often used to minimise costs for retailers. Moreover, online retailers say they often have very low margins (even sometimes negative margins) on popular products to attract traffic. They compensate for this with high margins on other products, for example, accessories.
- According to the interviews conducted, food products are usually priced the same online and in physical stores, as products bought online are sourced directly from physical stores. Because of their short shelf life, food products cannot be stored for long periods in central warehouses. This is thus the product type where consumers can save the least by shopping online.

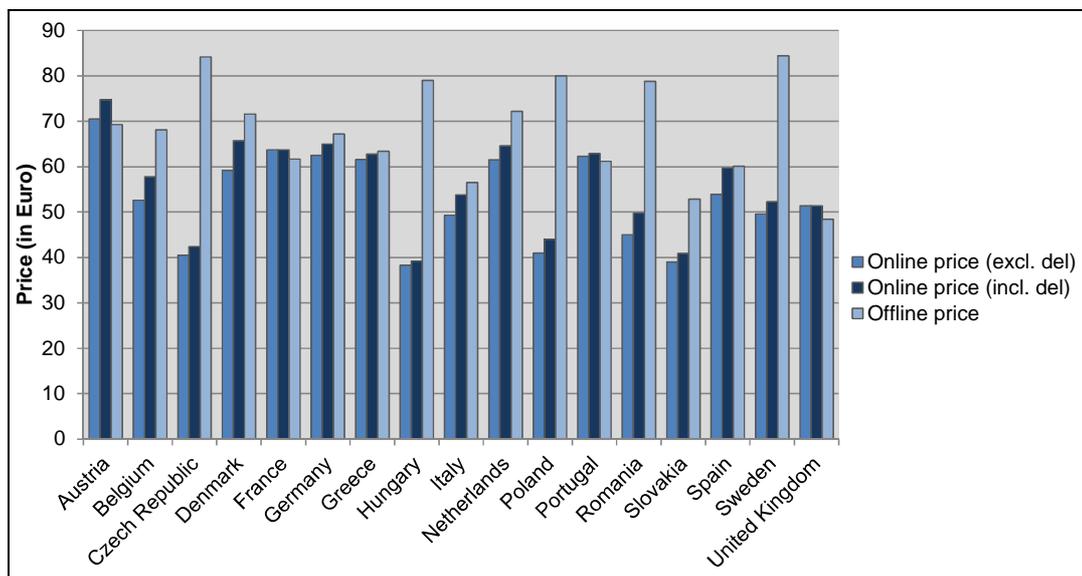
4.1.3. Where domestic online offers are limited, are products online in other Member States cheaper than domestic/offline offers?

Where domestic online offers are limited, are products online in other Member States cheaper than domestic/offline offers? To what extent are prices geographically segmented? How does this affect consumers and the internal market?

Having monitored a tightly defined selection of products allows us to compare prices for identical products across countries. Significant cross-country differences in prices and the level of savings available to consumers by shopping online are observed. The figure below shows the prices (in Euro) of Eau de Parfum by Kenzo, the product in our sample with the largest average savings from purchasing online.

⁷¹ Specifically, for each category we first calculate the difference in average online and offline prices in each country, and then take the average across all countries in our sample.

Figure 38: Price collection – Average online and offline prices (Eau de Parfum by Kenzo)



Note: Based on price data collected in December 2010

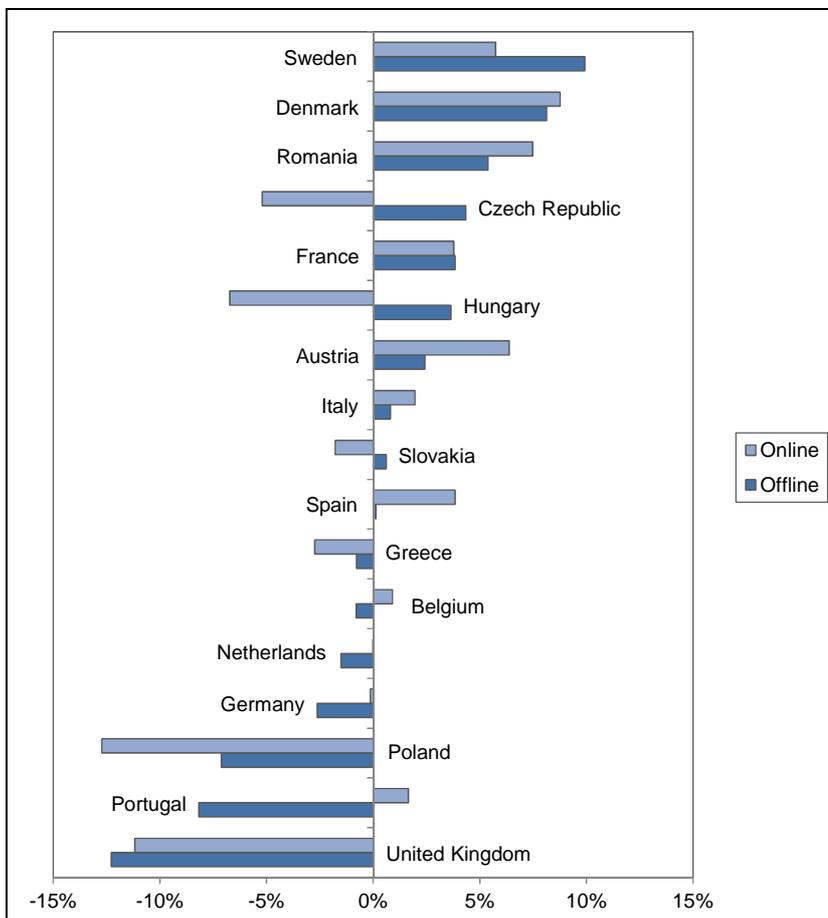
Overall we find that online prices are cheaper than offline prices in 13 of the 17 countries studied, with average savings of over 18% by shopping online, even after delivery costs are accounted for. But these average figures hide significant cross country price variations. Average offline prices range from 48.40 Euro in the United Kingdom to 84.40 Euro in Sweden, while online prices (incl. delivery) range from 39.20 Euro in Hungary to 74.70 Euro in Austria.

Domestic average savings available to consumers by purchasing Eau de Parfum by Kenzo online (including domestic delivery) rather than offline range from 50% in Hungary and the Czech Republic to minus 8% in Austria (where offline prices found in our price collection exercise were lower). Considerably greater savings are available by allowing cross-border online shopping – with savings of at least 19% in all countries, and savings of over 30% in 15 of the 17 countries monitored. Comparing online prices across border is problematic as not all retailers are prepared to ship cross-border, and when they are delivery charges may be greater – so these figures provide an upper estimate of the cross-border savings available from online shopping (see also Chapter 6).

The figure below shows the average price for all products in each country, relative to the average price across all the EU countries in our sample.⁷²

⁷² Specifically, for each product we calculate the average price for that product across all countries in our sample. We then note the percentage difference between the average price in each country from the sample wide average. The reported figures are the average of these deviations for all products in each country.

Figure 39: Price collection – Percentage deviations of country averages of online (incl. delivery) and offline prices from average



Note: Based on price data collected in December 2010

As can be seen in the figure above, for the products in our sample we observe that:

- (1) Prices in the United Kingdom and Poland are consistently lower than most other countries, while prices in Sweden, Denmark, and Romania are relatively higher. Thus, in principle, EU consumers of some countries might benefit from better deals both online and offline if they shop across the border, such as Swedish consumers buying from a UK online retailer. Yet this observation needs to be qualified by the possibility that shopping across the border either online or offline often incurs additional delivery costs, currency conversion charges and general transaction costs that are not accounted for in the present exercise.
- (2) In the Czech Republic, Hungary and Slovakia online prices tend to be lower than EU average and offline prices tend to be higher than EU average in our sample of products.
- (3) There is no evidence that online prices are more aligned than offline prices among EU countries. The conventional wisdom that price dispersions in online retailing should be less than offline does *not* seem to apply here (see also economic studies such as Baye and Morgan 2001 that offer similar findings).
- (4) Both online and offline prices between Euro countries are more closely aligned than prices between Euro and non-Euro countries. Thus there appears to be greater price harmonisation amongst Euro zone countries than within the EU generally. Figure 39

shows that the deviations of country averages of online and offline prices from the average across all countries tend to be higher in non-Euro countries than in countries using the Euro (with notable exceptions being Portugal and Austria, which also deviate more than other Euro countries from the average).

The interviews with industry players additionally suggest that:

- In each country, prices are influenced by local factors such as market costs and conditions, the economic environment, the purchase capacity and other retailers' range of prices. As a result, prices can vary among countries due to local sourcing (using local suppliers) and different costs associated with different local market conditions.
- Limited domestic competition can increase prices in comparison to countries where competition is higher. And some products are considered more attractive in certain countries than in others (for example different models of the same mobile phone brand are popular in the different Member States). As prices are usually fixed separately in each country, products sold in countries with limited domestic competition can be more expensive than in other Member States. Similarly products for which there is less demand in a particular country will be priced differently than in countries where there is more demand. However, some manufacturers sell their products at the same prices in all Member States, and some retailers deliver to all Member States. The pricing practices of these large multinational companies may be expected to generate at least some tendency towards price harmonisation between countries without necessitating widespread cross-border purchasing by consumers.
- Most retailers make only in-country delivery, which limits the ability of domestic customers to make purchases from abroad and facilitates price differentiation between countries. Only in rare cases do multinational retailers allow their customers to buy from any of their country-specific websites, thus effectively allowing them to arbitrage the company if price differences exist.

4.2. Pricing strategies and behaviour

Previous research suggests that online pricing strategies are much more dynamic than offline:⁷³ many retailers tend to offer online discounts for a small product range over short time windows with great flexibility. The same study also finds that geographical price discrimination is widespread in the Internet, as retailers with online shop fronts in more than one country may price differently at different country shop fronts.

The interviews with industry players corroborate with the above observations and yield additional insights about online pricing strategies. Some of them have been discussed in Section 4.1. In this subsection a few further, general issues related to pricing strategies are discussed based on the interview data.

⁷³ Baye, M. R., Gatti, J. R. J., Kattuman, P. and Morgan, J. 2009. Clicks, discontinuities, and firm demand online. *Journal of Economics and Management Strategy* 18(4) 935-975.

The key findings are that:

- (1) Products bought from retailers are generally cheaper than products bought directly from manufacturers because manufacturers wish to avoid undercutting and upsetting distributors and retailers of their own products.
- (2) If a company sells its product through both online and offline channels, the relationships between prices in the two channels can vary according to the specific strategies of the company. In some cases, a company might even set a *higher* online price than offline price.
- (3) Generally, companies claim that they do not sell the same products at different prices according to different consumers' online profiles. However, this does not apply to business customers and companies might also give special offers to frequent customers to cultivate loyalty.

4.2.1. Pricing strategies in Internet selling

Is Internet selling characterised by different price strategies or pricing behaviour? How do retailers conduct market segmentation online?

First of all, our interviews indicate that products bought from retailers tend to be cheaper than products bought directly from manufacturers. Although manufacturers usually suggest a price to retailers (the recommended retail price), many retailers price lower than the recommended prices. On the other hand, retailers might sometimes have to price identically for legal reasons, in countries which have fixed price regimes for some product categories (e.g. books).

In general, the trade interviews suggest that competition forces retailers to have very low margins (or even negative margins) on popular products in order to attract traffic. Online retailers have even lower prices because they have lower overhead costs, because there are no retail outlet costs, salary expenses for showroom staff, or high utility bills. Instead, online retailers usually have central warehousing and distribution. This practice, however, might have an adverse impact on the suppliers. As one of the interviewees suggested, online fashion retail typically involves a high return rate from customers. As a result, warehouses might often have returned stock for which it is not cost effective to be re-distributed to retailers because of the seasonal nature of the industry.

Retailers which operate both online and offline stores often have the same prices in both channels. This is especially true for groceries, as they are always sourced from physical stores. For example, the prices shown on Sainsbury's Grocery website at the time of ordering are only guide prices. The prices customers will be charged for goods will be the actual prices displayed in that store on the day of delivery, including any promotional offers if applicable. Thus, in these cases, the inclusion for delivery costs may make online prices higher.

However, as noted earlier, many retailers view their online store either as an independent retail outlet, or as a strategic complement to their offline retail outlets. In both cases prices between their online and offline outlets may vary for strategic reasons.

In general, interviewed companies report they do not use online differential pricing, which means that they generally do not sell the same products at different prices according to

different consumers' online profiles. It is possible, however, that this might change in the future as a consequence of technological changes. Moreover, transactions with business customers have long been conducted on a deal-by-deal basis. Business customers are often able to negotiate better terms, because of purchase volumes, long-term relationship and other obligations. In some cases companies do also give discounts or make special offers to frequent customers, in an effort to build client loyalty and recognition. This includes, for example, giving VIP customers access to sales one day before they officially start; or giving special discounts to customers who have some sort of VIP loyalty card.

5. Consumer choice

This section looks at a number of topics with online shopping other than the price-related issues discussed in the previous two sections. Those topics include whether consumers have more choice online than offline, how consumers make use of both channels in their research and purchase processes, and how retailers manage online and offline channels.

5.1. Consumers' choice in shopping online

Do consumers have more or less choice online than offline?

This subsection focuses on whether consumers have more choice shopping online than offline and how this difference in choice is affected by the potential convenience of cross-border online shopping.

The key findings are that:

- (1) Consumers have much more choice online than offline, when considering average choice of similar products in a particular online or offline shop. Based on the data collected, we estimate in our economic analysis (Chapter 6) that the difference in choice offline vs. online at a national level is 1:2.5 (i.e. on average an online shop offers 2.5 times more similar products compared to a large offline retailer). The difference in choice offline vs. online across the 17 EU Member States is 1:16.3, when the national market with the largest choice for each product sub-category is used as a benchmark.
- (2) Companies have different approaches when it comes to selling globally versus locally. While some companies are truly international and sell in almost every Member State, others operate only nationally.
- (3) Some products are difficult to sell cross-border due to their limited shelf life, lower demand resulting from language barriers, or different legal regulations.
- (4) While some retailers are prepared to deliver to non-domestic customers, the reluctance of many retailers to allow cross-country sales clearly does restrict the ability of consumers to benefit from potential savings available online in other Member States.

As anticipated by much of the academic research literature on online markets, the choice comparison research shows that there are considerably more products offered online than offline: on average, the product range online is more than double of the product range offline, when considering average choice of similar products in online and offline shops.⁷⁴ Based on the data collected, we estimate in Chapter 6 (economic analysis) that the difference in choice offline vs. online at a national level is 1:2.5. This greater online choice

⁷⁴ Based on the review of the number of similar products available in online and offline shops across 15 sub-categories of products and 17 Member States, we have for each country compared (in line with the consumer perspective) the number of similar products available on average at 5 online retailers and at 5 large retailers in the capital city.

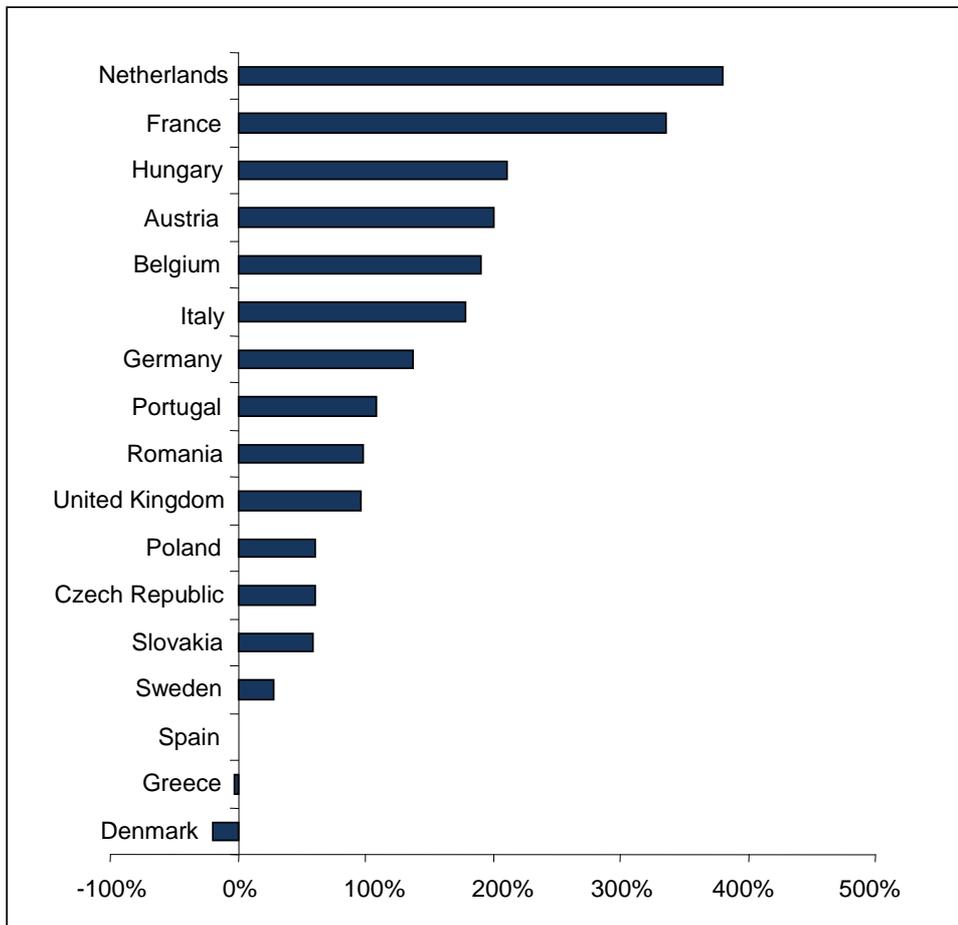
is also confirmed by our retailer interviews. Typically, interviewed companies have a much wider selection online than in offline stores. According to one major Internet retailer, wider selection online is even more important than lower price as an advantage of online shopping, together with increased convenience. And, as noted by a forthcoming GfK study on prices of electrical appliances across the EC, the Internet also plays a role in catering to the niche or specialist segments. The study also concluded the Internet has a strong influence over prices both online and offline.⁷⁵

Interviewees noted that the lower marginal cost of stocking items in warehouses rather than retail floors means firms are typically able to provide consumers with wider choice from online outlets than offline retail stores. Although online retailers also have storage constraints this is much less of an issue than for offline stores, and online retailers can therefore afford to keep in stock products for which there is less demand. Online bookshops even print on-demand books that have low demand, and offer e-books that consumers can download to their computer within minutes. The incremental costs of adding another title thus becomes negligible, which is not the case for offline stores, which have very real shelf space constraints. That said, it must also be noted that many offline stores offer the possibility to order items that are not kept in stock.

Despite the above overall observations, there are considerable variations across countries and product sub-categories in terms of the degree to which online product ranges exceed offline ranges. The following figure shows the geographical variations. The difference in online and offline product ranges is greatest in the Netherlands – where consumers find almost 400% more products online than offline in the visited shops; in Spain the range of products is almost identical online and offline, while in Denmark and Greece we found a wider product choice offline than online.

⁷⁵ GfK Retail and Technology. Forthcoming. Comparing the Prices of Electrical Appliances Across the European Community (forthcoming). The study was based on syndicated tracking of retail channel sales, using total turnover for the product and number of units sold, over the course of a year, and was commissioned by the European Commission.

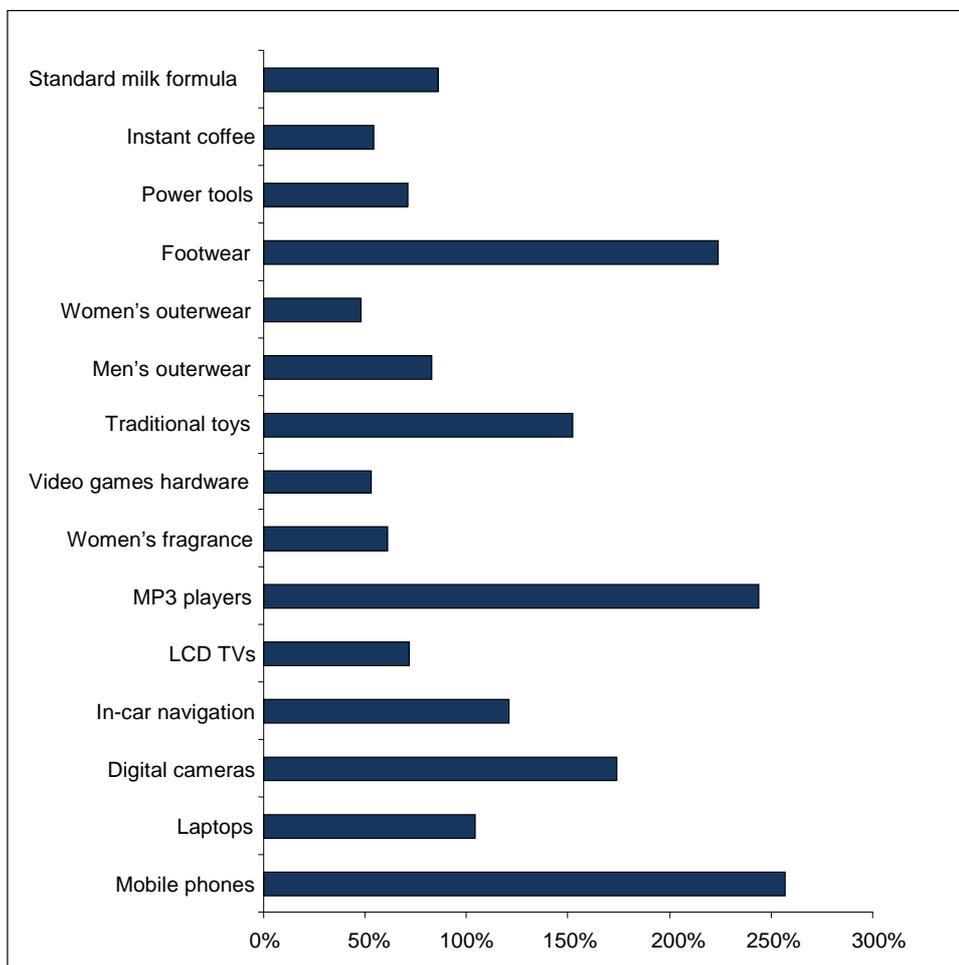
Figure 40: Price collection – Percentage more products online than offline by country



Note: Based on data on choice collected within the price collection exercise in December 2010

The next figure shows the variation across product sub-categories. While significantly more products can be found online than offline in all product categories, it is in the sub-categories of mobile phones, MP3 players and footwear where the greatest differences lie.

Figure 41: Price collection – Percentage more products online than offline, by product sub-category



Note: Based on data on choice collected within the price collection exercise in December 2010

5.1.1. Availability of common products online and offline

Are more or less products available online?

The majority of interviewed companies typically say they sell the same product range both online and offline. However, whereas all products are normally offered online, not all offline stores have all product ranges in stock or on display. As a rule, the more popular product ranges are offered both online and offline in stores, whereas less popular products are offered online only. The main reason for this is shelf space competition for offline retailing; however, it is usually possible to order products in stores if not kept in stock.

5.1.2. In countries with a limited domestic online offer, does cross-border e-commerce offer greater choice when compared to domestic offline commerce?

In countries with a limited domestic online offer, does cross-border e-commerce offer greater choice when compared to domestic offline commerce? Why are certain products not offered cross-border?

The research conducted for this study confirms that cross-border e-commerce offers greater choice when compared to domestic offline commerce. In our economic analysis we have concluded that difference in choice offline vs. online across the 17 EU Member States in which we collected data is 1:16.3, when the national market with the largest choice for each product sub-category is used as a benchmark (see Chapter 6).⁷⁶

To put these results in context, we discussed with the companies interviewed their coverage of EU markets and related strategies. The companies typically sell in more than one EU Member State. In effect, they foster cross-border e-commerce as well as pool stock across countries. Country coverage depends on company size, its development strategy and priority countries.

Some of the interviewed companies sell in many countries and have local websites in almost every EU Member State. These companies admit that it is very expensive to adapt and keep updated their terms and conditions for each Member State where they actively market or advertise online to consumers. One major online platform has an expert team of some 30 people devoted to this, something which few smaller companies can afford. Other companies view their operations in the different countries as separate businesses. It is therefore natural for them to have separate terms and conditions. One retailer is keeping costs down by using the most stringent conditions so that they are applicable to all countries. As a result they only need one set of terms and conditions, which is valid for all countries.

Some of the other interviewed companies operate much more locally. For example, certain grocers who sell online as well as offline, sell only in the UK and Northern Ireland. The reasons for operating only in a few, selected markets are mainly logistic, although a common language and good knowledge of local market conditions are other reasons. Other typical country groupings are Germany and Austria; Germany, Austria and Switzerland; or Germany, Austria, Switzerland and Lichtenstein.

Finally, a third group of interviewed companies chose the middle ground by selling only to certain Member States. Currently, consumers can only buy the products of a major European clothing retailer online in 10 Western European countries and its website is available in seven languages. This retailer maintains a strict policy of not delivering to customers outside the Member State which the website is targeting.

While some retailers are prepared to deliver to non-domestic customers, the reluctance of many retailers to allow cross-country sales clearly does restrict the ability of consumers to benefit from potential savings available online in other Member States.

These findings largely correspond with Flash Eurobarometer 300 on retailer attitudes towards cross-border trade, which concluded that 74% of retailers in the EU did not sell cross-border. Retailers in Luxembourg, Austria and Greece were most likely to make cross-border sales. Two-thirds of retailers who responded to the Eurobarometer said they did not actively advertise products or services to consumers in other EU Member States and 83% said they did not have subsidiaries or outlets in other EU countries. Almost half of retailers in the EU would only carry out transactions with customers in the language of their country. Less than a quarter (22%) of retailers surveyed said they would be prepared to use two languages. Retailers in the UK and Ireland were least likely to be prepared to use more

⁷⁶ For each sub-category, we have divided the largest set of online choice identified in one of the countries by each country's online choice to obtain a percentage of the largest set of online choice across all the national markets relative to each country's choice. The weighted average relative choice across all categories is 643%, compared to the national online choice. For assessing choice, we counted the number of similar products offered by each retailer visited online or offline. This is in line with the consumer perspective taken for the purposes of this market study, as a typical consumer will not always visit a large number of shops to assess choice (see Chapter 6 for more details).

than one language, while retailers were most likely to say they would use several languages in Luxembourg, Finland and Malta. Medium-sized and larger companies were more likely to be willing to use more than one language than smaller companies.⁷⁷ This finding is also supported by the relatively high levels of cross-border shopping between countries such as the UK and Malta and Luxembourg and France found in this study.

5.1.3. Why are certain products not offered online cross-border?

Some products, such as groceries, are usually not sold cross-borders due to their limited shelf life. These products are considered commodities, and not many consumers would be ready to order such products cross-border and pay much higher delivery costs to receive them fresh.

Other products may have language difficulties with cross-border selling. For example, books in languages which are not widely spoken across Europe will have very low demand cross-border due to language barriers.

A third type of difficulty is related to the products themselves – for example different power adaptors for electronic products. This means products cannot always be easily compared and are not always easily interchangeable.

Sometimes manufacturers try to restrict the geographic distribution of their products, but they would not directly forbid retailers to sell across borders. Most of the interviewed big retailers say they would never accept geographic restrictions from manufacturers, and they would not agree to work with such manufacturers.

5.2. Integration of online and offline commerce

Many businesses are now selling through both online and offline channels, and it can be expected that many more businesses would set up online operations in the near future. The interviews with industry players reveal important insights about how businesses view the two channels, which will be discussed in this subsection.

The key findings are that:

- (1) Many consumers research information on products and prices offline and then buy them online, but the reverse – i.e. researching online but then buying in brick-and-mortar stores – is also common, as indicated by the results of the consumer survey (18% of online shoppers prepared their last online purchase by visiting shops in person and 15% of all respondents visited seller websites to research their most recent purchase of 30 Euro or more in a shop, see Figure 17 and Table 16 in Chapter 2).
- (2) Although online channels might be a competitive threat to offline channels, most interviewed companies tend to see them as complementary rather than detrimental to profits, and as a way of offering more options to consumers. The companies would try to be present in both channels, if possible.

⁷⁷ Flash Eurobarometer 300. Retailers Attitudes Towards Cross-border Trade and Consumer Protection. pp. 15-24. For more information please see Annex 4.

5.2.1. Integration of online and offline channel

Do manufacturers and retailers treat online and offline commerce identically and in an integrated way? For example, are all products available online, or is their distribution restricted? If the distribution of some products online is restricted, what are the reasons for that?

Companies tend to treat online and offline commerce identically and in an integrated way. The distribution of online products is not restricted in any of the interviewed companies. On the contrary, the distribution of products offline is often restricted due to shelf space limitations.

5.2.2. To what extent do online stores compete with offline ones?

To what extent do online stores compete with offline ones? Is a potential free riding of the online channel over the offline channel an issue for some categories of products? How can this potential free riding problem be solved without limiting the availability of the products over the Internet?

In general, online stores have relatively more advantages vis-à-vis offline stores. They offer a much wider selection, lower prices and often better information. Although e-commerce still only accounts for a tiny percentage of total retail sales (see Table 23 in Section 6.2), it has nevertheless made deep inroads into its pioneer markets, such as books, music, and travel, and has demonstrated that it can repeat this model in sectors right across the retail market.

However, many consumers continue to frequent physical shopping venues, because they like to see the products in stores and try or touch them. Shopping centres are offering an increasing array of eating and entertainment facilities, and are developing around transport hubs and business districts to attract busy workers.

There is much potential for free riding of the online channel over the offline channel i.e. consumers research product information via offline means such as visiting stores, and then make purchases online. For example, according to one major mobile phone manufacturer, it used to be that consumers looked at a product on the Internet and then went to the store to buy it, but now many consumers like to look at products in the stores (because they like to see and touch the products) and then go home and buy them online. But there is also evidence that consumers could research information on products and prices online but then buy in brick-and-mortar stores. For example, some online retailers offer very detailed information on products, including customer ratings and videos. Studies showed that the level of information offered in some cases is far superior to what consumers can find in offline stores. Therefore, a customer could become informed about a product online and then buy it from an offline store.

Data from the consumer survey reveal that free riding happens both ways: it is common for shoppers in one channel (online/offline) to use information from the other channel to aid purchase decision.

First, although online shoppers rely heavily on the Internet to research purchases, they also use offline methods to research products, such as going to shops, or reviewing mail order catalogues. On average around one in five online shoppers in the survey would visit shops before they bought a product online. The mix of shopping and research modes is used in particular by occasional online shoppers. Like non-online shoppers, they would discuss with friends or go to shops before making online purchases. Conversely, when online shoppers prepare an offline purchase, they are likely to consult Internet information sources

such as online reviews, online market places that sell new products, sellers' or manufacturers' websites, online consumer reviews, or even price comparison websites.

On the other hand, non-online shoppers also regularly use research methods based on the Internet. Non-online shoppers in eastern European countries are especially likely to use the sellers' websites or general search engines to collect information on the product they want to buy offline. Respondents are particularly likely to consult consumer reviews, sellers and manufacturer/brand websites after visiting a shop (for more details see Chapter 2).

In general, the manufacturers and retailers interviewed agree that potential free riding of the online channel over the offline channel is not a problem. Rather, they think that both channels complement each other. Consumers are offered more options as to how they can inform themselves about products and where they want to ultimately buy them. This both increases competition and consumers' level of information. Online retailing is also a way for brick-and-mortar shops in remote locations to reach more consumers.

5.3. New models of retailing

What new models of retailing are emerging and do they generate consumer welfare or detriment?

The interviews reveal that new models of retailing are emerging. All interviewed companies recognise that new models of online retailing increase product visibility and, ultimately, sales and future growth. Two major trends can be identified.

The first trend is the combination of online and offline distribution channels as well as shopping experience. The traditional difference between brick-and-mortar stores and online ones is blurring, as many brick-and-mortar establishments are opening their own websites, or, for example, setting online shop fronts through eBay via retailer listings. Gradually, this is expected to become ubiquitous and a matter of survival for smaller retailers, as the websites allow them to be more visible both in terms of leading people to their brick-and-mortar establishments and by increasing business through the websites themselves. Many interviewed companies have a retailing model that already combines online and offline retailing experience as they attempt to use the advantages provided by both types of retailing. A customer, for example, can visit an offline store to get advice about a product, then go online to order a product that is not in stock, then go to the store to pick it up. Consumers can use both channels to select a product, order it, pick it up, and to arrange repairs. The future trend is that the retailing models will be a synergy of all existing ones.

With the increasing popularity of mobile e-commerce, the picture could become even more intriguing. As an interviewee suggested:

“When mobile [e-commerce] comes into play, I believe that ... [there is] going to be a three-way channel. ... for example, if you want to buy a high-value item, like a TV: first you do some online research, and then maybe you go to three or four shops in the same area. In the past, you would have to go back to the initial shop where you saw the TV you liked the most. Now, you have two options: Either you do that or you go back home and buy it online. In the future, you have three options: You go back to the shop, you go online, or – once you have seen the right one – you buy the one you like the most using your phone. And I can buy it from anywhere; I can buy it while having a drink with friends or on the train on my way home.”

Another trend is that both mobile-commerce and e-commerce using social media/social networking sites are expected to grow rapidly in the next five years. Most interviewed companies are planning to take advantage of these opportunities, since:

- (1) There will be ever higher demand from consumers to buy online even when they are away from their PC. Mobile commerce is still at an early stage, but it is expected to grow dynamically in the future. Even simple mobile phones may be used in innovative ways. For example, an online pharmacy interviewed has a service whereby it sends SMSs to its customers to remind them to take their medication.
- (2) Social networking through online sites is becoming a way of life. This is extremely important, since people often have the same taste as their friends and they also trust their opinion when they recommend a product. E-commerce using social media/social networking is expected to continue to be very relevant in the next five years. That said, some interviewees also suspect that it may only be a fad. In any case, many retailers already have a presence in social media such as Facebook and Twitter. Being present in social media helps companies to understand what customers want, and is also a way of advertising products.

6. Assessment of “missing potential” in terms of consumer welfare gains due to lower prices and more choices in e-commerce

What is the size of the missing potential? How big is this saving in aggregate, monetary terms?

A key objective of this study is to analyse whether the e-commerce of goods in the EU is delivering its full potential in terms of consumer welfare across the entire retail sector in the internal market, and if not, to assess what is the size of the “missing potential” in economic terms. As has been described in the previous sections, online markets can offer goods for lower prices, and increase choice, and thereby affect consumer welfare. In this chapter, we analyse consumer welfare changes implied by the price difference between buying a good online versus offline, and the consumer welfare aspects of increased online choice.

The analysis encompasses consumer welfare gains under the current share of Internet retailing for each country and consumer welfare gains under a hypothetical situation in which the share of Internet retailing would be 15% of total retailing. This benchmark of 15% of total retailing to assess the “missing potential” is about twice the current share of Internet retailing in the UK, which is the domestic market with the largest share of internet retailing in total retailing in the EU (see Table 23). In this country in some sectors, such as consumer electronics, the share of Internet retailing was already 11% in 2009⁷⁸ and the benchmark assumed by this study can be expected to be reached soon. In other sectors and countries, this will likely take longer.

In scrutinising this hypothetical situation which serves as an indicator for the “missing potential”, we also consider to which extent welfare gains would be affected by a continuation of the current fragmented national consumer markets of the 27 Member States, compared to a situation where an integrated Single Consumer Market in the e-commerce of goods exists, all other things unchanged.

The key findings are that:

- (1) Consumer welfare gains in domestic markets from *lower online prices* with the current share of Internet retailing in the EU (3.5%) are 2.5 billion Euro, and total welfare gains resulting from lower online prices under a hypothetical situation of a 15% share of Internet retailing and a Single EU consumer Market are 70.4 billion Euro per year.
- (2) In addition, consumer welfare gains in domestic markets from *increased online choice* with the current share of Internet retailing in the EU are 9.2 billion Euro, and total welfare gains resulting from larger online choices under a hypothetical situation of a 15% share of Internet retailing and a Single EU consumer Market are 134.1 billion Euro per year.
- (3) It is notable that welfare gains under a hypothetical situation of a 15% share of Internet retailing and a continuation of the current fragmented national consumer markets of the 27 Member States would be much lower, namely 11.0 billion Euro (from lower online prices) and 39.5 billion Euro (from increased online choice).

⁷⁸ Euromonitor data.

- (4) Under the assumption of a 15% share of Internet retailing and based on price data collected for this study we therefore estimate the additional consumer welfare gains from a Single EU consumer Market in e-commerce in goods to be 59.4 billion Euro (from lower online prices) and 94.6 billion Euro per year (from increased choice).
- (5) In summary, total welfare gains for EU consumers resulting from lower online prices and increased online choice under a hypothetical situation of a 15% share of Internet retailing and a Single EU consumer Market in the e-commerce of goods amount to 204.5 billion Euro per year (equivalent to 1.7% of EU GDP). This is four times higher compared to a situation where, with a similar share of Internet retailing, the fragmented national consumer markets of the 27 Member States would continue to exist. Two-thirds of consumer welfare gains are due to increased online choice, which is considerably larger across borders.
- (6) When interpreting these figures, the basis of the estimate has to be taken into account: The “missing potential” of e-commerce in goods is calculated for a given point in time (the date of the price collection, December 2010), not considering possible future market developments. The idea of a “missing potential” implies a comparison with a hypothetical situation in which current obstacles such as higher delivery costs between countries no longer exist. These have not been considered and would tend to reduce possible consumer welfare gains. On the other hand, our estimates regarding the extent to which prices are lower online and choices are increased appear to be fairly conservative when compared with results of other research.

6.1. Consumer welfare gains from e-commerce

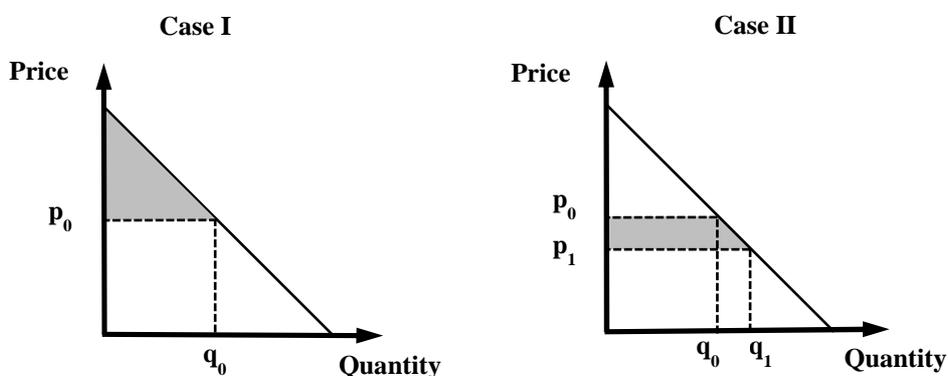
To explain our methodological approach for the economic analysis, we first consider a scenario in which a consumer good can be purchased online at a price that is lower than its offline price. In this case, consumers can realise savings by buying this good online. Intuitively, one may think that the size of the corresponding aggregated “missing potential” (that is to say for all EU consumers) corresponds to the aggregated savings; i.e. the sum of the price differences between the offline and online prices of goods (both available offline and online), multiplied by the quantities sold offline of each product. However, such an approach is likely to underestimate the size of the “missing potential”, as it does not consider the consequence of the possibility of buying cheaper goods online on the demand of consumers. In other words, the quantity demanded of some goods may increase because consumers are able to purchase these goods at a lower price online.⁷⁹ Consumers who could not afford to buy a good offline can do so online because it is now possible for them to purchase the good at a price that they can afford through the new sales channel. Consumers who could already afford to buy the good offline have the possibility to purchase the good at a lower price. By purchasing the good online, the two groups of consumers therefore benefit from welfare gains (the so-called “consumer surplus benefits” in economic theory).

⁷⁹ The degree of change in quantity demanded depends on the “price elasticity of demand” for the good. According to the terminology used in economics, price elasticity is a measure of the responsiveness, or elasticity, of the change in the quantity demanded of a good in response to a change in its price. An elasticity less than one (in absolute value) means that changes in price have a relatively small effect on the quantity of the good demanded. In contrast, an elasticity greater than one (in absolute value) means that a change in price has a relatively large effect on the quantity of a good demanded.

The change in consumer welfare resulting from the possibility of purchasing goods cheaper online is therefore the indicator that best measures the size of the “missing potential”.

Consumer surplus is a measure of the welfare that consumers gain from the consumption of goods and services, or a measure of the benefits they derive from the exchange of goods. Consumer surplus is the difference between the total amount that consumers are willing and able to pay for a good or service (indicated by the demand curve) and the total amount that they actually do pay (the market price for the product). Consumer surplus for a certain product market can be calculated by adding up the consumer surplus enjoyed by all the consumers who have bought the product. As illustrated in Figure 42 Case I, when a new product is introduced to the market, the change in consumer surplus is shown by the area under the demand curve and above the ruling market price.

Figure 42: An illustration of the measurement of changes in consumer surplus



- Case I:** When a new product is introduced to the market, the change in consumer surplus is the area under the demand curve and above the current market price for the new product.
- Case II:** When the market price changes from p_0 to p_1 , the change in consumer surplus is the area under the demand curve and between these two prices.

Consumer surplus also changes when the market price of a product changes. As illustrated in Figure 42 Case II, when the price changes from p_0 to p_1 , the change in consumer surplus is the area under the demand curve and between these two prices.

Notice that for illustration purposes, Figure 42 shows a demand curve that is linear. In reality, the demand curve may be nonlinear. In that case, the estimation of the change in consumer surplus involves the integration under such a nonlinear demand curve.

Consumers in the EU can realise consumer surplus gains by having access to the lower prices in e-commerce compared with offline commerce. In addition, consumers in the EU can realise consumer welfare gains by having access to the increased choices in e-commerce compared with offline commerce.

In the following sections, we elaborate our methodological approach for measuring these two different types of consumer surplus gains, and apply this approach to the data collected in the framework of this study. We first focus on measuring the welfare effects of lower online prices.

6.2. Consumer welfare gains resulting from lower online prices

6.2.1. Methodological approach

To assess the changes in consumer surplus resulting from lower online prices in the EU, this study uses a widely-accepted economic methodology, which was initially developed at the Massachusetts Institute of Technology (MIT) by Jerry Hausman⁸⁰ and later applied by Erik Brynjolfsson, Yu Jeffrey Hu, and Michael D. Smith in the context of the online book market in the United States.⁸¹ This study extends the scope of the methodology from the online book market to a much larger selection of product markets on the Internet. In addition, this study estimates both current gains and potential gains in consumer welfare resulting from online shopping in the EU context. This is achieved by applying the methodology to the current e-commerce situation in the EU and to a hypothetical situation in which the share of Internet retailing would be higher than it is currently.

When a product's online market price is lower than the product's offline market price, consumers realise consumer surplus gains from obtaining the lower online market price. The methodology in Brynjolfsson, Hu, and Smith (2003) shows that the change in consumer surplus resulting from lower online prices in a product market can be calculated using the following mathematical equation:

$$(1) \quad CV = -\frac{p_1x_1 - p_0x_0}{1 + \alpha} = -\frac{p_1x_1 - (1 + \phi)p_1(1 + \phi\alpha)x_1}{1 + \alpha}$$

Where CV is the change in consumer surplus due the lower price in the product's online market than in the product's offline market, α is the price elasticity for the product's online market, (p_1, x_1) are the current price and quantity for the product's online market, and (p_0, x_0) are the price and quantity for the product's offline market, ϕ is the difference between the product's online price and the product's offline price in percentage. More technical details of how to derive the above mathematical equation have been provided in Annex 2 of this study.

6.2.2. Data needs for estimating consumer welfare gains resulting from lower online prices

According to equation (1), data needs for the assessment of consumer surplus gains resulting from lower online prices are the following:

- The *turnover (sales in Euro amounts) realised online* – this is the sum of Internet price multiplied by the volume of Internet sales for all the products in e-commerce in the EU (both under the baseline and the projection scenario);
- The *price elasticity* for all products in e-commerce in the EU;

⁸⁰ See Hausman. 1981. *Exact Consumer's Surplus and Deadweight Loss*, American Economic Review 71(4) 662-676, and Hausman (1997), *Valuation of New Goods under Perfect and Imperfect Competition* in Bresnahan, T. F., Robert J. G., eds. "The Economics of New Goods", the University of Chicago Press, Chicago, IL, 209-237.

⁸¹ See Brynjolfsson, E., Hu, Y.J., Smith, M.D. (2003), *Consumer Surplus in the Digital Economy: Estimating the Value of Increased Product Variety at Online Booksellers*, Management Science, Vol. 49, No. 11. Two co-authors of this study, Erik Brynjolfsson (currently Director of the Massachusetts Institute of Technology (MIT) Center for Digital Business, and a Research Associate at the National Bureau of Economic Research, USA) and Yu Jeffrey Hu (currently a professor at Krannert School of Management, Purdue University, USA) are a part of the team of this study.

- The *difference between online and offline prices* for all products in e-commerce in the EU.

Ideally, these three sets of data would have been available for each of the 27 EU Member States. In practice, however, the assessment had to be based on the data concerning price and choice collected in a selection of countries through this study, complemented by other information sources. In summary, data needs were addressed as follows:

For the *turnover realised online*, we had access to data from Euromonitor International concerning Internet retailing sales for 24 of the 27 EU Member States. For three very small EU countries, namely, Luxembourg, Malta and Cyprus, this study does not have overall Internet retailing sales data. Given the small size of these three countries' economies, omitting them from this part of the study does not greatly affect the estimates of consumer surplus gains from e-commerce in goods. If anything, this study's estimates provide a lower bound on the consumer surplus gains from e-commerce in goods in the EU.

Data on *price elasticities of demand* is not available for all products sold online. Therefore, we infer them from gross profit margins following the methodology used in Brynjolfsson, Hu, and Smith (2003). Even data on gross margins was very difficult to come by, because retailers often do not want to share such sensitive information or they may not have good data themselves. We have therefore used published data of a very large internet retailer (Amazon.com) concerning its gross margin and compared this with results from interviews we conducted with retailers across Europe.

Data on the *difference between online and offline prices* was available for selected countries and product categories. We have collected price data online and offline for a selection of 7 major product categories – consisting of 15 product sub-categories – in a total of 17 EU countries (see Chapter 4). This data collection has resulted in 4,559 price observations covering seven product categories: consumer electronics; beauty and personal care; toys and games; clothing and footwear; DIY and gardening; hot drinks; and packaged food. We calculated a weighted average difference between online and offline prices based on the countries and product categories for which we have data, and we have assumed that this weighted average difference between online and offline prices applies to all EU countries and all product categories covered by Internet retailing.

When calculating these averages, we excluded delivery costs. Whereas measuring online delivery cost is clear and straightforward, measuring offline delivery cost (or travel cost) is difficult. However, typically consumers need to travel physically to stores for offline shopping and usually need to carry the product back home, which should all be counted as “transaction costs”. If one were to ignore the offline delivery cost (or travel cost) and compare online prices that include delivery cost with offline prices that do not include delivery costs (or travel costs), the comparison results would be too conservative as a measure of how much consumers benefit from online shopping. *As a result, for this economic assessment we only compare the price difference between online and offline prices that do not include delivery costs.*

This approach also applies for the hypothetical scenario involving a Single consumer Market. The idea of a “missing potential” implies a comparison with a hypothetical situation in which current obstacles (including delivery costs that are often much higher across borders than in a national market) no longer exist and where it would make, for example, no difference for a Belgian consumer to order a given product in France, the UK, Hungary or from a Belgian online retailer.

6.2.3. Consumer welfare gains resulting from lower online prices in domestic markets under the current situation

Estimating the value of Internet retailing across all the EU countries

The total value of Internet retailing in 24 EU countries was 90.7 billion Euro in 2010, compared to an overall market value of retailing of 2604.5 billion Euro. The overall share of Internet retailing in total retail was 3.5%. The country with the highest share of Internet retailing in total retail was the UK with 7.9%, accounting for about one-third of all Internet retailing in the EU in 2010 (see following table).

Table 23: Value of total retailing and internet retailing in 2010

Country	Retailing*		Internet retailing**		Share Internet retailing (in percent of country retailing)
	(in million Euro)	(in percent of EU total)	(in million Euro)	(in percent of EU total)	
Austria	65,285.4	2.5%	709.2	0.8%	1.1%
Belgium	81,784.7	3.1%	1,756.4	1.9%	2.1%
Bulgaria	9,239.1	0.4%	29.0	0.0%	0.3%
Czech Rep.	31,617.7	1.2%	1,082.8	1.2%	3.4%
Denmark	43,810.9	1.7%	2,354.3	2.6%	5.4%
Estonia	4,350.0	0.2%	15.0	0.0%	0.3%
Finland	39,834.7	1.5%	1,596.5	1.8%	4.0%
France	441,607.7	17.0%	17,324.9	19.1%	3.9%
Germany	458,803.4	17.6%	17,774.8	19.6%	3.9%
Greece	59,254.3	2.3%	441.9	0.5%	0.7%
Hungary	29,824.8	1.1%	339.5	0.4%	1.1%
Ireland	33,535.0	1.3%	523.1	0.6%	1.6%
Italy	314,370.8	12.1%	3,018.8	3.3%	1.0%
Latvia	4,316.9	0.2%	34.0	0.0%	0.8%
Lithuania	5,903.3	0.2%	63.5	0.1%	1.1%
Netherlands	105,915.3	4.1%	3,659.5	4.0%	3.5%
Poland	84,808.1	3.3%	1,968.3	2.2%	2.3%
Portugal	48,300.4	1.9%	365.6	0.4%	0.8%
Romania	27,198.2	1.0%	197.1	0.2%	0.7%
Slovakia	13,152.2	0.5%	108.7	0.1%	0.8%
Slovenia	7,375.1	0.3%	129.2	0.1%	1.8%
Spain	232,462.4	8.9%	3,188.4	3.5%	1.4%
Sweden	66,064.3	2.5%	2,618.0	2.9%	4.0%
UK	395,698.1	15.2%	31,412.2	34.6%	7.9%
TOTAL EU***	2,604,512.8	100.0%	90,710.7	100.0%	3.5%

Source: Euromonitor International from trade sources/national statistics. Sales value including VAT/Sales Tax. Current Prices - Fixed 2010 Exchange Rates. Notes: * Retailing is defined as sales of new and used goods to the general public for personal or household consumption. It is the aggregation of store-based retailing and non-store retailing (vending, direct selling, home shopping, Internet). Retailing excludes the informal retail sector. It also excludes specialist retailers of motor vehicles, motorcycles, vehicle parts, fuel, as well as foodservice, rental and hire and wholesale industries. ** Internet retailing is the sales of consumer goods to the general public via the Internet. Sales data is attributed to the country where the consumer is based, rather than where the retailer is based. *** Excluding Luxembourg, Malta and Cyprus.

As indicated before, for this economic assessment we assume that the value of Internet retailing across all EU countries is the total presented in the table above, which is a slight underestimation because no data was available for three small EU markets (Luxembourg, Malta and Cyprus) and these countries are therefore not included in the total.

Estimating price elasticity

For this study, we have interviewed a number of retailers and obtained some rough estimates of gross profit margins. The gross profit margins for the ‘consumer electronics’ category reported by interviewees are 5-20%; the gross profit margins for the ‘clothing and footwear’ category, the ‘furniture’ category, and the ‘luxury’ category are 30-50%. We have also obtained data showing that the gross operating profit margins reported by Amazon.com, the largest Internet retailer in the world, are 25%.⁸²

For the purpose of this study, we use this figure. A gross profit margin of 25% lies in the middle of other estimates, and is also likely to be more representative of all the product categories covered by Internet retailing, because Amazon.com’s Internet retailing business covers a larger number of product categories. More specifically, Amazon’s Internet retailing business covers all seven product categories selected for this study (consumer electronics, beauty and personal care, toys and games, clothing and footwear, DIY and gardening, hot drinks, packaged food) and in addition many other product categories (such as books, movies, music, and software).

Following the methodology applied by Brynjolfsson, Hu, and Smith (2003) in the context of online book markets in the United States, we use the Lerner’s Index formula to estimate the price elasticity in Internet retailing from profit margins in Internet retailing. More specifically, the inverse of gross profit margins in Internet retailing gives us an estimate of the price elasticity of demand in Internet retailing:

$$\alpha = -\frac{1}{PM}$$

With:

PM: Gross profit margins in Internet retailing

α : Price elasticity in Internet retailing.

Since we estimate the gross profit margins in Internet retailing to be 25%, we estimate that the price elasticity in Internet retailing is -4. This price elasticity of -4 is consistent with what has been found by earlier research on e-commerce. For instance, Chevalier and Goolsbee (2003)⁸³ analysed data collected from Amazon and Barnes and Noble.com and found that the price elasticity for Internet consumers’ demand for books is between -2.5 and -3.⁸⁴

⁸² This information is obtained from Amazon (AMZN)’s quarterly financial report for the first quarter of 2011, <https://secure.marketwatch.com/investing/stock/AMZN/financials/income/quarter> (last accessed on 19 May 2011).

⁸³ Chevalier, J., A. Goolsbee. 2003. “Measuring Prices and Price Competition Online: Amazon vs. Barnes and Noble,” *Quantitative Marketing and Economics*, 1, 203–222.

⁸⁴ As our estimate (-4) is slightly larger in size than the estimates in Chevalier and Goolsbee (2003), our estimates of consumer welfare are therefore likely to be conservative. If we would use a smaller price elasticity estimate such as -2.5 or -3, we would obtain larger consumer welfare estimates.

Estimating the difference between online and offline prices

For estimating the difference between online and offline prices, under the current state of Internet retailing in the EU, we take the following steps. First, for each of the 17 EU countries for which we have collected price data, we aggregate the actual online-vs.-offline price difference data from the 15 product sub-categories to the seven product categories. Thus, we obtain a per-country-category average online-vs.-offline price difference (in percentages). Second, for each of the seven product categories, we aggregate across all the 17 EU countries and calculate a per-category weighted average online-vs.-offline price difference (in percentages). The weight used in this weighted average calculation is the total value (in Euro) in Internet retailing for each country and each product category in 2009.⁸⁵ Using this weight allows us to calculate an average online-vs.-offline price difference that more closely reflects the reality of e-commerce in the EU.

The next table shows the average online-vs.-offline price difference per country and per product category. It also includes the weighted average of the online-vs.-offline price difference for the seven product categories, and the weighted average across all product categories.

We find that the average online-vs.-offline price difference per-category weighted by the online market value is negative for five product categories, ranging from -7.5% in the “toys and games” category to -2.4% in the “clothing and footwear” category. In addition, this weighted average is positive for two product categories: 3.2% for the “packaged food” category and 14.0% for the “hot drinks” category.

Third, we aggregate across all the seven product categories and calculate a weighted average online-vs.-offline price difference. The weight used in this calculation is the per-category total value (in Euro) in Internet retailing. We find that the weighted average of our sample of online-vs.-offline price differences is -2.6%.

Finally, while the average online-vs.-offline price difference weighted by the online market value is calculated on the basis of the price data for 17 EU countries and the seven product categories, we assume this weighted average difference between online and offline prices applies to all the EU countries and all the product categories covered by Internet retailing.

⁸⁵ For Consumer electronics and Hot drinks, Internet retailing data was available in units rather than Euro. Total value internet retailing was then calculated from total value retailing and % internet retailing. For two product categories (Clothing and footwear; DIY and gardening), sales data was only available for 2008. Thus, in these cases the weight used in this weighted average calculation is the total value (in Euro) in Internet retailing for each country and each product category in 2008. For five countries (Austria, Czech Republic, Denmark, Romania, Slovakia) among the 17 EU countries, we do not have such data for every product category. Thus, the weight used in this calculation is limited to those countries-category combinations for which we have such data.

Table 24: Online-vs.-offline price difference per country and per product category (in percentages), excluding delivery cost

Country	Consumer electronics	Beauty and personal care	Toys and games	Clothing and footwear	DIY and gardening	Hot drinks	Packaged food
Austria	-7.4	-4.5	-5.5	0.7	-7.1	86.8	1.1
Belgium	-5.1	-16.5	-10.8	-0.2	-6.4	4.0	8.7
Czech Republic	-7.8	-49.9	-12.4	-19.7	-8.8	-0.1	-6.1
Denmark	-3.1	-20.7	-3.5	-19.8	-16.1	2.9	1.6
France	-6.7	5.1	-7.0	-0.5	-17.7	19.7	-1.2
Germany	-5.3	-7.9	-4.8	-1.0	-9.1	14.1	28.6
Greece	-2.9	-2.6	-0.6	-11.8	-2.6	1.3	8.3
Hungary	-13.8	-53.1	5.6	1.2	-15.6	29.4	2.6
Italy	-5.5	-15.6	0.8	-15.8	3.8	14.7	18.1
Netherlands	-5.8	-13.8	-10.7	-0.1	-4.0	47.5	54.2
Poland	-6.5	-47.4	-16.5	-12.6	-6.5	5.7	7.2
Portugal	-0.9	2.6	-2.5	-0.7	6.6	-2.4	9.5
Romania	-1.1	-32.8	-0.4	5.6	-21.6	29.6	23.7
Slovakia	-4.1	-32.0	0.0	-3.3	-10.1	5.2	7.5
Spain	-5.5	-7.8	-1.4	-3.5	-13.5	0.0	-10.3
Sweden	-7.3	-41.0	-14.9	-3.2	-7.9	4.3	21.3
United Kingdom	-0.1	-0.8	-11.6	-4.7	2.6	-6.7	-2.3
<i>Per-category weighted* average</i>	-4.5	-5.8	-7.5	-2.4	-3.7	14.0	3.2
Weighted* average across categories	-2.6						

Notes: Based on price data collected in December 2010. * The weighting factor used is the online market value of each product category in each country. Negative values mean that online price is lower than offline price of the product (shaded). Positive values mean that the online price is higher than the offline price.

Estimating the consumer welfare gains resulting from lower online prices under the current situation

Based on the discussion in the previous sections, we therefore base our calculation on the following parameters:

- The *turnover realised online* – i.e. the value of Internet retailing in Euro across all the EU countries, under the current state of Internet retailing in the EU – is 90.7 billion Euro;
- The *price elasticity* is -4;

- The weighted *difference between online and offline prices*, taking into account the current state of Internet retailing in the EU and on the basis of the price observations collected for this study, is -2.6%.

By using equation (1) above, we thus estimate that **the consumer welfare gains in domestic markets from lower online prices with the current share of Internet retailing in the EU are 2.5 billion Euro.**

Details on step-by-step calculations are provided in Annex 2 of this study.

6.2.4. Consumer welfare gains resulting from lower online prices under a hypothetical situation of a 15% share of Internet retailing and 27 national markets

For assessing the “missing potential” of e-commerce, we compare welfare gains from lower online prices under the current situation with the welfare gains consumers would incur in a hypothetical situation where the share of Internet retailing would be 15% of total retail, all other things unchanged.

In addition, we assume that consumers can only purchase from national Internet retailers, and do not engage in any cross-border shopping. We assume that consumers under this hypothetical scenario would have access to the same set of current prices. Therefore, the online-vs.-offline price difference under this hypothetical scenario is the same as the one under the current state of Internet retailing, as reflected in our sample.

To estimate the consumer welfare gain mentioned above, we again need to obtain the following three key statistics:

- The *turnover realised online* – i.e. the value of Internet retailing in Euro across all the EU countries, under this hypothetical scenario;
- The *price elasticity*;
- The *difference between online and offline prices*, under this hypothetical scenario.

We have:

- The *turnover realised online* – i.e. the value of Internet retailing across all the EU countries, under this hypothetical scenario – is 15% of 2604.5 billion Euro, which is 390.7 billion Euro;
- The *price elasticity* remains unchanged from the one estimated above, which is -4;
- The *difference between online and offline prices*, under this hypothetical scenario is the same as the one under the current state of Internet retailing in the EU. As estimated before, this online-vs.-offline price difference is -2.6%.

By using equation (1) above, we thus estimate that **consumer welfare gains from lower online prices under the hypothetical situation in which the share of Internet retailing would be 15% of total retail and there are 27 national markets are 11.0 billion Euro.**

Details on step-by-step calculations are provided in Annex 2 of this study.

6.2.5. Consumer welfare gains resulting from lower online prices under a hypothetical situation of a 15% share of Internet retailing and a Single EU consumer Market

As a next step we assume that the Internet retailing would be 15% of total retail (as before), and in addition assume that consumers can purchase from Internet retailers across the EU, i.e. we assume a fully functional Single EU consumer Market. We estimate the online-vs.-offline price difference under this hypothetical situation of a Single EU consumer Market by using some plausible assumptions. Under the current state of Internet retailing in the EU, consumers in a national market on average can obtain a set of lower prices online than offline. We then consider that consumers in a national market can obtain a set of even lower prices online by purchasing from another EU country that has the lowest price for each individual product. In this hypothetical scenario, we again assume that all other things remain the same and therefore use the observed prices under the current state of Internet retailing in the EU when calculating the lowest price for each individual product.

To estimate the consumer welfare gain resulting from lower online prices under this scenario, we again need to obtain the following three key statistics:

- The *turnover realised online* – i.e. the value of Internet retailing in Euro across all the EU countries, under this hypothetical scenario;
- The *price elasticity*;
- The *difference* between online prices under this hypothetical scenario and current online prices.

Estimating the value of Internet retailing in Euro across all the EU countries, under this hypothetical scenario

Under this hypothetical scenario, the value of Internet retailing across all the EU countries is again 15% of 2604.5 billion Euro, which is 390.7 billion Euro.

Estimating the price elasticity in Internet retailing

The price elasticity remains unchanged from above, which is -4.

Estimating the difference between online and offline prices, under this hypothetical scenario

The difference between online and offline prices, under this hypothetical scenario, needs to be estimated from two differences:

- 1) The average online-vs.-offline price difference observed through our price collection in national markets under the current state of Internet retailing, which is -2.6%; and
- 2) The difference between the online price in a given national market in the EU and the lowest online price across all the national markets, which needs to be estimated.

We already have the first difference. Next, we focus on estimating the difference between the online price in each national market in the EU and the lowest online price across all the national markets. We achieve this in several steps.

First, for this study we have collected online price data for 17 EU countries and for 30 products defined at brand/model level (across seven product categories). For each product,

we divide each country's average online price by the lowest average online price we have observed for any of the 17 countries. We thereby obtain a percentage of each country's price related to the country with the lowest average online price. To exclude any effects of differences in VAT between countries, relative price differences are calculated on the basis of online prices excluding VAT. Second, we calculate a simple average of this per-product relative price over various products in each product category to obtain a per-category relative price. Third, for each of the seven product categories, we aggregate across all the 17 EU countries and calculate a per-category weighted average relative price (in percentages). The weight used in this weighted average calculation is the total value (in Euro) in Internet retailing for each country and each product category. This next table shows the per-country-category relative price and the per-category weighted average relative price, for all the 17 EU countries and for the seven product categories. We find that the per-category weighted average relative price ranges from 110.9% in the "DIY and gardening" category to 149.2% in the "beauty and personal care" category.

Table 25: Per-country-category online price relative to lowest online price in the EU (in percentages), excluding delivery cost

Country	Consumer electronics	Beauty/ personal care	Toys and games	Clothing and footwear	DIY and gardening	Hot drinks	Packaged food
Austria	117.8	180.7	149.3	140.7	123.7	257.8	118.0
Belgium	122.9	142.2	116.5	n.a.	n.a.	n.a.	161.8
Czech Republic	117.4	108.7	126.6	133.7	132.6	132.0	125.7
Denmark	121.4	151.6	129.3	136.0	137.8	n.a.	106.6
France	117.7	167.7	124.5	139.9	122.3	n.a.	194.7
Germany	116.3	169.4	134.0	135.3	115.9	136.5	142.1
Greece	119.2	170.6	125.9	112.6	114.8	104.9	174.6
Hungary	109.8	101.3	105.5	n.a.	116.0	134.9	n.a.
Italy	117.3	131.7	124.2	123.0	142.9	181.8	203.7
Netherlands	114.9	163.1	118.7	165.4	118.5	n.a.	137.1
Poland	110.5	104.9	112.9	100.0	108.2	101.8	111.3
Portugal	118.2	167.4	124.5	130.4	122.0	100.0	123.0
Romania	127.1	126.9	156.5	139.8	108.9	115.5	130.8
Slovakia	122.9	106.2	116.5	n.a.	128.5	143.6	145.5
Spain	122.0	150.6	122.3	132.3	118.0	123.6	157.9
Sweden	123.7	125.0	119.5	136.8	141.0	n.a.	n.a.
United Kingdom	114.2	131.3	124.3	110.7	102.7	135.6	100.0
<i>Weighted* average</i>	<i>116.9</i>	<i>149.2</i>	<i>124.9</i>	<i>129.5</i>	<i>110.9</i>	<i>138.4</i>	<i>134.1</i>
<i>Weighted* average across categories</i>	126.9						

Notes: Based on price data collected in December 2010.* The weighting factor used is the online market value of each product category in each country.

Fourth, given the per-category weighted average relative price, we aggregate across all the seven product categories and calculate a weighted average relative price. The weight used in this weighted average calculation is the per-category total value (in Euro) in Internet retailing. We find that the weighted average relative price is 126.9%.

Put in other words, and supposing the average online price is 100% under the current state of Internet retailing in the EU, we have estimated that the lowest online price across all national markets is 1/126.9%, or 78.8%. Therefore a fully functional Single EU consumer Market would lower the online price further by -21.2% (which is 100%-78.8%).⁸⁶

Estimating the consumer welfare gains by shopping online under this hypothetical scenario

Based on the discussion in the previous sections, we therefore base our calculation on the following estimates:

- The *turnover realised online* – i.e. the value of Internet retailing across all the EU countries, under this hypothetical scenario – is 390.7 billion Euro;
- The *price elasticity* is -4;
- The *difference* between online price under this hypothetical scenario and the current online price, is -21.2%.

By using equation (1) above, we thus estimate that the resulting consumer welfare gains are 59.4 billion Euro. Details on step-by-step calculations are provided in Annex 2 of this study.

These welfare gains relate to the price differences between each country's average online price compared to the lowest average online price we have observed for any of the 17 countries. They do not include the additional welfare gains estimated in the previous scenario which are caused by the differences between online and offline prices observed at the national level (see previous section). The combined welfare gains resulting from the average online-vs.-offline price difference observed in national markets and the difference between the average online price in a given national market in the EU and the lowest average online price observed in one of the other EU countries – or put differently: **the total welfare gains resulting from lower online prices under a hypothetical situation of a 15% share of Internet retailing and a Single EU consumer Market – can therefore be estimated at 70.4 billion Euro** (11.0 billion Euro + 59.4 billion Euro).

6.3. Consumer welfare gains resulting from increased online choices

6.3.1. Methodological approach

Academic research indicates that, for the example of online book sales in the US, the increased product variety of online bookstores enhanced consumer welfare by \$731 million to \$1.03 billion in the year 2000,⁸⁷ which is between seven and ten times as large as the consumer welfare gain from increased competition and lower prices in this market.⁸⁸ This

⁸⁶ Please note that this difference is calculated on the basis of differences between average country online prices, and not on the basis of price differences between individual online retailers located in different countries, to limit distortions that could be caused by special offers of individual retailers. In line with our methodological approach of assessing the “missing potential” (see above), we do not consider the difference between national and cross-border delivery costs here, which often make it difficult for consumers to benefit from the observed price differentials in practice.

⁸⁷ 776 million Euro to 1.09 billion Euro (using exchange rate as of 31/12/2000).

⁸⁸ Brynjolfsson, E., Hu, Y.J., Smith, M.D. (2003).

research also points out that there may be large welfare gains in other consumer good markets with a high degree of product variety, such as music, movies, consumer electronics, and computer software and hardware. In these sectors, product variety offline is typically one-tenth or less compared to product variety online, even when large department stores or superstores are considered.

For our study, we have applied the same methodology that was used by Brynjolfsson, Hu, and Smith (2003) in assessing the consumer surplus gains in the context of the online book market in the United States. When a product's online market provides more choices than the product's offline market does, consumers realise consumer welfare gains from accessing the larger selection of product choices online. The change in consumer surplus resulting from increased online choices in a product market can be calculated using the following equation:

$$(2) \quad CV = -\frac{p_1 x_1}{1 + \alpha}$$

where CV is the change in consumer surplus due to the increased choices in the product's online market compared to the product's offline market, α is the price elasticity for the product's online market, (p_1, x_1) are the price and quantity in the online market for products that are unavailable in offline commerce. More technical details of how to derive the above mathematical equation are provided in Annex 2 of this study.

6.3.2. Data needs for estimating consumer welfare gains resulting from increased online choices

According to equation (2), data needs for the assessment of consumer surplus gains resulting from increased online choices are the following:

- The *price elasticity* for all products in e-commerce in the EU;
- The *turnover realised online on products that are unavailable in offline commerce* for each product category – i.e. the sum of Internet sales price multiplied by the volume of Internet sales for all the products that are unavailable in offline commerce for all the products in e-commerce in the EU.

Difficulties regarding the assessment of *price elasticity*, and how these were resolved, have been discussed in Section 6.2.3.

In addition, for estimating welfare gains from increased online choices, we face the difficulty of collecting data on the *turnover realised online regarding all products that are unavailable in offline commerce*. An accurate quantitative assessment of consumer welfare gains through increased product choice would require sales data concerning those products that are sold online, but not offline, which is not available, because Internet retailers are extremely hesitant about releasing specific sales data. We therefore apply the methodology used in Brynjolfsson, Hu, and Smith (2003), which assumes that product sales and sales rank follow a log-linear (Pareto) distribution, see equation (3) below. In our estimation we use the Pareto slope to calculate the proportion of online sales that can be attributed to products that are not available offline. This allows us to derive this figure by using data regarding the average choice offline (in absolute numbers), and the average online-vs.-offline choice difference (in percent). For this approach we needed the following additional data:

- The *turnover realised online* – i.e. the value of Internet retailing in Euro across all the EU countries;
- The *average product choice* in offline retailing in the EU (number of similar products);
- The *difference between online choice and offline choice*, under the current state of Internet retailing in the EU.

For the purpose of this study, we have therefore collected data on offline choice and online choice across 17 EU countries and over a selection of seven product categories for all sales outlets visited. This data collection covers seven broad product categories: consumer electronics; beauty and personal care; toys and games; clothing and footwear; DIY and gardening; hot drinks; and packaged food (consisting of 15 product sub-categories). We calculate a weighted average difference between online choice and offline choice based on the countries and product categories for which we have data, and we assume this weighted average difference between online choice and offline choice applies to all the EU countries and all the product categories covered by Internet retailing.

An issue that we faced when interpreting the data collected was the question to which extent online vs. offline choice differences are influenced by the degree to which retailers offer similar ranges of products or not. Counting the number of similar products in a particular offline store or online retailer is only a crude indicator of choice. It implicitly assumes that smaller product ranges are strict subsets of larger product ranges. But that may not be the case, for example, five offline retailers all offering 10 different products of a similar type may well give consumers the same overall product choice as an online retailer offering 50 products. Thus, the methodology applied in this study, counting the number of similar products offered by each retailer visited online or offline may actually overstate the available choice online compared to the whole retail market. On the other hand, the same argument could also be made when looking at five online retailers each offering 50 products of a similar type. This could indicate a total choice of 50 (if all online retailers offered exactly the same products) or – at the other extreme – a total choice of 250 (if all online retailers were to offer fully different sets of products of a similar type). In each case the overlap between different sets of products offered would need to be assessed in detail, which would be very complex. We therefore assume for this estimate that the overlap between the sets of products offered by different offline retailers and the overlap between the sets of products offered by different online retailers is similar. This is also in line with the consumer perspective taken for the purposes of this market study, as a typical consumer will not always visit a large number of shops to assess choice.⁸⁹ We have therefore compared the number of similar products available to consumers when visiting an online shop to the number of similar products available in an offline shop on the basis of the average choice available in five online and five offline retailers.

⁸⁹ A similar argument can also be made when comparing choice offered by online retailers in a given Member State with the larger choice offered by online retailers in another country. Again, we had no data concerning the overlap between different sets of product choices offered in different Member States and therefore the country with the widest range of similar products offered was used as the benchmark for the largest available choice in a “single consumer market” scenario.

6.3.3. Consumer welfare gains resulting from increased online choice under the current situation

Estimating the price elasticity

As before, we estimate that the price elasticity in Internet retailing is -4, by using a profit margin of 25% as the gross profit margin in Internet retailing.

Estimating the value of Internet retailing in Euro across all the EU countries, under the current state of Internet retailing in the EU

Data provided in Table 23 (above) indicates that the total value of Internet retailing in 24 EU countries was 90.7 billion Euro in 2010. Again, data for three small EU countries, namely, Luxembourg, Malta and Cyprus, is not available and therefore not included in this figure.

Estimating the average choice in offline retailing in the EU

Using the offline choice data collected for this study for 17 EU countries and seven product categories, we have estimated the average choice in offline retailing (i.e. the number of similar products) across all countries and categories to be 14.8. In other words, this means that on average offline retailers included in this comparison (large retailers in the capital city of each country) offer 14.8 products of a similar type across the product categories scrutinised.

Table 26: Per-category offline choice (average choice of similar products in a particular store)

	Consumer electronics	Beauty and personal care	Toys and games	Clothing and footwear	DIY and gardening	Hot drinks	Packaged food
<i>Per-category average</i>	10.1	54.2	24.3	14.6	6.7	6.9	5.2
Weighted* average across categories	14.8						

Note: Based on data on product choice collected in December 2010. * The weighting factor used is the online market value of each product category.

Estimating the difference between online choice and offline choice, under the current state of Internet retailing in the EU

For estimating the difference between online choice and offline choice, under the current state of Internet retailing in the EU, we take the following steps. First, for each of the 17 EU countries, we aggregate the actual online-vs.-offline choice difference data collected for this study from the 15 product sub-categories to the seven product categories. Thus, we obtain a per-country-category average online-vs.-offline choice difference (in percentages). Second, for each of the seven product categories, we aggregate across all the 17 EU countries and

calculate a per-category weighted average online-vs.-offline choice difference (in percentages). The weight used in this weighted average calculation is the total value (in Euro) in Internet retailing for each country and each product category. Using this weight allows us to calculate an average online-vs.-offline price difference that more closely reflects the reality of e-commerce in the EU. The next table shows the average online-vs.-offline choice difference per country and per product category. It also includes the weighted average of the online-vs.-offline choice difference for the seven product categories, and the weighted average across all product categories. The weighting factor used is the online market value of each product category in each country.

Table 27: Online-vs.-offline choice difference per country and per product category (in percentages)

Country	Consumer electronics	Beauty and personal care	Toys and games	Clothing and footwear	DIY and gardening	Hot drinks	Packaged food
Austria	415.0	107.0	14.3	54.3	11.0	-29.0	233.0
Belgium	171.8	191.0	289.3	25.7	153.0	85.0	298.0
Czech Republic	83.0	48.0	90.7	16.7	-8.0	-14.0	38.0
Denmark	-6.3	-18.0	-0.3	-53.3	2.0	-32.0	-83.0
France	127.3	346.0	516.0	630.0	117.0	33.0	50.0
Germany	153.7	63.0	104.3	89.3	99.0	404.0	50.0
Greece	25.2	-50.0	-25.3	-36.0	-5.0	-42.0	30.0
Hungary	547.5	120.0	68.3	30.7	54.0	25.0	4.0
Italy	112.0	-6.0	-26.7	618.0	18.0	0.0	27.0
Netherlands	479.8	113.0	344.7	186.7	163.0	55.0	218.0
Poland	69.8	47.0	51.3	129.7	32.0	17.0	-11.0
Portugal	159.7	103.0	0.7	147.7	165.0	64.0	15.0
Romania	226.2	-9.0	-3.7	13.7	53.0	4.0	-28.0
Slovakia	9.0	-56.0	15.3	86.0	299.0	-47.0	534.0
Spain	46.5	-48.0	-23.7	-3.3	-14.0	-14.0	-11.0
Sweden	16.0	64.0	33.7	30.7	-8.0	-3.0	-20.0
United Kingdom	119.7	27.0	63.7	46.7	68.0	419.0	123.0
<i>Per-category weighted average*</i>	154.5	159.1	166.6	184.2	83.9	256.5	94.5
Weighted average across categories*	153.8						

Notes: Based on data on product choice collected in December 2010. Positive values mean that online choice is bigger than offline choice of the product (shaded). Negative values mean that online choice is smaller than offline choice of the product. * The weighting factor used is the online market value of each product category in each country.

We find that the average online-vs.-offline choice difference per-category weighted by the online market value is positive for all seven product categories, ranging from 83.9% in the “DIY and gardening” category to 184.2% in the “clothing and footwear” category. The weighted average across all categories is 153.8%.

Finally, while the average online-vs.-offline choice difference weighted by the online market value is calculated on the basis of the choice data for 17 EU countries and the seven product categories, we assume this weighted average difference between online choice and offline choice applies to all the EU countries and all the product categories covered by Internet retailing.

Estimating the consumer welfare gains from increased online choice under the current situation

Based on the discussion in the previous sections, we therefore use the following key data for our estimation:

- The *turnover realised online* – i.e. the value of Internet retailing in Euro across all the EU countries, under the current state of Internet retailing in the EU – is 90.7 billion Euro;
- The *price elasticity* is -4;
- The *average number of products in offline retailing* in the EU is 14.8;
- The weighted *difference between online and offline choices*, taking into account the current state of Internet retailing in the EU and on basis of the product choice observations collected for this study, is 153.8%.

We take the following further steps in estimating the consumer welfare gains from increased online choice under the current situation in the EU. First, we calculate the percentage of Internet sales that can be attributed to products that are not available offline, based on the methodology used in Brynjolfsson, Hu, and Smith (2003). This methodology assumes that product sales and sales rank follow a log-linear (Pareto) distribution:

$$\log(\text{Quantity}) = \beta_1 + \beta_2 \cdot \log(\text{Rank}) + \varepsilon.$$

Therefore, we use the Pareto slope to calculate the proportion of online sales that fall above a particular rank as:

$$(3) \quad r(x, N) = \frac{\int_x^N \beta_1 t^{\beta_2} dt}{\int_1^N \beta_1 t^{\beta_2} dt} = \frac{N^{(\beta_2+1)} - x^{(\beta_2+1)}}{N^{(\beta_2+1)} - 1}$$

Where x is the rank, and N is the total number of products available.

We plug in 14.8 as x , and $14.8 \cdot (1 + 153.8\%) = 37.6$ as N , as well as the Pareto slope found by Brynjolfsson, Hu, and Smith (2003) which is -0.871. Based on this calculation we estimate that 30.3% of Internet sales can be attributed to products that are not available offline.

Second, we use equation (2) provided above to estimate that **consumer welfare gains in domestic markets from increased online choice with the current share of Internet retailing in the EU are 9.2 billion Euro.**

Details on step-by-step calculations are provided in Annex 2 of this study.

6.3.4. Consumer welfare gains from increased online choice under a hypothetical situation of a 15% share of Internet retailing and 27 national markets

In this scenario, we again assume that the Internet retailing would be 15% of total retail. In addition, we assume that consumers can only purchase from online shops in their Member State, and do not engage in any cross-border Internet shopping. Therefore, the online-vs.-offline choice difference under this hypothetical scenario is the same as the one under the current state of Internet retailing, as reflected in our sample.

To estimate the consumer welfare gain mentioned above, we again need to obtain the following four key statistics:

- The *turnover realised online* – i.e. the value of Internet retailing in Euro across all the EU countries, under this hypothetical scenario;
- The *price elasticity*;
- The *average number of products in offline retailing* in the EU;
- The *difference between online choice and offline choice*, under this hypothetical scenario.

We have:

- The *turnover realised online* – i.e. the value of Internet retailing in Euro across all the EU countries, under this hypothetical scenario – is 15% of 2604.5 billion Euro, which is 390.7 billion Euro;
- The *price elasticity* remains unchanged from the one estimated above, which is -4;
- The weighted *difference between online and offline choices*, taking into account the current state of Internet retailing in the EU and on basis of the product choice observations collected for this study, is 153.8%;
- The *average number of products in offline retailing* in the EU is 14.8.

By using equations (2) and (3), we thus estimate that **consumer welfare gains from increased online choice under a hypothetical situation of a 15% share of Internet retailing and 27 national markets are 39.5 billion Euro.**

Details on step-by-step calculations are provided in Annex 2 of this study.

6.3.5. Consumer welfare gains from increased online choice under a hypothetical situation of a 15% share of Internet retailing and a Single EU consumer Market

In the final scenario, we again assume that the Internet retailing would be 15% of total retail, and in addition assume that consumers can purchase from Internet retailers across the EU, i.e. we assume a fully functional Single EU consumer Market. As has been discussed before, it is very difficult to estimate the online-vs.-offline choice difference under this

hypothetical situation of a Single EU consumer Market, unless a macroeconomic model of a future Single Market is built and all the related effects are considered. Doing so would exceed the mandate of this study. We therefore estimate the online-vs.-offline choice difference under this hypothetical situation of a Single EU consumer Market by using some plausible assumptions. Under the current state of Internet retailing in the EU, consumers in a national market on average can access increased product choices online compared to offline. We then consider that consumers in a national market can access even larger online choices by buying cross border and having access to the largest set of choices across the national markets, under the current state of Internet retailing in the EU. As discussed before, we do not consider the extent to which different sets of products that are offered in different countries overlap or not, but instead use for each of the 15 product sub-categories the country with the largest choice online identified in the data collection as a benchmark.

To estimate the consumer welfare gain mentioned above, we again need to obtain the following four key statistics:

- The *turnover realised online* – i.e. the value of Internet retailing in Euro across all the EU countries, under this hypothetical scenario;
- The *price elasticity*;
- The *difference between online choice under this hypothetical scenario and current online choice*;
- The *average number of products in offline retailing* in the EU.

Estimating the value of Internet retailing in Euro across all the EU countries, under this hypothetical scenario

Under this hypothetical scenario, the value of Internet retailing across all the EU countries is again 15% of 2604.5 billion Euro, which is 390.7 billion Euro.

Estimating the price elasticity in Internet retailing

The price elasticity remains unchanged from above, which is -4.

Estimating the difference between online choice under this hypothetical scenario and current online choice

The difference between online choice under this hypothetical scenario and current online choice needs to be estimated from two differences: 1) the online-vs.-offline choice difference under the current state of Internet retailing in the EU, which is 153.8%; and 2) the difference between the online choice in each national market in the EU and the largest set of online choices across all the national markets, which needs to be estimated. We already have the first difference. Next, we focus on estimating the difference between the online choice in each national market in the EU compared to the market with the largest set of online choices. We achieve this in several steps.

First, we have collected choice data for 17 EU countries and for 15 product sub-categories (across seven product categories). For each sub-category, we divide the largest set of online choice identified in one of the countries by each country's online choice to obtain a percentage of the largest set of online choice across all the national markets relative to each country's choice. Second, we calculate a simple average of this per-product relative choice over various products in each product category to obtain a per-category relative choice. Third, for each of the seven product categories, we aggregate across all the 17 EU countries

and calculate a per-category weighted average relative choice (in percentages). The weight used in this weighted average calculation is the total value (in Euro) in Internet retailing for each country and each product category in 2009. The next table presents the results and indicates that the per-category weighted average relative choice ranges from 207.7% in the “DIY and gardening” category to 1213.4% in the “packaged food” category. The weighted average relative choice data across all categories is 643.0%.

Table 28: Per-country-category largest set of online choice in the EU relative to online choice (in percentages)

Country	Consumer electronics	Beauty and personal care	Toys and games	Clothing and footwear	DIY and gardening	Hot drinks	Packaged Food
Austria	299.1	100.0	1106.7	623.6	434.0	1365.3	984.6
Belgium	721.5	2797.9	449.2	573.6	133.6	412.5	765.8
Czech Republic	851.8	1135.6	966.1	2478.7	349.3	948.1	4376.2
Denmark	982.2	1030.0	2705.2	1637.1	447.4	975.2	18380.0
France	682.8	274.1	216.8	356.0	186.6	650.2	464.1
Germany	658.6	373.8	318.7	630.9	223.7	282.1	729.4
Greece	459.8	545.0	997.8	713.2	304.5	1077.9	1767.3
Hungary	705.3	816.2	445.4	1019.3	240.0	682.7	1531.7
Italy	518.7	289.3	367.8	110.5	335.5	996.6	1641.1
Netherlands	100.0	398.5	100.0	447.4	100.0	321.3	605.6
Poland	468.5	571.4	316.2	509.7	216.1	284.4	1551.1
Portugal	327.2	520.9	680.1	1264.4	189.6	359.3	1612.3
Romania	453.8	6031.1	2003.8	7753.8	1062.5	1003.9	7069.2
Slovakia	376.0	241.0	197.3	599.3	109.9	181.6	100.0
Spain	1772.4	5120.8	1884.9	2633.8	918.9	1219.0	4241.5
Sweden	1981.9	1098.8	1337.7	2013.5	1056.6	1312.8	5723.9
United Kingdom	239.4	325.4	348.8	269.0	128.8	100.0	608.6
<i>Weighted average % in increased choice in each category*</i>	625.5	541.9	491.7	536.0	207.7	380.7	1213.4
Overall weighted average % in increased choice*	643.0						

Notes: Based on data on product choice collected in December 2010. * The weighting factor used is the online market value of each product category in each country.

Finally, while the weighted average relative choice data we have calculated is based on the choice data for 17 EU countries and the seven product categories, we assume this weighted average relative price applies to all the EU countries and all the product categories covered by Internet retailing.

The average number of products in offline retailing in the EU is 14.8 (see previous section). Given that the online-vs.-offline choice difference under the current state of Internet retailing in the EU is 153.8%, and that the difference between the largest online choice across the national markets and the online choice in a national market in the EU is 643.0%, we can estimate respectively that the current online choice is $14.8 \times (1 + 153.8\%) = 37.6$, and that the online choice in a Single consumer Market scenario is $37.6 \times 643.0\% = 241.5$.

Based on the discussion in the previous sections, we therefore use the following key data for our estimation:

- The *turnover realised online* – i.e. the value of Internet retailing in Euro across all the EU countries, under this hypothetical scenario – is 15% of 2604.5 billion Euro, which is 390.7 billion Euro;
- The *price elasticity* is -4;
- The *difference between online choice under this hypothetical scenario and current online choice* is 241.5 vs. 37.6;
- The *average number of products in offline retailing* in the EU is 14.8.

By using equations (2) and (3), we thus estimate that **the consumer welfare gains from increased online choice under a hypothetical situation of a 15% share of Internet retailing and a Single EU consumer Market are 94.6 billion Euro.**

Details on step-by-step calculations are provided in Annex 2 of this study.

These welfare gains relate to the choice differences between each country's average online choice compared to the largest average online choice we have observed for any of the 17 countries. They do not include the additional welfare gains estimated in the previous scenario which are caused by the differences between online and offline choices observed at the national level (see previous section). The combined welfare gains resulting from (1) the average online-vs.-offline choice difference observed in national markets and (2) the difference between the average online choice in a given national market in the EU and the largest average online choice observed in one of the other EU countries – or put differently: **the total welfare gains resulting from larger online choices under a hypothetical situation of a 15% share of Internet retailing and a Single EU consumer Market – can therefore be estimated at 134.1 billion Euro (39.5 billion Euro + 94.6 billion Euro).**

6.4. Conclusions

For assessing the “missing potential” of e-commerce, this chapter has provided a quantitative economic assessment of how much consumers in Member States can gain in consumer welfare due to the lower prices in e-commerce compared with offline commerce, as well as a quantitative economic assessment of how much consumers in Member States can gain in consumer welfare due to the larger set of choices in e-commerce compared with offline commerce. We compare consumer welfare gains under the current share of Internet retailing for each country with the welfare gains consumers would incur in a hypothetical situation where the share of Internet retailing would be 15% of total retail and a Single EU consumer Market in the e-commerce of goods existed, all other things unchanged.

We have estimated that the consumer welfare gains in domestic markets from lower online prices with the current share of Internet retailing in the EU (3.5%) are 2.5 billion Euro, and that the total welfare gains resulting from lower online prices under a hypothetical situation of a 15% share of Internet retailing and a Single EU consumer Market are 70.4 billion Euro per year (equivalent to 0.6% of EU GDP).

In addition, we have estimated that the consumer welfare gains in domestic markets from increased online choice with the current share of Internet retailing in the EU are 9.2 billion Euro, and that the total welfare gains resulting from larger online choices under a hypothetical situation of a 15% share of Internet retailing and a Single EU consumer Market are 134.1 billion Euro per year (1.1% of EU GDP).

It is notable that welfare gains under a hypothetical situation of a 15% share of Internet retailing and a continuation of the current fragmented national consumer markets of the 27 Member States would be much lower, namely 11.0 billion Euro (from lower online prices) and 39.5 billion Euro (from increased online choice). Under the assumption of a 15% share of Internet retailing and based on price data collected for this study we estimate the **additional consumer welfare gains from a Single EU consumer Market in e-commerce in goods to be 59.4 billion Euro from lower online prices (0.5% of EU GDP) and 94.6 billion Euro from increased choice (0.8% of EU GDP) per year.**

When interpreting this data the following limitations regarding our estimations have to be taken into account:

1. In the hypothetical scenario to assess the “missing potential” of e-commerce we have assumed a larger share of Internet retailing and the existence of a Single EU consumer Market in e-commerce in goods under the assumption that all other things remain the same. We have therefore based the estimation on data on price and choice differences for selected products categories online vs. offline collected for this study in 17 Member States. In reality, it can be expected that price levels will change when a fully functional Single EU consumer Market develops. However, it is very difficult to estimate possible changes in online-vs.-offline price differences across countries without a macroeconomic model of a future Single EU consumer Market that considers all relevant parameters. The “missing potential” of e-commerce in goods is therefore *calculated for a given point in time* (the date of the price collection, December 2010), not considering possible future market developments.

2. When calculating the weighted difference between online and offline prices, we estimate that this weighted price difference is -2.6%. This estimate is heavily affected by the two positive values for product categories “hot drinks” (14.0%) and “packaged food” (3.2%), where prices are higher online than offline. The effect is that these two positive numbers have an adverse effect on consumer welfare. The overall consumer welfare gains from taking just the product categories where online prices were lower than offline prices would have been considerably higher than the numbers reported. Put another way: Our analysis has recognised that there is a considerable consumer surplus *loss* from online retailing in the two categories “hot drinks” and “packaged food”. Given that those two product categories were represented by a rather small sample of branded products, in contrast to e.g. the category consumer electronics, and are much less likely to be relevant in cross-border e-commerce, it is difficult to generalise the results for these categories and to conclude that online shopping for hot drinks and packaged food is harming consumer surplus to the extent suggested. If we had excluded these two categories in our estimation, the weighted

difference between online and offline prices would have been -3.2%, indicating that we have calculated a rather conservative estimate.⁹⁰

On the other hand, we also have compared price differences between online and offline prices that do not include delivery costs. This approach also applies for the hypothetical scenario involving a Single EU consumer Market. The idea of a “missing potential” implies a comparison with a hypothetical situation in which current obstacles (including delivery costs that are often much higher across borders than in a national market) no longer exist and where it would make, for example, no difference for a Belgian consumer to order a given product in France, the UK, Hungary or from a Belgian online retailer. Obstacles such as higher delivery costs between countries would tend to reduce possible consumer welfare gains.⁹¹

3. When calculating the difference between online and offline choices and the difference in online choice across countries, we implicitly assume that all retailers stock products in the same order - or that smaller product ranges are strict subsets of larger product ranges. But that may not be the case, because, for example, a country with five retailers each offering 20 unique products without any overlap may well give consumers the same overall product choice as a country with one retailer offering 100 products. Thus, there is a danger that the difference between online and offline choices we have estimated could be an overstatement of the cross-country value added. Of course the argument could go the opposite way as well – the range of products available online throughout Europe may actually be far wider than the range in the country with the widest range. In that case, the multiplier would be larger. These different arguments all relate to the fact that it was not possible in this study to actually analyse the amount of overlap between the different subsets of choices provided.

However, when we compare the estimated 1:2.5 difference in choice offline vs. online at a national level and the 1:16.3 difference in choice offline vs. online across EU Member States with the results of other studies these estimates appear to be reasonable. For instance, Brynjolfsson, Hu, and Smith (2003) find that the offline-vs.-online choice difference in the U.S. is 1:23.0 for the book category, 1:25.0 for the music CD category, 1:18.0 for the movie DVD category, 1:5.9 for the digital camera category, 1:8.0 for the portable MP3 player category, and 1:13.2 for the flatbed scanner category. The estimates in this study are well within this range of estimates.

4. Finally, this study focuses on the consumer welfare gains from goods purchased by consumers from businesses on the Internet. However, many (used) goods are sold by consumers to other consumers through platforms such as eBay, also contributing to consumer welfare to the extent that online prices are lower than similar offline offers and choice is increased. These transactions are not covered by this study. Also, welfare gains from consumer services provided online, such as booking of flight tickets and hotels is not included in our estimate, as are welfare gains from the use of services that can be freely accessed online by consumers, such as Wikipedia. Although estimating the exact value of consumer welfare gains from these sectors is beyond the scope of this study, their contribution is likely to be very significant. Thus, the estimates of welfare gains for EU consumers we report are likely to be conservative.

⁹⁰ Excluding the two categories “hot drinks” and “packaged food”, the total welfare gains resulting from lower online prices under a hypothetical situation of a 15% share of Internet retailing and a Single EU consumer Market can be estimated to be 71.4 billion Euro (13.7 billion Euro + 57.7 billion Euro).

⁹¹ To understand how delivery costs impact on welfare, we considered a situation in which additional cross-border costs of delivery would be on average 5% of the product price in a country thereby reducing the saving through cross-border shopping by 5% (i.e. from 126.9% to 121.9%). The results of the calculation show that this would reduce related welfare gains resulting from lower online prices from 70.4 billion Euro to 63.4 billion Euro.

7. Factors affecting internet retail experiences (for consumers and businesses)

7.1. Consumer concerns

The survey conducted into the online shopping habits of citizens in all the EU27 countries explored their concerns related to buying products online from sites in their home country or abroad, as well as (related) reasons for shopping or not shopping online. As the survey sample includes a 90% majority of respondents who shop online (frequently or occasionally), it naturally follows that the concerns outlined below do not deter them from engaging in e-commerce, although only a (significant) minority display no concerns at all.

7.1.1. Concerns about buying products online (home country)

What are the concerns of those consumers who do not shop online but have Internet access?

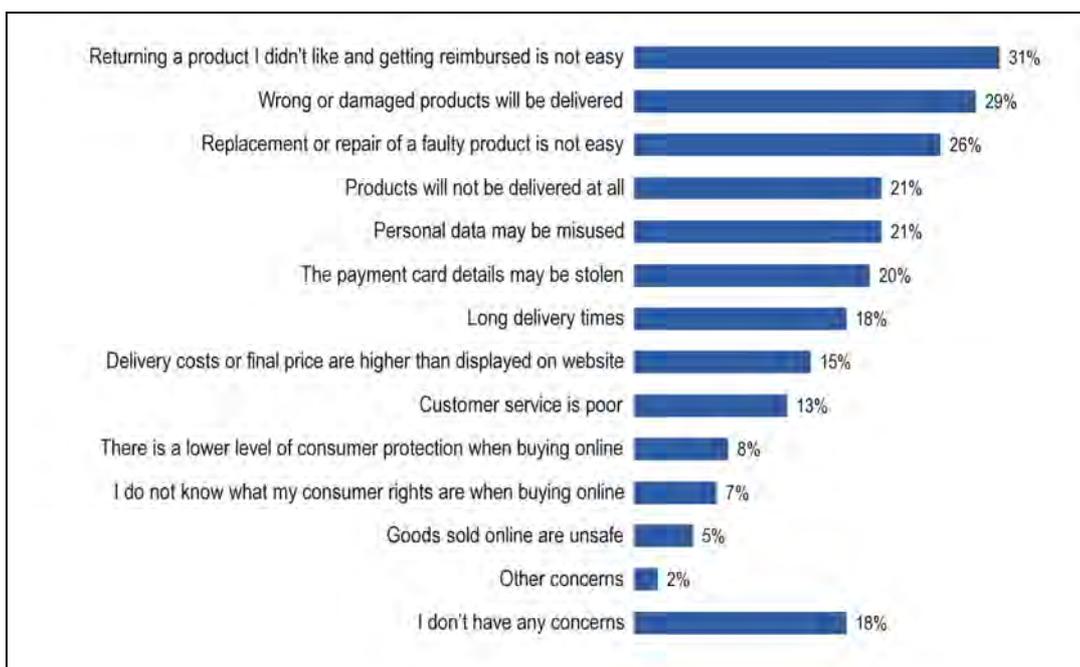
The key findings are that:

- (1) Only one in five respondents to our survey has no concerns when shopping online – although most of them buy products online. The existence or absence of concerns therefore does not as such explain the degree of engagement in e-commerce.
- (2) Consumer concerns regarding e-commerce in their own country, as expressed in the survey, are similar to those regarding cross-border online shopping, with slight differences in priority. Delivery and concerns regarding returning a product or replacing and repairing a faulty product are the issues dominating. The greatest concern of respondents when shopping online in the home country is that returning a product they did not like and getting reimbursed is not easy. For cross-border shopping, while this concern remains very important, long delivery times are the top concern.
- (3) For respondents who do shop online, concerns related to solving problems when things go wrong with the products they buy as well as concerns related to misuse of personal information/payment card details are nevertheless quite high on the agenda, while for those with Internet access at home who do not shop online, such fears are among the main reasons for non-engagement.
- (4) The difference between frequent, occasional and non-online shoppers seems to be that for frequent shoppers concerns are over-ridden by the reasons why they want to buy online, such as cost, convenience and quality; while for occasional shoppers or those who do not shop online at all, the overriding reason is that they actually like going shopping and touching before they buy, therefore the concerns become a barrier to engagement.

According to the survey into the online shopping habits of citizens in all the EU27 countries, the greatest concerns that they have when buying online in their own country is that they will not be reimbursed when returning a product they did not like (31%). The only

countries where answers diverge from the EU27 average are Cyprus (2%) and Malta (2%). As we will see when considering the concerns expressed in this survey, respondents in Cyprus and Malta are the least concerned when it comes to online shopping.

Figure 43: Consumer survey – What are your greatest CONCERNS about buying products online in (OUR COUNTRY)?



Note: Based on all respondents (N=29010)

The second most mentioned concern is that wrong or damaged products will be delivered (29%). Respondents in Spain, Poland and Slovakia are most concerned about the delivery of wrong or damaged goods (46%, 44% and 43% respectively). The least concerned with these issues are respondents in Malta (5%) and Hungary (7%).

Respondents also mention that they are concerned about the ease of replacing a faulty product (26%). However, those from Cyprus and Malta are only marginally concerned about this issue (3% and 1% respectively).

Table 29: Consumer survey – Concerns about buying products online within one's own country⁹²

MS	Returning a product I didn't like and getting reimbursed is not easy	Wrong or damaged products will be delivered	Replacement or repair of a faulty product is not easy	I don't have any concerns
EU27	31%	29%	26%	18%
AT	19%	11%	18%	45%

⁹² Question used: What are your greatest CONCERNS about buying products online in (OUR COUNTRY)? Only the most frequent answers and the 'no concern' answer are listed.

BE	30%	24%	24%	18%
BG	43%	30%	34%	10%
CY	2%	15%	3%	53%
CZ	30%	33%	38%	16%
DE	23%	15%	23%	30%
DK	29%	25%	29%	29%
EE	41%	28%	32%	14%
EL	38%	30%	33%	11%
ES	40%	46%	26%	7%
FI	36%	25%	35%	15%
FR	29%	26%	25%	15%
HU	31%	7%	27%	21%
IE	26%	25%	21%	21%
IT	29%	38%	24%	10%
LT	33%	32%	23%	9%
LU	24%	19%	21%	25%
LV	24%	31%	26%	17%
MT	2%	5%	1%	80%
NL	20%	15%	20%	29%
PL	38%	44%	35%	11%
PT	39%	34%	31%	13%
RO	38%	35%	35%	8%
SE	26%	28%	27%	25%
SI	27%	26%	21%	15%
SK	37%	43%	37%	11%
UK	30%	26%	22%	21%

Note: Based on all respondents (N=29010)

The concerns mentioned least by all the respondents are that goods sold online are not safe (5%), that they do not know their rights when they buy online (7%) and that there is a lower level of consumer protection when buying online (8%). Respondents from all the EU27 countries included in the survey gave these answers in similar proportions, except in Bulgaria and Romania where more respondents seem to be concerned with these issues.

Less than one-fifth of respondents have no concerns at all when it comes to online shopping in their own country (18%). The vast majority of respondents in Cyprus and Malta express no concerns when buying online (53% and 80% respectively).

The specific concerns of occasional online shoppers and non-online shoppers can be also analysed by looking at the reasons why they choose not to engage. As shown earlier (see Figure 5 in Section 2.1), a third (32%) of occasional online shoppers think it is more difficult to solve any problems if something goes wrong. This is a similar reason to the top three concerns described above (returning a product; damaged products; replacement or repair), and expressed in similar proportions by the individuals responding.

In the case of those who do not shop online at all, the reasons for not doing so can only be analysed on the basis of the whole sample of non-online shoppers, as in some countries the number of cases is too small to offer a meaningful interpretation. Over a quarter of

respondents who do not shop online (28%) give difficulties of solving problems when things go wrong as a reason; this is not so dissimilar to the proportion of occasional shoppers or the average of all EU27 respondents who have these types of concerns. Particularly worth noting is the percentage of those who do not shop online who have concerns regarding misuse of personal/payment details – at 29% this is 10 percentage points higher than for occasional shoppers, and the second most important reason for not shopping online (see Figure 5 and Figure 6 in Section 2.1).

From the results of the survey it appears quite conclusively that for respondents who do shop online (frequently or occasionally), concerns related to solving problems when things go wrong with the products they buy as well as concerns related to misuse of personal information are nevertheless quite high on the agenda, while for those with Internet access at home who do not shop online, such fears are among the main reasons for non-engagement.

The concerns expressed by each target group (frequent, occasional and non-online shoppers), are summarised in the table below:

Table 30: Consumer survey – Concerns about buying products online within one’s own country⁹³

Concern	EU average	Frequent online shoppers	Occasional online shoppers	Non-online shoppers
Returning a product I didn't like and getting reimbursed is not easy	31%	26%	35%	34%
Wrong or damaged products will be delivered	29%	27%	31%	30%
Replacement or repair of a faulty product is not easy	26%	22%	30%	27%
Products will not be delivered at all	21%	24%	19%	22%
Personal data may be misused	21%	19%	21%	30%
The payment card details may be stolen	20%	18%	20%	30%
Long delivery times	18%	20%	17%	14%
Delivery costs or final price are higher than displayed on website	15%	15%	15%	15%
Customer service is poor	13%	16%	12%	8%
There is a lower level of consumer protection when buying online	8%	6%	9%	15%
I do not know what my consumer rights are when buying online	7%	5%	8%	13%
Goods sold online are unsafe	5%	4%	6%	11%
Other concerns	2%	1%	2%	2%
I don't have any concerns	18%	21%	16%	12%

Note: EU average based on all respondents (N=29010). Frequent online shopper subsample (N=13872); Occasional online shopper subsample (N=12068); Non-online shopper subsample (N=3070).

Similar results related to trust in online business are shown by earlier EU-wide representative surveys exploring consumer confidence online – for example the latest

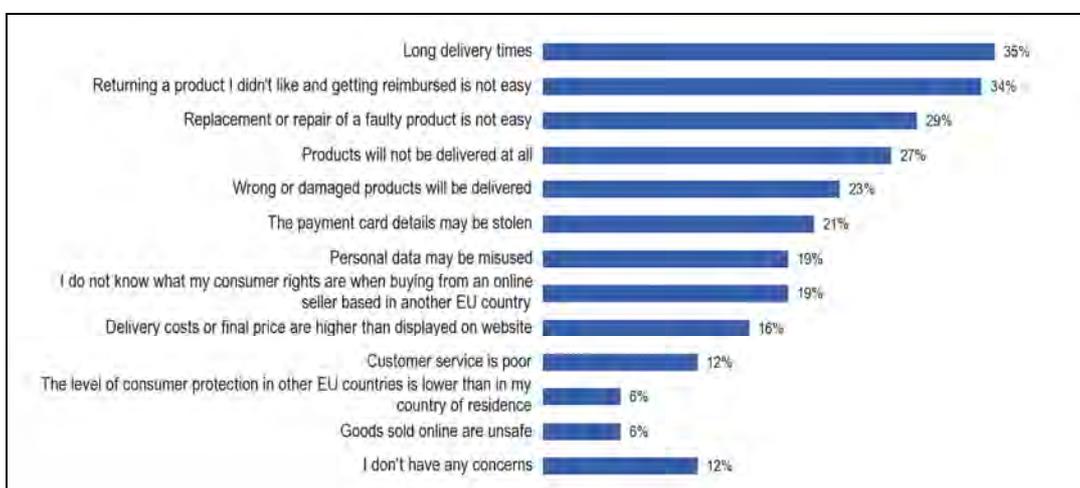
⁹³ Question used: What are your greatest CONCERNS about buying products online in (OUR COUNTRY)?

Eurostat data (2009) shows that 35% of individuals who had not shopped online in more than a year, or who never did, said that payment security was a concern. Next in line, are worries relating to privacy (29%), complaints and redress (26%), the lack of the necessary skills (16%), the lack of payment card (12%), and delivery times being too long or delivery at home problematic (10%).⁹⁴

7.1.2. Concerns about buying products online cross-border

The first two listed concerns of all respondents to the online survey regarding buying online in another country are long delivery times and not being reimbursed when returning a product they did not like (35% and 34% for each item).

Figure 44: Consumer survey – What are your greatest CONCERNS about buying products online in another EU country?



Note: Based on all respondents (N=29010)

Consumers' concerns regarding cross-border online shopping, as expressed in this survey, are similar to those regarding e-commerce in their own country. The main difference in the greatest concerns is that long delivery times become top (35%), while worries about delivery of wrong or damaged products are downgraded from second to fifth place (23%).

Respondents in Bulgaria are more likely than the EU27 average to say they are worried about long delivery times (41%), as are respondents in Romania (46%) and Poland (49%). People in Cyprus and Malta again remain less worried in general when it comes to online shopping from another country, and well below one-fifth mention the long delivery issue (8% and 12% respectively). In this matter, Hungary joins Cyprus and Malta: only 14% of Hungarians are concerned about long delivery times when ordering online from another country.

The second most mentioned reason for concern – getting reimbursed if they return a product bought online – is cited by the majority of respondents in the EU27 in similar proportions. The third most mentioned concern about buying abroad (29%) is the same as when shopping online in the country of residence (26%) – the ease of replacing or repairing

⁹⁴ Eurostat – Information society statistics.

a faulty product. Again respondents here answer similarly in the great majority of EU27 countries.

Table 31: Consumer survey – Concerns about buying products online in another EU country⁹⁵

MS	Long delivery times	Returning a product I didn't like and getting reimbursed is not easy	Replacement or repair of a faulty product is not easy	Products will not be delivered at all
EU27	35%	34%	29%	27%
AT	31%	32%	28%	18%
BE	33%	32%	27%	31%
BG	41%	39%	33%	16%
CY	8%	3%	3%	20%
CZ	22%	37%	39%	22%
DE	33%	36%	28%	22%
DK	25%	39%	35%	35%
EE	32%	40%	31%	22%
EL	34%	39%	35%	19%
ES	34%	34%	26%	32%
FI	22%	44%	34%	27%
FR	35%	34%	28%	40%
HU	14%	19%	25%	3%
IE	38%	34%	26%	21%
IT	35%	30%	26%	30%
LT	39%	33%	26%	24%
LU	24%	30%	27%	32%
LV	40%	21%	28%	21%
MT	12%	8%	8%	22%
NL	25%	25%	22%	20%
PL	49%	38%	35%	25%
PT	34%	43%	36%	24%
RO	46%	38%	37%	16%
SE	25%	34%	29%	23%
SI	19%	32%	28%	24%
SK	32%	43%	43%	30%
UK	40%	36%	29%	27%

Note: Based on all respondents (N=29010)

The EU27 average shows that only a small proportion of respondents (12%) have no concerns at all about buying online in another country, compared with 18% for in-own-

⁹⁵ Question used: What are your greatest CONCERNS about buying products online in another EU country? Only the most frequent answers are listed.

country buying. Cyprus and Malta consumers are the most certain and trusting in buying online in another country (31% and 44% respectively). When analysing the data by socio-demographic backgrounds, the most interesting fact that emerges is that the younger and the highly educated respondents are more likely to be worried when it comes to long delivery times, delivery of faulty or damaged products, or products not being delivered at all. An explanation can be that these are the categories of consumers that are more likely to actively seek and get information about possible problems.

The following table illustrates the differences in concerns between cross-border online shoppers and non-cross-border online shoppers, regarding buying products online in another EU country.

Table 32: Consumer survey – Concerns about buying products online in another EU country⁹⁶

Concern	EU average	Cross-border online shoppers	Non-cross-border online shoppers
Long delivery times	35%	40%	33%
Returning a product I didn't like and getting reimbursed is not easy	34%	30%	39%
Replacement or repair of a faulty product is not easy	29%	25%	33%
Products will not be delivered at all	27%	28%	26%
Wrong or damaged products will be delivered	23%	24%	23%
The payment card details may be stolen	21%	17%	21%
Personal data may be misused	19%	15%	21%
I do not know what my consumer rights are when buying from an online seller based in another EU country	19%	13%	23%
Delivery costs or final price are higher than displayed on website	16%	15%	18%
Customer service is poor	12%	12%	12%
The level of consumer protection in other EU countries is lower than in my country of residence	6%	5%	7%
Goods sold online are unsafe	6%	5%	5%
Other concerns	2%	2%	2%
I don't have any concerns	12%	14%	10%

Note: EU average based on all respondents, Cross-border online shopper subsample, Non-cross-border online shopper subsample, multiple response question

The results of this online survey indicate that especially the replacement and returning of products is an aspect that is highlighted by non-cross-border online shoppers. But also fears regarding personal and financial data are much more prominent among non-cross-border shoppers than in the group of cross-border online shopper. Non-cross-border shoppers show generally higher levels of concerns.

⁹⁶ Question used: What are your greatest CONCERNS about buying products online in another EU country?

As for more granular distinctions between frequent, occasional and non-online shoppers, the conclusions for cross-border shopping are similar to those for shopping at home, with concerns focused around problems with products and misuse of personal and payment data. The difference seems to be that for frequent shoppers these worries are over-ridden by the reasons why they want to buy online, such as cost, convenience and quality; while for occasional shoppers or those who do not shop online at all, the overriding reason is that they actually like going shopping and touching before they buy, therefore the concerns become a barrier to engagement.

The concerns and conclusions regarding cross-border e-commerce described above are further corroborated by the most recent pan-EU survey on consumer attitudes towards cross-border trade,⁹⁷ with fieldwork carried out within two months of the research for this market study, but testing a full sample of the EU27 population.⁹⁸ Similar worries emerge, but in larger proportions: for example in a majority of EU Member States at least half of respondents were not interested in cross-border shopping due to worries about falling victim to scams or fraud, while in several countries there were high proportions of respondents expressing worries regarding deliveries and complaint resolutions. Overall, 62% of consumers who had not made a cross-border distance purchase said that fears about fraud put them off, 59% cited concerns about what to do if problems arose, and 49% were worried about delivery.⁹⁹

7.2. Awareness of consumer rights

7.2.1. Do consumers and e-commerce retailers know their rights and obligations?

Do consumers and e-commerce retailers know their rights and obligations?

The key findings are that:

- (1) Consumers who shop online often believe they know their rights, particularly those that apply in their own country. Internet users on the whole feel more knowledgeable as consumers than those who do not use the Internet. This proportion seems also to coincide with reality, at least regarding basic aspects. When tested on their actual knowledge of rights in a recent Eurobarometer, 62% of Internet users knew that they had the right to return a good without giving a reason when shopping at a distance.
- (2) Distance retailers across the EU seem to be generally very confident about their knowledge of consumer legislation. According to recent research, this belief seems to be disconnected from reality, as responses to specific questions demonstrate that the actual knowledge of their consumer rights obligations among distance retailers is quite poor. When quizzed about the cooling off period (or right to withdraw) in distance sales, only 28% of distance retailers gave the right answer.

⁹⁷ Flash Eurobarometer 299, 2011.

⁹⁸ The consumer survey conducted for this study focused on Internet shoppers and on consumers who prefer not to shop online but who have Internet access at home.

⁹⁹ Flash Eurobarometer 299, 2011, p. 31. See also 5th Consumer Conditions Scoreboard, p. 15.

A first remark based on the consumer survey for this study is that the consumers who shop online on the whole believe they know their rights, particularly those that apply in their own country: only 7% of respondents say they are concerned that they do not know their rights, while just under a fifth (19%) list such awareness as a concern when shopping in another EU country. This is in contrast with the general consumer population across the EU, who is less optimistic about its general consumer rights knowledge, as demonstrated by a recent Eurobarometer.¹⁰⁰ Over one-third of Europeans interviewed did not feel knowledgeable about their rights, with quite marked contrast between countries. For this study, particularly worth noting is the conclusion that Internet users on the whole feel more knowledgeable as consumers (69%), than those who do not use the Internet (51%).¹⁰¹ Interestingly, this proportion seems also to coincide with reality, as when tested on their actual knowledge of rights, 62% of Internet users knew that they had the right to return a good without giving a reason when shopping at a distance.¹⁰²

Retailers across the EU, too, seem to be generally very self-confident about their knowledge of consumer legislation, according to responses received in a recent pan-European survey¹⁰³ – 82% considered themselves well informed. This belief seems to be disconnected from reality, as responses to specific questions demonstrate that the actual knowledge of their consumer rights obligations among distance retailers is quite poor (see Section 7.2.2 below).

The stakeholder surveys carried out for this study also sought opinions regarding consumers' and retailers' awareness, from the relevant authorities, consumer organisations and business organisations. Overall, marginally more stakeholder organisations are pessimistic regarding the consumers' awareness of their rights and obligation (52%), though the opinion is quite split.

Table 33: Stakeholder survey – Agreement with statement: “Consumers are aware of their rights and obligations in e-commerce in goods”

Member State	Business organisations	Consumer organisations/ ECCs	Authorities	Other stakeholders	Average
Austria	:	Tend to agree	:	:	2,00
Finland	:	Tend to agree	:	:	2,00
France	Tend to agree	:	:	Tend to agree	2,00
Ireland	Tend to agree	Tend to agree	:	:	2,00
Latvia	:	:	Tend to agree	:	2,00
Malta	:	Tend to agree	Tend to agree	:	2,00
Slovakia	Tend to agree	:	Tend to agree	Tend to agree	2,00
Slovenia	Tend to agree	Tend to agree	:	:	2,00
Belgium	Tend to agree	Tend to disagree*	:	:	2,33
Germany	:	Tend to disagree	:	Tend to agree	2,50
Netherlands	:	Tend to disagree	Tend to agree	:	2,50

¹⁰⁰ Flash Eurobarometer 299, 2011, pp. 38-39.

¹⁰¹ Special Eurobarometer 342 on Consumer Empowerment, 2011, 1.2 (pp. 14-15).

¹⁰² Special Eurobarometer 342 on Consumer Empowerment, 2011, 3.4 (p. 82).

¹⁰³ 5th Consumer Conditions Scoreboard, 2011, p. 22; retailer data from Flash Eurobarometer 300 on retailer attitudes towards consumer protection and cross-border sales.

Poland	Tend to agree	:	:	Tend to disagree	2,50
Romania	Tend to disagree	Tend to agree	:	:	2,50
United Kingdom	:	Tend to disagree*	:	:	2,50
Lithuania	Tend to agree	Tend to disagree	:	Tend to disagree	2,67
Denmark	Tend to agree*	:	:	Fully disagree	2,75
Czech Republic	Tend to agree*	Tend to disagree	Tend to disagree	:	2,78
Bulgaria	Tend to disagree	:	Tend to disagree	:	3,00
Cyprus	:	Tend to disagree	Tend to disagree	:	3,00
Estonia	:	Tend to disagree	Tend to disagree	:	3,00
Luxembourg	:	Tend to disagree	:	:	3,00
Portugal	:	Tend to disagree	:	Tend to disagree	3,00
Sweden	Tend to agree	Fully disagree	:	:	3,00
Greece	:	Fully disagree	:	Tend to disagree	3,50
Italy	Fully disagree*	:	:	:	3,50

Note: Stakeholders were asked to refer to the situation in their country. Responses marked with * indicate that for the particular country multiple respondents of the same stakeholder category submitted differing responses. In these cases, the response provided in the table is derived by calculating the weighted average. The column "Average" indicates the overall weighted average across all stakeholder categories, also taking into account multiple responses of stakeholders of the same category. The weighted average is calculated by assigning weights to the responses (1 corresponding with 'Fully agree' and 4 with 'Fully disagree') and calculating an average value. 'Don't know' responses are not considered. ECC indicates European Consumer Centre.

In the case of retailers, the results are reversed, with more stakeholders believing that retailers are aware of their rights and obligations – 60% of respondents tended to agree or fully agreed with this statement. These include a majority of businesses and authorities, but also interestingly half of the responding consumer organisations.

Table 34: Stakeholder survey – Agreement with statement: "Retailers are aware of their rights and obligations in e-commerce in goods"

Member State	Business organisations	Consumer organisations/ ECCs	Authorities	Other stakeholders	Average
Slovenia	Fully agree	Tend to agree	:	:	1,50
Slovakia	Fully agree	:	Tend to agree	Tend to agree	1,67
Czech Republic	Tend to agree*	Tend to agree	Tend to agree	:	1,89
France	Tend to agree	:	:	Tend to agree	2,00
Latvia	:	:	Tend to agree	:	2,00
Lithuania	Tend to agree	Tend to agree	:	Tend to agree	2,00
Luxembourg	:	Tend to agree	:	:	2,00
Malta	:	Tend to agree	Tend to agree	:	2,00
Poland	Fully agree	:	:	Tend to disagree	2,00
Romania	Tend to agree	Tend to agree	:	:	2,00
United Kingdom	:	Tend to agree	:	:	2,00
Belgium	Tend to disagree	Tend to agree*	:	Tend to agree	2,33

Bulgaria	Tend to agree	:	Tend to disagree	:	2,50
Ireland	Tend to disagree	Tend to agree	:	:	2,50
Netherlands	:	Tend to disagree	Tend to agree	:	2,50
Denmark	Tend to agree*	:	:	Fully disagree	2,75
Germany	:	Tend to disagree*	:	Tend to disagree	2,90
Austria	:	Tend to disagree	:	:	3,00
Cyprus	:	Tend to disagree	Tend to disagree	:	3,00
Estonia	:	Tend to disagree	Tend to disagree	:	3,00
Finland	:	Tend to disagree	:	:	3,00
Portugal	:	Fully disagree	:	Tend to agree	3,00
Greece	:	Fully disagree	:	Tend to disagree	3,50
Italy	Fully disagree*	:	:	:	3,50
Sweden	Tend to disagree	Fully disagree	:	:	3,50

Note: Stakeholders were asked to refer to the situation in their country. Responses marked with * indicate that for the particular country multiple respondents of the same stakeholder category submitted differing responses. In these cases, the response provided in the table is derived by calculating the weighted average. The column "Average" indicates the overall weighted average across all stakeholder categories, also taking into account multiple responses of stakeholders of the same category. The weighted average is calculated by assigning weights to the responses (1 corresponding with 'Fully agree' and 4 with 'Fully disagree') and calculating an average value. 'Don't know' responses are not considered. ECC indicates European Consumer Centre.

Looking at individual countries, the most optimistic opinions regarding consumer awareness of their rights are expressed by consumer organisations in Romania, Austria, Finland, Ireland, Slovenia and Malta all of which tend to agree with the statement (in Ireland this includes business stakeholders as well). At the opposite end are Greece and Italy, where responding stakeholders tend to disagree or fully disagree with the statement that consumers are aware of their rights and obligations in e-commerce in goods. Greece and Italy, along with Sweden's stakeholders are also among the more pessimistic regarding their retailers knowledge of consumer rights. Interestingly the views of stakeholders in Malta are also supported by the results of the consumer survey which reveal an overwhelming lack of concern about problems when it comes to e-commerce transactions (see Sections 7.1.1 and 7.1.2).

While it is difficult to draw firm conclusions from these findings, as we do not know whether opinion of stakeholder organisations is based on evidence from research, it is worth noting that on the whole consumer organisations and the European Consumer Centres tend to be more pessimistic than business organisations or authorities perhaps because their views are based on more frequent direct contact with consumers.

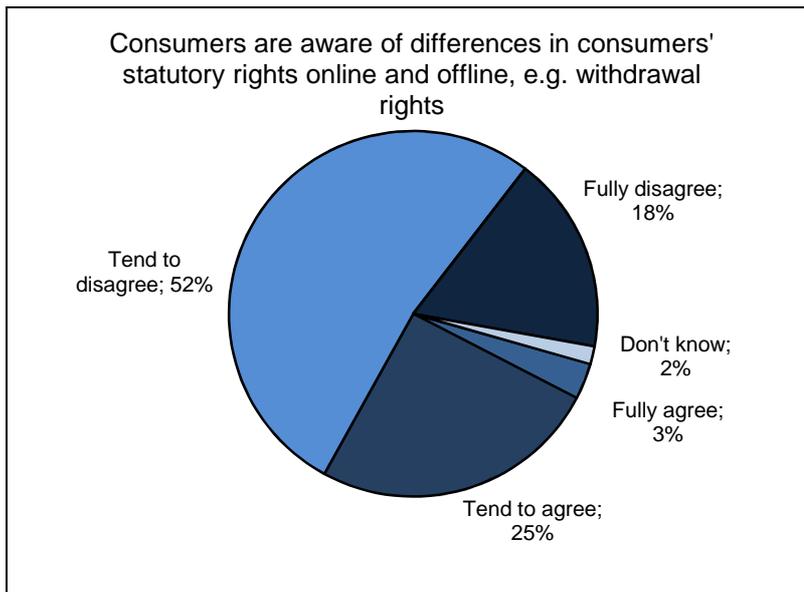
7.2.2. Do consumers differentiate between their rights online and offline?

Do consumers differentiate between their rights online and offline? Are consumers and e-commerce retailers aware of the differences in consumers' statutory rights (e.g. withdrawal right for online purchases)?

Similar to the general awareness situation described in Section 7.2.1, stakeholders surveyed tend to be more pessimistic about consumer knowledge on the differences between online and offline statutory rights, and more optimistic about retailer familiarity with this issue. Less than a third of those responding (29%) fully agree or tend to agree that consumers are aware of these differences, while a majority of two-thirds (66%) have the same opinion regarding retailers.

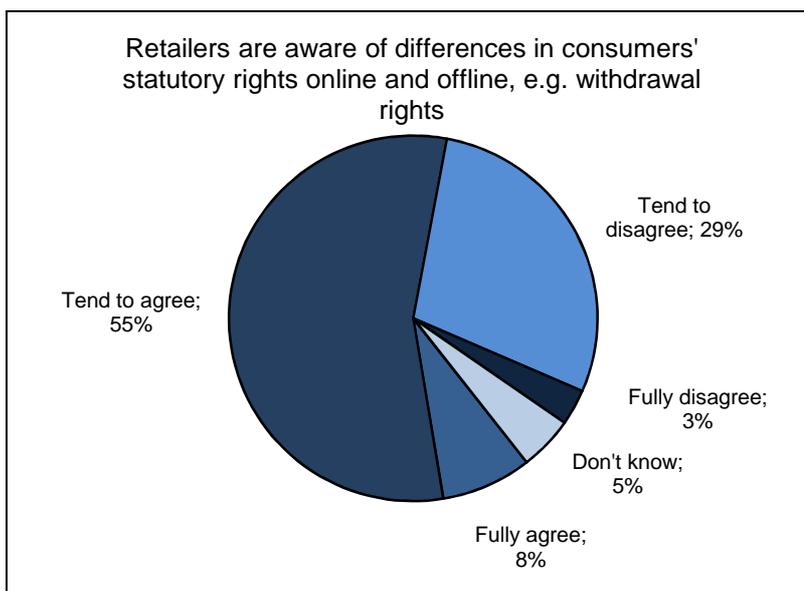
When opinions are considered by country, stakeholders in Bulgaria and Greece are unanimously convinced of their country's consumer ignorance in this field, while retailers' awareness is most positively viewed in Belgium, Czech Republic and Slovakia. Overall, opinions regarding retailer knowledge of their statutory obligations in e-commerce seem to be more positive in the newer Member States.

Figure 45: Stakeholder survey – Agreement with statement: “Consumers are aware of differences in their statutory rights online and offline, e.g. withdrawal rights”



Note: N=63

Figure 46: Stakeholder survey – Agreement with statement: “Retailers are aware of differences in consumers' statutory rights online and offline, e.g. withdrawal rights”



Note: N=63

Interestingly these views are not supported by the knowledge tests carried out in the various pan-European consumer and retailer surveys. When quizzed about the cooling off period (or right to withdraw) in distance sales, only 28% of distance retailers gave the right answer,¹⁰⁴ while 62% of consumers are correctly aware of their right to return a good without giving a reason.¹⁰⁵ Not surprisingly, the research also shows that experience with ordering a good or service influences people's awareness regarding return policies – 75% of respondents who actually ordered a good or service on distance in the last year were aware of their right to withdraw, compared with 51% of those who did not order. Finally survey figures also show that consumers in the 12 Member States that joined the EU more recently tend to be less aware of the right to return a good, than those in the 'older' 15. This is not entirely surprising either, given that e-commerce is far less developed in those countries.¹⁰⁶

7.2.3. Consumer complaints

What do e-commerce consumers complain about? How does this compare to other modes of retailing? How do consumers' perceptions compare to actual problems experienced?

The key findings are that:

- (1) Respondents purchasing online were more likely to say that they experienced a problem with a purchase in the last 12 months (24%) than those making an offline purchase in a shop or buying a product otherwise, for example by mail order (20%).
- (2) A vast majority of participants in the online survey experienced no problems while shopping online (76%) and a majority of those who had done so say that they experienced this problem in their own country (17%), compared to a smaller percentage that experienced problems when buying outside their country (7%).
- (3) Comparison of the nature of the problems that online shoppers had actually experienced with the worries that all respondents have when it comes to buying online shows that the latter seem to be justified only to some extent, as the problems experienced and the concerns expressed do not always match. The most important concerns which are also reflected in the problems encountered by consumers relate to the delivery of the products purchased online. Long delivery times are the problem most mentioned by online shoppers who experienced problems while shopping online. The second most mentioned problem that online shoppers faced is delivery of damaged products.
- (4) Concerns regarding payment card details and privacy are only to a very limited extent reflected in the actual problems experienced. 1% of those who encountered a problem online had their personal data misused and a further 1% had their payment card details stolen – or, when compared to the overall sample: in both cases the problem was reported by less than 0.2% of all consumers surveyed.

¹⁰⁴ 5th Consumer Conditions Scoreboard, 2011, p. 22.

¹⁰⁵ Special Eurobarometer 342 on Consumer Empowerment, 2011, p. 82.

¹⁰⁶ Special Eurobarometer 342 on Consumer Empowerment, 2011, p. 82.

According to the results of this survey respondents purchasing online were more likely to say that they experienced a problem with a purchase in the last 12 months (24%) than those making an offline purchase in a shop or buying a product otherwise, for example by mail order (20%).

A vast majority of participants in the online survey experienced no problems while shopping online (76%) and a majority of those who had done so say that they experienced this problem in their own country (17%), compared to a smaller percentage that experienced problems when buying outside their country (7%). The same holds true for those who bought offline in a shop – the vast majority (80%) experienced no problems, and of those who had, more experienced problems in their own country (12% as opposed to 1% who had problems cross-border).

The results of the online survey conducted for this study show that frequent online shoppers and cross-border online shoppers are more likely to report problems they encountered. But, most of the problems encountered are reported for the country where the respondent lives. This is true for both frequent online shoppers and cross-border shoppers.¹⁰⁷

Table 35: Consumer survey – Problems with an online purchase group comparison¹⁰⁸

Problem experienced with...	EU average	Cross-border online shoppers	Non-cross-border shoppers	Frequent online shoppers	Occasional online shoppers
A product bought online in OUR COUNTRY	17%	22%	14%	21%	12%
A product bought online in another country	7%	13%	2%*	9%	5%
No, I did not experience any problems	76%	65%	84%	69%	83%

Note: EU average based on all respondents (N=29010); Cross-border online shopper subsample (N=11224); Non-cross-border online shopper subsample (N=14716); Frequent online shopper subsample (N=13872); Occasional online shopper subsample (N=12068); Non-online shopper subsample (N=3070).

* The fact that 2% of non-cross-border shoppers reported experiencing problems in another EU country is contradictory. This indicates respondents indicated themselves as non-cross-border shoppers and later answered a question regarding problems while shopping cross-border

A recent Eurobarometer¹⁰⁹ indicates that cross-border e-commerce appears to be at least as or even more reliable than domestic e-commerce in practice, despite consumer fears to the contrary. For example, this survey shows that only 16% of purchases from a seller or provider located in another EU country were delayed compared to 18% for domestic purchases.

When we look at responses to our online survey from individual countries, respondents in Italy (22%) and Poland (26%) were most likely to report having a problem while shopping online in their country. On the other hand, a higher percentage of respondents in Ireland (22%) and Malta (29%) report encountering a problem while shopping online in another country than the EU27 average (7%).

¹⁰⁷ The finding is not related to different group sizes of online and non-online shoppers.

¹⁰⁸ Question used: If you experienced a PROBLEM WITH AN ONLINE PURCHASE in the last 12 months, the most recent problem was...

¹⁰⁹ Flash Eurobarometer 299, 2011, p. 46.

Table 36: Consumer survey – Experienced problems while shopping¹¹⁰

MS	Shopping online				Shopping offline			
	With a product bought online in OUR COUNTRY	With a product bought online in another country	No, I did not experience any problems	Total encountered problems	With a product bought in a shop in OUR COUNTRY	With a product bought in a shop in another country	No, I did not experience any problems	Total encountered problems
EU27	17%	7%	76%	24%	12%	1%	80%	20%
AT	8%	12%	80%	20%	17%	5%	75%	25%
BE	11%	11%	78%	22%	9%	2%	83%	17%
BG	16%	7%	77%	23%	20%	1%	71%	29%
CY	1%	19%	80%	20%	9%	3%	88%	12%
CZ	17%	4%	80%	20%	3%	2%	82%	18%
DE	16%	7%	77%	23%	25%	0%	73%	27%
DK	12%	6%	82%	18%	12%	1%	82%	18%
EE	10%	7%	83%	17%	14%	2%	80%	20%
EL	13%	12%	75%	25%	12%	2%	82%	18%
ES	14%	9%	77%	23%	7%	2%	85%	15%
FI	11%	10%	80%	20%	7%	1%	92%	8%
FR	17%	6%	77%	23%	7%	0%	83%	17%
HU	12%	3%	85%	15%	15%	0%	82%	18%
IE	10%	22%	69%	31%	19%	6%	72%	28%
IT	22%	11%	67%	33%	17%	1%	77%	23%
LT	12%	13%	75%	25%	15%	3%	75%	25%
LU	2%	18%	80%	20%	11%	3%	81%	19%
LV	11%	11%	78%	22%	5%	4%	85%	15%
MT	1%	29%	70%	30%	10%	1%	88%	12%
NL	14%	6%	81%	19%	12%	4%	82%	18%
PL	26%	4%	70%	30%	12%	1%	75%	25%
PT	9%	10%	81%	19%	9%	0%	85%	15%
RO	18%	1%	80%	20%	14%	2%	79%	21%
SE	9%	4%	87%	13%	3%	0%	94%	6%
SI	6%	7%	87%	13%	9%	1%	84%	16%
SK	12%	6%	82%	18%	11%	2%	82%	18%
UK	21%	5%	73%	27%	8%	0%	82%	18%

Note: Based on online shopper subsample (N=25940) and non-online shopper subsample (N=3070)

The most commonly listed problems encountered while shopping online are long delivery times (28%), delivery of damaged products (20%), non-delivery (17%) and ‘product did not match description’ (17%).

¹¹⁰ Questions used: (1) If you experienced a PROBLEM WITH AN ONLINE PURCHASE in the last 12 months, the most recent problem was? (2) If you experienced a PROBLEM WITH A PURCHASE in the last 12 months, the most recent problem was?

Figure 47: Consumer survey – What was the problem encountered (shopping online)?



Note: Based on respondents who shop online and encountered a problem (N=6312)

Four out of five respondents (80%) state that they had not experienced any problems while making a purchase offline. Respondents mostly mentioned they experienced some trouble with a product purchased in a shop in their own country (12%). Respondents from all the EU27 countries all answer in proportions similar to the average.

Additional comparison of the problems that online shoppers had actually experienced with the concerns that all respondents have when it comes to buying online shows that the latter often seem to be justified, as the problems experienced and the concerns expressed are similar. Long delivery times are the problem most mentioned by online shoppers who experienced problems while shopping online (28%). It is also most frequently cited as a concern regarding shopping cross-border (35%, see Figure 44), but it is not so often mentioned when respondents are asked about buying in their own country (18%, see Figure 43).

The second most mentioned problem that online shoppers faced is delivery of damaged products (20%). This is a concern both when buying online in the home country and when cross-border shopping (29% and 23%, see Figure 43 and Figure 44 respectively).

The third and fourth problems ranked on the list that online shoppers face are that products did not match the description and non-delivery (17% of those that reported a problem for both items). Ranked among the top five concerns that respondents have when buying both in their own country and abroad are the fears that wrong products would be delivered and that the products would not be delivered at all (see Figure 43 and Figure 44).

However, survey respondent concerns regarding payment card details and privacy are only to a very limited extent reflected in the actual problems experienced. As can be seen from Figure 47 above, 1% of those who encountered a problem online had their personal data misused and a further 1% had their payment card details stolen – or in absolute figures: From the 25,940 online shoppers in our survey 6312 encountered a problem with their purchase during the last 12 months. Of those, 62 consumers reported a problem with misuse of personal data and 54 consumers reported a problem with stolen payment card details.

Table 37: Consumer survey – Experienced problems while shopping, by problem type

MS	Shopping online				Shopping offline			
	Long delivery time	Damaged product delivered	Non-delivery	Product did not match description on website	Product did not match description	Damaged product delivered	Long delivery time	Customer service was poor
EU27	28%	20%	17%	17%	22%	19%	17%	14%
AT	23%	29%	18%	22%	6%	23%	28%	12%
BE	23%	16%	26%	15%	19%	15%	6%	16%
BG	24%	23%	11%	29%	34%	15%	11%	9%
CY	37%	13%	30%	11%	7%	35%	11%	15%
CZ	31%	20%	25%	18%	29%	38%	4%	0%
DE	25%	27%	13%	21%	7%	42%	29%	0%
DK	22%	17%	19%	12%	19%	13%	0%	12%
EE	27%	13%	18%	14%	32%	8%	5%	12%
EL	29%	16%	14%	15%	0%	45%	9%	8%
ES	26%	20%	15%	12%	11%	23%	20%	14%
FI	22%	17%	18%	15%	13%	63%	0%	13%
FR	31%	17%	18%	10%	31%	11%	6%	18%
HU	15%	16%	16%	27%	25%	12%	7%	24%
IE	28%	16%	20%	16%	16%	24%	27%	7%
IT	29%	15%	18%	19%	22%	15%	21%	14%
LT	40%	13%	13%	18%	34%	18%	25%	11%
LU	21%	18%	29%	11%	16%	22%	8%	20%
LV	24%	22%	17%	20%	30%	24%	20%	20%
MT	25%	20%	40%	8%	21%	34%	0%	4%
NL	21%	14%	19%	15%	16%	26%	28%	16%
PL	32%	17%	17%	17%	45%	11%	9%	4%
PT	25%	24%	23%	10%	28%	32%	19%	6%
RO	30%	18%	14%	23%	24%	10%	15%	30%
SE	28%	20%	20%	15%	0%	53%	0%	18%
SI	34%	10%	23%	16%	24%	3%	12%	17%
SK	35%	17%	19%	13%	0%	52%	41%	17%
UK	26%	23%	21%	15%	24%	29%	20%	17%

Note: Based on respondents who shopped online and encountered a problem during the last 12 months (N=6312) and on non-online shoppers who encountered a problem during the last 12 months (N=602). Only the most frequent answers are listed

Table 38 below presents the results of the consumer survey concerning the most recent problem experienced by respondents while shopping online domestically or in another country. As already mentioned above, long delivery times constitute the problem most often reported by respondents while shopping online. This is the most common problem reported both by respondents who experienced a problem while buying a product online domestically and by respondents who experienced a problem while buying a product online in another country (28% and 26% of respondents, respectively). Delivery of damaged products, non-delivery and “product did not match description” are also problems commonly experienced when shopping domestically and cross-border.

Table 38: Consumer survey – Experienced problems while shopping online, by problem type

	Most recent problem experienced with a product bought online domestically				Most recent problem experienced with a product bought online in another country			
	Long delivery time	Damaged product delivered	Non-delivery	Product did not match description	Long delivery time	Non-delivery	Product did not match description	Damaged product delivered
EU27	28%	22%	16%	16%	26%	20%	18%	16%

Note: Based on respondents who shopped online domestically and encountered a problem (N=4452) and on respondents who shopped online in another country and encountered a problem (N=1861).

7.2.4. Stakeholder data on complaints

Several of the organisations that responded to the stakeholder survey carried out for this market study deal with consumer complaints which sometimes are sector-specific, for example only advertisement-related complaints.¹¹¹ Eighteen of the responses were from the European Consumer Centres (ECC), which deal specifically with cross-border information and complaints. The full data and reports from the centres are available via the ECC-Net data base IT tool, as well as through annual reports on the European Commission website. The latest database for the whole of 2010 shows a total of 5677 complaints¹¹² related to cross-border e-commerce reported by the ECCs. This is up on 2009 recorded complaints, by 12%.

The most frequent complaints in 2010 relate to delivery of a product/service (37.5%) or the product/service itself (31%). In both these categories problems related to transport (particularly air) are by far the biggest cause of complaint. For example out of a total of 1680 complaints about non-delivery, 29% related to transport.

In terms of the product/service itself, 14% of complaints relate to electronic/digital equipment, 7% to recreational and cultural services and 6% to clothing, with other listed products accounting for less than 1-2% each. In the case of complaints about delay, less than 1% related to digital equipment or clothing, while transport accounted for 93%. Turning to complaints related to products/services as a further example, over a third (38% or 676 out of a total of 1776) were classed in the ‘defective’ category; out of these digital products accounted for just over a fifth, and transport for roughly a third. A total of 148 complaints received by the ECCs in 2010 concerned defective electronic equipment in cross-border e-commerce in the EU.

7.3. Variations of the Internet retail experiences

¹¹¹ As the recent 5th Consumer Conditions Scoreboard research also highlights (p. 39), complaint data is collected in different ways by different organisations therefore it is difficult to analyse and compare. In May 2010, the Commission adopted a Recommendation which introduced a harmonised methodology for classifying and reporting consumer complaints. Such data, when it comes through, will give a much more complete picture of the nature of complaints across the EU.

¹¹² ECC classification refers to “normal complaints/disputes”; these are complaints that need to be followed up, rather than just simple expressions of dissatisfactions/requests for information.

How do Internet retail experiences for consumers and businesses vary at national level?

The key findings are that:

- (1) With relation to numbers of consumers confident to transact online, it is clear from available surveys, that a number of northern European countries perform better, in particular the UK, Germany, the Netherlands and Sweden. Countries least advanced in terms of numbers engaged in e-commerce include the southern Mediterranean countries, and some of the eastern European Member States, in particular Bulgaria, Greece, Italy, Portugal and Romania.
- (2) The level of development of e-commerce in the various Member States, and the overall measurements of consumer confidence and willingness to engage seem to be related. A recent consumer empowerment survey which takes into account how confident, knowledgeable and protected by law consumers feel, shows once more that the highest scores on all three come from northern European countries and lowest from southern and eastern European states.
- (3) Other key factors that make some countries more advanced than others in the e-commerce field are more related to the overall quality of the shopping experience. These include: goods delivery, payment systems, high speed broadband penetration, retailer engagement and culture and traditions.

Both quantitative and qualitative research were carried out to assess differences in Internet retail experiences in the different Member States. In particular, and to enable deeper analysis beyond the results in the consumer survey and the broad assessments of national frameworks in the stakeholder survey, a number of in-depth interviews were carried out. These included a sample of businesses and organisations that are closely involved in the various aspects of the e-commerce process, from delivery to payment systems and logistics.

7.3.1. Which Member States are more/less advanced? In which areas?

Which Member States are more/less advanced? In which areas?

The first key measures when considering which countries are more or less advanced in terms of e-commerce generally are those related to relative volumes: proportions of consumers with Internet connections that are ready to engage in e-commerce, as well as proportions of retailers willing to set up e-shops. With relation to numbers of consumers confident to transact online, it is clear from available surveys, that a number of northern European countries come up on top, in particular UK, Germany, Netherlands and Sweden, where proportions of consumers that both have Internet at home and shop online are over 60%.¹¹³ The same countries tend to come up above average also in terms of frequency of e-commerce transactions, and amounts spent online, together with France, Austria and Ireland.

Countries least advanced in terms of numbers engaged in e-commerce include the southern Mediterranean countries, and some of the eastern European Member States, in particular

¹¹³ Flash Eurobarometer 299, p. 12.

Bulgaria, Greece, Italy, Portugal and Romania where less than 30% of those connected shop online.¹¹⁴ Of consumers that do shop online, most of those who shop only occasionally and spend less money online are generally found in the newer Member States of eastern Europe.

These figures are an indication of willingness, ability, or confidence, to transact, which is part of a mixture of a number of factors that make up consumer confidence and encourage development of e-shopping. We can consider also consumer confidence more generally, as measured by the recent Consumer Empowerment survey¹¹⁵ taking into account how confident, knowledgeable and protected by law consumers feel. Here we can see, once more, that the highest scores on all three come from northern European countries and lowest from southern and eastern European states.¹¹⁶ The level of development of e-commerce in the various Member States, and the overall measurements of consumer confidence and willingness to engage seem to be related.

A further confirmation of this overall north-south/east divide in e-commerce engagement comes from the respondents to the stakeholder survey. Those from Estonia, Portugal, Bulgaria, Cyprus, Lithuania and Greece disagreed in various degrees that consumers in their country “are confident in engaging in e-commerce in goods”.

Table 39: Stakeholder survey – Agreement with statement: “Consumers are confident engaging in e-commerce in goods”

Member State	Business Organisations	Consumer Organisations/ ECCs	Authorities	Other Stakeholders	Average
Luxembourg	:	Fully agree	:	:	1,00
Denmark	Tend to agree*	:	:	Tend to agree	1,75
Czech Republic	Tend to agree*	Tend to agree	Tend to agree	:	1,89
Austria	:	Tend to agree	:	:	2,00
Belgium	Tend to agree	Tend to agree*	:	:	2,00
Finland	:	Tend to agree	:	:	2,00
France	Tend to agree	:	:	Tend to agree	2,00
Ireland	Tend to agree	Tend to agree	:	:	2,00
Italy	Tend to agree	:	:	:	2,00
Latvia	:	:	Tend to agree	:	2,00
Malta	:	Tend to agree	Tend to agree	:	2,00
Netherlands	:	Tend to agree	Tend to agree	:	2,00
Poland	Fully agree	:	:	Tend to disagree	2,00
Slovakia	Tend to agree	:	Tend to agree	Tend to agree	2,00
Slovenia	Tend to agree	Tend to agree	:	:	2,00
Sweden	Tend to disagree	Fully agree	:	:	2,00
United Kingdom	:	Tend to agree	:	:	2,00
Romania	Tend to agree	Tend to disagree*	:	:	2,25

¹¹⁴ Flash Eurobarometer 299, p. 12.

¹¹⁵ Special Eurobarometer 342, p. 20.

¹¹⁶ According to Eurobarometer 342, the overall confidence indicator is highest in the Netherlands, Sweden, Finland, UK, Denmark and Ireland (74%-64%) and lowest in Bulgaria, Greece, Lithuania, Romania, etc.

Germany	:	Tend to disagree*	:	Tend to agree	2,40
Estonia	:	Tend to agree	Tend to disagree	:	2,50
Portugal	:	Tend to disagree	:	Tend to agree	2,50
Bulgaria	Tend to disagree	:	Tend to disagree	:	3,00
Cyprus	:	Tend to disagree	Tend to disagree	:	3,00
Lithuania	Fully disagree	Tend to disagree*	:	Tend to disagree	3,17
Greece	:	Fully disagree	:	Tend to disagree	3,50

Note: Stakeholders were asked to refer to the situation in their country. Responses marked with * indicate that for the particular country multiple respondents of the same stakeholder category submitted differing responses. In these cases, the response provided in the table is derived by calculating the weighted average. The column "Average" indicates the overall weighted average across all stakeholder categories, also taking into account multiple responses of stakeholders of the same category. The weighted average is calculated by assigning weights to the responses (1 corresponding with 'Fully agree' and 4 with 'Fully disagree') and calculating an average value. 'Don't know' responses are not considered. ECC indicates European Consumer Centre.

When asked the same question regarding retailers, business stakeholders in Italy fully disagreed with the statement, followed by stakeholders in Greece and to a slightly lesser degree Malta, Cyprus and interestingly Finland and Ireland. The reason for this could be that these are small countries where consumers tend to shop more cross-border.

Other key factors that make some countries more advanced than others in the e-commerce field are more related to the overall quality of the shopping experience, as well as cultural traditions, as outlined by several of the businesses and organisations interviewed. These include:

- *Goods delivery*, both in terms of effectiveness and options available – the latter can make the experience of shopping online as instant and variable as possible;
- *Payment systems* – in particular how secure they are and how easy given particular country traditions;
- High speed *broadband penetration* (or bandwidth) – which makes the shopping experience more real by use of more sophisticated technologies, such as use of video fashion shows on clothes retailers' websites;
- *Retailer engagement* – in particular well known/high street brands actively expanding their online operations, resulting in dual offline-online shopping;
- *Culture and traditions* – this is last but not least, for example whether people like to 'touch and feel' or the country has a long history of ordering goods by mail.

Delivery issues

As seen in Section 7.2 above, two of the most commonly listed problems encountered while shopping online are linked to long delivery times and non-delivery, reported respectively by 28% and 17% of respondents who encountered problems. Countries where problems with delivery times were above average are Lithuania (40% of those who experienced a problem), Cyprus (37%), France and the Czech Republic (31%). The country with least complaints about this problem was Hungary (15% of those who experienced a problem). Respondents who have experienced a problem in Malta (40%), Cyprus (30%) and Luxembourg (29%) complained most about non-delivery. It is difficult, however, to infer from this which in-country delivery systems perform better or worse, since problems may

be due also with cross-border deliveries, as is most likely the case with Malta, Cyprus and Luxembourg.

While these figures show overall problems with goods not arriving on time or not at all, companies interviewed did point out to some important differences between countries regarding delivery logistics. For example, in the view of one of the organisations operating in seven countries (both north and south), some countries, such as the UK, Germany and to some extent France do well in terms of delivery both because of their geography and more recent moves to adapt to consumer needs. They tend to have major conurbations linked by a good transport infrastructure. Some of the Mediterranean countries (e.g. Spain), on the other hand, do not have such developed infrastructure, or have a few large conurbations with large but lightly populated areas in between; both of these factors make delivery logistics more challenging.

Adapting delivery to consumer needs is the other important factor highlighted during stakeholder interviews. This includes offering a choice of delivery options, as well as the pricing of delivery. For example in the UK companies started with deliveries during business hours only, which hampered the development of e-commerce initially, because people work during working hours. So a range of delivery options have been developed, ranging from next day, to out of hours or weekend deliveries, in-store collections, as well as comprehensive information through order tracking or text messaging. Discussions with consumer groups reveal a less optimistic picture, pointing to research in Scotland which showed consumers in remote rural areas relied heavily on e-shopping, but encounter problems with deliveries, and some retailers and delivery operators had restrictions and higher costs in rural areas.¹¹⁷

In Germany, the issue of out of hours delivery has been solved by the so-called Packstations operated by Deutsche Post, which operate like a self-locking luggage storage, with consumers notified by SMS when a new package arrives at a station near them. According to Deutsche Post, the growth in volume of e-commerce cross-border packages now exceeds domestic growth.¹¹⁸ Also in some countries, like the UK, free standard-type deliveries are becoming the norm and free returns too. The latter has fuelled rapid development of clothes and other fashion items sales, as people can order several garments at once to try at home. However, these developments do not seem to have translated to many other markets so far.¹¹⁹

Payment systems, payment security and fraud

Two features emerge as important with regards to online payment systems: ease of payment and convenience; and security of payment to avoid fraud. The two do not necessarily sit naturally alongside each other, and according to relevant stakeholders interviewed, the right balance needs to be struck between them. As one of the financial companies interviewed emphasised, you can devise a “150%” secure system, but if it is difficult to use or remember, fewer consumers will use it. Companies are gradually introducing dual authentication systems alongside the usual pin numbers or passwords, such as Verified by Visa or via calculator-like devices which generate a unique pass code.

¹¹⁷ Interview with Consumer Focus referring to research by CF Scotland.

¹¹⁸ Interview with Deutsche Post.

¹¹⁹ For example research carried out by Snow Valley: International Delivery Report 2010 for the Royal Mail in the UK found that cross-border shoppers are getting a much worse deal than in-country shoppers, with no flexibility in types of delivery, much longer delivery times, and higher proportions of late arrivals and no shows.

We asked stakeholders to assess their national payment systems, both in terms of adequacy and security. In response to the statement “Payments systems are adequate for e-commerce in goods”, business stakeholders in Italy fully disagreed, while those in Sweden fully agreed. Relatively positive were also respondents in the Czech Republic, Denmark, Estonia, Lithuania and Slovakia which divided between agreeing fully and ‘tending to agree’. Respondents in Germany, Portugal, Netherlands and Greece were also divided in their opinions, though they tended to be more pessimistic overall.

Table 40: Stakeholder survey – Agreement with statement: “Payment systems are adequate for e-commerce in goods”

Member State	Business Organisations	Consumer Organisations/ ECCs	Authorities	Other Stakeholders	Average
Austria	:	Fully agree	:	:	1,00
Sweden	Fully agree	Fully agree	:	:	1,00
Czech Republic	Tend to agree*	Fully agree	Fully agree	:	1,22
Denmark	Tend to agree*	:	:	:	1,50
Estonia	:	Tend to agree	Fully agree	:	1,50
Lithuania	Fully agree	Tend to agree	:	Tend to agree	1,67
Slovakia	Fully agree	:	Tend to agree	Tend to agree	1,67
Romania	Tend to agree	Tend to agree*	:	:	1,75
Bulgaria	Tend to agree	:	:	:	2,00
Cyprus	:	Tend to agree	Tend to agree	:	2,00
Finland	:	Tend to agree	:	:	2,00
France	Fully agree	:	:	Tend to disagree	2,00
Ireland	Tend to agree	Tend to agree	:	:	2,00
Latvia	:	:	Tend to agree	:	2,00
Luxembourg	:	Tend to agree	:	:	2,00
Malta	:	Tend to agree	Tend to agree	:	2,00
Poland	Tend to agree	:	:	Tend to agree	2,00
Slovenia	Tend to agree	Tend to agree	:	:	2,00
United Kingdom	:	Tend to agree*	:	:	2,00
Belgium	Tend to disagree	Tend to agree*	:	Fully agree	2,11
Greece	:	Tend to disagree	:	Tend to agree	2,50
Netherlands	:	Tend to disagree	Tend to agree	:	2,50
Portugal	:	Tend to disagree	:	Tend to agree	2,50
Germany	:	Tend to disagree*	:	:	2,80
Italy	Fully disagree	:	:	:	4,00

Note: Stakeholders were asked to refer to the situation in their country. Responses marked with * indicate that for the particular country multiple respondents of the same stakeholder category submitted differing responses. In these cases, the response provided in the table is derived by calculating the weighted average. The column “Average” indicates the overall weighted average across all stakeholder categories, also taking into account multiple responses of stakeholders of the same category. The weighted average is calculated by assigning weights to the responses (1 corresponding with ‘Fully agree’ and 4 with ‘Fully disagree’) and calculating an average value. ‘Don’t know’ responses are not considered. ECC indicates European Consumer Centre.

When asked to react to the statement “There is high payment security in e-commerce in goods”, no stakeholders fully disagreed, though those in Estonia, Germany, Greece, Italy, Portugal and the UK tended to disagree with this statement more strongly overall. Totally positive regarding their in-country payment security systems were stakeholders in Austria, Denmark, Finland and Sweden.

One further challenge, particularly for those selling and buying across borders, is that payment customs and traditions vary widely between countries. Interviewees emphasised that there are not better or worse systems, just different e-commerce environments which companies have to adapt to. According to payment companies interviewed, along with logistics, payment systems are considered the biggest challenge for retailers trading in more than one country. For example in some countries, such as France, the use of debit cards is widespread; in Germany customers are used to paying online using a type of direct debit called ELV,¹²⁰ and more recently an electronic invoicing system was introduced (BillSafe). In the Netherlands the popular payment system is by direct bank transfer, so a specialised company (iDEAL) provides such a payment service through a single contract with most of the banks operating in the country. In Italy prepaid cards are popular, while consumers in Denmark overwhelmingly use their national debit card (the Dankort). Payment intermediaries, such as PayPal, can therefore be popular because they bundle different local habits into a single transaction, and particularly so in markets where there are many small and medium sized retailers, such as the UK and Germany. Intermediaries can also add to the security and payment protection aspects, as they hold money in trust until the transaction is completed on both sides.

The “easiness to pay” condition is particularly important if e-commerce on mobile devices is to take off in a big way in the EU, as most of current purchases carried out on mobile phones require very small amounts, for example for apps or music tunes. Some big US companies provide payment platforms for this purpose (e.g. Apple, PayPal) or payment is made via mobile phone companies billing systems (contracts or pre-pay), with related security challenges.

While fraud is not necessarily a consequence of lack of security of online payments, the two are nevertheless closely related. Respondents in the stakeholder survey were asked to react to the statement “There is little fraud in e-commerce in goods”. Most answers were quite consistent with those assessing security of payments systems (see above); Portugal, Luxembourg and Estonia fully disagreed with this statement, closely followed by organisations in Germany, UK and Sweden. Most optimistic about the state of fraud in their countries were the consumer organisation in Austria and business stakeholders in Italy.

Table 41: Stakeholder survey – Agreement with statement: “There is little fraud in e-commerce in goods”

Member State	Business Organisations	Consumer Organisations/ ECCs	Authorities	Other Stakeholders	Average
Austria	:	Fully agree	:	:	1,00
Italy	Fully agree	:	:	:	1,00
France	Tend to agree*	:	:	Tend to agree	1,75

¹²⁰ The *Elektronisches Lastschrift Verfahren* is a retailer-generated direct debit, whereby the customer agrees to a purchase and the retailer claims payment directly from the banks; the risk therefore is mainly on the merchant. It is relevant e.g. for consumers using payment platforms such as PayPal, which in Germany offers the possibility to use ELV for the transaction between PayPal and the consumer.

Belgium	Tend to agree	Tend to agree*	:	:	2,00
Denmark	Tend to agree	:	:	Tend to agree	2,00
Finland	:	Tend to agree	:	:	2,00
Netherlands	:	:	Tend to agree	:	2,00
Slovenia	Tend to agree	Tend to agree	:	:	2,00
Lithuania	Tend to disagree	Tend to agree	:	Tend to agree	2,33
Slovakia	Tend to disagree	:	Tend to agree	Tend to agree	2,33
Cyprus	:	Tend to disagree	Tend to agree	:	2,50
Latvia	:	:	Tend to disagree*	:	2,50
Poland	Tend to agree	:	:	Tend to disagree	2,50
Romania	Tend to disagree	Tend to agree	:	:	2,50
Czech Republic	Tend to agree*	Tend to disagree	Tend to disagree	:	2,56
Bulgaria	Tend to disagree	:	Tend to disagree	:	3,00
Greece	:	Fully disagree	:	Tend to agree	3,00
Ireland	Tend to disagree	Tend to disagree	:	:	3,00
Malta	:	Tend to disagree	Tend to disagree	:	3,00
Sweden	Fully disagree	Tend to disagree	:	:	3,50
United Kingdom	:	Fully disagree*	:	:	3,50
Germany	:	Fully disagree*	:	:	3,80
Estonia	:	Fully disagree	Fully disagree	:	4,00
Luxembourg	:	Fully disagree	:	:	4,00
Portugal	:	Fully disagree	:	:	4,00

Note: Stakeholders were asked to refer to the situation in their country. Responses marked with * indicate that for the particular country multiple respondents of the same stakeholder category submitted differing responses. In these cases, the response provided in the table is derived by calculating the weighted average. The column "Average" indicates the overall weighted average across all stakeholder categories, also taking into account multiple responses of stakeholders of the same category. The weighted average is calculated by assigning weights to the responses (1 corresponding with 'Fully agree' and 4 with 'Fully disagree') and calculating an average value. 'Don't know' responses are not considered. ECC indicates European Consumer Centre.

While it is important to take seriously both stakeholder and consumer concerns revealed by our research, it is nevertheless worth noting that relatively few actual problems with payment security were reported by respondents to the online consumer survey (1%, see Figure 47 above).

Potential country-specific regulatory barriers

To assess further whether country conditions stimulated further development of e-commerce by retailers, respondents to the stakeholder surveys were asked to react to the statement "There are few regulatory barriers to e-commerce in our country". Business respondents in Italy and Romania agree strongly with this statement, and a number of stakeholders in other countries also tend to agree: Austria, Bulgaria, Finland, Ireland, Malta, Netherlands, Sweden and Czech Republic. Those who tend to disagree with the statement include stakeholders in Portugal, Luxembourg, Lithuania and France.

One of the major price comparison website providers, operating in several countries, mentioned the need to comply with all the varied local laws in different countries, and not just consumer protection. For example, if a company sells in France, it has to publish the server location, and in some countries, e.g. Germany, the risk of getting sued if a company

is criticised in an online consumer review is considered to be substantial, whereas other countries are considered 'safe' in this respect.

An online dispute resolution organisation interviewed mentioned cross-border legal procedures that can be especially difficult, including problems with the European Small Claims Procedure: for example, a German court will not accept standard forms unless they look exactly like the standard forms it uses. Conditions under which online contracts become valid can also vary by country and can cause potential problems for consumers shopping cross-border.

7.3.2. Do e-commerce retailers comply? How efficient is national enforcement of traders' obligation and is it accompanied by access to redress mechanisms for consumers?

Do e-commerce retailers comply? Is enforcement efficient in case of non-compliance? How efficient is national enforcement of traders' obligation and is it accompanied by access to proper redress mechanisms for consumers linked to the above?

The key findings are that:

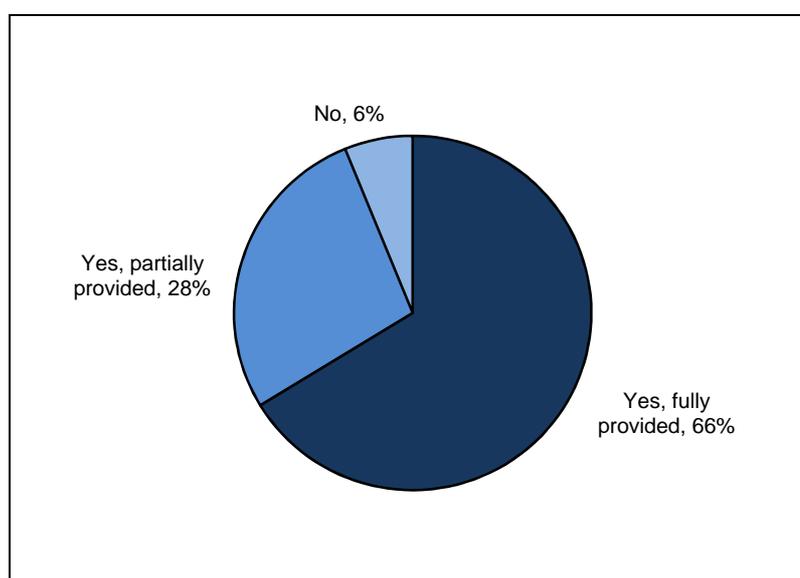
- (1) When checking retailer websites in a mystery shopping exercise conducted for this study, only three in five retailers provided a full business address, and only four in five provided information regarding the right to return goods without giving a reason. In half of the trials mystery shoppers were not able to find information explaining the customer's right to have a faulty product repaired.
- (2) Additional data regarding (perception of) retailer compliance is provided by recent surveys that ask both consumers and retailers to give their views on retailer compliance with consumer legislation in their countries. Retailers overwhelmingly agree that they comply with consumer legislation (97%), but are more sceptical when asked the same question about their competitors (70% agree overall). Consumers' opinion is somewhat different too: 65% agreed with this statement overall.
- (3) The consumer survey conducted for this study allowed to combine questions related to types of action consumers took in case of a problem and levels of satisfaction at their outcomes. Respondents who consulted a consumer association or a consumer help desk, or a lawyer show a quite high level of satisfaction with the results they achieved. Likewise, the respondents who filed a complaint to a government authority and those who filed a complaint with an alternative dispute resolution body were more often satisfied with the outcome they achieved than dissatisfied. Respondents who took the matter to court were least satisfied with the results.

We asked stakeholders to assess their national enforcement framework through the stakeholder survey, and checked during the mystery shopping exercise whether retailer websites provided certain information. In addition, respondents to the online survey who had a problem were asked what action they took and how satisfied they were.

Mystery shopping test on information provided by retailers

Researchers testing price comparison websites (PCW, see Chapter 3), clicked through to the linked retailers sites and checked whether they provided a business address (including email and address), and information on two basic consumer rights – the right to send back the product without giving a reason within at least 7 days of the purchase; and the right to have a faulty product repaired or replaced for at least two years after purchase. Altogether more than 1000 checks were made, though the total number of retailers was lower due to links to the same (cheapest) retailers from different PCWs.

Figure 48: Mystery shopping – Retailer page: Is the retailer's business address provided?¹²¹



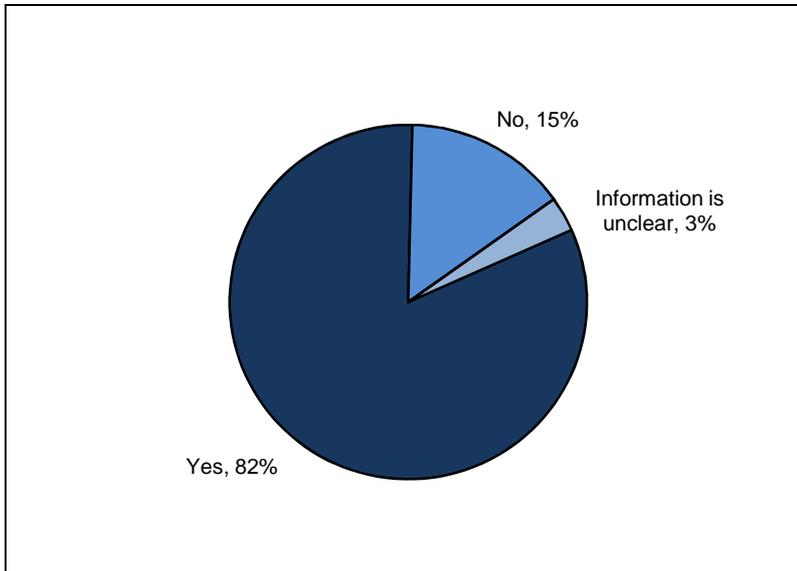
Note: N=1103

In 66% of cases the mystery shoppers were able to find the full business address. This included the street, city, postal code and country, as well as the retailer's email address. In 28% of cases this information was partially provided, while in 6% of cases the information was not provided at all.

The information regarding the right to return goods without giving a reason within seven days was mentioned on a majority of 82% of websites; however researchers could not find this information in 15% of cases, and on a further 3% of sites inspected the information was unclear (see next figure).

¹²¹ Questions used: Could you find the retailer's business address (incl. street, city, postal code, country)?; Could you find the retailer's email address?

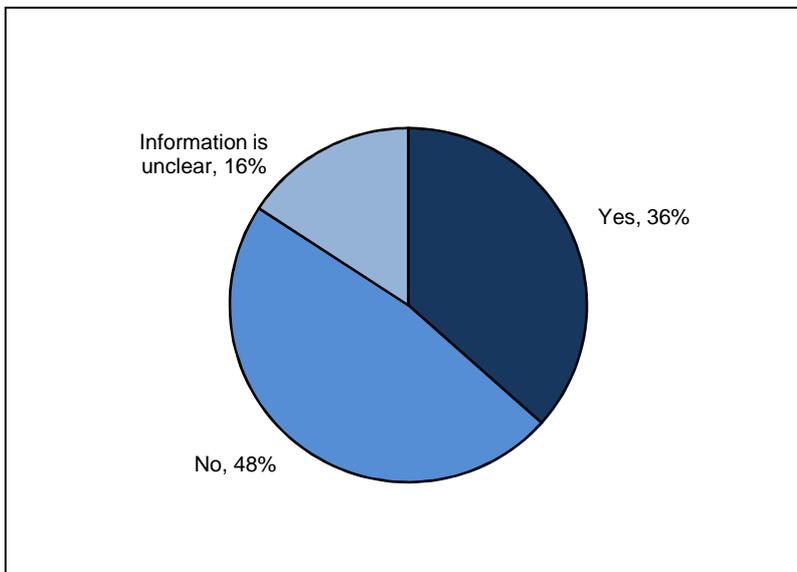
Figure 49: Mystery shopping – Retailer page: Provision of information about the right to send back the ordered product¹²²



Note: N=1102

Finally, the situation was more varied in the case of provision of information about rights connected to faulty products.

Figure 50: Mystery shopping – Retailer page: Provision of information about the right to have a faulty product repaired or replaced for at least two years¹²³



Note: N=1102

¹²² Question used: Could you find information about your right to send back the product without giving a reason within at least 7 days of the purchase?

¹²³ Question used: Could you find information about your right to have a faulty product repaired or replaced for at least 2 years after purchase?

Only in 36% of cases were mystery shoppers able to find on the retailer’s website information explaining the customer’s right to have a faulty product repaired or replaced for at least two years after purchase, while in a further 16% of trials the information provided was unclear. In 48% of trials mystery shoppers could not find this information.

Other evidence on retailer compliance in individual countries

Quantitative surveys commissioned by the EU test consumers’ and retailers’ opinions regarding compliance in different ways. Several Eurobarometers quoted in the 5th Consumer Scoreboard report asked both consumers and retailers to give their views specifically on retailer compliance with consumer legislation in their countries. Retailers, not surprisingly, overwhelmingly agree that they comply with consumer legislation (97%), but are more sceptical when asked the same question about their competitors (70% agree overall).¹²⁴ Consumers’ opinion is somewhat different too: 65% agreed with this statement overall.

Stakeholder assessments of national enforcement frameworks

As the 5th Consumer Scoreboard also explains,¹²⁵ it is a particular challenge to compare effectiveness of enforcement across different Member States, and a number of indicators are being developed on the EU level to achieve this. For this market study, the participating organisations, businesses and authorities were asked to react to the statement “There is efficient national enforcement of retailers’ obligations in e-commerce in goods”. Opinions here were quite polarised, though no country respondents were fully positive. Most in agreement with the statement were those representing the Netherlands, Slovakia, France, Belgium and the Czech Republic. In contrast, stakeholders from Luxembourg, Italy, Portugal, Poland, Greece and Lithuania disagreed most strongly.

Table 42: Stakeholder survey – Agreement with statement: “There is efficient national enforcement of retailers’ obligations in e-commerce in goods”

Member State	Business Organisations	Consumer Organisations/ ECCs	Authorities	Other Stakeholders	Average
Netherlands	:	Fully agree	Tend to agree	:	1,50
Slovakia	Fully agree	:	Tend to agree	Tend to agree	1,67
France	Tend to agree*	:	:	Tend to agree	1,75
Belgium	Fully agree	Tend to agree*	:	Tend to agree	1,78
Czech Republic	Tend to agree*	Tend to disagree	Fully agree	:	1,89
Cyprus	:	:	Tend to agree	:	2,00
Estonia	:	Tend to agree	Tend to agree	:	2,00
Finland	:	Tend to agree	:	:	2,00
Latvia	:	:	Tend to agree	:	2,00
Malta	:	Tend to agree	Tend to agree	:	2,00
Sweden	Tend to agree	Tend to agree	:	:	2,00
United Kingdom	:	Tend to agree	:	:	2,00

¹²⁴ 5th Consumer Conditions Scoreboard, p. 26, Figure 20.

¹²⁵ 5th Consumer Conditions Scoreboard, p. 38 et ff.

Romania	Tend to disagree	Tend to agree*	:	:	2,25
Ireland	Tend to agree	Tend to disagree	:	:	2,50
Denmark	Tend to agree*	:	:	Fully disagree	2,75
Bulgaria	Tend to disagree	:	Tend to disagree	:	3,00
Germany	:	Tend to disagree	:	:	3,00
Lithuania	Fully disagree	Tend to disagree*	:	Tend to disagree	3,17
Greece	:	Fully disagree	:	Tend to disagree	3,50
Poland	Tend to disagree	:	:	Fully disagree	3,50
Portugal	:	Fully disagree	:	Tend to disagree	3,50
Slovenia	Tend to disagree	Fully disagree	:	:	3,50
Italy	Fully disagree	:	:	:	4,00
Luxembourg	:	Fully disagree	:	:	4,00
Austria	:	:	:	:	:

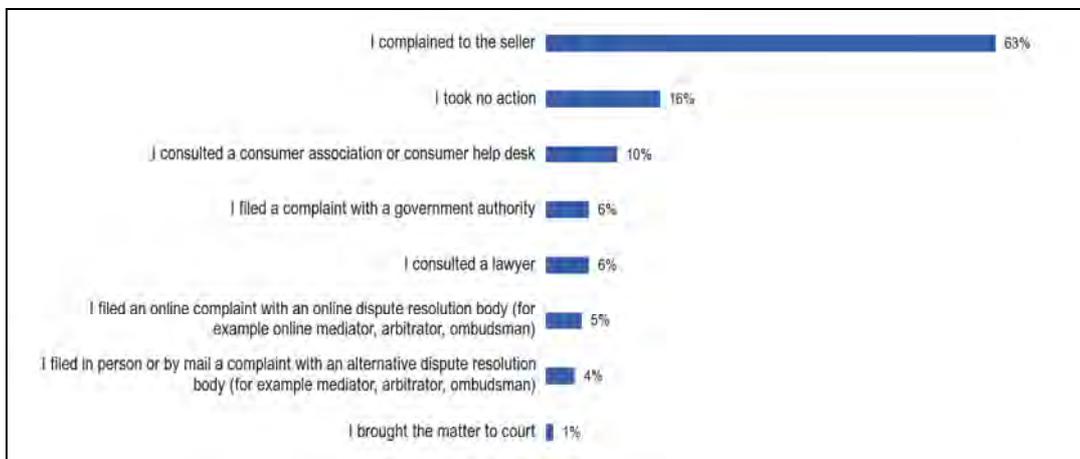
Note: Stakeholders were asked to refer to the situation in their country. Responses marked with * indicate that for the particular country multiple respondents of the same stakeholder category submitted differing responses. In these cases, the response provided in the table is derived by calculating the weighted average. The column "Average" indicates the overall weighted average across all stakeholder categories, also taking into account multiple responses of stakeholders of the same category. The weighted average is calculated by assigning weights to the responses (1 corresponding with 'Fully agree' and 4 with 'Fully disagree') and calculating an average value. 'Don't know' responses are not considered. ECC indicates European Consumer Centre.

Consumer experiences of national enforcement

Two questions in the online consumer survey conducted for this study tested specifically the experience of those respondents who have encountered a problem while shopping.¹²⁶ The vast majority of respondents who encountered a problem both in their online and offline shopping took some kind of action (84%), with fewer than one in five (16%) saying they took no action at all. Romania is the country with the highest level of consumers who took no action (58% did not do anything). Hungary comes second (37% took no action), closely followed by Estonia (36%).

¹²⁶ Questions asked: Referring to the particular problem that you described: what ACTION did you take? When you took action concerning this particular problem, how satisfied were you with the final result?

Figure 51: Consumer survey – Referring to the particular problem that you described: what ACTION did you take?



Note: Based on respondents who encountered problems while shopping (N=6914)

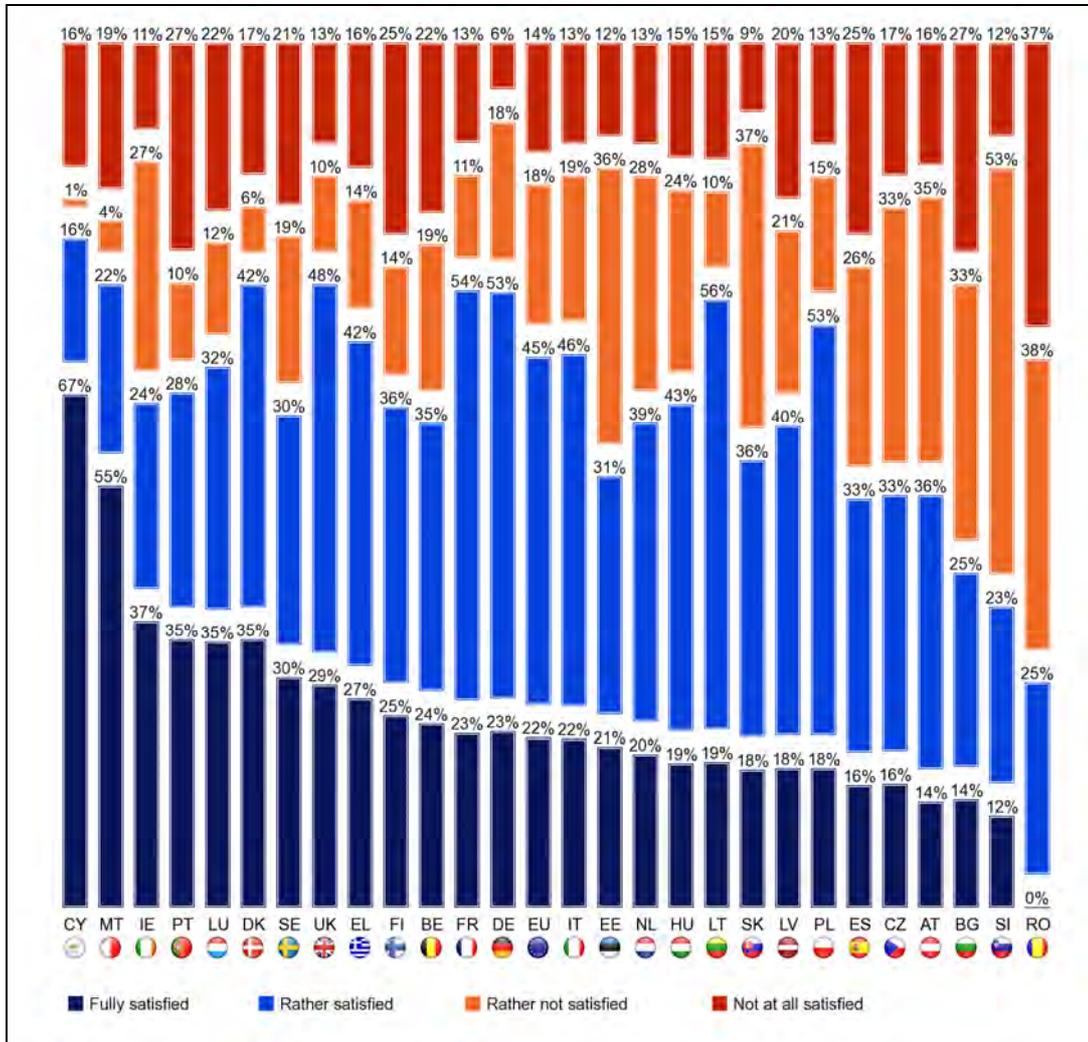
As the figure above shows, complaining to the seller is a common reaction, with several of the countries' consumers taking this kind of action in majorities over 70%, with Malta and Slovakia topping the list (80% and 79% respectively), followed by Denmark, Sweden, the UK, Austria, Portugal and France (71-75%).

Respondents who took action were asked about their level of satisfaction with the final result. The EU27 average shows that for more than two-thirds of complainants (69%) the matter was still pending at the time of the survey. The proportions of those still waiting were extremely high in Slovakia and Slovenia (89-90%), but reached over 80% of those who complained in several countries, including Denmark, Finland and Portugal.¹²⁷

Excluding the pending cases and looking at the percentage of customers who are satisfied and dissatisfied with the final outcome after taking some kind of action to resolve a problem (see next figure), we note that two-thirds of respondents are satisfied (67%). Results show that Romania, Slovenia and Bulgaria are considerably below the EU27 average with around one-third of respondents satisfied with the final outcome of the action they took (25%, 35% and 39% respectively).

¹²⁷ This high percentage of cases "pending" is possibly related to the timing of the survey: at the end of December. As many consumers do online shopping towards the end of the year, and the survey asked consumers to provide details regarding the last problem experienced, a large number of consumers possibly referred to a problem experienced very recently.

Figure 52: Consumer survey – Satisfaction with final results of actions to solve a problem¹²⁸



Note: Based on subsample of respondents who took action, with responses from those who stated the matter is still pending excluded (N=1811)

Finally, the table below combines the two questions related to types of action consumers took and levels of satisfaction at their outcomes. We can see several statistically significant conclusions. Respondents who consulted a consumer association or a consumer help desk, or a lawyer show a quite high level of satisfaction with the results they achieved. They are significantly more often satisfied than dissatisfied. Likewise, the respondents who filed a complaint to a government authority and those who filed a complaint with an alternative dispute resolution body were more often satisfied with the outcome they achieved. Respondents who took the matter to court were least satisfied with the results.

¹²⁸ Question used: When you took action concerning this particular problem, how satisfied were you with the final result?

Table 43: Consumer survey – Levels of satisfaction with results of actions taken to solve a problem

Action taken	Fully satisfied	Rather satisfied	Rather not satisfied	Not at all satisfied
I complained to the seller	27%	40%	13%	20%
I consulted a consumer association or consumer help desk	24%	51%	13%	12%
I consulted a lawyer	24%	53%	20%	3%
I filed a complaint with a government authority	13%	47%	22%	18%
I filed in person or by mail a complaint with an alternative dispute resolution body (for example mediator, arbitrator, ombudsman)	19%	35%	31%	14%
I filed an online complaint with an online dispute resolution body (for example online mediator, arbitrator, ombudsman)	31%	41%	10%	18%
I brought the matter to court	12%	37%	26%	25%

Note: Based on subsample of respondents who took action (N=1,811), with responses from those who stated the matter is still pending excluded

7.3.3. Is consumer behaviour different depending on age groups, other basic socio-economic indicators?

Is consumer behaviour different depending on age groups, other basic socio-economic indicators?

In our online consumer survey, the most prominent differences in consumer behaviour when purchasing goods online emerge in the comparison between frequent online shoppers on the one hand and occasional online and non-online shoppers on the other. Direct effects of socio-economic indicators on consumer shopping behaviour online are hardly discernible. But this is because socio-economic status indicators influence the frequency of online shopping. Men are more likely to shop frequently online than women. Older respondents are more likely to be occasional or non-online shoppers, whereas the youngest respondents spend less money or do not use credit cards as much as respondents between 25 and 54 years of age do. Naturally this result is just a reflection of other social dimensions, such as income, wealth or access to certain services. As evident from the results of this survey throughout, these latter aspects seem to be country specific; eastern European countries tend to have more occasional shoppers and non-online shoppers, and spend less money online than north European countries, because their populations have lower disposable incomes.¹²⁹

The educational background of respondents appears to be influential in cross-border shopping, as better educated people show a stronger tendency to shop abroad and in languages other than their own.

Frequent online shoppers tend to use more price comparison websites than occasional or non-online shoppers; and not surprisingly users of price comparison sites tend to spend

¹²⁹ See for example the 5th Consumer Conditions Scoreboard, pp. 47-48 et ff, which gives both the level of the adjusted gross disposable income of households per capita, measured in Purchasing Power Standards (PPS) for the EU27, as well as calculated material deprivation rates – consumers in countries that emerge as the least engaged in online shopping in this survey have some of the lowest disposable income in the EU.

more money online than non-users. Among frequent online shoppers men tend to pay more attention to price, whereas women more often mentioned 'saving time' when buying online, though the differences are rather small. Age differences are more important in this respect: the younger age groups tend to cite price, whereas 'saving time' is mentioned more often by the older people.

Frequent online shoppers use online market places that sell new products not only for their shopping, but also to research products. They also read online product reviews more often than occasional online shoppers. Occasional online shoppers are less likely than frequent online shoppers to use their mobile phone to purchase a product online, or to say that they will use it to purchase products in the future.

Frequent online shoppers are also more often those respondents who use the Internet for work or educational reasons and for financial transactions such as banking and financial services (60% of the frequent online shoppers but only 50% of the occasional shoppers). Most of the frequent online shoppers also use Internet-based offers to arrange travel (around 53%) and, most importantly, they know other people who shop online (around 45%).

7.3.4. Measures to increase consumers' confidence

What measures would help consumers and businesses feel more confident? Are alternative dispute resolution mechanisms in place to deal with complaints (including those arising from price comparison sites)? Under what conditions can intermediaries act as trusted voices? What tools and mechanisms are in place or imaginable? Under what conditions would consumers trust online dispute resolution mechanisms or trust marks? Do public authorities or consumer organisations have a role to play in ensuring that intermediaries provide impartial and useful advice?

The key findings are that:

- (1) Consumers regard "online sellers having secure online payment systems and ensuring that my payment data is not stolen or misused" as the measure most likely of all those listed to make them feel more confident about buying online.
- (2) Across all the EU Member States on average nearly a quarter of respondents felt that secure online payment systems were 'extremely likely' to increase confidence. Additionally, ensuring the same consumer rights across the EU and the protection of personal data and measures against fraudulent online sellers join the list of the top confidence-boosting measures.
- (3) The majority of respondents to our consumer survey would be willing to solve a dispute with an online seller through an online dispute resolution body.
- (4) Business and consumer organisations as well as authorities consider trustmarks more important than consumers themselves. In stakeholder interviews pan-European trust marks that combine with alternative dispute resolution systems were suggested as potential winners from a retailer perspective.

Consumer views on confidence-boosting measures

Consumers responding to the online survey were given a range of options and asked how likely each would be to increase their confidence when buying products online. They were asked to rank each measure listed according to its likeness to increase confidence, between 0 (not at all likely) and 10 (extremely likely).

The table below lists 13 possible measures that could boost consumer confidence in online shopping.

Table 44: Consumer survey – Measures to increase confidence¹³⁰

Measure	All respondents	Cross-border online shoppers	Non-cross-border online shoppers
Online sellers having secure online payment systems and ensuring that my payment data is not stolen or misused	6,9	7,2	7,0
Having the same consumer rights where ever I shop online across the EU	6,6	6,8	6,6
Online sellers ensuring that my personal data is not stolen or misused	6,5	6,8	6,6
Public authorities across the EU ensure that fraudulent online sellers are closed down	6,5	6,7	6,6
Accurate contact information is available on seller websites	6,5	6,7	6,6
Public authorities across the EU co-operate to ensure that all products sold online are safe	6,2	6,4	6,3
Hotlines of online sellers are available for sales and after-sales service without additional charges	6,1	6,4	6,2
Websites have online trust marks	6,1	6,2	6,1
Independent and accurate price comparison websites	6,0	6,1	6,1
Online sellers agree to resolve any individual dispute with me through an online dispute resolution body (for example online mediator, arbitrator)	5,9	6,2	5,9
Online sellers adhere to industry codes of good conduct	5,8	6,0	5,9
Public bodies providing information, advice and support about my consumer rights online	5,8	5,9	5,9
Independent advice websites providing guidance on best products	5,7	5,9	5,7

Source: Calculation using the weighted data set. Based on all respondents, and relevant sub-samples.

Consumers who responded seem to think that “online sellers having secure online payment systems and ensuring that my payment data is not stolen or misused” would be the measure most likely of all those listed to make them feel more confident about buying online; accordingly this measure is ranked highest (mean value 6.9). This is also suggested by the

¹³⁰ Question used: How likely would each of the following be to INCREASE YOUR CONFIDENCE in buying products online? Please consider each statement below.

results of the consumer survey which show that about 1 out of 5 respondents are concerned with the fact that their payment card details may be stolen when shopping online in their home country or cross border (20% and 21% respectively, see Figure 43 and Figure 44 above). Similarly, concerns regarding misuse of personal/payment details constitute the second most important reason reported by non-online shoppers for not buying products online (see Figure 6 in Section 2.1). However, as has been indicated before, concerns regarding payment card details are only to a very limited extent reflected in the actual problems experienced by consumers. Less than 0.2% of all online shoppers reported that they had their payment card details stolen.

When we take into account the value (0 to 10) that is given most often to each possible measure, the measures related to ensuring “the same consumer rights across the EU” and “the protection of personal data” and “measures against fraudulent online sellers” join the list of the top confidence-boosting measures. In other words these measures stand out because they were given the top mark (10) most often by those responding. The relative popularity of these measures looks consistent with the consumer concerns expressed about buying products online (see Sections 7.1.1 and 7.1.2), and are remedies that would alleviate those concerns.

Further detailed analysis shows that across all the EU Member States on average nearly a quarter (22%) of respondents felt that secure online payment systems were ‘extremely likely’ to increase confidence. Consumers in Cyprus are the most likely to give the highest score to this measure (43% for ‘extremely likely’ to increase confidence), followed by people in Romania and Malta (41% and 38% respectively). Over a third of consumers in Sweden and the UK also ranked this measure high (34-36%). However, respondents from the Netherlands, Belgium and Bulgaria scored this measure below the EU average, at 8%, 14% and 14% respectively, perhaps because their current habits of paying online are less risky (for example paying by bank transfer is more popular in the Netherlands). The measure defined as “having the same consumer rights wherever I shop online across the EU”, which scored second in terms of mean values (6.6), was considered ‘extremely likely’ to increase confidence by 16% of respondents across all EU Member States. Consumers in Cyprus, Malta and Romania ranked this measure well above average (37%, 30%, and 30% respectively); Greece, Ireland, and Luxembourg also gave this measure above average ‘extremely likely’ to increase confidence verdict (20-26%). Interestingly, these are either small countries where consumers tend to shop a lot cross-border, or where consumers in surveys regularly express lack of confidence in their national consumer protection systems. The least favoured three items on the list of measures that would make EU respondents feel more confident about shopping online are those related to retailers’ adherence to codes of practice; public bodies providing information; and independent advice websites providing guidance on best products. These measures are ranked with a mean value of 5.8, 5.8 and 5.7 respectively. On average all these measures were ranked as ‘extremely likely’ to increase confidence by less than 10% of EU consumers.

It should be mentioned that online shoppers polled have higher scores for all the items and especially support the measure for secure online payment systems and ensuring that payment data is not stolen or misused (mean of 7.1). For non-online shoppers who responded, “the same consumer rights where ever I shop online across the EU” records the highest score (5.8) and the “online sellers adhere to industry codes of good conduct” has the lowest score (4.9). The lowest mean value for online shoppers relates to “public bodies providing information, advice and support about consumer rights online” (5.9).

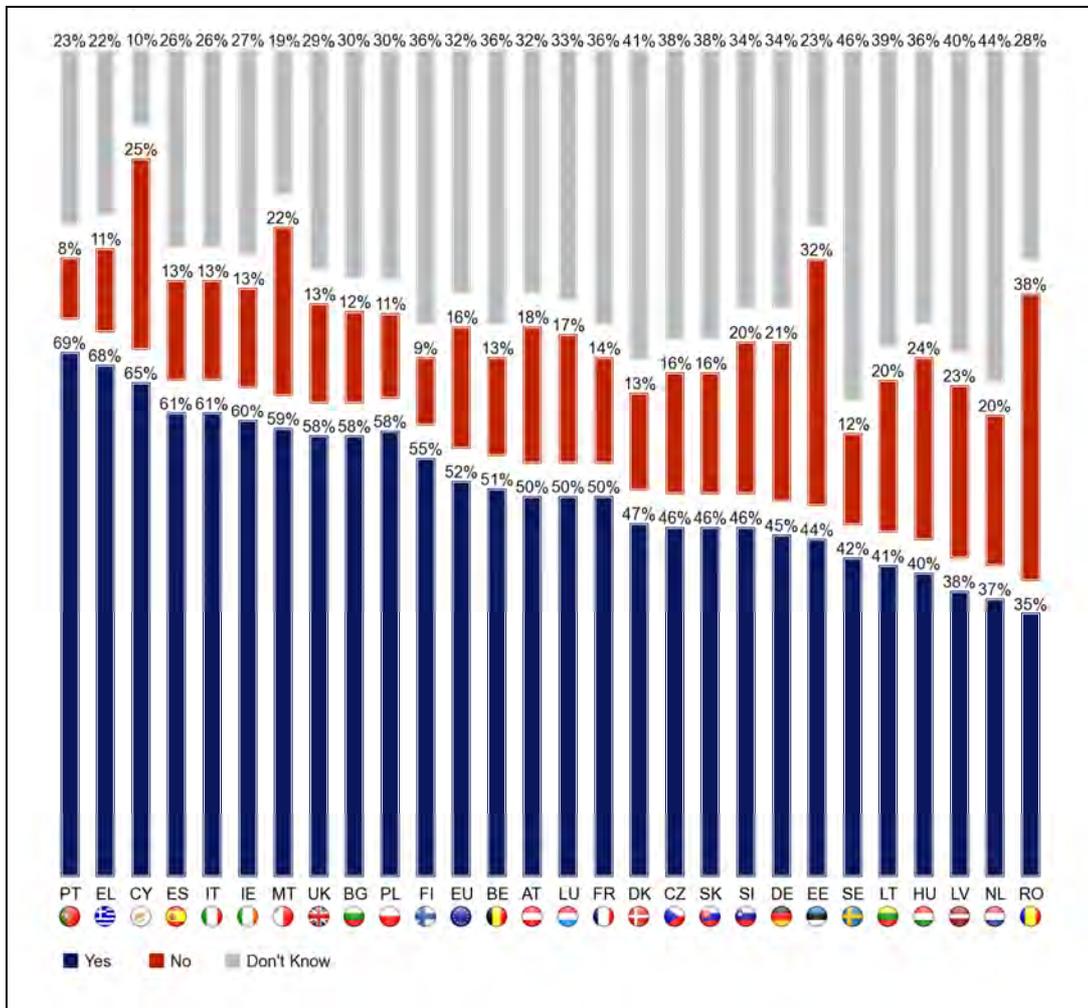
The differences between frequent and occasional online shoppers are rather small, even smaller than the differences between respondents from eastern and western Europe.

Therefore it is possible to conclude that the difference between online and non-online shoppers is the most significant in defining attitudes towards specific policy measures.

Consumer willingness to participate in ODR

As seen from the ranking of possible policy measures in the previous table, the item relating to online dispute resolution bodies is not considered of the highest importance in boosting confidence in online shopping. On average, only 10% of EU consumers rated this measure as ‘extremely likely’ to increase their confidence. However, when the same and all respondents to our online consumer survey were asked if they would be willing to solve a dispute with an online seller through an online dispute resolution body, the majority of respondents confirmed their willingness (52%).

Figure 53: Consumer survey – Willingness to solve a dispute with an online seller across Europe through an online dispute resolution body¹³¹



Note: Based on all respondents (N=29010)

¹³¹ Question used: Would you be willing to solve a dispute with an online seller through an online dispute resolution body (for example online mediator, arbitrator, ombudsman)? That means submitting and settling the dispute online (for example through online forms, emails, online chat).

The national analysis shows that many of the countries are close to the EU average. Portugal and Greece stand out as having a large majority of respondents who are willing to solve a dispute with an online seller through an online dispute resolution body (69% and 68% respectively). At the other extreme, the Netherlands, Sweden and Latvia are countries with very high “Don’t Know”-rates and where a smaller percentage are willing to solve a dispute through an online resolution body (37%, 42%, and 38% respectively).

Socio-demographic analysis reveals that men are more often willing to solve a dispute online than women. The same behaviour pattern is evident among postgraduate and highly educated respondents. Not surprisingly, there is also a significant difference between online and non-online shoppers. Online shoppers are more willing to solve a dispute via an online dispute resolution body than non-online shoppers (79% in comparison to 55%).

Stakeholder views on confidence boosting measures

The section above covering enforcement and retailer compliance shows that relevant organisations, business and authorities responding to our survey have mixed views about the effectiveness of enforcement systems in their countries. We further asked them to react to two potential confidence-boosting self-regulatory measures, as a cross-check with some of the measures tested in the consumer survey:

- *Codes of conduct.* Stakeholders were asked to react to the statement: “Online retailers of goods respect codes of conduct”. Consumers in their survey did not rate codes of conduct very high as a trust increasing measure, while stakeholders in more than half of the 21 countries responding disagree in various degrees with this statement. The most negative, once again, are those from countries in eastern and southern Europe, and also Germany. Stakeholders in Sweden, Belgium and Slovakia are the most positive regarding this statement, though none fully agree.
- *Trustmarks.* Stakeholders were also asked whether trust marks used by online retailers of goods increase the confidence of consumers in e-commerce and whether consumers value trust marks on retailers websites. Reaction was much more positive overall in this case, in contrast in fact with the more than lukewarm reaction of the consumers themselves (see above). On the first statement the majority of countries agreed to some extent with this statement, with five countries in full agreement – again eastern and southern countries tend to be the more pessimistic. Respondents had similar reactions to the second question.

Business, consumer organisations and authorities consider trustmarks more important than consumers themselves. When trust marks were explored deeper during the interviews, one of the business associations pointed out that major brands are reluctant to consider trust marks as their brand is considered a trust mark in itself; however pan-European trust marks that combine with alternative dispute resolution systems, particularly for multi-language cross-border disputes were suggested as potential winners from a retailer perspective.

Consumer organisations interviewed focused more on practical measures necessary to improve enforcement and easy access to redress, closing existing loopholes in online protection (for example with regard to faulty digital products and mobile commerce fraud protection), as well as wider adoption of innovative methods of payment to increase online security and reduce fraud. Practical measures suggested included active promotion of existing ADRs (consumers do not know they exist or understand how they function); finding ways to present ‘readable’ Terms and Conditions; contact with real people for customer service and access to a central complaint point.

8. Conclusions and recommendations

This study focuses on the functioning of e-commerce in the retail market for consumer goods in the European Union and addresses three main questions:

1. Is e-commerce of goods in the EU delivering its full potential in terms of consumer welfare (price, choice, quality and adequate protection) across the entire retail sector in the internal market?
2. If not, what is the size of the missing potential, what are the main obstacles, and what corresponding remedies should be envisaged?
3. Why has e-commerce developed more extensively in some Member States, and not others?

The questions are answered on the basis of research conducted in all 27 Member States of the European Union, comprising:

- An *online consumer survey* covering all 27 Member States with close to 30,000 respondents;¹³²
- A *price collection survey* in 17 EU Member States which resulted in 4,559 observations of online and offline prices for a selection of seven major product categories (consisting of 15 product sub-categories), as well as comprehensive data regarding consumer choice;
- A *mystery shopping exercise* covering approximately 1,500 detailed website checks in all 27 EU Member States (233 checks of Price Comparison Websites with five product searches on each PCW, 15 checks of online marketplaces and approximately 1,200 checks of retailer websites);
- About 70 *interviews* with experts and stakeholders, including price comparison websites and retailers;
- A *survey of stakeholder organisations* (business associations, consumer protection authorities, consumer organisations and European Consumer Centres) in all 27 EU Member States.

The following overview of main findings are structured according to the more than 60 detailed questions provided in the Terms of Reference, grouped into six areas:

- Missing potential of e-commerce;
- Prices online and offline;
- Consumer choice;
- Consumer shopping behaviour;
- Price comparison websites;
- Factors affecting Internet retail experiences.

This chapter provides the main conclusions of the study and provides policy recommendations to remedy problems identified.

¹³² The consumer survey was conducted online in 25 EU Member States, complemented by a phone based (CATI) survey in Malta and Cyprus. In total, 29,010 consumers participated.

8.1. Conclusions

8.1.1. Missing potential of e-commerce

Online markets can offer goods for lower prices, and increase choice, thereby increasing consumer welfare. In this report, we have analysed consumer welfare changes implied by the price difference between buying a good online versus offline, and the consumer welfare aspects of increased online choice. The analysis encompasses consumer welfare gains under the current share of Internet retailing for each country and consumer welfare gains under a hypothetical situation in which the share of Internet retailing would be 15% of total retailing. In scrutinising this hypothetical situation which serves as an indicator for the “missing potential”, we also consider to which extent welfare gains would be affected by a continuation of the current fragmented national consumer markets of the 27 Member States, compared to a situation where a Single EU consumer Market in the e-commerce of goods exists, all other things unchanged.

The key findings are that:

- Consumer welfare gains in domestic markets from *lower online prices* with the current share of Internet retailing in the EU (3.5%) are 2.5 billion Euro, and total welfare gains resulting from lower online prices under a hypothetical situation of a 15% share of Internet retailing and a Single EU consumer Market are 70.4 billion Euro per year (equivalent to 0.6% of EU GDP).
- In addition, consumer welfare gains in domestic markets from *increased online choice* with the current share of Internet retailing in the EU are 9.2 billion Euro, and total welfare gains resulting from larger online choices under a hypothetical situation of a 15% share of Internet retailing and a Single EU consumer Market are 134.1 billion Euro per year (equivalent to 1.1% of EU GDP).
- It is notable that welfare gains under a hypothetical situation of a 15% share of Internet retailing and a continuation of the current fragmented national consumer markets of the 27 Member States would be much lower, namely 11.0 billion Euro from lower online prices and 39.5 billion Euro from increased online choice. We therefore estimate the additional consumer welfare gains from a *Single EU consumer Market in e-commerce in goods* to be 59.4 billion Euro from lower online prices and 94.6 billion Euro from increased choice per year (in total 154 billion Euro or 1.3% of EU GDP).
- When interpreting these figures, the basis of the estimate has to be taken into account: The “missing potential” of e-commerce in goods is calculated for a given point in time (the date of the price collection, December 2010), not considering possible future market developments. The idea of a “missing potential” implies a comparison with a hypothetical situation in which current obstacles such as higher delivery costs between countries no longer exist. These have not been considered and would tend to reduce possible consumer welfare gains. On the other hand, our estimates regarding the extent to which online prices are lower and online choices are increased appear to be fairly conservative when compared with results of other research.

8.1.2. Prices online and offline

The economic analysis presented in the previous section is based on a price collection exercise, which covered 17 EU countries and 15 sub-categories, with two or more products defined at brand/model level from each sub-category.

The key findings of the price collection are that:

- There are significant differences in the relative prices of products online and offline across the various product sub-categories.
- When delivery costs are excluded, online prices in our sample ranged from 20% lower to 15% higher than offline prices, but online prices were lower than offline prices in 13 of the 15 sub-categories studied.
- Including delivery costs clearly reduces the apparent savings available online, however even in this case online prices remained lower than offline in 10 of the 15 sub-categories studied.
- There are also significant variations in pricing and average online savings available for specific products across countries.
- While significant price variations for identical products between EU countries are detected, prices both online and offline show more convergence between Euro Member States than across the EU Member States as a whole. There is no evidence to suggest that online prices are any more or less convergent across countries than offline prices.

Pricing strategies and behaviour

Previous research suggests that online pricing strategies are much more dynamic than offline: many retailers tend to offer online discounts for a small product range over short time windows with great flexibility. Geographical price discrimination is widespread in the Internet, as retailers with online shop fronts in more than one country may price differently at different country shop fronts. The interviews with industry players corroborate with the above observations and yield additional insights about online pricing strategies.

The key findings are that:

- Products bought from retailers are generally cheaper than products bought directly from manufacturers because manufacturers wish to avoid undercutting and upsetting distributors and retailers of their own products.
- If a company sells its product through both online and offline channels, the relationships between prices in the two channels can vary according to the specific strategies of the company. In some cases, a company might even set a higher online price than offline price.
- Generally, companies claim that they do not sell the same products at different prices according to different consumers' online profiles. However, this does not apply to business customers and companies might also give special offers to frequent customers to cultivate loyalty.

8.1.3. Consumer choice

During the price collection exercise, price collectors assessed the average choice of similar products in a particular online or offline shop. This allows a detailed comparison of choice across the 17 Member States in which prices were collected.

The key findings are that:

- Consumers have much more choice online than offline, when considering average choice of similar products in a particular online or offline shop. Based on the data collected, we estimate in our economic analysis that the difference in choice offline vs. online at a national level is 1:2.5 (i.e. on average an online shop offers 2.5 times more similar products compared to a large offline retailer). The difference in choice offline vs. online across the 17 EU Member States is 1:16.3, when the national market with the largest choice for each product sub-category is used as a benchmark.¹³³
- This greater online choice is also confirmed by our retailer interviews. Typically, interviewed companies have a much wider selection online than in offline stores. According to one major Internet retailer, wider selection online is even more important than lower price as an advantage of online shopping, together with increased convenience.
- Companies have different approaches when it comes to selling globally versus locally. While some companies are truly international and sell in almost every Member State, others operate only nationally.
- Some products are difficult to sell cross-border due to their limited shelf life, lower demand resulting from language barriers, or different legal regulations.
- While some retailers are prepared to deliver to non-domestic customers, the reluctance of many retailers to allow cross-country sales clearly does restrict the ability of consumers to benefit from potential savings available online in other Member States.

Do manufacturers and retailers treat online and offline commerce identically and in an integrated way?

Many businesses are now selling through both online and offline channels, and it can be expected that many more businesses would set up online operations in the near future. The interviews with industry players reveal important insights about how businesses view the two channels.

The key findings are that:

- Although online channels might be a competitive threat to offline channels, most interviewed companies tend to see them as complementary rather than detrimental to profits, and as a way of offering more options to consumers. The companies would try to be present in both channels, if possible.

¹³³ For each sub-category, we have divided the largest set of online choice identified in one of the countries by each country's online choice to obtain a percentage of the largest set of online choice across all the national markets relative to each country's choice. The weighted average relative choice across all categories is 643.0%, compared to the national online choice. For assessing choice, we counted the number of similar products offered by each retailer visited online or offline. This is in line with the consumer perspective taken for the purposes of this market study, as a typical consumer will not always visit a large number of shops to assess choice (see Chapter 6 for more details).

- Many consumers would research information on products and prices offline and then buy them online, but the reverse – i.e. researching online but then buying in brick-and-mortar stores – is also common (see also next section).

8.1.4. Consumer shopping behaviour

In our consumer survey we have explored in depth to which extent consumers make use of increased online choices and lower online prices, and how online and offline purchases differ in terms of research steps taken, time involved and other aspects.

The key findings are that:

- The percentage of frequent online shoppers (those who shop online at least once a month) tend to be highest in countries which have large markets and high levels of Internet penetration such as the UK, Germany, and France, but also in Austria and Poland the share of respondents that frequently shops online exceeds the EU average.
- On average frequent online shoppers spent significantly more than occasional online shoppers (those who shop online less than once per month). Taking purchases made over the last year, frequent online shoppers in our sample spent 1,615 Euro and occasional online shoppers 643 Euro. Average spending online across all online shoppers was 1,163 Euro (including domestic and cross-border spending).
- While frequent online shoppers are particularly likely to shop across countries, occasional online shoppers are more likely to avoid cross-border online shopping. There is a clear tendency for cross-border shoppers to spend more money than respondents who only shop within their own country: Those online shoppers who also shop cross-border tended to spend the most, spending on average 1,667 Euro altogether on their domestic and cross-border online purchases, compared to 778 Euro for those respondents that only shopped online domestically.
- The results for cross-border shopping to some extent reflect language skills and ties with other countries. Most cross-border online shoppers in Belgium and Luxembourg do their online shopping in France or Germany, while cross-border online shoppers in Ireland and Malta tend to shop in the UK. Portuguese cross-border shoppers shop in Spain, while Danish cross-border shoppers shop in Sweden. There is also significant cross-border shopping between the Czech Republic and Slovakia, between Finland and Sweden, between Austria and Germany and between Belgium and the Netherlands.
- Many consumers research information on products and prices offline and then buy them online: Nearly one in five online shoppers (18%) reported visiting a shop in person when researching the most recent online purchase of 30 Euro or more. The reverse – i.e. researching online but then buying in brick-and-mortar stores – is also common. For example, 15% of all respondents visited seller websites to research their most recent purchase of 30 Euro or more in a shop.
- Use of mobile phones for online shopping is currently rather uncommon. Occasional online shoppers are less likely than frequent online shoppers to use their mobile phone to purchase a product online, or to say that they will use it to purchase products in the future.

8.1.5. Price comparison websites

A major benefit of online shopping is the ease of price comparison relative to offline shopping. The consumer survey shows that the discovery of cheaper prices online is the single most important reason for shopping online and frequent online shoppers in the survey, especially the more educated ones, particularly praise the convenience of the Internet marketplace in terms of price comparison. The question then arises as to how price comparison websites (PCWs, also called shopbots) feature in online search and shopping behaviour. PCWs are essentially search tools designed ostensibly to help consumers obtain price information from many retailers through a single portal.

How do consumers use price comparison websites and do they work as expected?

All respondents in the consumer survey were asked about their use of price comparison websites, and we tested the functioning of 233 PCWs in EU countries in the mystery shopping exercise.

The key findings are that:

- PCWs are popular in the EU27 as information sources for online shopping, although consumers usually do not make purchases solely based on what they find from PCWs.
- PCWs are largely perceived by users to be doing a good, unbiased job in finding and listing correct information about prices and delivery charges from different sellers.
- Consumers expect that PCWs will help them to make purchases at cheaper prices than if they buy from online retailers without using PCWs and without intensive search. To examine to which extent this is true, we compared the average cheapest offers identified by PCWs in our mystery shopping exercise with the average online price of the same product in the same country obtained from the price collection. Once aggregated across countries, the overall average savings of the mystery shopping exercise prices are found to be 7.8%.
- As the online prices in the price collection exercise are found to be generally cheaper than offline prices, PCWs seem to be able to inform consumers of cheaper deals than casual online, as well as offline, shopping.

Are price comparison websites clear about what they are comparing?

Although PCWs therefore can help consumers find cheaper offers, the mystery shopping also revealed significant shortcomings in PCW practices. These shortcomings can lead to consumer detriment as these practices may cause consumers to make purchasing errors (such as paying too much) or create emotional detriment (such as annoyance and regret, see also Section 3.2).

The key findings are that:

- PCWs in the mystery shopping exercises were often unclear about their default rankings of offers, their business models, and/or their policies regarding consumer protection.
- Only a minor proportion of identifiable default rankings in the mystery shopping exercise were ranking by price. In 29% of the trials, the PCW did not offer the customer the option to rank products according to price. The default ranking presented the cheapest offer among the top five about two-thirds of the time.

- In more than half of the trials, PCWs were not informative on delivery costs, delivery time, and/or product availability.
- The two main sources of revenue identified by the mystery shoppers were advertising on PCW and pay-per-click. Secondary to these, payment for prominent placing in results and payment for listing on the PCW are also common sources of revenue.

How can price comparison sites help foster cross-border comparisons?

The mystery shopping exercise and interviews suggest that PCWs do not consider it easy to incorporate cross-border comparisons in their operations, nor are they highly motivated to surmount the difficulties.

The key findings are that:

- PCWs are currently *not* playing a direct role in fostering cross-border shopping, although they may play an indirect role as contact points through which a retailer may establish a presence in a country that is different from where it is based.
- Differences in prices, regulations, and product specifications across borders, the need for increased investment in technology, as well as consumers' preference to buy from local retailers, all discourage PCWs from directly incorporating cross-border comparisons as a major part of their operations.

8.1.6. Factors affecting Internet retail experiences

In the concluding chapter of this report we have scrutinised a variety of factors that affect the Internet retail experience for both consumers and retailers, and given indications regarding obstacles to e-commerce in goods existing in EU Member States.

Concerns about buying products online (home country)

The survey conducted into the online shopping habits of citizens in all the EU27 countries explored their concerns related to buying products online from sites in their home country or abroad, as well as (related) reasons for shopping or not shopping online.

The key findings are that:

- Only one in five respondents to our survey has no concerns when shopping online – although most of them buy products online. The existence or absence of concerns therefore does not as such explain the degree of engagement in e-commerce.
- Consumer concerns regarding e-commerce in their own country, as expressed in the survey, are similar to those regarding cross-border online shopping, with slight differences in priority. Delivery and concerns regarding returning a product or replacing and repairing a faulty product are the issues dominating. The greatest concern of respondents when shopping online in the home country is that returning a product they did not like and getting reimbursed is not easy. For cross-border shopping, while this concern remains very important, long delivery times are the top concern.
- For respondents who do shop online, concerns related to solving problems when things go wrong with the products they buy as well as concerns related to misuse of personal information/payment card details are nevertheless quite high on the

agenda, while for those with Internet access at home who do not shop online, such fears are among the main reasons for non-engagement.

- The difference between frequent, occasional and non-online shoppers seems to be that for frequent shoppers concerns are over-ridden by the reasons why they want to buy online, such as cost, convenience and quality; while for occasional shoppers or those who do not shop online at all, the overriding reason is that they actually like going shopping and touching before they buy, therefore the concerns become a barrier to engagement.

Consumer complaints

The key findings are that:

- Respondents purchasing online were more likely to say that they experienced a problem with a purchase in the last 12 months (24%) than those making an offline purchase in a shop or buying a product otherwise, for example by mail order (in total 20%).
- A vast majority of participants in the online survey experienced no problems while shopping online (76%) and a majority of those who had done so say that they experienced this problem in their own country (17%), compared to a smaller percentage that experienced problems when buying outside their country (7%).
- Comparison of the nature of the problems that online shoppers had actually experienced with the worries that all respondents have when it comes to buying online shows that the latter seem to be justified only to some extent, as the problems experienced and the concerns expressed do not always match. The most important concerns which are also reflected in the problems encountered by consumers relate to the delivery of the products purchased online and with returning goods. Long delivery times are the problem most mentioned by online shoppers who experienced problems while shopping online. The second most mentioned problem that online shoppers faced is delivery of damaged products.
- Concerns regarding payment card details and privacy are only to a very limited extent reflected in the actual problems experienced. 1% of those who encountered a problem online had their personal data misused and a further 1% had their payment card details stolen – or, when compared to the overall sample: in both cases the problem was reported by less than 0.2% of all consumers surveyed.

Variations of the Internet retail experiences

Both quantitative and qualitative research was carried out to assess differences in Internet retail experiences in the different Member States. In particular, and to enable deeper analysis beyond the results in the consumer survey and the broad assessments of national frameworks in the stakeholder survey, in-depth interviews with retailers and trade associations were carried out.

The key findings are that:

- With relation to numbers of consumers confident to transact online, it is clear from available Eurobarometer surveys, that a number of northern European countries perform better, in particular the UK, Germany, the Netherlands and Sweden. Countries least advanced in terms of numbers of consumers engaged in e-commerce include the southern Mediterranean countries, and some of the Eastern

European Member States, in particular Bulgaria, Greece, Italy, Portugal and Romania.

- The level of development of e-commerce in the various Member States, and the overall measurements of consumer confidence and willingness to engage seem to be related. A recent consumer empowerment survey which takes into account how confident, knowledgeable and protected by law consumers feel, shows once more that the highest scores on all three come from Northern European countries and lowest from Southern and Eastern European states.
- Other key factors that make some countries more advanced than others in the e-commerce field are more related to the overall quality of the shopping experience. These include: goods delivery, payment systems, high speed broadband penetration, retailer engagement and culture and traditions.

Do e-commerce retailers comply? How efficient is national enforcement of traders' obligation and is it accompanied by access to redress mechanisms for consumers?

Effective enforcement includes monitoring of retailer practices, advice, complaint resolution and redress, and enforcement by authorities. We asked stakeholders to assess their national framework through the stakeholder survey, and explored basic information provided on retailer websites during the mystery shopping exercise. In addition, respondents to the online survey who had a problem were asked what action they took and how satisfied they were.

The key findings are that:

- When checking retailer websites in a mystery shopping exercise conducted for this study, only three in five retailers provided a full business address, and only four in five provided information regarding the right to return goods without giving a reason. In half of the trials mystery shoppers were not able to find information explaining the customer's right to have a faulty product repaired.
- Additional data regarding (perception of) retailer compliance is provided by Eurobarometer surveys, that ask both consumers and retailers to give their views on retailer compliance with consumer legislation in their countries. Retailers overwhelmingly agree that they comply with consumer legislation (97%), but are more sceptical when asked the same question about their competitors (70% agree overall). Consumers' opinion is somewhat different too: 65% agreed with this statement overall.
- The consumer survey conducted for this study allowed a combination of questions related to types of action consumers took in case of a problem, and levels of satisfaction at the outcomes. Respondents who consulted a consumer association or a consumer help desk, or a lawyer show a quite high level of satisfaction with the results they achieved. Likewise, the respondents who filed a complaint to a government authority and those who filed a complaint with an alternative dispute resolution body were more often satisfied with the outcome they achieved than dissatisfied. Respondents who took the matter to court were least satisfied with the results.

Measures to increase consumers' confidence

Consumers responding to the online survey were given a range of options and asked how likely each option would be to increase their confidence when buying products online. They

were asked to rank each measure listed according to its likeness to increase confidence. Complementary questions were asked to stakeholder organisations across the EU.

The key findings are that:

- Consumers regard “online sellers having secure online payment systems and ensuring that my payment data is not stolen or misused” as the measure most likely of all those listed to make them feel more confident about buying online. Additionally, ensuring the same consumer rights across the EU and the protection of personal data and measures against fraudulent online sellers join the list of the top confidence-boosting measures.
- The majority of respondents to our consumer survey would be willing to solve a dispute with an online seller through an online dispute resolution body.
- Business and consumer organisations as well as authorities consider trustmarks more important than consumers themselves. In stakeholder interviews pan-European trust marks that combine with alternative dispute resolution systems were suggested as potential winners from a retailer perspective.

8.2. Recommendations

This study of the functioning of e-commerce in the retail market for consumer goods in the European Union has identified that:

- ⇒ The e-commerce of goods in the EU is not delivering its full potential in terms of consumer welfare;
- ⇒ The size of the missing potential is considerable and based on the economic analysis conducted for this study it can be concluded that establishing a Single EU consumer Market in e-commerce in goods would result in large consumer welfare gains, due to differences in prices and choice between Member States;
- ⇒ The level of development of e-commerce in the various Member States, and the overall measurements of consumer confidence and willingness to engage seem to be related. Other relevant factors relate to the quality of the shopping experience and include: goods delivery, payment systems, high speed broadband penetration, retailer engagement and culture and traditions.

In the following paragraphs we present recommendations based on our analysis and findings.

Recommendation 1: Continue to promote a Single EU consumer Market in e-commerce in goods and reduce regulatory barriers

The economic analysis conducted for this study indicates that total welfare gains for EU consumers resulting from lower online prices and increased online choice under a hypothetical situation of a 15% share of Internet retailing and a Single EU consumer Market in the e-commerce of goods amount to 204.5 billion Euro per year (equivalent to 1.7% of EU GDP). This is four times higher compared to a situation where, with a similar share of Internet retailing, the fragmented national consumer markets of the 27 Member States would continue to exist. Two-thirds of consumer welfare gains are due to increased online choice, which is considerably larger across borders. It is therefore recommended to

continue actions at EU level to address fragmentation of consumer protection rules and other regulatory barriers, as outlined in relevant European Commission documents.¹³⁴

Recommendation 2: Reduce costs and time for cross-border delivery and increase convenience and quality

Although delivery costs are not the single most important obstacle to cross-border e-commerce, they tend to reduce possible consumer welfare gains of a Single EU consumer Market. Also, long delivery times are the most important concern voiced by consumers in our survey regarding cross-border shopping. Reduced delivery costs and improved delivery convenience across borders would be a precondition to reap the benefits of a Single EU consumer Market. On the other hand, regional retailing patterns are more efficient in an environmental perspective and some modes of transport are more energy intensive than others. Delivery costs should therefore reflect distance and modes of transport rather than whether national borders are crossed or not. In the current, fragmented situation, a parcel sent by ordinary mail from one country to another may take longer and cost more compared to a situation where the same parcel is transported the same distance inside a country. Commercial carriers may be quicker but are possibly more expensive. An option for large scale cross-border operations is to transport parcels by truck across a national border and 'inject' these goods directly into the local postal system to be delivered to consumers in this country rather than using the postal system of the originating country for cross-border delivery. Because of economies of scale involved, this is, however, not an option for small online retailers to address their cross-border delivery problem.

Other aspects that could be considered by policy makers when developing or refining relevant measures concerning delivery systems include:

- Delivery (national and cross-border) is currently the largest source of problems reported by online shoppers in our survey, accounting for two-thirds of all reported problems. The top three problems are long delivery time (28% of all online shoppers that reported a problem), damaged product delivered (20%), non-delivery (17%). Although not all of these problems are under the control of delivery companies, and some carriers are more advanced than others in avoiding them, consumer experience could be improved by having improved electronic delivery tracking and better mechanisms for resolving consumer complaints, including better internal complaint handling processes within companies.
- Better and more flexible and convenient options for pick up would also improve the situation for consumers. This already occurs in some Member States such as the UK and Germany, where consumers benefit from innovations such as delivery after working hours or on weekends, or the use of pick up stations that allow consumers a convenient access to goods ordered. Greater development of these innovations across the remainder of the EU could be encouraged.
- Liberalisation of postal services is ongoing and research into the results of liberalisation from a consumer perspective is quite uneven. Research on delivery services across the EU could help to better understand the most common problems which European consumers experience.

¹³⁴ For example, Communication on Cross-Border Business to Consumer E-Commerce in the EU, COM(2009)557 final.

Recommendation 3: Focus on developing e-commerce at national level to indirectly promote cross-border transactions by consumers and retailers

This study finds more differences between the behaviour of frequent and occasional online shoppers, and greater similarities between occasional shoppers and non-online shoppers. Those consumers who shop online frequently are more confident, spend more money when they shop online in their home country, and also shop more cross-border. While they do worry about issues such as privacy, they also tend to be savvier on how to solve problems when they do occur. Therefore encouraging and developing online shopping at national level is likely to increase cross-border shopping as well.

In order to encourage the development of online shopping at the national level, those Member States where e-commerce is currently still weak could be specifically targeted. This includes large markets such as Spain and Italy that are relatively undeveloped, and other Southern and Eastern European markets. Firstly, strategies to increase broadband Internet access could be expanded. Secondly, various marketing techniques and information campaigning techniques could be used to target those consumers who already have Internet access, but are only buying online occasionally or not at all. This could include information campaigns linked to online consumer rights. This would be especially effective if timed to coincide with new legislation protecting consumers, such as when the new Consumer Rights Directive is being implemented in particular countries.

In those better developed markets which already have large shares of frequent online shoppers, improvements can also be made. These markets tend to have more highly developed logistics, and greater competition, and tend to be older Member States such as the UK, Germany and France. These countries are also likely to attract large numbers of cross-border shoppers from other Member States. Therefore in these Member States it could be beneficial to raise retailers' awareness of issues such as language, consumer legislation and potential benefits of cross-border sales.

Recommendation 4: Encourage retailers to offer goods cross-border to consumers in other Member States

Currently, retailers are sometimes not interested to offer their goods cross-border, or they may refuse to deliver cross-border due to market segmentation or geographical discrimination. Neither of these features is conducive to cross-border e-commerce. One option to address the refusal of retailers to sell cross-border is through legislation, however, in practice there will be ways that retailers can limit their accessibility to consumers from other Member States, for example by only accepting particular national payment methods or by not marketing across the border. This reinforces the need for measures to encourage retailers, particularly SMEs. At the EU level, provision of a platform for sharing of innovations, ideas, experience and best practices for retailers with regard to operating in a multi-lingual and multi-cultural environment could be beneficial. Areas for particular focus could be those that currently cause the most difficulty, such as information provision on legislative issues. Even with increased harmonisation – which could reduce relevant legal differences between Member States and make life easier for retailers and consumers – national application of EU legislation and implementation details will continue to vary to some extent between Member States.

Options to support retailers to expand operations cross-border include:

- Issuing European Commission guidelines and providing information materials (particularly for SMEs and start-ups) concerning the legal requirements retailers

have to adhere to when operating in other EU countries. This could be done through preparing and promoting regularly updated and complete checklists for each of the 27 EU Member States that would list all relevant national requirements (e.g. regarding the information items that need to be provided) for online shops.

- Alternatively, Member States could be required to provide a checklist and assistance portals (in the national language and English) to online shops located in other EU Member States that provide specific rules they must conform to when delivering/operating in their countries, encompassing consumer protection and other applicable law.
- Related options that could be considered are to produce and regularly update one set of model EU terms and conditions and a model online shop front that could be used for free by retailers and that would be based on the most stringent conditions in any of the Member States, as long as such differences continue to exist. A retailer would know that adherence to the templates is sufficient to comply with all relevant regulations in all Member States.
- Finally, it would even be possible to create a virtual marketplace for or an online community of e-commerce businesses that wish to operate across the EU, providing relevant guidance to all participating traders regarding specific cross-border challenges, including legislative requirements, logistics, fulfillment services etc.

It is recommended to discuss these and other possible options for providing incentives for online retailers to operate across borders in the ongoing dialogue with relevant stakeholder organisations at EU and national level, with results feeding into ongoing and future activities at EU level.¹³⁵

Recommendation 5: Address other obstacles for cross-border e-commerce, including payment systems

Payment systems are a key concern for consumers when shopping online, as has again been indicated by our survey. From the consumer perspective, payments systems should not only be secure, but should also be easy to use. The two demands do not always sit easily together. Payments companies have already developed new methods of verification. Payment systems can also produce a barrier to cross-border shopping since a method which is widely accepted in one Member State may not, for example, be accepted by businesses trading from other Member States. This means there is scope for greater use of intermediaries such as PayPal and iDEAL. Banks and other financial institutions could be encouraged to accept the use of these type of intermediary to facilitate cross-border shopping where the consumer would traditionally use a different type of payment method. At the European level it may be beneficial to strengthen the dialogue between banks, financial institutions, intermediaries and businesses in order to share best practices and monitor and facilitate the development of more innovative methods of payment.

Recommendation 6: Promote faster and improved complaint handling and customer service

Concerns related to solving problems when things go wrong are similar when shopping online both domestically and cross-border. Returning a product and getting reimbursed

¹³⁵ For example, information provision activities of the Enterprise Europe Network, which helps small companies seize the business opportunities in the EU Single Market.

remained one of the most important concerns in both cases. Better customer services and complaint handling procedures of retailers would be beneficial to consumers and would help to decrease consumer concerns. This means more efficient services such as being able to reach a customer services representative quickly and easily, receiving a faster answer to a query or complaint, or being informed that a returned product had been received and/or a reimbursement is going to be made. European Commission guidelines and related information materials for retailers (Recommendation 4) should therefore also highlight best practices concerning complaint handling and customer service in a multi-lingual environment.

Recommendation 7: Create effective redress mechanisms for cross-border e-commerce

When something goes wrong, effective mechanisms to obtain redress need to be available for consumers shopping cross-border. One way to do this is to develop Alternative Dispute Resolution (ADR) schemes, especially those with an online or cross-border element. A majority of respondents to our consumer survey have stated they would be willing to solve a dispute with an online seller through an online dispute resolution body.

In addition to this it is well known that ADR is currently not available or fully effective in some Member States. Consequently consumers tend to default to known brands when purchasing goods cross-border. Solutions to this situation are difficult, but measures to reinforce ADR systems are on the EU political agenda since some time, including the introduction of ODR, which is even more important for cross-border transactions. In the framework of these initiatives, more integrated consumer support systems at the national level should be considered, that also provide support in B2C cross-border disputes. The idea of a “single entry point” for consumer complaints at a national level is a possible way forward,¹³⁶ and could lead to integrating cross-border with national complaints handling, for example through better integrating the network of European Consumer Centres (ECC-Net) into the national complaint handling and consumer advice infrastructure, which would make the ECCs more accessible to consumers.

Recommendation 8: Improve the quality of information that intermediaries such as price comparison websites provide to consumers

Cooperation between policy-makers and industry players across Europe might help raise the profile of price comparison websites (PCWs) in cross-border shopping in the future. The research conducted for this study has shown that PCWs can help consumers finding cheaper offers, but also revealed shortcomings in PCW practices, including a lack of adequate information on aspects like delivery costs, delivery time, and availability of products. There is a lack of clarity and choice about default rankings; and importantly a lack of information about payments for ranking placements and listings. Because these practices may lead to consumer detriment, a recent OFT study on Advertising of Prices¹³⁷ advised that prices displayed on PCWs should be accurate and up-to-date, and it should be clear whether the price includes extra charges such as accessories or delivery. Furthermore the OFT recommended that it should be clear both on whose behalf the PCW is acting (on behalf of a trader or independently) and where a trader has paid for prominence.

To address problems identified by this study, rules for PCW practices could be developed. These could initially take the form of best practice guides or a European code of conduct

¹³⁶ European Commission. 2011. *Consultation paper on the use of Alternative Dispute Resolution as a means to resolve disputes related to commercial transactions and practices in the European Union* p. 10

¹³⁷ Office of Fair Trading. Advertising of Prices Market Study. December 2010. For more details, see Section 3.2

which could be voluntarily adhered to through self-regulation. A dialogue between interested parties at EU level could discuss approaches for improvement of standards for price comparison websites and other intermediaries that are used for product searches (such as auction websites offering new products) across the EU.

Recommendation 9: Address the challenges of mobile e-commerce

In terms of emerging issues, mobile commerce is the main area that is expected to develop significantly over the next five years. It has high potential for e-commerce trade expansion, and may make switching between different sales channels even more easy in the future. However, vulnerabilities have been identified in this sector by stakeholders such as consumer organisations and enforcement authorities. Mobile payment methods will have to prove that they are as secure as more traditional online payment methods. Mobile phones are more easily portable and therefore more easily stolen than, for example, a desktop computer, which can cause problems where consumers have saved personal information such as payment card details. Further problems have been identified with even basic consumer protection rules: for example, it can be very difficult for consumers to read terms and conditions or pre contractual information on a small mobile screen. Because of the expected increase in the use of mobile commerce in the future, it is recommended to monitor this area carefully and to identify vulnerabilities of this platform early on with industry representatives, enforcement authorities and consumer organisations.

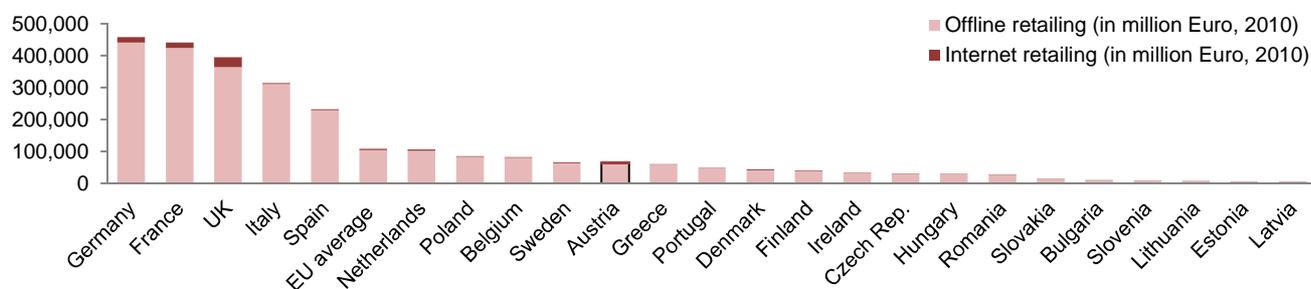
Annex 1: Country factsheets

Austria

Overview

In Austria, Internet retailing in goods amounted to 709 million Euro in 2010 (1.1% of total retailing in goods). 73% of Austrian households have Internet access at home and 64% use a broadband connection to access the Internet (compared to 70% and 61% of EU households on average, respectively). When buying online cross-border, Austrian consumers who responded to the survey tend to mainly buy products in Germany (90% of Austrian online cross-border shoppers) and to some extent in the United Kingdom (13% of online cross-border shoppers). They also tend to spend less on online purchases (793 Euro on domestic purchases and 665 Euro on cross-country purchases over the last 12 months) than the average EU online shopper (939 Euro and 693 Euro, respectively). According to the results of the consumer survey, 54% of Austrians who have internet access at home shop online at least once a month (compared to 48% of EU consumers on average).

Main indicators	Austria	EU average	Lowest EU value	Highest EU value
Internet penetration rate¹				
Households with Internet access (in % of all households)	↗ 73%	70%	33%	91%
Households with broadband access (in % of all households)	↗ 64%	61%	23%	83%
Market size of e-commerce²				
Value of total retailing in 2010 (in million Euro)	65,285	108,521	4,317	458,803
Value of internet retailing in 2010 (in million Euro)	709	3,780	15	31,412
Share of internet retailing in 2010 (in % of country retailing)	↘ 1.1%	3.5%	0.3%	7.9%



Consumer shopping behaviour (based on sample consisting of consumers with internet access at home)³				
Frequent online shoppers	↗ 54%	48%	15%	71%
Occasional online shoppers	↗ 42%	42%	25%	42%
Money spent for domestic online purchases (in Euro)	↘ 793	939	245	1,713
Money spent for cross-country online purchases (in Euro)	↘ 665	693	436	1,891
Total money spent for online purchases (in Euro)	↗ 1,305	1,163	508	2,191
Main target countries when buying products online cross-border	Germany, United Kingdom			
Price comparison website (PCW)⁴				
Consumers who used a PCW in the last 12 months (in %)	↘ 80%	81%	14%	92%
Consumers who felt they were misled when using a PCW (in %)	↘ 6%	12%	3%	21%
Prices online and offline⁵				
Number of product sub-categories cheaper online, excluding delivery costs (of a total of 15 product sub-categories)	↘ 11	13	7	15
Number of product sub-categories cheaper online, including delivery costs (of a total of 15 product sub-categories)	↘ 6	10	3	13
Consumer choice⁶				
Percentage more products online than offline available domestically (across 15 product sub-categories)	↗ 201%	125%	-19%	380%
Consumer problems while shopping online⁷				
Consumers who experienced a problem with an online purchase in their country in the last year (as % of total online shoppers)	↘ 8%	17%	1%	26%
Consumers who experienced a problem with an online purchase in another country in the last year (as % of total online shoppers)	↗ 12%	7%	1%	29%
Main problems encountered by consumers while shopping online	Damaged product delivered, long delivery time			
Awareness of consumers regarding their rights⁸				
Consumers who are aware of their right regarding the cooling-off period in distance selling (in %)	↗ 65%	62%	27%	78%

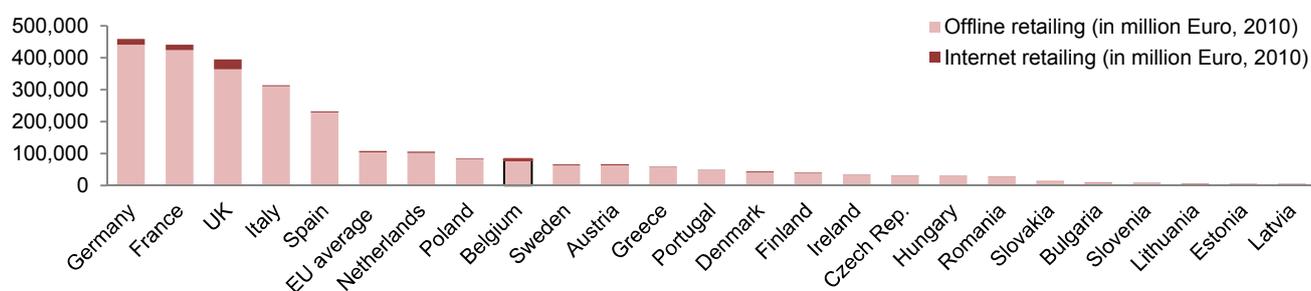
↗ value is above EU average; ↘ value is below EU average

Belgium

Overview

In Belgium, Internet retailing in goods amounted to 1,756 million Euro in 2010 (2.1% of total retailing in goods). 73% of Belgian households have Internet access at home and 70% use a broadband connection to access the Internet (compared to 70% and 61% of EU households on average, respectively). When buying online cross-border, Belgian consumers who responded to the survey tend to mainly buy products in France and the Netherlands (42% and 38% of Belgian online cross-border shoppers, respectively) and to some extent in Germany and in the United Kingdom (26% and 20% of online cross-border shoppers, respectively). They also tend to spend less on online purchases (631 Euro on domestic purchases and 540 Euro on cross-country purchases over the last 12 months) than the average EU online shopper (939 Euro and 693 Euro, respectively). According to the results of the consumer survey, 30% of Belgians who have internet access at home shop online at least once a month (compared to 48% of EU consumers on average).

Main indicators	Belgium	EU average	Lowest EU value	Highest EU value
Internet penetration rate¹				
Households with Internet access (in % of all households)	↗ 73%	70%	33%	91%
Households with broadband access (in % of all households)	↗ 70%	61%	23%	83%
Market size of e-commerce²				
Value of total retailing in 2010 (in million Euro)	81,785	108,521	4,317	458,803
Value of internet retailing in 2010 (in million Euro)	1,756	3,780	15	31,412
Share of internet retailing in 2010 (in % of country retailing)	↘ 2.1%	3.5%	0.3%	7.9%



Consumer shopping behaviour (based on sample consisting of consumers with internet access at home)³

Frequent online shoppers	↘ 30%	48%	15%	71%
Occasional online shoppers	↗ 51%	42%	25%	42%
Money spent for domestic online purchases (in Euro)	↘ 631	939	245	1,713
Money spent for cross-country online purchases (in Euro)	↘ 540	693	436	1,891
Total money spent for online purchases (in Euro)	↘ 921	1,163	508	2,191
Main target countries when buying products online cross-border	France, Netherlands, Germany, United Kingdom			

Price comparison website (PCW)⁴

Consumers who used a PCW in the last 12 months (in %)	↘ 58%	81%	14%	92%
Consumers who felt they were misled when using a PCW (in %)	↗ 12%	12%	3%	21%

Prices online and offline⁵

Number of product sub-categories cheaper online, excluding delivery costs (of a total of 15 product sub-categories)	↘ 11	13	7	15
Number of product sub-categories cheaper online, including delivery costs (of a total of 15 product sub-categories)	↘ 6	10	3	13

Consumer choice⁶

Percentage more products online than offline available domestically (across 15 product sub-categories)	↗ 190%	125%	-19%	380%
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Consumer problems while shopping online⁷

Consumers who experienced a problem with an online purchase in their country in the last year (as % of total online shoppers)	↘ 11%	17%	1%	26%
Consumers who experienced a problem with an online purchase in another country in the last year (as % of total online shoppers)	↗ 11%	7%	1%	29%
Main problems encountered by consumers while shopping online	Non-delivery, long delivery time			

Awareness of consumers regarding their rights⁸

Consumers who are aware of their right regarding the cooling-off period in distance selling (in %)	↘ 59%	62%	27%	78%
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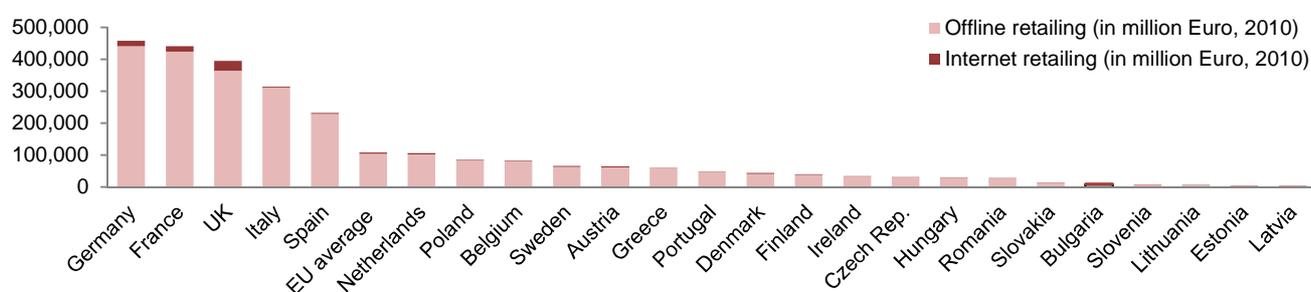
↗ value is above EU average; ↘ value is below EU average

Bulgaria

Overview

In Bulgaria, Internet retailing in goods amounted to 29 million Euro in 2010 (0.3% of total retailing in goods). 33% of Bulgarian households have Internet access at home and 26% use a broadband connection to access the Internet (compared to 70% and 61% of EU households on average, respectively). When buying online cross-border, Bulgarian consumers who responded to the survey tend to mainly buy products in the United Kingdom (41% of Bulgarian online cross-border shoppers) and to some extent in Germany and in France (19% and 15% of online cross-border shoppers, respectively). They also tend to spend less on online purchases (358 Euro on domestic purchases and 464 Euro on cross-country purchases over the last 12 months) than the average EU online shopper (939 Euro and 693 Euro, respectively). According to the results of the consumer survey, 26% of Bulgarians who have internet access at home shop online at least once a month (compared to 48% of EU consumers on average).

Main indicators	Bulgaria	EU average	Lowest EU value	Highest EU value
Internet penetration rate¹				
Households with Internet access (in % of all households)	↘ 33%	70%	33%	91%
Households with broadband access (in % of all households)	↘ 26%	61%	23%	83%
Market size of e-commerce²				
Value of total retailing in 2010 (in million Euro)	9,239	108,521	4,317	458,803
Value of internet retailing in 2010 (in million Euro)	29	3,780	15	31,412
Share of internet retailing in 2010 (in % of country retailing)	↘ 0.3%	3.5%	0.3%	7.9%



Consumer shopping behaviour (based on sample consisting of consumers with internet access at home)³

Frequent online shoppers	↘ 26%	48%	15%	71%
Occasional online shoppers	↗ 43%	42%	25%	42%
Money spent for domestic online purchases (in Euro)	↘ 358	939	245	1,713
Money spent for cross-country online purchases (in Euro)	↘ 464	693	436	1,891
Total money spent for online purchases (in Euro)	↘ 508	1,163	508	2,191
Main target countries when buying products online cross-border	United Kingdom, Germany, France			

Price comparison website (PCW)⁴

Consumers who used a PCW in the last 12 months (in %)	↘ 74%	81%	14%	92%
Consumers who felt they were misled when using a PCW (in %)	↗ 17%	12%	3%	21%

Prices online and offline⁵

Number of product sub-categories cheaper online, excluding delivery costs (of a total of 15 product sub-categories)	n.a.	13	7	15
Number of product sub-categories cheaper online, including delivery costs (of a total of 15 product sub-categories)	n.a.	10	3	13

Consumer choice⁶

Percentage more products online than offline available domestically (across 15 product sub-categories)	n.a.	125%	-19%	380%
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Consumer problems while shopping online⁷

Consumers who experienced a problem with an online purchase in their country in the last year (as % of total online shoppers)	↘ 16%	17%	1%	26%
Consumers who experienced a problem with an online purchase in another country in the last year (as % of total online shoppers)	↗ 7%	7%	1%	29%
Main problems encountered by consumers while shopping online	Product did not match description, long delivery time			

Awareness of consumers regarding their rights⁸

Consumers who are aware of their right regarding the cooling-off period in distance selling (in %)	↘ 27%	62%	27%	78%
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↗ value is above EU average; ↘ value is below EU average

Cyprus

Overview

54% of Cypriot households have Internet access at home and 51% use a broadband connection to access the Internet (compared to 70% and 61% of EU households on average, respectively). When buying online cross-border, Cypriot consumers who responded to the survey tend to mainly buy products in the United Kingdom (74% of Cypriot online cross-border shoppers) and to some extent in Greece and Germany (15% and 10% of online cross-border shoppers, respectively). They also tend to spend more on online purchases (1,713 Euro on domestic purchases and 1,891 Euro on cross-country purchases over the last 12 months) than the average EU online shopper (939 Euro and 693 Euro, respectively). According to the results of the consumer survey, 22% of Cypriots who have internet access at home shop online at least once a month (compared to 48% of EU consumers on average).

Main indicators	Cyprus	EU average	Lowest EU value	Highest EU value
Internet penetration rate¹				
Households with Internet access (in % of all households)	↘ 54%	70%	33%	91%
Households with broadband access (in % of all households)	↘ 51%	61%	23%	83%
Market size of e-commerce²				
Value of total retailing in 2010 (in million Euro)	n.a.	108,521	4,317	458,803
Value of internet retailing in 2010 (in million Euro)	n.a.	3,780	15	31,412
Share of internet retailing in 2010 (in % of country retailing)	n.a.	3.5%	0.3%	7.9%
Consumer shopping behaviour (based on sample consisting of consumers with internet access at home)³				
Frequent online shoppers	↘ 22%	48%	15%	71%
Occasional online shoppers	↘ 32%	42%	25%	42%
Money spent for domestic online purchases (in Euro)	↗ 1,713	939	245	1,713
Money spent for cross-country online purchases (in Euro)	↗ 1,891	693	436	1,891
Total money spent for online purchases (in Euro)	↗ 2,191	1,163	508	2,191
Main target countries when buying products online cross-border	United Kingdom, Germany, Greece			
Price comparison website (PCW)⁴				
Consumers who used a PCW in the last 12 months (in %)	↘ 42%	81%	14%	92%
Consumers who felt they were misled when using a PCW (in %)	↗ 16%	12%	3%	21%
Prices online and offline⁵				
Number of product sub-categories cheaper online, excluding delivery costs (of a total of 15 product sub-categories)	n.a.	13	7	15
Number of product sub-categories cheaper online, including delivery costs (of a total of 15 product sub-categories)	n.a.	10	3	13
Consumer choice⁶				
Percentage more products online than offline available domestically (across 15 product sub-categories)	n.a.	125%	-19%	380%
Consumer problems while shopping online⁷				
Consumers who experienced a problem with an online purchase in their country in the last year (as % of total online shoppers)	↘ 1%	17%	1%	26%
Consumers who experienced a problem with an online purchase in another country in the last year (as % of total online shoppers)	↗ 19%	7%	1%	29%
Main problems encountered by consumers while shopping online	Long delivery time, non-delivery			
Awareness of consumers regarding their rights⁸				
Consumers who are aware of their right regarding the cooling-off period in distance selling (in %)	↘ 38%	62%	27%	78%

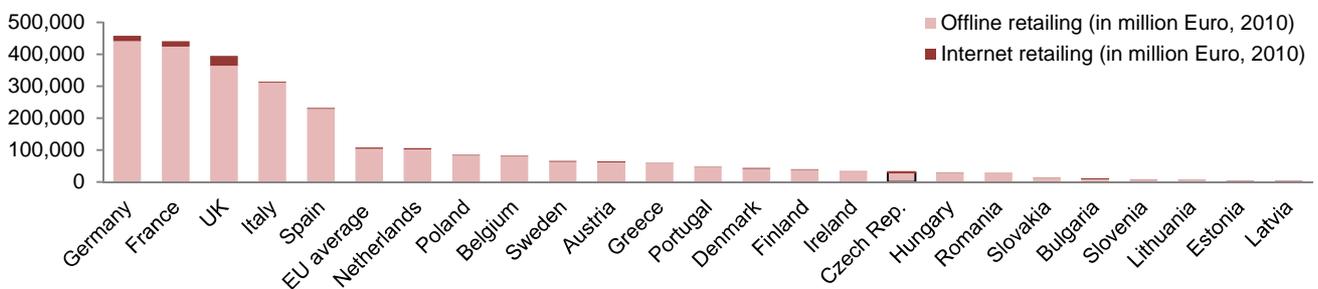
↗ value is above EU average; ↘ value is below EU average

Czech Republic

Overview

In the Czech Republic, Internet retailing in goods amounted to 1,083 million Euro in 2010 (3.4% of total retailing in goods). 61% of Czech households have Internet access at home and 54% use a broadband connection to access the Internet (compared to 70% and 61% of EU households on average, respectively). When buying online cross-border, Czech consumers who responded to the survey tend to mainly buy products in Germany, Poland and the United Kingdom (24%, 18%, and 17% of Czech online cross-border shoppers, respectively). They also tend to spend less on online purchases (831 Euro on domestic purchases and 464 Euro on cross-country purchases over the last 12 months) than the average EU online shopper (939 Euro and 693 Euro, respectively). According to the results of the consumer survey, 43% of Czechs who have internet access at home shop online at least once a month (compared to 48% of EU consumers on average).

Main indicators	Czech Republic	EU average	Lowest EU value	Highest EU value
Internet penetration rate¹				
Households with Internet access (in % of all households)	↘ 61%	70%	33%	91%
Households with broadband access (in % of all households)	↘ 54%	61%	23%	83%
Market size of e-commerce²				
Value of total retailing in 2010 (in million Euro)	31,618	108,521	4,317	458,803
Value of internet retailing in 2010 (in million Euro)	1,083	3,780	15	31,412
Share of internet retailing in 2010 (in % of country retailing)	↘ 3.4%	3.5%	0.3%	7.9%



Consumer shopping behaviour (based on sample consisting of consumers with internet access at home)³

Frequent online shoppers	↘ 43%	48%	15%	71%
Occasional online shoppers	↗ 52%	42%	25%	42%
Money spent for domestic online purchases (in Euro)	↘ 831	939	245	1,713
Money spent for cross-country online purchases (in Euro)	↘ 464	693	436	1,891
Total money spent for online purchases (in Euro)	↘ 916	1,163	508	2,191
Main target countries when buying products online cross-border	Germany, Poland, United Kingdom			

Price comparison website (PCW)⁴

Consumers who used a PCW in the last 12 months (in %)	↗ 92%	81%	14%	92%
Consumers who felt they were misled when using a PCW (in %)	↘ 9%	12%	3%	21%

Prices online and offline⁵

Number of product sub-categories cheaper online, excluding delivery costs (of a total of 15 product sub-categories)	↗ 15	13	7	15
Number of product sub-categories cheaper online, including delivery costs (of a total of 15 product sub-categories)	↗ 12	10	3	13

Consumer choice⁶

Percentage more products online than offline available domestically (across 15 product sub-categories)	↘ 60%	125%	-19%	380%
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Consumer problems while shopping online⁷

Consumers who experienced a problem with an online purchase in their country in the last year (as % of total online shoppers)	↗ 17%	17%	1%	26%
Consumers who experienced a problem with an online purchase in another country in the last year (as % of total online shoppers)	↘ 4%	7%	1%	29%
Main problems encountered by consumers while shopping online	Long delivery time, non-delivery			

Awareness of consumers regarding their rights⁸

Consumers who are aware of their right regarding the cooling-off period in distance selling (in %)	↗ 72%	62%	27%	78%
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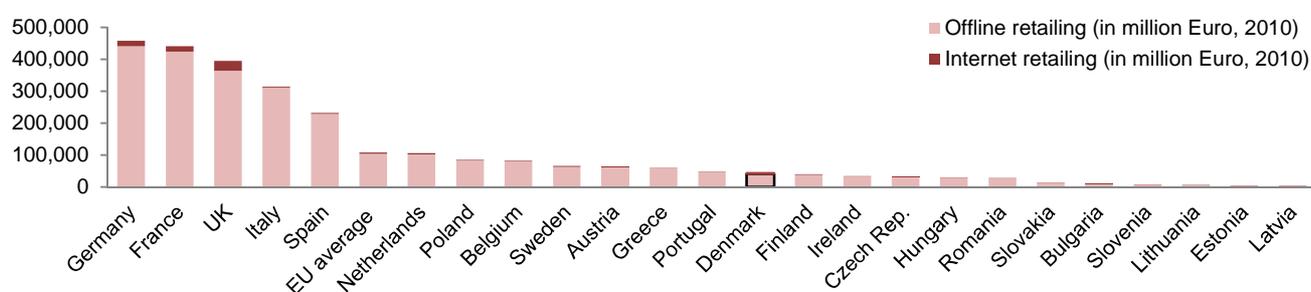
↗ value is above EU average; ↘ value is below EU average

Denmark

Overview

In Denmark, Internet retailing in goods amounted to 2,354 million Euro in 2010 (5.4% of total retailing in goods). 86% of Danish households have Internet access at home and 80% use a broadband connection to access the Internet (compared to 70% and 61% of EU households on average, respectively). When buying online cross-border, Danish consumers who responded to the survey tend to mainly buy products in the United Kingdom, Germany and Sweden (48%, 32%, and 22% of Danish online cross-border shoppers, respectively). They also tend to spend more on online purchases (1,207 Euro on domestic purchases and 840 Euro on cross-country purchases over the last 12 months) than the average EU online shopper (939 Euro and 693 Euro, respectively). According to the results of the consumer survey, 46% of Danes who have internet access at home shop online at least once a month (compared to 48% of EU consumers on average).

Main indicators	Denmark	EU average	Lowest EU value	Highest EU value
Internet penetration rate¹				
Households with Internet access (in % of all households)	↗ 86%	70%	33%	91%
Households with broadband access (in % of all households)	↗ 80%	61%	23%	83%
Market size of e-commerce²				
Value of total retailing in 2010 (in million Euro)	43,811	108,521	4,317	458,803
Value of internet retailing in 2010 (in million Euro)	2,354	3,780	15	31,412
Share of internet retailing in 2010 (in % of country retailing)	↗ 5.4%	3.5%	0.3%	7.9%



Consumer shopping behaviour (based on sample consisting of consumers with internet access at home)³

Frequent online shoppers	↘ 46%	48%	15%	71%
Occasional online shoppers	↗ 48%	42%	25%	42%
Money spent for domestic online purchases (in Euro)	↗ 1,207	939	245	1,713
Money spent for cross-country online purchases (in Euro)	↗ 840	693	436	1,891
Total money spent for online purchases (in Euro)	↗ 1,594	1,163	508	2,191
Main target countries when buying products online cross-border	United Kingdom, Germany, Sweden			

Price comparison website (PCW)⁴

Consumers who used a PCW in the last 12 months (in %)	↗ 83%	81%	14%	92%
Consumers who felt they were misled when using a PCW (in %)	↗ 13%	12%	3%	21%

Prices online and offline⁵

Number of product sub-categories cheaper online, excluding delivery costs (of a total of 15 product sub-categories)	↘ 10	13	7	15
Number of product sub-categories cheaper online, including delivery costs (of a total of 15 product sub-categories)	↘ 9	10	3	13

Consumer choice⁶

Percentage more products online than offline available domestically (across 15 product sub-categories)	↘ -19%	125%	-19%	380%
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Consumer problems while shopping online⁷

Consumers who experienced a problem with an online purchase in their country in the last year (as % of total online shoppers)	↘ 12%	17%	1%	26%
Consumers who experienced a problem with an online purchase in another country in the last year (as % of total online shoppers)	↘ 6%	7%	1%	29%
Main problems encountered by consumers while shopping online	Long delivery time, non-delivery			

Awareness of consumers regarding their rights⁸

Consumers who are aware of their right regarding the cooling-off period in distance selling (in %)	↗ 74%	62%	27%	78%
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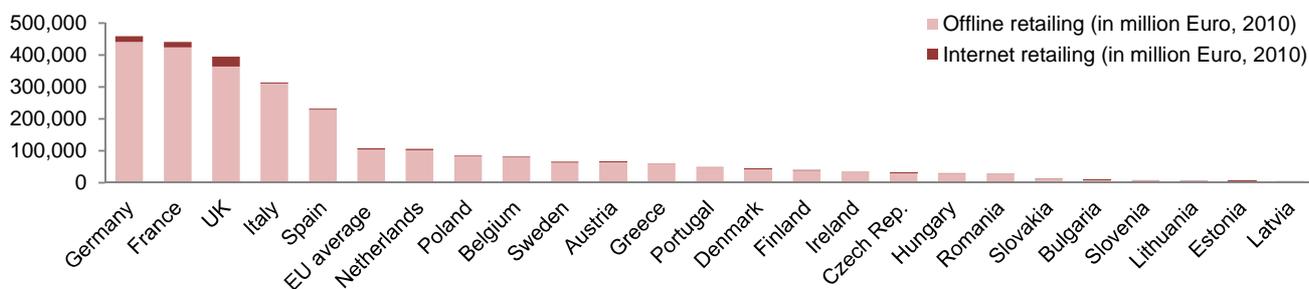
↗ value is above EU average; ↘ value is below EU average

Estonia

Overview

In Estonia, Internet retailing in goods amounted to 15 million Euro in 2010 (0.3% of total retailing in goods). 68% of Estonian households have Internet access at home and 64% use a broadband connection to access the Internet (compared to 70% and 61% of EU households on average, respectively). When buying online cross-border, Estonian consumers who responded to the survey tend to mainly buy products in the United Kingdom, Germany and Sweden (35%, 27%, and 11% of Estonian online cross-border shoppers, respectively). They also tend to spend less on online purchases (434 Euro on domestic purchases and 640 Euro on cross-country purchases over the last 12 months) than the average EU online shopper (939 Euro and 693 Euro, respectively). According to the results of the consumer survey, 15% of Estonians who have internet access at home shop online at least once a month (compared to 48% of EU consumers on average).

Main indicators	Estonia	EU average	Lowest EU value	Highest EU value
Internet penetration rate¹				
Households with Internet access (in % of all households)	↘ 68%	70%	33%	91%
Households with broadband access (in % of all households)	↗ 64%	61%	23%	83%
Market size of e-commerce²				
Value of total retailing in 2010 (in million Euro)	4,350	108,521	4,317	458,803
Value of internet retailing in 2010 (in million Euro)	15	3,780	15	31,412
Share of internet retailing in 2010 (in % of country retailing)	↘ 0.3%	3.5%	0.3%	7.9%



Consumer shopping behaviour (based on sample consisting of consumers with internet access at home)³				
Frequent online shoppers	↘ 15%	48%	15%	71%
Occasional online shoppers	↗ 54%	42%	25%	42%
Money spent for domestic online purchases (in Euro)	↘ 434	939	245	1,713
Money spent for cross-country online purchases (in Euro)	↘ 640	693	436	1,891
Total money spent for online purchases (in Euro)	↘ 578	1,163	508	2,191
Main target countries when buying products online cross-border	United Kingdom, Germany, Sweden			
Price comparison website (PCW)⁴				
Consumers who used a PCW in the last 12 months (in %)	↘ 41%	81%	14%	92%
Consumers who felt they were misled when using a PCW (in %)	↗ 16%	12%	3%	21%
Prices online and offline⁵				
Number of product sub-categories cheaper online, excluding delivery costs (of a total of 15 product sub-categories)	n.a.	13	7	15
Number of product sub-categories cheaper online, including delivery costs (of a total of 15 product sub-categories)	n.a.	10	3	13
Consumer choice⁶				
Percentage more products online than offline available domestically (across 15 product sub-categories)	n.a.	125%	-19%	380%
Consumer problems while shopping online⁷				
Consumers who experienced a problem with an online purchase in their country in the last year (as % of total online shoppers)	↘ 10%	17%	1%	26%
Consumers who experienced a problem with an online purchase in another country in the last year (as % of total online shoppers)	↗ 7%	7%	1%	29%
Main problems encountered by consumers while shopping online	Long delivery time, non-delivery			
Awareness of consumers regarding their rights⁸				
Consumers who are aware of their right regarding the cooling-off period in distance selling (in %)	↘ 54%	62%	27%	78%

↗ value is above EU average; ↘ value is below EU average

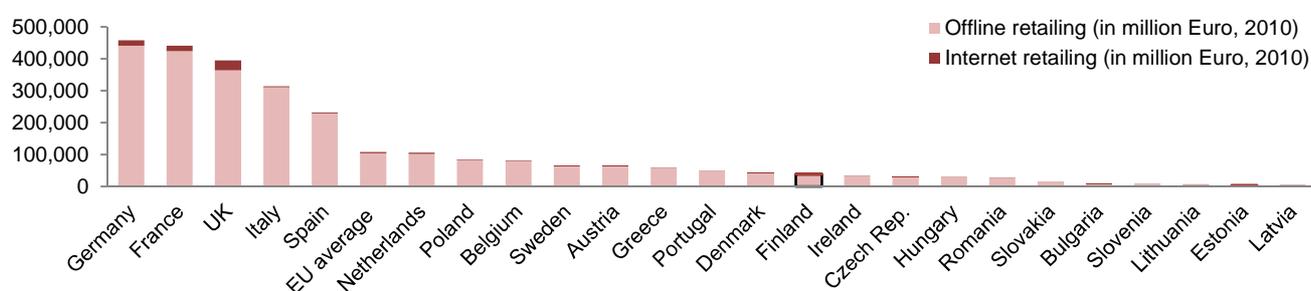
Finland

Overview

In Finland, Internet retailing in goods amounted to 1,597 million Euro in 2010 (4.0% of total retailing in goods). 81% of Finnish households have Internet access at home and 76% use a broadband connection to access the Internet (compared to 70% and 61% of EU households on average, respectively). When buying online cross-border, Finnish consumers who responded to the survey tend to mainly buy products in the United Kingdom, Germany and Finland (40%, 38%, and 22% of Finnish online cross-border shoppers, respectively). They also tend to spend less on online purchases (790 Euro on domestic purchases and 448 Euro on cross-country purchases over the last 12 months) than the average EU online shopper (939 Euro and 693 Euro, respectively). According to the results of the consumer survey, 30% of Finns who have internet access at home shop online at least once a month (compared to 48% of EU consumers on average).

Main indicators

Main indicators	Finland	EU average	Lowest EU value	Highest EU value
Internet penetration rate¹				
Households with Internet access (in % of all households)	↗ 81%	70%	33%	91%
Households with broadband access (in % of all households)	↗ 76%	61%	23%	83%
Market size of e-commerce²				
Value of total retailing in 2010 (in million Euro)	39,835	108,521	4,317	458,803
Value of internet retailing in 2010 (in million Euro)	1,597	3,780	15	31,412
Share of internet retailing in 2010 (in % of country retailing)	↗ 4.0%	3.5%	0.3%	7.9%



Consumer shopping behaviour (based on sample consisting of consumers with internet access at home)³

Frequent online shoppers	↘ 30%	48%	15%	71%
Occasional online shoppers	↗ 63%	42%	25%	42%
Money spent for domestic online purchases (in Euro)	↘ 790	939	245	1,713
Money spent for cross-country online purchases (in Euro)	↘ 448	693	436	1,891
Total money spent for online purchases (in Euro)	↘ 991	1,163	508	2,191
Main target countries when buying products online cross-border	United Kingdom, Germany, Sweden			

Price comparison website (PCW)⁴

Consumers who used a PCW in the last 12 months (in %)	↗ 82%	81%	14%	92%
Consumers who felt they were misled when using a PCW (in %)	↗ 12%	12%	3%	21%

Prices online and offline⁵

Number of product sub-categories cheaper online, excluding delivery costs (of a total of 15 product sub-categories)	n.a.	13	7	15
Number of product sub-categories cheaper online, including delivery costs (of a total of 15 product sub-categories)	n.a.	10	3	13

Consumer choice⁶

Percentage more products online than offline available domestically (across 15 product sub-categories)	n.a.	125%	-19%	380%
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Consumer problems while shopping online⁷

Consumers who experienced a problem with an online purchase in their country in the last year (as % of total online shoppers)	↘ 11%	17%	1%	26%
Consumers who experienced a problem with an online purchase in another country in the last year (as % of total online shoppers)	↗ 10%	7%	1%	29%
Main problems encountered by consumers while shopping online	Long delivery time, non-delivery			

Awareness of consumers regarding their rights⁸

Consumers who are aware of their right regarding the cooling-off period in distance selling (in %)	↗ 75%	62%	27%	78%
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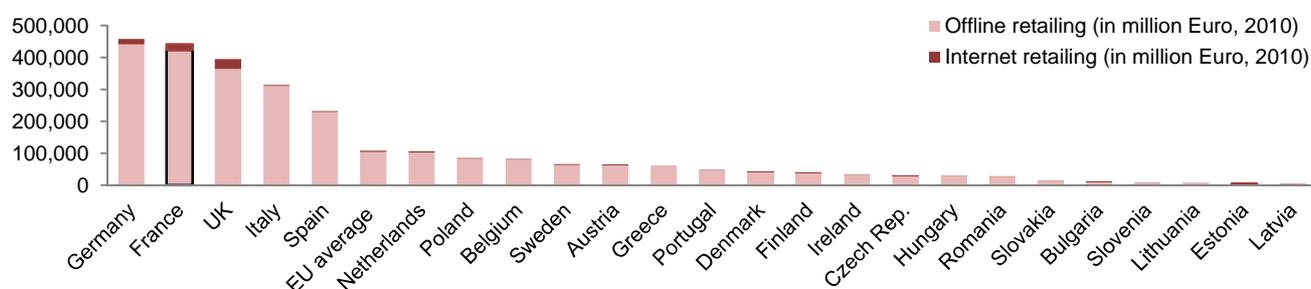
↗ value is above EU average; ↘ value is below EU average

France

Overview

In France, Internet retailing in goods amounted to 17,325 million Euro in 2010 (3.9% of total retailing in goods). 74% of French households have Internet access at home and 67% use a broadband connection to access the Internet (compared to 70% and 61% of EU households on average, respectively). When buying online cross-border, French consumers who responded to the survey tend to mainly buy products in Germany and in the United Kingdom (41% and 29% of online French cross-border shoppers, respectively) and to some extent in Belgium (15% of online cross-border shoppers). They tend to spend more on domestic online purchases (987 Euro over the last 12 months) but less on cross-border purchases (459 Euro) than the average EU online shopper (939 Euro and 693 Euro, respectively). According to the results of the consumer survey, 53% of French who have internet access at home shop online at least once a month (compared to 48% of EU consumers on average).

Main indicators	France	EU average	Lowest EU value	Highest EU value
Internet penetration rate¹				
Households with Internet access (in % of all households)	↗ 74%	70%	33%	91%
Households with broadband access (in % of all households)	↗ 67%	61%	23%	83%
Market size of e-commerce²				
Value of total retailing in 2010 (in million Euro)	441,608	108,521	4,317	458,803
Value of internet retailing in 2010 (in million Euro)	17,325	3,780	15	31,412
Share of internet retailing in 2010 (in % of country retailing)	↗ 3.9%	3.5%	0.3%	7.9%



Consumer shopping behaviour (based on sample consisting of consumers with internet access at home)³

Frequent online shoppers	↗ 53%	48%	15%	71%
Occasional online shoppers	↘ 40%	42%	25%	42%
Money spent for domestic online purchases (in Euro)	↗ 987	939	245	1,713
Money spent for cross-country online purchases (in Euro)	↘ 459	693	436	1,891
Total money spent for online purchases (in Euro)	↘ 1,136	1,163	508	2,191
Main target countries when buying products online cross-border	United Kingdom, Germany, Belgium			

Price comparison website (PCW)⁴

Consumers who used a PCW in the last 12 months (in %)	↗ 81%	81%	14%	92%
Consumers who felt they were misled when using a PCW (in %)	↗ 13%	12%	3%	21%

Prices online and offline⁵

Number of product sub-categories cheaper online, excluding delivery costs (of a total of 15 product sub-categories)	↘ 12	13	7	15
Number of product sub-categories cheaper online, including delivery costs (of a total of 15 product sub-categories)	↘ 9	10	3	13

Consumer choice⁶

Percentage more products online than offline available domestically (across 15 product sub-categories)	↗ 335%	125%	-19%	380%
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Consumer problems while shopping online⁷

Consumers who experienced a problem with an online purchase in their country in the last year (as % of total online shoppers)	↗ 17%	17%	1%	26%
Consumers who experienced a problem with an online purchase in another country in the last year (as % of total online shoppers)	↘ 6%	7%	1%	29%
Main problems encountered by consumers while shopping online	Long delivery time, non-delivery			

Awareness of consumers regarding their rights⁸

Consumers who are aware of their right regarding the cooling-off period in distance selling (in %)	↗ 65%	62%	27%	78%
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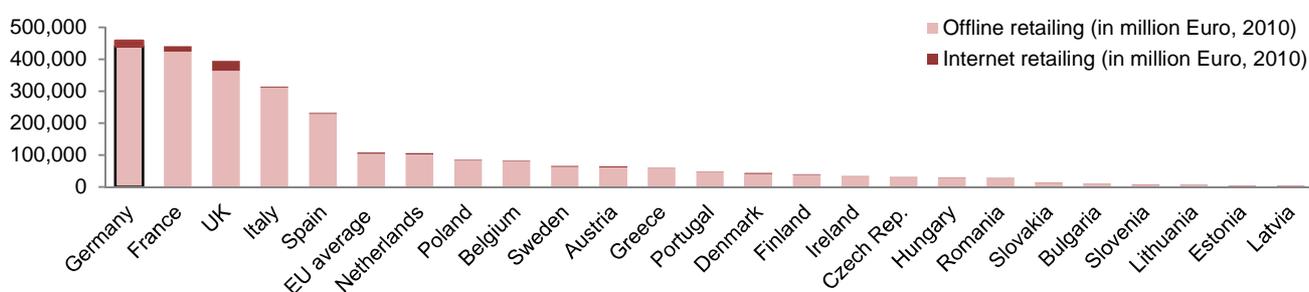
↗ value is above EU average; ↘ value is below EU average

Germany

Overview

In Germany, Internet retailing in goods amounted to 17,775 million Euro in 2010 (3.9% of total retailing in goods). 82% of German households have Internet access at home and 75% use a broadband connection to access the Internet (compared to 70% and 61% of EU households on average, respectively). When buying online cross-border, German consumers who responded to the survey tend to mainly buy products in Austria (31% of German online cross-border shoppers) and to some extent in the United Kingdom and the Netherlands (20% and 11% of online cross-border shoppers, respectively). They tend to spend more on domestic online purchases (1,126 Euro over the last 12 months) but less on cross-border purchases (625 Euro) than the average EU online shopper (939 Euro and 693 Euro, respectively). According to the results of the consumer survey, 62% of Germans who have internet access at home shop online at least once a month (compared to 48% of EU consumers on average).

Main indicators	Germany	EU average	Lowest EU value	Highest EU value
Internet penetration rate¹				
Households with Internet access (in % of all households)	↗ 82%	70%	33%	91%
Households with broadband access (in % of all households)	↗ 75%	61%	23%	83%
Market size of e-commerce²				
Value of total retailing in 2010 (in million Euro)	458,803	108,521	4,317	458,803
Value of internet retailing in 2010 (in million Euro)	17,775	3,780	15	31,412
Share of internet retailing in 2010 (in % of country retailing)	↗ 3.9%	3.5%	0.3%	7.9%



Consumer shopping behaviour (based on sample consisting of consumers with internet access at home)³

Frequent online shoppers	↗ 62%	48%	15%	71%
Occasional online shoppers	↘ 36%	42%	25%	42%
Money spent for domestic online purchases (in Euro)	↗ 1,126	939	245	1,713
Money spent for cross-country online purchases (in Euro)	↘ 625	693	436	1,891
Total money spent for online purchases (in Euro)	↗ 1,295	1,163	508	2,191
Main target countries when buying products online cross-border	Austria, United Kingdom, Netherlands			

Price comparison website (PCW)⁴

Consumers who used a PCW in the last 12 months (in %)	↗ 85%	81%	14%	92%
Consumers who felt they were misled when using a PCW (in %)	↘ 7%	12%	3%	21%

Prices online and offline⁵

Number of product sub-categories cheaper online, excluding delivery costs (of a total of 15 product sub-categories)	↘ 11	13	7	15
Number of product sub-categories cheaper online, including delivery costs (of a total of 15 product sub-categories)	↗ 10	10	3	13

Consumer choice⁶

Percentage more products online than offline available domestically (across 15 product sub-categories)	↗ 138%	125%	-19%	380%
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Consumer problems while shopping online⁷

Consumers who experienced a problem with an online purchase in their country in the last year (as % of total online shoppers)	↘ 16%	17%	1%	26%
Consumers who experienced a problem with an online purchase in another country in the last year (as % of total online shoppers)	↗ 7%	7%	1%	29%
Main problems encountered by consumers while shopping online	Damaged product delivered, long delivery time			

Awareness of consumers regarding their rights⁸

Consumers who are aware of their right regarding the cooling-off period in distance selling (in %)	↗ 78%	62%	27%	78%
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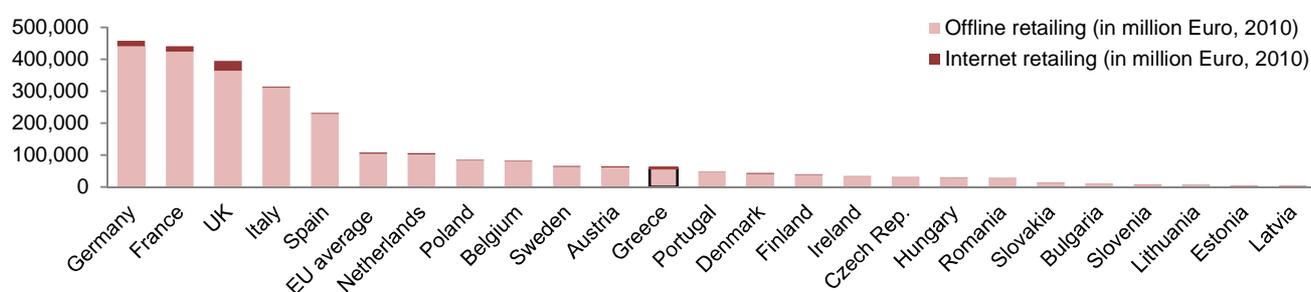
↗ value is above EU average; ↘ value is below EU average

Greece

Overview

In Greece, Internet retailing in goods amounted to 442 million Euro in 2010 (0.7% of total retailing in goods). 46% of Greek households have Internet access at home and 41% use a broadband connection to access the Internet (compared to 70% and 61% of EU households on average, respectively). When buying online cross-border, Greek consumers who responded to the survey tend to mainly buy products in the UK (49% of Greek online cross-border shoppers) and to some extent in Germany and France (27% and 10% of online cross-border shoppers, respectively). They also tend to spend less on online purchases (1,007 Euro on domestic purchases and 728 Euro on cross-country purchases over the last 12 months) than the average EU online shopper (939 Euro and 693 Euro, respectively). According to the results of the consumer survey, 42% of Greeks who have internet access at home shop online at least once a month (compared to 48% of EU consumers on average).

Main indicators	Greece	EU average	Lowest EU value	Highest EU value
Internet penetration rate¹				
Households with Internet access (in % of all households)	↘ 46%	70%	33%	91%
Households with broadband access (in % of all households)	↘ 41%	61%	23%	83%
Market size of e-commerce²				
Value of total retailing in 2010 (in million Euro)	59,254	108,521	4,317	458,803
Value of internet retailing in 2010 (in million Euro)	442	3,780	15	31,412
Share of internet retailing in 2010 (in % of country retailing)	↘ 0.7%	3.5%	0.3%	7.9%



Consumer shopping behaviour (based on sample consisting of consumers with internet access at home)³

Frequent online shoppers	↘ 42%	48%	15%	71%
Occasional online shoppers	↗ 49%	42%	25%	42%
Money spent for domestic online purchases (in Euro)	↗ 1,007	939	245	1,713
Money spent for cross-country online purchases (in Euro)	↗ 728	693	436	1,891
Total money spent for online purchases (in Euro)	↗ 1,326	1,163	508	2,191
Main target countries when buying products online cross-border	United Kingdom, Germany, France			

Price comparison website (PCW)⁴

Consumers who used a PCW in the last 12 months (in %)	↗ 87%	81%	14%	92%
Consumers who felt they were misled when using a PCW (in %)	↘ 10%	12%	3%	21%

Prices online and offline⁵

Number of product sub-categories cheaper online, excluding delivery costs (of a total of 15 product sub-categories)	↘ 10	13	7	15
Number of product sub-categories cheaper online, including delivery costs (of a total of 15 product sub-categories)	↘ 8	10	3	13

Consumer choice⁶

Percentage more products online than offline available domestically (across 15 product sub-categories)	↘ -3%	125%	-19%	380%
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Consumer problems while shopping online⁷

Consumers who experienced a problem with an online purchase in their country in the last year (as % of total online shoppers)	↘ 13%	17%	1%	26%
Consumers who experienced a problem with an online purchase in another country in the last year (as % of total online shoppers)	↗ 12%	7%	1%	29%
Main problems encountered by consumers while shopping online	Long delivery time, wrong product delivered			

Awareness of consumers regarding their rights⁸

Consumers who are aware of their right regarding the cooling-off period in distance selling (in %)	↘ 32%	62%	27%	78%
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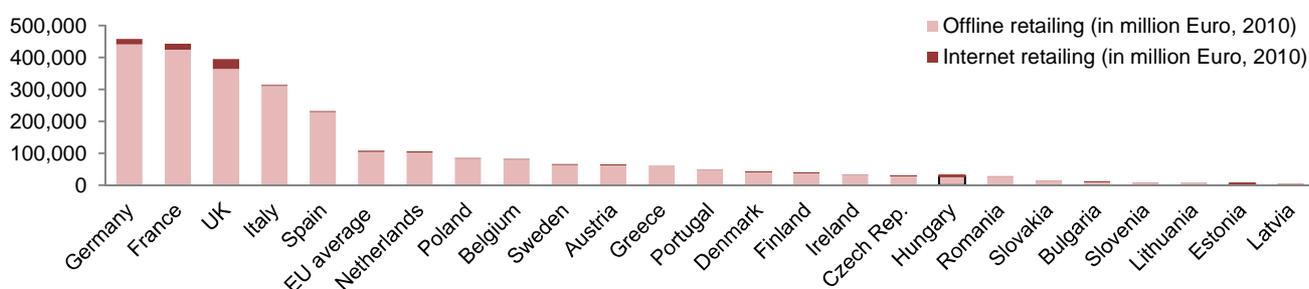
↗ value is above EU average; ↘ value is below EU average

Hungary

Overview

In Hungary, Internet retailing in goods amounted to 340 million Euro in 2010 (1.1% of total retailing in goods). 60% of Hungarian households have Internet access at home and 52% use a broadband connection to access the Internet (compared to 70% and 61% of EU households on average, respectively). When buying online cross-border, Hungarian consumers who responded to the survey tend to mainly buy products in the United Kingdom and Germany (27% and 26% of online Hungarian cross-border shoppers, respectively) and to some extent in Austria (10% of online cross-border shoppers). They also tend to spend less on online purchases (514 Euro on domestic purchases and 436 Euro on cross-country purchases over the last 12 months) than the average EU online shopper (939 Euro and 693 Euro, respectively). According to the results of the consumer survey, 15% of Hungarians who have internet access at home shop online at least once a month (compared to 48% of EU consumers on average).

Main indicators	Hungary	EU average	Lowest EU value	Highest EU value
Internet penetration rate¹				
Households with Internet access (in % of all households)	📉 60%	70%	33%	91%
Households with broadband access (in % of all households)	📉 52%	61%	23%	83%
Market size of e-commerce²				
Value of total retailing in 2010 (in million Euro)	29,825	108,521	4,317	458,803
Value of internet retailing in 2010 (in million Euro)	340	3,780	15	31,412
Share of internet retailing in 2010 (in % of country retailing)	📉 1.1%	3.5%	0.3%	7.9%



Consumer shopping behaviour (based on sample consisting of consumers with internet access at home)³

Frequent online shoppers	📉 15%	48%	15%	71%
Occasional online shoppers	📈 51%	42%	25%	42%
Money spent for domestic online purchases (in Euro)	📉 514	939	245	1,713
Money spent for cross-country online purchases (in Euro)	📉 436	693	436	1,891
Total money spent for online purchases (in Euro)	📉 573	1,163	508	2,191
Main target countries when buying products online cross-border	United Kingdom, Germany, Austria			

Price comparison website (PCW)⁴

Consumers who used a PCW in the last 12 months (in %)	📉 68%	81%	14%	92%
Consumers who felt they were misled when using a PCW (in %)	📉 10%	12%	3%	21%

Prices online and offline⁵

Number of product sub-categories cheaper online, excluding delivery costs (of a total of 15 product sub-categories)	📉 9	13	7	15
Number of product sub-categories cheaper online, including delivery costs (of a total of 15 product sub-categories)	📉 8	10	3	13

Consumer choice⁶

Percentage more products online than offline available domestically (across 15 product sub-categories)	📈 210%	125%	-19%	380%
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Consumer problems while shopping online⁷

Consumers who experienced a problem with an online purchase in their country in the last year (as % of total online shoppers)	📉 12%	17%	1%	26%
Consumers who experienced a problem with an online purchase in another country in the last year (as % of total online shoppers)	📉 3%	7%	1%	29%
Main problems encountered by consumers while shopping online	Product did not match description, wrong product delivered			

Awareness of consumers regarding their rights⁸

Consumers who are aware of their right regarding the cooling-off period in distance selling (in %)	📉 49%	62%	27%	78%
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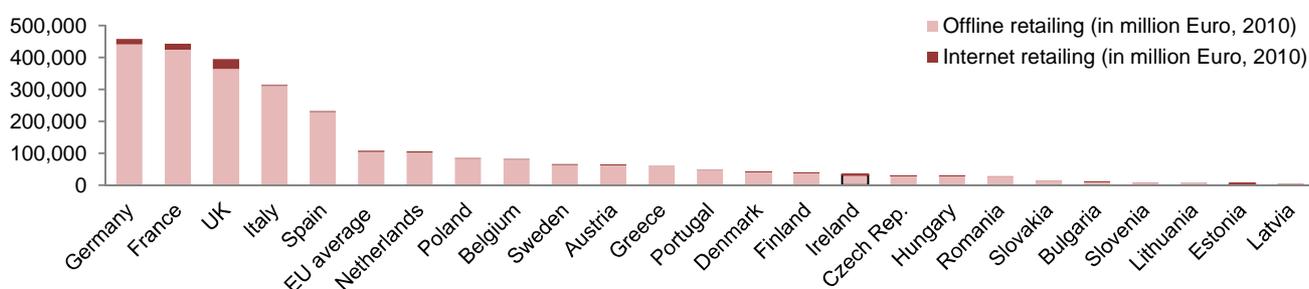
📈 value is above EU average; 📉 value is below EU average

Ireland

Overview

In Ireland, Internet retailing in goods amounted to 523 million Euro in 2010 (1.6% of total retailing in goods). 72% of Irish households have Internet access at home and 58% use a broadband connection to access the Internet (compared to 70% and 61% of EU households on average, respectively). When buying online cross-border, Irish consumers who responded to the survey tend to mainly buy products in the United Kingdom (74% of online Irish cross-border shoppers, respectively) and to some extent in Germany (15% of online cross-border shoppers). They tend to spend less on domestic online purchases (765 Euro over the last 12 months) but more on cross-border purchases (719 Euro) than the average EU online shopper (939 Euro and 693 Euro, respectively). According to the results of the consumer survey, 45% of Irish who have internet access at home shop online at least once a month (compared to 48% of EU consumers on average).

Main indicators	Ireland	EU average	Lowest EU value	Highest EU value
Internet penetration rate¹				
Households with Internet access (in % of all households)	↗ 72%	70%	33%	91%
Households with broadband access (in % of all households)	↘ 58%	61%	23%	83%
Market size of e-commerce²				
Value of total retailing in 2010 (in million Euro)	33,535	108,521	4,317	458,803
Value of internet retailing in 2010 (in million Euro)	523	3,780	15	31,412
Share of internet retailing in 2010 (in % of country retailing)	↘ 1.6%	3.5%	0.3%	7.9%



Consumer shopping behaviour (based on sample consisting of consumers with internet access at home)³

Frequent online shoppers	↘ 45%	48%	15%	71%
Occasional online shoppers	↗ 43%	42%	25%	42%
Money spent for domestic online purchases (in Euro)	↘ 765	939	245	1,713
Money spent for cross-country online purchases (in Euro)	↗ 719	693	436	1,891
Total money spent for online purchases (in Euro)	↗ 1,256	1,163	508	2,191
Main target countries when buying products online cross-border	United Kingdom, Germany			

Price comparison website (PCW)⁴

Consumers who used a PCW in the last 12 months (in %)	↘ 57%	81%	14%	92%
Consumers who felt they were misled when using a PCW (in %)	↗ 19%	12%	3%	21%

Prices online and offline⁵

Number of product sub-categories cheaper online, excluding delivery costs (of a total of 15 product sub-categories)	n.a.	13	7	15
Number of product sub-categories cheaper online, including delivery costs (of a total of 15 product sub-categories)	n.a.	10	3	13

Consumer choice⁶

Percentage more products online than offline available domestically (across 15 product sub-categories)	n.a.	125%	-19%	380%
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Consumer problems while shopping online⁷

Consumers who experienced a problem with an online purchase in their country in the last year (as % of total online shoppers)	↘ 10%	17%	1%	26%
Consumers who experienced a problem with an online purchase in another country in the last year (as % of total online shoppers)	↗ 22%	7%	1%	29%
Main problems encountered by consumers while shopping online	Long delivery time, non-delivery			

Awareness of consumers regarding their rights⁸

Consumers who are aware of their right regarding the cooling-off period in distance selling (in %)	↗ 63%	62%	27%	78%
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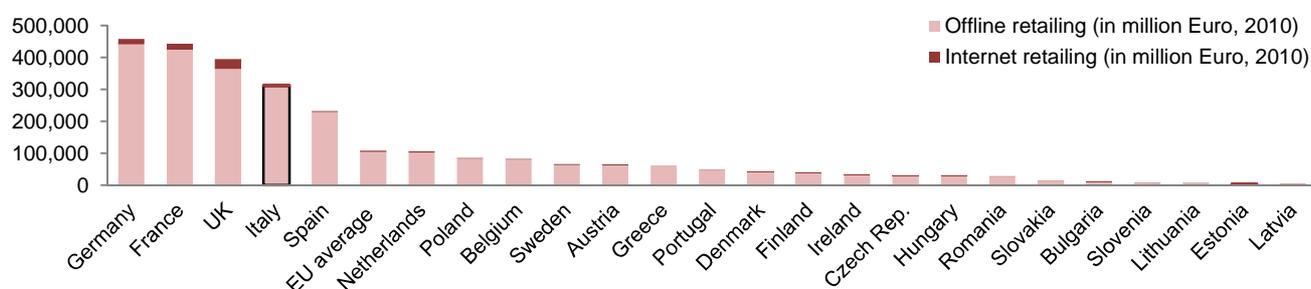
↗ value is above EU average; ↘ value is below EU average

Italy

Overview

In Italy, Internet retailing in goods amounted to 3,019 million Euro in 2010 (1.0% of total retailing in goods). 59% of Italian households have Internet access at home and 49% use a broadband connection to access the Internet (compared to 70% and 61% of EU households on average, respectively). When buying online cross-border, Italian consumers who responded to the survey tend to mainly buy products in Germany, the United Kingdom and France (36%, 29%, and 26% of online Italian cross-border shoppers, respectively). They also tend to spend more on online purchases (990 Euro on domestic purchases and 962 Euro on cross-country purchases over the last 12 months) than the average EU online shopper (939 Euro and 693 Euro, respectively). According to the results of the consumer survey, 43% of Italians who have internet access at home shop online at least once a month (compared to 48% of EU consumers on average).

Main indicators	Italy	EU average	Lowest EU value	Highest EU value
Internet penetration rate¹				
Households with Internet access (in % of all households)	↘ 59%	70%	33%	91%
Households with broadband access (in % of all households)	↘ 49%	61%	23%	83%
Market size of e-commerce²				
Value of total retailing in 2010 (in million Euro)	314,371	108,521	4,317	458,803
Value of internet retailing in 2010 (in million Euro)	3,019	3,780	15	31,412
Share of internet retailing in 2010 (in % of country retailing)	↘ 1.0%	3.5%	0.3%	7.9%



Consumer shopping behaviour (based on sample consisting of consumers with internet access at home)³

Frequent online shoppers	↘ 43%	48%	15%	71%
Occasional online shoppers	↘ 41%	42%	25%	42%
Money spent for domestic online purchases (in Euro)	↗ 990	939	245	1,713
Money spent for cross-country online purchases (in Euro)	↗ 962	693	436	1,891
Total money spent for online purchases (in Euro)	↗ 1,397	1,163	508	2,191
Main target countries when buying products online cross-border	Germany, United Kingdom, France			

Price comparison website (PCW)⁴

Consumers who used a PCW in the last 12 months (in %)	↗ 91%	81%	14%	92%
Consumers who felt they were misled when using a PCW (in %)	↗ 14%	12%	3%	21%

Prices online and offline⁵

Number of product sub-categories cheaper online, excluding delivery costs (of a total of 15 product sub-categories)	↘ 11	13	7	15
Number of product sub-categories cheaper online, including delivery costs (of a total of 15 product sub-categories)	↘ 8	10	3	13

Consumer choice⁶

Percentage more products online than offline available domestically (across 15 product sub-categories)	↗ 178%	125%	-19%	380%
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Consumer problems while shopping online⁷

Consumers who experienced a problem with an online purchase in their country in the last year (as % of total online shoppers)	↗ 22%	17%	1%	26%
Consumers who experienced a problem with an online purchase in another country in the last year (as % of total online shoppers)	↗ 11%	7%	1%	29%
Main problems encountered by consumers while shopping online	Long delivery time, product did not match description			

Awareness of consumers regarding their rights⁸

Consumers who are aware of their right regarding the cooling-off period in distance selling (in %)	↘ 50%	62%	27%	78%
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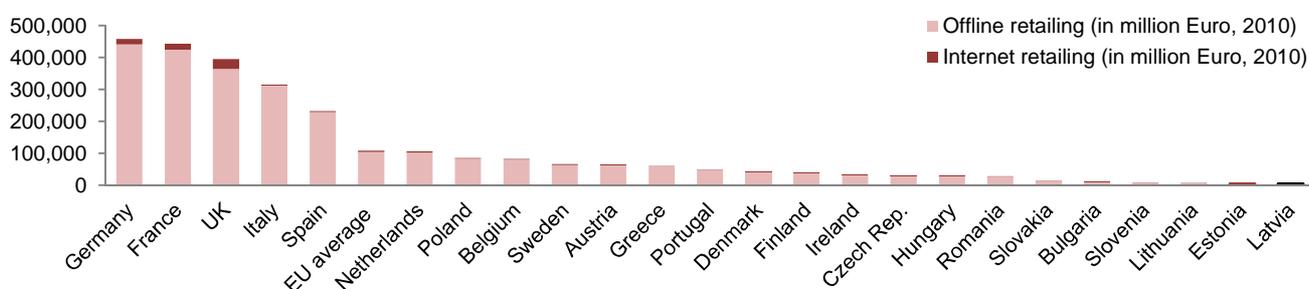
↗ value is above EU average; ↘ value is below EU average

Latvia

Overview

In Latvia, Internet retailing in goods amounted to 34 million Euro in 2010 (0.8% of total retailing in goods). 60% of Latvian households have Internet access at home and 53% use a broadband connection to access the Internet (compared to 70% and 61% of EU households on average, respectively). When buying online cross-border, Latvian consumers who responded to the survey tend to mainly buy products in the United Kingdom and Germany (33% and 23% of online Latvian cross-border shoppers, respectively). They also tend to spend less on online purchases (458 Euro on domestic purchases and 586 Euro on cross-country purchases over the last 12 months) than the average EU online shopper (939 Euro and 693 Euro, respectively). According to the results of the consumer survey, 20% of Latvians who have internet access at home shop online at least once a month (compared to 48% of EU consumers on average).

Main indicators	Latvia	EU average	Lowest EU value	Highest EU value
Internet penetration rate¹				
Households with Internet access (in % of all households)	↘ 60%	70%	33%	91%
Households with broadband access (in % of all households)	↘ 53%	61%	23%	83%
Market size of e-commerce²				
Value of total retailing in 2010 (in million Euro)	4,317	108,521	4,317	458,803
Value of internet retailing in 2010 (in million Euro)	34	3,780	15	31,412
Share of internet retailing in 2010 (in % of country retailing)	↘ 0.8%	3.5%	0.3%	7.9%



Consumer shopping behaviour (based on sample consisting of consumers with internet access at home)³

Frequent online shoppers	↘ 20%	48%	15%	71%
Occasional online shoppers	↗ 51%	42%	25%	42%
Money spent for domestic online purchases (in Euro)	↘ 458	939	245	1,713
Money spent for cross-country online purchases (in Euro)	↘ 586	693	436	1,891
Total money spent for online purchases (in Euro)	↘ 658	1,163	508	2,191
Main target countries when buying products online cross-border	United Kingdom, Germany			

Price comparison website (PCW)⁴

Consumers who used a PCW in the last 12 months (in %)	↘ 79%	81%	14%	92%
Consumers who felt they were misled when using a PCW (in %)	↗ 17%	12%	3%	21%

Prices online and offline⁵

Number of product sub-categories cheaper online, excluding delivery costs (of a total of 15 product sub-categories)	n.a.	13	7	15
Number of product sub-categories cheaper online, including delivery costs (of a total of 15 product sub-categories)	n.a.	10	3	13

Consumer choice⁶

Percentage more products online than offline available domestically (across 15 product sub-categories)	n.a.	125%	-19%	380%
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Consumer problems while shopping online⁷

Consumers who experienced a problem with an online purchase in their country in the last year (as % of total online shoppers)	↘ 11%	17%	1%	26%
Consumers who experienced a problem with an online purchase in another country in the last year (as % of total online shoppers)	↗ 11%	7%	1%	29%
Main problems encountered by consumers while shopping online	Long delivery time, damaged product delivered			

Awareness of consumers regarding their rights⁸

Consumers who are aware of their right regarding the cooling-off period in distance selling (in %)	↗ 65%	62%	27%	78%
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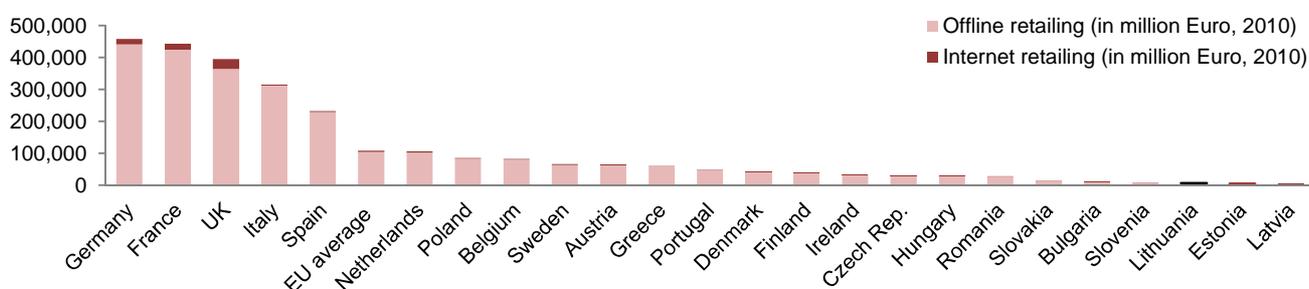
↗ value is above EU average; ↘ value is below EU average

Lithuania

Overview

In Lithuania, Internet retailing in goods amounted to 64 million Euro in 2010 (1.1% of total retailing in goods). 61% of Lithuanian households have Internet access at home and 54% use a broadband connection to access the Internet (compared to 70% and 61% of EU households on average, respectively). When buying online cross-border, Lithuanian consumers who responded to the survey tend to mainly buy products in the United Kingdom and Germany (39% and 17% of online Lithuanian cross-border shoppers, respectively). They tend to spend less on domestic online purchases (631 Euro over the last 12 months) but more on cross-border purchases (1,018 Euro) than the average EU online shopper (939 Euro and 693 Euro, respectively). According to the results of the consumer survey, 21% of Lithuanians who have internet access at home shop online at least once a month (compared to 48% of EU consumers on average).

Main indicators	Lithuania	EU average	Lowest EU value	Highest EU value
Internet penetration rate¹				
Households with Internet access (in % of all households)	↘ 61%	70%	33%	91%
Households with broadband access (in % of all households)	↘ 54%	61%	23%	83%
Market size of e-commerce²				
Value of total retailing in 2010 (in million Euro)	5,903	108,521	4,317	458,803
Value of internet retailing in 2010 (in million Euro)	64	3,780	15	31,412
Share of internet retailing in 2010 (in % of country retailing)	↘ 1.1%	3.5%	0.3%	7.9%



Consumer shopping behaviour (based on sample consisting of consumers with internet access at home)³

Frequent online shoppers	↘ 21%	48%	15%	71%
Occasional online shoppers	↗ 52%	42%	25%	42%
Money spent for domestic online purchases (in Euro)	↘ 631	939	245	1,713
Money spent for cross-country online purchases (in Euro)	↗ 1018	693	436	1,891
Total money spent for online purchases (in Euro)	↘ 934	1,163	508	2,191
Main target countries when buying products online cross-border	United Kingdom, Germany			

Price comparison website (PCW)⁴

Consumers who used a PCW in the last 12 months (in %)	↘ 51%	81%	14%	92%
Consumers who felt they were misled when using a PCW (in %)	↗ 17%	12%	3%	21%

Prices online and offline⁵

Number of product sub-categories cheaper online, excluding delivery costs (of a total of 15 product sub-categories)	n.a.	13	7	15
Number of product sub-categories cheaper online, including delivery costs (of a total of 15 product sub-categories)	n.a.	10	3	13

Consumer choice⁶

Percentage more products online than offline available domestically (across 15 product sub-categories)	n.a.	125%	-19%	380%
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Consumer problems while shopping online⁷

Consumers who experienced a problem with an online purchase in their country in the last year (as % of total online shoppers)	↘ 12%	17%	1%	26%
Consumers who experienced a problem with an online purchase in another country in the last year (as % of total online shoppers)	↗ 13%	7%	1%	29%
Main problems encountered by consumers while shopping online	Long delivery time, product did not match description			

Awareness of consumers regarding their rights⁸

Consumers who are aware of their right regarding the cooling-off period in distance selling (in %)	↘ 60%	62%	27%	78%
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↗ value is above EU average; ↘ value is below EU average

Luxembourg

Overview

90% of Luxembourgish households have Internet access at home and 70% use a broadband connection to access the Internet (compared to 70% and 61% of EU households on average, respectively). When buying online cross-border, Luxembourgish consumers who responded to the survey tend to mainly buy products in Germany (78% of online Luxembourgish cross-border shoppers). They tend to spend less on domestic online purchases (245 Euro over the last 12 months) but more on cross-border purchases (809 Euro) than the average EU online shopper (939 Euro and 693 Euro, respectively). According to the results of the consumer survey, 40% of Luxembourgish consumers who have internet access at home shop online at least once a month (compared to 48% of EU consumers on average).

Main indicators		Luxembourg	EU average	Lowest EU value	Highest EU value
Internet penetration rate¹					
Households with Internet access (in % of all households)	↗	90%	70%	33%	91%
Households with broadband access (in % of all households)	↗	70%	61%	23%	83%
Market size of e-commerce²					
Value of total retailing in 2010 (in million Euro)		n.a.	108,521	4,317	458,803
Value of internet retailing in 2010 (in million Euro)		n.a.	3,780	15	31,412
Share of internet retailing in 2010 (in % of country retailing)		n.a.	3.5%	0.3%	7.9%
Consumer shopping behaviour (based on sample consisting of consumers with internet access at home)³					
Frequent online shoppers	↘	40%	48%	15%	71%
Occasional online shoppers	↗	42%	42%	25%	42%
Money spent for domestic online purchases (in Euro)	↘	245	939	245	1,713
Money spent for cross-country online purchases (in Euro)	↗	809	693	436	1,891
Total money spent for online purchases (in Euro)	↘	990	1,163	508	2,191
Main target countries when buying products online cross-border		Germany, France, Belgium, United Kingdom			
Price comparison website (PCW)⁴					
Consumers who used a PCW in the last 12 months (in %)	↘	63%	81%	14%	92%
Consumers who felt they were misled when using a PCW (in %)	↗	12%	12%	3%	21%
Prices online and offline⁵					
Number of product sub-categories cheaper online, excluding delivery costs (of a total of 15 product sub-categories)		n.a.	13	7	15
Number of product sub-categories cheaper online, including delivery costs (of a total of 15 product sub-categories)		n.a.	10	3	13
Consumer choice⁶					
Percentage more products online than offline available domestically (across 15 product sub-categories)		n.a.	125%	-19%	380%
Consumer problems while shopping online⁷					
Consumers who experienced a problem with an online purchase in their country in the last year (as % of total online shoppers)	↘	2%	17%	1%	26%
Consumers who experienced a problem with an online purchase in another country in the last year (as % of total online shoppers)	↗	18%	7%	1%	29%
Main problems encountered by consumers while shopping online		Non-delivery, long delivery time			
Awareness of consumers regarding their rights⁸					
Consumers who are aware of their right regarding the cooling-off period in distance selling (in %)	↘	55%	62%	27%	78%

↗ value is above EU average; ↘ value is below EU average

Malta

Overview

70% of Maltese households have Internet access at home and 69% use a broadband connection to access the Internet (compared to 70% and 61% of EU households on average, respectively). When buying online cross-border, Maltese consumers who responded to the survey tend to mainly buy products in the United Kingdom (93% of online Maltese cross-border shoppers). They also tend to spend less on online purchases (301 Euro on domestic purchases and 641 Euro on cross-country purchases over the last 12 months) than the average EU online shopper (939 Euro and 693 Euro, respectively). According to the results of the consumer survey, 27% of Maltese who have internet access at home shop online at least once a month (compared to 48% of EU consumers on average).

Main indicators	Malta	EU average	Lowest EU value	Highest EU value
Internet penetration rate¹				
Households with Internet access (in % of all households)	➔ 70%	70%	33%	91%
Households with broadband access (in % of all households)	➔ 69%	61%	23%	83%
Market size of e-commerce²				
Value of total retailing in 2010 (in million Euro)	n.a.	108,521	4,317	458,803
Value of internet retailing in 2010 (in million Euro)	n.a.	3,780	15	31,412
Share of internet retailing in 2010 (in % of country retailing)	n.a.	3.5%	0.3%	7.9%
Consumer shopping behaviour (based on sample consisting of consumers with internet access at home)³				
Frequent online shoppers	➔ 27%	48%	15%	71%
Occasional online shoppers	➔ 28%	42%	25%	42%
Money spent for domestic online purchases (in Euro)	➔ 301	939	245	1,713
Money spent for cross-country online purchases (in Euro)	➔ 641	693	436	1,891
Total money spent for online purchases (in Euro)	➔ 667	1,163	508	2,191
Main target countries when buying products online cross-border	United Kingdom			
Price comparison website (PCW)⁴				
Consumers who used a PCW in the last 12 months (in %)	➔ 14%	81%	14%	92%
Consumers who felt they were misled when using a PCW (in %)	➔ 3%	12%	3%	21%
Prices online and offline⁵				
Number of product sub-categories cheaper online, excluding delivery costs (of a total of 15 product sub-categories)	n.a.	13	7	15
Number of product sub-categories cheaper online, including delivery costs (of a total of 15 product sub-categories)	n.a.	10	3	13
Consumer choice⁶				
Percentage more products online than offline available domestically (across 15 product sub-categories)	n.a.	125%	-19%	380%
Consumer problems while shopping online⁷				
Consumers who experienced a problem with an online purchase in their country in the last year (as % of total online shoppers)	➔ 1%	17%	1%	26%
Consumers who experienced a problem with an online purchase in another country in the last year (as % of total online shoppers)	➔ 29%	7%	1%	29%
Main problems encountered by consumers while shopping online	Non-delivery, long delivery time			
Awareness of consumers regarding their rights⁸				
Consumers who are aware of their right regarding the cooling-off period in distance selling (in %)	➔ 49%	62%	27%	78%

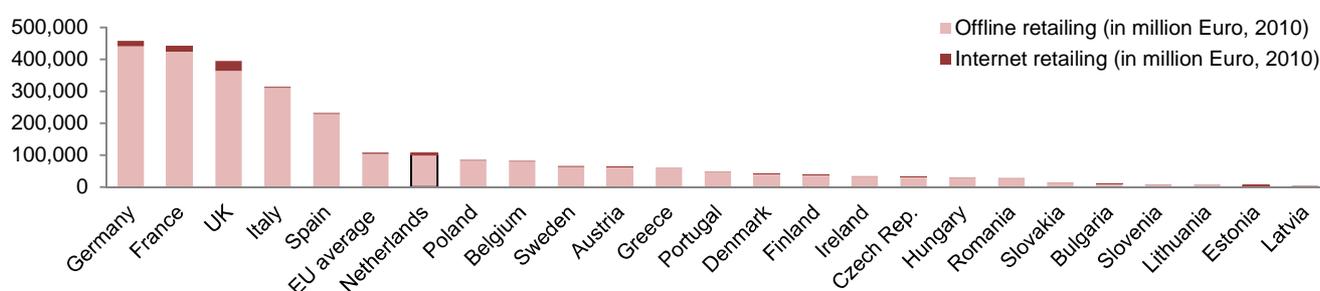
➔ value is above EU average; ➔ value is below EU average

Netherlands

Overview

In the Netherlands, Internet retailing in goods amounted to 3,660 million Euro in 2010 (3.5% of total retailing in goods). 91% of Dutch households have Internet access at home and 80% use a broadband connection to access the Internet (compared to 70% and 61% of EU households on average, respectively). When buying online cross-border, Dutch consumers who responded to the survey tend to mainly buy products in Germany (43% of online Dutch cross-border shoppers) and to some extent in the United Kingdom, Belgium and France (21%, 15% and 11% of online cross-border shoppers, respectively). They also tend to spend more on online purchases (1,029 Euro on domestic purchases and 721 Euro on cross-country purchases over the last 12 months) than the average EU online shopper (939 Euro and 693 Euro, respectively). According to the results of the consumer survey, 42% of Dutch who have internet access at home shop online at least once a month (compared to 48% of EU consumers on average).

Main indicators	Netherlands	EU average	Lowest EU value	Highest EU value
Internet penetration rate¹				
Households with Internet access (in % of all households)	↗ 91%	70%	33%	91%
Households with broadband access (in % of all households)	↗ 80%	61%	23%	83%
Market size of e-commerce²				
Value of total retailing in 2010 (in million Euro)	105,915	108,521	4,317	458,803
Value of internet retailing in 2010 (in million Euro)	3,660	3,780	15	31,412
Share of internet retailing in 2010 (in % of country retailing)	↗ 3.5%	3.5%	0.3%	7.9%



Consumer shopping behaviour (based on sample consisting of consumers with internet access at home)³

Frequent online shoppers	↘ 42%	48%	15%	71%
Occasional online shoppers	↗ 47%	42%	25%	42%
Money spent for domestic online purchases (in Euro)	↗ 1,029	939	245	1,713
Money spent for cross-country online purchases (in Euro)	↗ 721	693	436	1,891
Total money spent for online purchases (in Euro)	↗ 1,197	1,163	508	2,191
Main target countries when buying products online cross-border	Germany, United Kingdom, Belgium, France			

Price comparison website (PCW)⁴

Consumers who used a PCW in the last 12 months (in %)	↘ 73%	81%	14%	92%
Consumers who felt they were misled when using a PCW (in %)	↗ 13%	12%	3%	21%

Prices online and offline⁵

Number of product sub-categories cheaper online, excluding delivery costs (of a total of 15 product sub-categories)	↘ 12	13	7	15
Number of product sub-categories cheaper online, including delivery costs (of a total of 15 product sub-categories)	↘ 9	10	3	13

Consumer choice⁶

Percentage more products online than offline available domestically (across 15 product sub-categories)	↗ 380%	125%	-19%	380%
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Consumer problems while shopping online⁷

Consumers who experienced a problem with an online purchase in their country in the last year (as % of total online shoppers)	↘ 14%	17%	1%	26%
Consumers who experienced a problem with an online purchase in another country in the last year (as % of total online shoppers)	↘ 6%	7%	1%	29%
Main problems encountered by consumers while shopping online	Long delivery time, non-delivery			

Awareness of consumers regarding their rights⁸

Consumers who are aware of their right regarding the cooling-off period in distance selling (in %)	↗ 71%	62%	27%	78%
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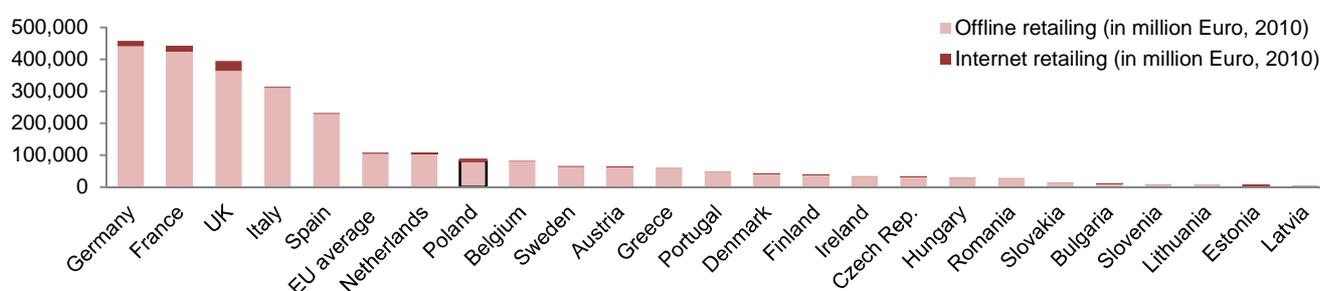
↗ value is above EU average; ↘ value is below EU average

Poland

Overview

In Poland, Internet retailing in goods amounted to 1,968 million Euro in 2010 (2.3% of total retailing in goods). 63% of Polish households have Internet access at home and 57% use a broadband connection to access the Internet (compared to 70% and 61% of EU households on average, respectively). When buying online cross-border, Polish consumers who responded to the survey tend to mainly buy products in Germany and the United Kingdom (33% and 23% of online Polish cross-border shoppers, respectively). They also tend to spend less on online purchases (626 Euro on domestic purchases and 742 Euro on cross-country purchases over the last 12 months) than the average EU online shopper (939 Euro and 693 Euro, respectively). According to the results of the consumer survey, 50% of Polish who have internet access at home shop online at least once a month (compared to 48% of EU consumers on average).

Main indicators	Poland	EU average	Lowest EU value	Highest EU value
Internet penetration rate¹				
Households with Internet access (in % of all households)	↗ 63%	70%	33%	91%
Households with broadband access (in % of all households)	↗ 57%	61%	23%	83%
Market size of e-commerce²				
Value of total retailing in 2010 (in million Euro)	84,808	108,521	4,317	458,803
Value of internet retailing in 2010 (in million Euro)	1,968	3,780	15	31,412
Share of internet retailing in 2010 (in % of country retailing)	↘ 2.3%	3.5%	0.3%	7.9%



Consumer shopping behaviour (based on sample consisting of consumers with internet access at home)³

Frequent online shoppers	↗ 50%	48%	15%	71%
Occasional online shoppers	↗ 44%	42%	25%	42%
Money spent for domestic online purchases (in Euro)	↘ 626	939	245	1,713
Money spent for cross-country online purchases (in Euro)	↘ 604	693	436	1,891
Total money spent for online purchases (in Euro)	↘ 742	1,163	508	2,191
Main target countries when buying products online cross-border	Germany, United Kingdom			

Price comparison website (PCW)⁴

Consumers who used a PCW in the last 12 months (in %)	↗ 91%	81%	14%	92%
Consumers who felt they were misled when using a PCW (in %)	↘ 11%	12%	3%	21%

Prices online and offline⁵

Number of product sub-categories cheaper online, excluding delivery costs (of a total of 15 product sub-categories)	→ 13	13	7	15
Number of product sub-categories cheaper online, including delivery costs (of a total of 15 product sub-categories)	↗ 13	10	3	13

Consumer choice⁶

Percentage more products online than offline available domestically (across 15 product sub-categories)	↘ 61%	125%	-19%	380%
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Consumer problems while shopping online⁷

Consumers who experienced a problem with an online purchase in their country in the last year (as % of total online shoppers)	↗ 26%	17%	1%	26%
Consumers who experienced a problem with an online purchase in another country in the last year (as % of total online shoppers)	↘ 4%	7%	1%	29%
Main problems encountered by consumers while shopping online	Long delivery time, damaged product delivered, non-delivery, product did not match description			

Awareness of consumers regarding their rights⁸

Consumers who are aware of their right regarding the cooling-off period in distance selling (in %)	↘ 59%	62%	27%	78%
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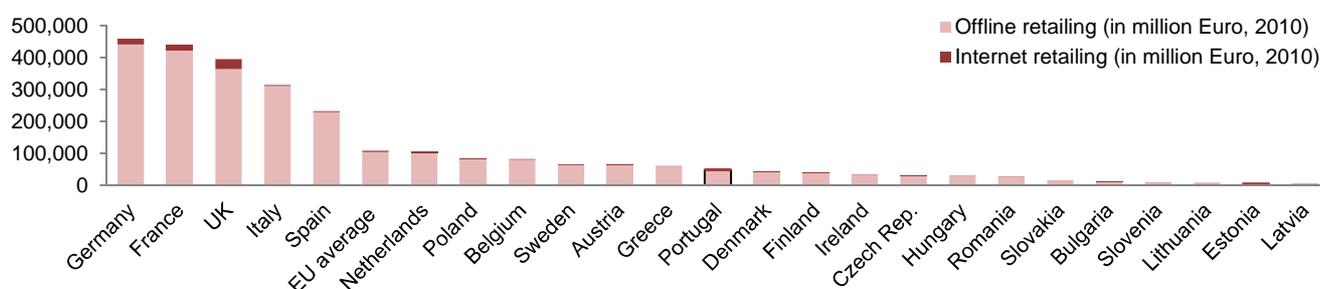
↗ value is above EU average; ↘ value is below EU average

Portugal

Overview

In Portugal, Internet retailing in goods amounted to 366 million Euro in 2010 (0.8% of total retailing in goods). 54% of Portuguese households have Internet access at home and 50% use a broadband connection to access the Internet (compared to 70% and 61% of EU households on average, respectively). When buying online cross-border, Portuguese consumers who responded to the survey tend to mainly buy products in the United Kingdom (41% of online Portuguese cross-border shoppers) and to some extent in Spain, Germany, and France (21%, 18% and 16% of online cross-border shoppers, respectively). They also tend to spend less on online purchases (597 Euro on domestic purchases and 624 Euro on cross-country purchases over the last 12 months) than the average EU online shopper (939 Euro and 693 Euro, respectively). According to the results of the consumer survey, 29% of Portuguese who have internet access at home shop online at least once a month (compared to 48% of EU consumers on average).

Main indicators	Portugal	EU average	Lowest EU value	Highest EU value
Internet penetration rate¹				
Households with Internet access (in % of all households)	↘ 54%	70%	33%	91%
Households with broadband access (in % of all households)	↘ 50%	61%	23%	83%
Market size of e-commerce²				
Value of total retailing in 2010 (in million Euro)	48,300	108,521	4,317	458,803
Value of internet retailing in 2010 (in million Euro)	366	3,780	15	31,412
Share of internet retailing in 2010 (in % of country retailing)	↘ 0.8%	3.5%	0.3%	7.9%



Consumer shopping behaviour (based on sample consisting of consumers with internet access at home)³

Frequent online shoppers	↘ 29%	48%	15%	71%
Occasional online shoppers	↗ 50%	42%	25%	42%
Money spent for domestic online purchases (in Euro)	↘ 597	939	245	1,713
Money spent for cross-country online purchases (in Euro)	↘ 624	693	436	1,891
Total money spent for online purchases (in Euro)	↘ 851	1,163	508	2,191
Main target countries when buying products online cross-border	United Kingdom, Spain, Germany, France			

Price comparison website (PCW)⁴

Consumers who used a PCW in the last 12 months (in %)	↘ 76%	81%	14%	92%
Consumers who felt they were misled when using a PCW (in %)	↘ 9%	12%	3%	21%

Prices online and offline⁵

Number of product sub-categories cheaper online, excluding delivery costs (of a total of 15 product sub-categories)	↘ 8	13	7	15
Number of product sub-categories cheaper online, including delivery costs (of a total of 15 product sub-categories)	↘ 3	10	3	13

Consumer choice⁶

Percentage more products online than offline available domestically (across 15 product sub-categories)	↘ 109%	125%	-19%	380%
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Consumer problems while shopping online⁷

Consumers who experienced a problem with an online purchase in their country in the last year (as % of total online shoppers)	↘ 9%	17%	1%	26%
Consumers who experienced a problem with an online purchase in another country in the last year (as % of total online shoppers)	↗ 10%	7%	1%	29%
Main problems encountered by consumers while shopping online	Long delivery time, damaged product delivered			

Awareness of consumers regarding their rights⁸

Consumers who are aware of their right regarding the cooling-off period in distance selling (in %)	↘ 44%	62%	27%	78%
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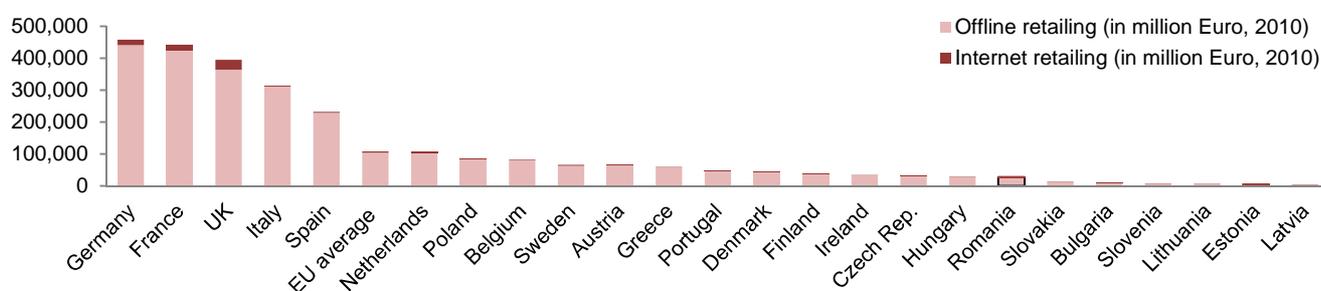
↗ value is above EU average; ↘ value is below EU average

Romania

Overview

In Romania, Internet retailing in goods amounted to 197 million Euro in 2010 (0.7% of total retailing in goods). 42% of Romanian households have Internet access at home and 23% use a broadband connection to access the Internet (compared to 70% and 61% of EU households on average, respectively). When buying online cross-border, Romanian consumers who responded to the survey tend to mainly buy products in Germany, the United Kingdom and Italy (22%, 19% and 13% of online Romanian cross-border shoppers, respectively). They also tend to spend less on online purchases (529 Euro on domestic purchases and 592 Euro on cross-country purchases over the last 12 months) than the average EU online shopper (939 Euro and 693 Euro, respectively). According to the results of the consumer survey, 21% of Romanians who have internet access at home shop online at least once a month (compared to 48% of EU consumers on average).

Main indicators	Romania	EU average	Lowest EU value	Highest EU value
Internet penetration rate¹				
Households with Internet access (in % of all households)	↓ 42%	70%	33%	91%
Households with broadband access (in % of all households)	↓ 23%	61%	23%	83%
Market size of e-commerce²				
Value of total retailing in 2010 (in million Euro)	27,198	108,521	4,317	458,803
Value of internet retailing in 2010 (in million Euro)	197	3,780	15	31,412
Share of internet retailing in 2010 (in % of country retailing)	↓ 0.7%	3.5%	0.3%	7.9%



Consumer shopping behaviour (based on sample consisting of consumers with internet access at home)³

Frequent online shoppers	↓ 21%	48%	15%	71%
Occasional online shoppers	↑ 58%	42%	25%	42%
Money spent for domestic online purchases (in Euro)	↓ 529	939	245	1,713
Money spent for cross-country online purchases (in Euro)	↓ 592	693	436	1,891
Total money spent for online purchases (in Euro)	↓ 629	1,163	508	2,191
Main target countries when buying products online cross-border	Germany, United Kingdom, Italy			

Price comparison website (PCW)⁴

Consumers who used a PCW in the last 12 months (in %)	↓ 74%	81%	14%	92%
Consumers who felt they were misled when using a PCW (in %)	↑ 21%	12%	3%	21%

Prices online and offline⁵

Number of product sub-categories cheaper online, excluding delivery costs (of a total of 15 product sub-categories)	↓ 7	13	7	15
Number of product sub-categories cheaper online, including delivery costs (of a total of 15 product sub-categories)	↓ 7	10	3	13

Consumer choice⁶

Percentage more products online than offline available domestically (across 15 product sub-categories)	↓ 98%	125%	-19%	380%
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Consumer problems while shopping online⁷

Consumers who experienced a problem with an online purchase in their country in the last year (as % of total online shoppers)	↑ 18%	17%	1%	26%
Consumers who experienced a problem with an online purchase in another country in the last year (as % of total online shoppers)	↓ 1%	7%	1%	29%
Main problems encountered by consumers while shopping online	Long delivery time, product did not match description			

Awareness of consumers regarding their rights⁸

Consumers who are aware of their right regarding the cooling-off period in distance selling (in %)	↓ 29%	62%	27%	78%
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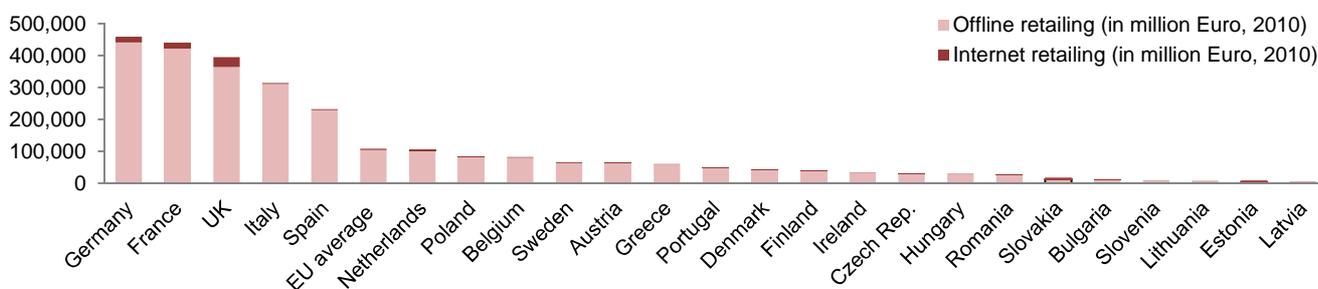
↑ value is above EU average; ↓ value is below EU average

Slovakia

Overview

In Slovakia, Internet retailing in goods amounted to 109 million Euro in 2010 (0.8% of total retailing in goods). 67% of Slovakian households have Internet access at home and 49% use a broadband connection to access the Internet (compared to 70% and 61% of EU households on average, respectively). When buying online cross-border, Slovakian consumers who responded to the survey tend to mainly buy products in the Czech Republic (59% of online Slovakian cross-border shoppers) and to some extent in Germany and the United Kingdom (15% of online cross-border shoppers in both cases). They also tend to spend less on online purchases (556 Euro on domestic purchases and 444 Euro on cross-country purchases over the last 12 months) than the average EU online shopper (939 Euro and 693 Euro, respectively). According to the results of the consumer survey, 31% of Slovaks who have internet access at home shop online at least once a month (compared to 48% of EU consumers on average).

Main indicators	Slovakia	EU average	Lowest EU value	Highest EU value
Internet penetration rate¹				
Households with Internet access (in % of all households)	↘ 67%	70%	33%	91%
Households with broadband access (in % of all households)	↘ 49%	61%	23%	83%
Market size of e-commerce²				
Value of total retailing in 2010 (in million Euro)	13,152	108,521	4,317	458,803
Value of internet retailing in 2010 (in million Euro)	109	3,780	15	31,412
Share of internet retailing in 2010 (in % of country retailing)	↘ 0.8%	3.5%	0.3%	7.9%



Consumer shopping behaviour (based on sample consisting of consumers with internet access at home)³

Frequent online shoppers	↘ 31%	48%	15%	71%
Occasional online shoppers	↗ 64%	42%	25%	42%
Money spent for domestic online purchases (in Euro)	↘ 556	939	245	1,713
Money spent for cross-country online purchases (in Euro)	↘ 444	693	436	1,891
Total money spent for online purchases (in Euro)	↘ 729	1,163	508	2,191
Main target countries when buying products online cross-border	Czech Republic, Germany, United Kingdom			

Price comparison website (PCW)⁴

Consumers who used a PCW in the last 12 months (in %)	↗ 90%	81%	14%	92%
Consumers who felt they were misled when using a PCW (in %)	↗ 12%	12%	3%	21%

Prices online and offline⁵

Number of product sub-categories cheaper online, excluding delivery costs (of a total of 15 product sub-categories)	↘ 9	13	7	15
Number of product sub-categories cheaper online, including delivery costs (of a total of 15 product sub-categories)	↘ 6	10	3	13

Consumer choice⁶

Percentage more products online than offline available domestically (across 15 product sub-categories)	↘ 58%	125%	-19%	380%
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Consumer problems while shopping online⁷

Consumers who experienced a problem with an online purchase in their country in the last year (as % of total online shoppers)	↘ 12%	17%	1%	26%
Consumers who experienced a problem with an online purchase in another country in the last year (as % of total online shoppers)	↘ 6%	7%	1%	29%
Main problems encountered by consumers while shopping online	Long delivery time, non-delivery			

Awareness of consumers regarding their rights⁸

Consumers who are aware of their right regarding the cooling-off period in distance selling (in %)	↗ 64%	62%	27%	78%
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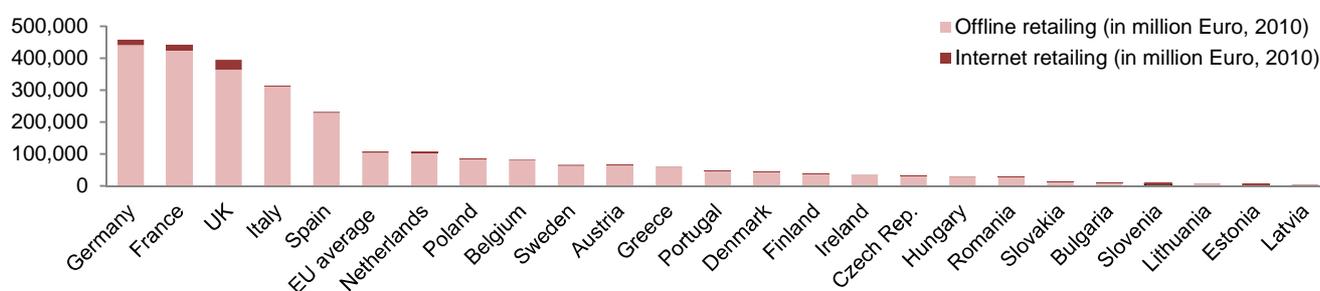
↗ value is above EU average; ↘ value is below EU average

Slovenia

Overview

In Slovenia, Internet retailing in goods amounted to 129 million Euro in 2010 (1.8% of total retailing in goods). 68% of Slovenian households have Internet access at home and 62% use a broadband connection to access the Internet (compared to 70% and 61% of EU households on average, respectively). When buying online cross-border, Slovenian consumers who responded to the survey tend to mainly buy products in Germany and in the United Kingdom (45% and 34% of online Slovenian cross-border shoppers, respectively) and to some extent in Austria (16% of online cross-border shoppers). They also tend to spend less on online purchases (518 Euro on domestic purchases and 570 Euro on cross-country purchases over the last 12 months) than the average EU online shopper (939 Euro and 693 Euro, respectively). According to the results of the consumer survey, 18% of Slovenians who have internet access at home shop online at least once a month (compared to 48% of EU consumers on average).

Main indicators	Slovenia	EU average	Lowest EU value	Highest EU value
Internet penetration rate¹				
Households with Internet access (in % of all households)	↘ 68%	70%	33%	91%
Households with broadband access (in % of all households)	↗ 62%	61%	23%	83%
Market size of e-commerce²				
Value of total retailing in 2010 (in million Euro)	7,375	108,521	4,317	458,803
Value of internet retailing in 2010 (in million Euro)	129	3,780	15	31,412
Share of internet retailing in 2010 (in % of country retailing)	↘ 1.8%	3.5%	0.3%	7.9%



Consumer shopping behaviour (based on sample consisting of consumers with internet access at home)³				
Frequent online shoppers	↘ 18%	48%	15%	71%
Occasional online shoppers	↗ 58%	42%	25%	42%
Money spent for domestic online purchases (in Euro)	↘ 518	939	245	1,713
Money spent for cross-country online purchases (in Euro)	↘ 570	693	436	1,891
Total money spent for online purchases (in Euro)	↘ 722	1,163	508	2,191
Main target countries when buying products online cross-border	Germany, United Kingdom, Austria			

Price comparison website (PCW)⁴				
Consumers who used a PCW in the last 12 months (in %)	↘ 74%	81%	14%	92%
Consumers who felt they were misled when using a PCW (in %)	↘ 10%	12%	3%	21%

Prices online and offline⁵				
Number of product sub-categories cheaper online, excluding delivery costs (of a total of 15 product sub-categories)	n.a.	13	7	15
Number of product sub-categories cheaper online, including delivery costs (of a total of 15 product sub-categories)	n.a.	10	3	13

Consumer choice⁶				
Percentage more products online than offline available domestically (across 15 product sub-categories)	n.a.	125%	-19%	380%

Consumer problems while shopping online⁷				
Consumers who experienced a problem with an online purchase in their country in the last year (as % of total online shoppers)	↘ 6%	17%	1%	26%
Consumers who experienced a problem with an online purchase in another country in the last year (as % of total online shoppers)	↗ 7%	7%	1%	29%
Main problems encountered by consumers while shopping online	Long delivery time, non-delivery			

Awareness of consumers regarding their rights⁸				
Consumers who are aware of their right regarding the cooling-off period in distance selling (in %)	↗ 62%	62%	27%	78%

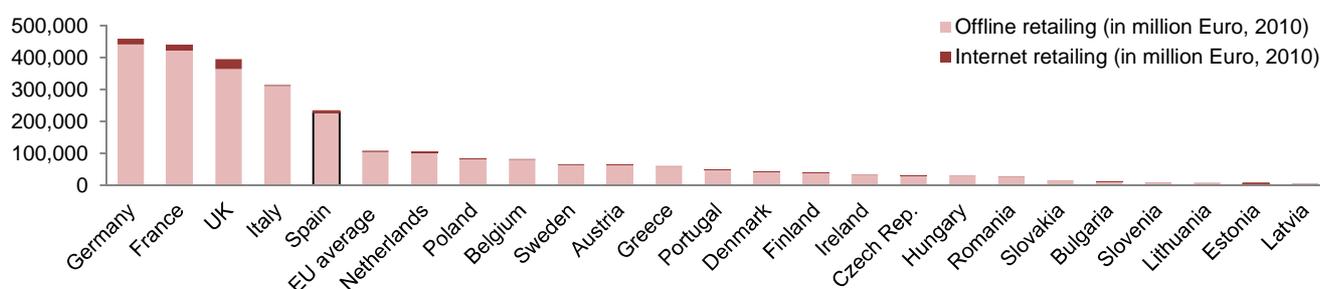
↗ value is above EU average; ↘ value is below EU average

Spain

Overview

In Spain, Internet retailing in goods amounted to 3,188 million Euro in 2010 (1.4% of total retailing in goods). 59% of Spanish households have Internet access at home and 57% use a broadband connection to access the Internet (compared to 70% and 61% of EU households on average, respectively). When buying online cross-border, Spanish consumers who responded to the survey tend to mainly buy products in the United Kingdom, France and Germany (28%, 27% and 22% of online Spanish cross-border shoppers, respectively). They also tend to spend more on online purchases (1,113 Euro on domestic purchases and 954 Euro on cross-country purchases over the last 12 months) than the average EU online shopper (939 Euro and 693 Euro, respectively). According to the results of the consumer survey, 37% of Spaniards who have internet access at home shop online at least once a month (compared to 48% of EU consumers on average).

Main indicators	Spain	EU average	Lowest EU value	Highest EU value
Internet penetration rate¹				
Households with Internet access (in % of all households)	↘ 59%	70%	33%	91%
Households with broadband access (in % of all households)	↘ 57%	61%	23%	83%
Market size of e-commerce²				
Value of total retailing in 2010 (in million Euro)	232,462	108,521	4,317	458,803
Value of internet retailing in 2010 (in million Euro)	3,188	3,780	15	31,412
Share of internet retailing in 2010 (in % of country retailing)	↘ 1.4%	3.5%	0.3%	7.9%



Consumer shopping behaviour (based on sample consisting of consumers with internet access at home)³

Frequent online shoppers	↘ 37%	48%	15%	71%
Occasional online shoppers	↗ 46%	42%	25%	42%
Money spent for domestic online purchases (in Euro)	↗ 1,113	939	245	1,713
Money spent for cross-country online purchases (in Euro)	↗ 954	693	436	1,891
Total money spent for online purchases (in Euro)	↗ 1,482	1,163	508	2,191
Main target countries when buying products online cross-border	United Kingdom, France, Germany			

Price comparison website (PCW)⁴

Consumers who used a PCW in the last 12 months (in %)	↘ 75%	81%	14%	92%
Consumers who felt they were misled when using a PCW (in %)	↘ 11%	12%	3%	21%

Prices online and offline⁵

Number of product sub-categories cheaper online, excluding delivery costs (of a total of 15 product sub-categories)	↘ 10	13	7	15
Number of product sub-categories cheaper online, including delivery costs (of a total of 15 product sub-categories)	↘ 6	10	3	13

Consumer choice⁶

Percentage more products online than offline available domestically (across 15 product sub-categories)	↘ 1%	125%	-19%	380%
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Consumer problems while shopping online⁷

Consumers who experienced a problem with an online purchase in their country in the last year (as % of total online shoppers)	↘ 14%	17%	1%	26%
Consumers who experienced a problem with an online purchase in another country in the last year (as % of total online shoppers)	↗ 9%	7%	1%	29%
Main problems encountered by consumers while shopping online	Long delivery time, damaged product delivered			

Awareness of consumers regarding their rights⁸

Consumers who are aware of their right regarding the cooling-off period in distance selling (in %)	↘ 60%	62%	27%	78%
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↗ value is above EU average; ↘ value is below EU average

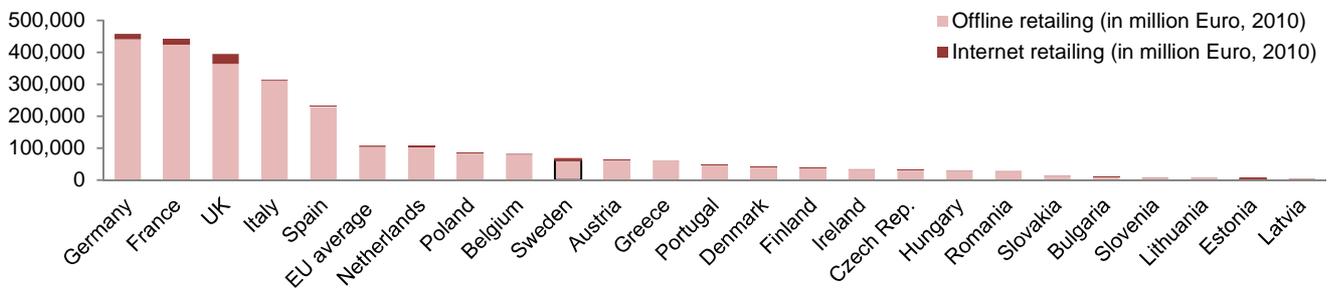
Sweden

Overview

In Sweden, Internet retailing in goods amounted to 2,618 million Euro in 2010 (4.0% of total retailing in goods). 88% of Swedish households have Internet access at home and 83% use a broadband connection to access the Internet (compared to 70% and 61% of EU households on average, respectively). When buying online cross-border, Swedish consumers who responded to the survey tend to mainly buy products in the United Kingdom and Germany (34% and 32% of online Swedish cross-border shoppers, respectively) and to some extent in Denmark (15% of online cross-border shoppers). They also tend to spend less on online purchases (754 Euro on domestic purchases and 503 Euro on cross-country purchases over the last 12 months) than the average EU online shopper (939 Euro and 693 Euro, respectively). According to the results of the consumer survey, 44% of Swedes who have internet access at home shop online at least once a month (compared to 48% of EU consumers on average).

Main indicators

	Sweden	EU average	Lowest EU value	Highest EU value
Internet penetration rate¹				
Households with Internet access (in % of all households)	↗ 88%	70%	33%	91%
Households with broadband access (in % of all households)	↗ 83%	61%	23%	83%
Market size of e-commerce²				
Value of total retailing in 2010 (in million Euro)	66,064	108,521	4,317	458,803
Value of internet retailing in 2010 (in million Euro)	2,618	3,780	15	31,412
Share of internet retailing in 2010 (in % of country retailing)	↗ 4.0%	3.5%	0.3%	7.9%



Consumer shopping behaviour (based on sample consisting of consumers with internet access at home)³

Frequent online shoppers	↘ 44%	48%	15%	71%
Occasional online shoppers	↗ 49%	42%	25%	42%
Money spent for domestic online purchases (in Euro)	↘ 754	939	245	1,713
Money spent for cross-country online purchases (in Euro)	↘ 503	693	436	1,891
Total money spent for online purchases (in Euro)	↘ 917	1,163	508	2,191
Main target countries when buying products online cross-border	United Kingdom, Germany, Denmark			

Price comparison website (PCW)⁴

Consumers who used a PCW in the last 12 months (in %)	↗ 86%	81%	14%	92%
Consumers who felt they were misled when using a PCW (in %)	↘ 11%	12%	3%	21%

Prices online and offline⁵

Number of product sub-categories cheaper online, excluding delivery costs (of a total of 15 product sub-categories)	↘ 12	13	7	15
Number of product sub-categories cheaper online, including delivery costs (of a total of 15 product sub-categories)	↘ 9	10	3	13

Consumer choice⁶

Percentage more products online than offline available domestically (across 15 product sub-categories)	↘ 28%	125%	-19%	380%
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Consumer problems while shopping online⁷

Consumers who experienced a problem with an online purchase in their country in the last year (as % of total online shoppers)	↘ 9%	17%	1%	26%
Consumers who experienced a problem with an online purchase in another country in the last year (as % of total online shoppers)	↘ 4%	7%	1%	29%
Main problems encountered by consumers while shopping online	Long delivery time, damaged product delivered, non-delivery			

Awareness of consumers regarding their rights⁸

Consumers who are aware of their right regarding the cooling-off period in distance selling (in %)	↗ 69%	62%	27%	78%
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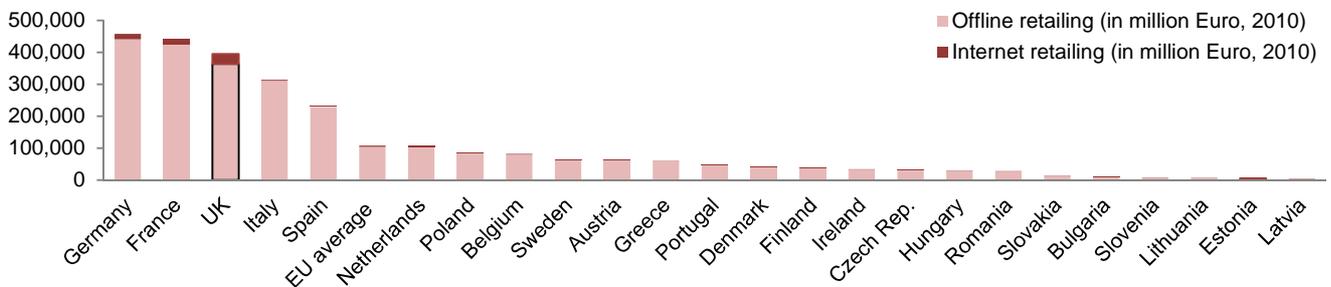
↗ value is above EU average; ↘ value is below EU average

United Kingdom

Overview

In the United Kingdom, Internet retailing in goods amounted to 31,412 million Euro in 2010 (7.9% of total retailing in goods). 80% of UK households have Internet access at home and 69% use a broadband connection to access the Internet (compared to 70% and 61% of EU households on average, respectively). When buying online cross-border, British consumers who responded to the survey tend to mainly buy products in Germany and France (21% and 17% of online British cross-border shoppers, respectively). They tend to spend more on domestic online purchases (1,093 Euro over the last 12 months) but less on cross-border purchases (664 Euro) than the average EU online shopper (939 Euro and 693 Euro, respectively). According to the results of the consumer survey, 71% of Britons who have internet access at home shop online at least once a month (compared to 48% of EU consumers on average).

Main indicators	United Kingdom	EU average	Lowest EU value	Highest EU value
Internet penetration rate¹				
Households with Internet access (in % of all households)	↗ 80%	70%	33%	91%
Households with broadband access (in % of all households)	↗ 69%	61%	23%	83%
Market size of e-commerce²				
Value of total retailing in 2010 (in million Euro)	395,698	108,521	4,317	458,803
Value of internet retailing in 2010 (in million Euro)	31,412	3,780	15	31,412
Share of internet retailing in 2010 (in % of country retailing)	↗ 7.9%	3.5%	0.3%	7.9%



Consumer shopping behaviour (based on sample consisting of consumers with internet access at home)³

Frequent online shoppers	↗ 71%	48%	15%	71%
Occasional online shoppers	↘ 25%	42%	25%	42%
Money spent for domestic online purchases (in Euro)	↗ 1,093	939	245	1,713
Money spent for cross-country online purchases (in Euro)	↘ 664	693	436	1,891
Total money spent for online purchases (in Euro)	↗ 1,283	1,163	508	2,191
Main target countries when buying products online cross-border	Germany, France			

Price comparison website (PCW)⁴

Consumers who used a PCW in the last 12 months (in %)	↗ 81%	81%	14%	92%
Consumers who felt they were misled when using a PCW (in %)	↗ 16%	12%	3%	21%

Prices online and offline⁵

Number of product sub-categories cheaper online, excluding delivery costs (of a total of 15 product sub-categories)	↘ 10	13	7	15
Number of product sub-categories cheaper online, including delivery costs (of a total of 15 product sub-categories)	↘ 7	10	3	13

Consumer choice⁶

Percentage more products online than offline available domestically (across 15 product sub-categories)	↘ 97%	125%	-19%	380%
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Consumer problems while shopping online⁷

Consumers who experienced a problem with an online purchase in their country in the last year (as % of total online shoppers)	↗ 21%	17%	1%	26%
Consumers who experienced a problem with an online purchase in another country in the last year (as % of total online shoppers)	↘ 5%	7%	1%	29%
Main problems encountered by consumers while shopping online	Long delivery time, damaged product delivered			

Awareness of consumers regarding their rights⁸

Consumers who are aware of their right regarding the cooling-off period in distance selling (in %)	↗ 70%	62%	27%	78%
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↗ value is above EU average; ↘ value is below EU average

Notes	
Internet penetration rate¹	
Households with Internet access (in % total households)	Figures retrieved on 15/06/2011 from Eurostat.
Households with broadband access (in % total households)	
Market size of e-commerce²	
Value of total retailing in 2010 (in million Euro)	Figures were compiled by Euromonitor International from trade sources/national statistics. They include VAT. <i>Retailing</i> is defined as sales of new and used goods to the general public for personal or household consumption. It is the aggregation of store-based retailing and non-store retailing. <i>Internet retailing</i> is the sales of consumer goods to the general public via the Internet. Sales data is attributed to the country where the consumer is based. Includes digital music and movie downloads. Internet retailing excludes sales of: (a) Products generated over consumer-to-consumer sales sites, such as eBay. All sales over such sites are excluded, even if they were generated by companies operating through the site; (b) Sales of motor vehicles, motorcycles and vehicle parts; (c) Tickets for events (sports, music concerts etc) and travel; (d) Sales of holidays; (e) Revenue generated by online gambling sites; (f) Quick delivery services of food, magazines, household goods and DVD rentals (g) Returned products/unpaid invoices.
Value of internet retailing in 2010 (in million Euro)	
Share of internet retailing in 2010 (in % of country retailing)	
Consumer shopping behaviour (based on sample consisting of consumers with internet access at home)³	
Frequent online shoppers	Consumer survey; N=29,010. A frequent online shopper shops at least once a month online, whereas an occasional online shopper uses the online mode less often – for this study an occasional online shopper was defined as making purchases online less than once a month, but did buy online at least once during the last 12 months.
Occasional online shoppers	
Money spent for domestic online purchases (in Euro)	Average money spent over the last 12 months. Consumer survey; N=25,909.
Money spent for cross-country online purchases (in Euro)	Average money spent over the last 12 months. Consumer survey; N=11,224.
Total money spent for online purchases (in Euro)	Average money spent over the last 12 months. Consumer survey and calculations by TNS Opinion.
Main target countries when buying products online cross-border	Information is based on results of consumer survey; N=11,224. Main target countries are Member States for which at least 10% of consumers reported to buy products online (excluding US, China).
Price comparison website (PCW)⁴	
Consumers who used a price comparison website in the last 12 months (in %)	Information is based on results of consumer survey; N=29,010. Figures reflect percentage of respondents whose answers are “maybe once a year” or more often.
Consumers who felt they were misled when using a PCW (in %)	Information is based on results of consumer survey; N=23,619.
Prices online and offline⁵	
Number of product sub-categories cheaper online, excluding delivery costs (of a total of 15 product sub-categories)	Figures are based on a total number of 4,559 price observations in December 2010. The 15 product sub-categories include mobile phones, laptops, digital cameras, in-car navigation, LCD TVs, portable MP3 players, premium women's fragrances, video games hardware, traditional toys, men's outerwear, women's outerwear, footwear, power tools and accessories, instant standard coffee, standard milk formula.
Number of product sub-categories cheaper online, including delivery costs (of a total of 15 product sub-categories)	
Consumer choice⁶	
Percentage more products online than offline available domestically (across 15 product sub-categories)	Information is based on data on choice collected within the price collection exercise in December 2010.
Consumer problems while shopping online⁷	
Consumers who experienced a problem with an online purchase in their country in the last year (as % of total online shoppers)	Information is based on results of consumer survey; N=25,940.
Consumers who experienced a problem with an online purchase in another country in the last year (as % of total online shoppers)	Information is based on results of consumer survey; N=25,940.
Problems encountered by consumers while shopping online in their country	Information is based on the two problems reported most often by consumers who answered to the consumer survey; N=6,312.
Awareness of consumers regarding their rights⁸	
Consumers who are aware of their right regarding the cooling-off period in distance selling (in %)	Figures show the percentage of consumers who are aware of their right to return a good that they had purchased through post, phone or internet, four days after delivery, for a full refund. Figures are obtained from the Special Eurobarometer 342 - Consumer empowerment (See section 3.4, page 83).

Annex 2: Detailed methodology economic analysis consumer welfare gains

1. Details on the derivation of the equation in 6.3.1

To assess the changes in consumer surplus resulting from lower online prices in the EU, this study uses a widely-accepted economic methodology, which was initially developed at MIT by Prof. Jerry Hausman¹³⁸ and later applied by Prof. Erik Brynjolfsson, Prof. Yu Jeffrey Hu, and Prof. Michael D. Smith in the context of online book market in the United States.¹³⁹ Details on this methodology are provided below.

To measure the consumer welfare gain from the increased online choice, we define the total effect of the introduction of new products (or new choices) in online markets on consumer welfare as the difference in the consumer's expenditure function before and after the introduction, measured at the level of post-introduction utility:

$$(1) \quad CV = \alpha(p_{e0}, p_{n0}, u_1) - \alpha(p_{e1}, p_{n1}, u_1),$$

where p_{e0} and p_{e1} are the vectors of pre- and post-introduction prices of existing products respectively, p_{n0} is the virtual price of the new product (the price that sets demand to zero), p_{n1} is the post-introduction price of the new product, and u_1 is the post-introduction utility level. In effect, equation (1) measures how much a pre-Internet consumer would need to be compensated in order to be just as well off as they would be after the introduction of new products (or new choices) in online markets.

We then break the total effect into the variety effect resulting from the availability of the new product and the price effect resulting from changes of prices of existing products:

$$(2) \quad CV = [\alpha(p_{e1}, p_{n0}, u_1) - \alpha(p_{e1}, p_{n1}, u_1)] + [\alpha(p_{e0}, p_{n0}, u_1) - \alpha(p_{e1}, p_{n0}, u_1)].$$

When the vector of prices of existing products does not change before and after the introduction of the new product, i.e., $p_{e0}=p_{e1}=p_e$, one only needs to measure the variety effect and we can redefine the expenditure function such that $\alpha(p_e, \dots) \equiv \mathcal{E}(\dots)$:

$$(3) \quad CV = \alpha(p_e, p_{n0}, u_1) - \alpha(p_e, p_{n1}, u_1) = \mathcal{E}(p_{n0}, u_1) - \mathcal{E}(p_{n1}, u_1).$$

The assumption that $p_{e0}=p_{e1}=p_e$ appears to be valid in our empirical context because the overwhelming majority of offline prices charged by brick-and-mortar stores have not changed as a result of the emergence of online markets. Moreover, most studies have shown that, if anything, Internet retailers tend to increase competition and place downward pricing pressure on brick-and-mortar retailers (e.g., Brynjolfsson and Smith 2000). Thus, if brick-and-mortar prices were to change at all, we would expect them to decline. Our

¹³⁸ See Hausman (1981), Exact consumer's surplus and deadweight loss. *American Economic Review* 71(4) 662-676, and Hausman (1997), Valuation of new goods under perfect and imperfect competition. Bresnahan, Timothy F., Robert J. Gordon, eds. *The Economics of New Goods*. The University of Chicago Press, Chicago, IL, 209-237.

¹³⁹ See Brynjolfsson, E., Hu, Y.J., Smith, M.D. (2003), *Consumer Surplus in the Digital Economy: Estimating the Value of Increased Product Variety at Online Booksellers*, *Management Science*, Vol. 49, No. 11.

calculations under the zero price change assumption would therefore underestimate true gains in consumer surplus.

To apply equation (3) in practice, we specify a standard log-linear demand function for the new product made available by the Internet,

$$(4) \quad x(p, y) = Ap^\alpha y^\delta,$$

where p is the price of the new product, y is the income, α is the price elasticity, and δ is the income elasticity. This specification is the most widely used specification in the literature of demand estimation and it fits a wide variety of data well (e.g., Brynjolfsson 1995, Hausman 1997a, 1997b).

Following Hausman (1981), we can use Roy's identity to write equation (4) as

$$(5) \quad x(p, y) = -\frac{\partial v(p, y) / \partial p}{\partial v(p, y) / \partial y},$$

where $v(p, y)$ is the indirect utility function.

Solving this partial differential equation gives

$$(6) \quad v(p, y) = -A \frac{p^{1+\alpha}}{1+\alpha} + \frac{y^{1-\delta}}{1-\delta}$$

and the expenditure function

$$(7) \quad e(p, u) = \left[(1-\delta) \left(u + \frac{Ap^{1+\alpha}}{1+\alpha} \right) \right]^{1/(1-\delta)}.$$

Using equations (3) and (7), it can be shown (Hausman 1981) that the welfare impact of the introduction of a new product is given by

$$(8) \quad CV = \left[\frac{1-\delta}{1+\alpha} y^\delta (p_{n0} x_0 - p_{n1} x_1) + y^{(1-\delta)} \right]^{1/(1-\delta)} - y,$$

where CV is the compensating variation, δ is the income elasticity estimate, α is the price elasticity, y is income, (p_{n1}, x_1) are the post-introduction price and quantity of the new product, and (p_{n0}, x_0) are the pre-introduction virtual price and quantity of the new product.

Prior research has shown that income elasticity effects can be ignored for typical consumer products where purchases are a small fraction of the consumer's annual income (e.g. Hausman 1997a, Brynjolfsson 1995). Applying this assumption, i.e. $\delta=0$, equation (8) simplifies to

$$(9) \quad CV = -\frac{p_{n1} x_1}{1 + \alpha},$$

since the pre-introduction quantity is zero and $p_{n0} x_0 = 0$.

Equation (9) is exactly the equation we use in 6.3.1.

2. Details on the derivation of the equation in 6.2.1

To measure the consumer welfare gain from the lower online prices, we follow exactly the same steps as above. The only difference is we consider how a price change from p_{n0} and p_{n1} for the focal product can lead to consumer surplus changes. We let CV be the compensating variation, δ is the income elasticity estimate, α is the price elasticity, y is income, (p_{n1}, x_1) are the post-price-change price and quantity of the focal product, and (p_{n0}, x_0) are the pre-price-change price and quantity of the focal product. Notice that the pre-price-change quantity is no longer zero, i.e., $p_{n0} x_0 \neq 0$. Thus, we apply the assumption that income elasticity effects can be ignored for typical consumer products, i.e. $\delta = 0$, equation (8) simplifies to

$$(10) \quad CV = -\frac{p_{n1} x_1 - p_{n0} x_0}{1 + \alpha}.$$

Let ϕ be the difference between the product's online price and the product's offline price in percentage. We have $p_{n0} = (1 + \phi) p_{n1}$ and $x_0 = (1 + \phi\alpha)x_1$. When substituting these into equation (10), we have:

$$(11) \quad CV = -\frac{p_{n1} x_1 - p_{n0} x_0}{1 + \alpha} = -\frac{p_{n1} x_1 - (1 + \phi)p_{n1}(1 + \phi\alpha)x_1}{1 + \alpha}.$$

Equation (11) is exactly the equation we use in 6.2.1

3. Details on the estimation in 6.2

3.1. Details on the estimation in 6.2.3

Given the estimation results in 6.2.3, we have

- The turnover realised online – i.e. the value of Internet retailing in Euros across all the EU countries, under the current state of Internet retailing in the EU – is 90.7 billion Euros;
- The price elasticity is -4;
- The weighted difference between online and offline prices, taking into account the current state of Internet retailing in the EU and on basis of the price observations collected for this study, is -2.6%.

Thus, assuming online price is 100%, and the offline price would be $100\%/(1-2.6\%)=102.7\%$. Substituting $\phi=2.7\%$, $\alpha=-4$, and $p_I x_I=90.7$ into equation (11), we have $CV=2.5$ billion Euros.

3.2. Details on the estimation in 6.2.4

We have

- The turnover realised online – i.e. the value of Internet retailing in Euros across all the EU countries, under this hypothetical scenario – is 15% of 2604.5 billion Euros, which is 390.7 billion Euros;
- The price elasticity remains unchanged from the one estimated in 1.4.1, which is -4;
- The difference between online and offline prices, under this hypothetical scenario is the same as the one under the current state of Internet retailing in the EU. As estimated in 1.4.1, this online-vs.-offline price difference is -2.6%.

Thus, assuming online price is 100%, and the offline price would be $100\%/(1-2.6\%)=102.7\%$. Substituting $\phi=2.7\%$, $\alpha=-4$, and $p_I x_I=390.7$ into equation (11), we have $CV=11.0$ billion Euros.

3.3. Details on the estimation in 6.2.5

Given the estimation results in 6.2.5, we have

- The turnover realised online – i.e. the value of Internet retailing in Euros across all the EU countries, under this hypothetical scenario – is 390.7 billion Euros;
- The price elasticity is -4;
- The difference between online price under this hypothetical scenario and the current online price, under this hypothetical scenario, is -21.2%.

Thus, assuming the current online price is 100%, and the online price under the hypothetical scenario would be $100\%/(1-21.2\%)=78.8\%$. Substituting $\phi=-21.2\%$, $\alpha=-4$, and $p_I x_I=390.7$ into equation (11), we have $CV=-59.4$ billion Euros. Consumers could have gained a consumer surplus of 59.4 billion Euros by shopping online under this hypothetical scenario.

4. Details on the estimation in 6.3

4.1. Details on the estimation in 6.3.3

Given the estimation results in 6.3.3, we have

- The turnover realised online – i.e. the value of Internet retailing in Euros across all the EU countries, under the current state of Internet retailing in the EU – is 90.7 billion Euros;
- The price elasticity is -4;
- The weighted difference between online and offline choices, taking into account the current state of Internet retailing in the EU and on basis of the product choice observations collected for this study, is 153.8%.
- The average number of products in offline retailing in the EU is 14.8.

We take the following steps in estimating the consumer welfare gains from increased online choice under the current situation in the EU. First, we calculate the percentage of Internet sales that can be attributed to products that are not available offline, based on the methodology used in Brynjolfsson, Hu, and Smith (2003). This methodology assumes that product sales and sales rank follow a log-linear (Pareto) distribution:

$$\log(\text{Quantity}) = \beta_1 + \beta_2 \cdot \log(\text{Rank}) + \varepsilon$$

Therefore, we use the Pareto slope to calculate the proportion of online sales that fall above a particular rank as

$$(12) \quad r(x, N) = \frac{\int_1^N \beta_1 t^{\beta_2} dt}{\int_1^N \beta_1 t^{\beta_2} dt} = \frac{N^{(\beta_2+1)} - x^{(\beta_2+1)}}{N^{(\beta_2+1)} - 1}$$

where x is the rank, and N is the total number of products available.

We plug in 14.8 as x , $14.80 \cdot (1+153.8\%)=37.6$ as N , and the Pareto slope found by Brynjolfsson, Hu, and Smith (2003) which is -0.871 . We find that 30.3% of Internet sales can be attributed to products that are not available offline.

Substituting $\alpha=-4$, and $p_{1x_1}=30.3\% \cdot 90.7$ into equation (9), we have $CV=9.2$ billion Euros.

4.2. Details on the estimation in 6.3.4

We have

- The turnover realised online – i.e. the value of Internet retailing in Euros across all the EU countries, under this hypothetical scenario – is 15% of 2604.5 billion Euros, which is 390.7 billion Euros;
- The price elasticity remains unchanged from the one estimated in 1.4.1, which is -4 ;
- The weighted difference between online and offline choices, taking into account the current state of Internet retailing in the EU and on basis of the product choice observations collected for this study, is 153.8%.
- The average number of products in offline retailing in the EU is 14.80.

As we have done in 6.3.3, we estimate that 30.3% of Internet sales can be attributed to products that are not available offline. Substituting $\alpha=-4$, and $p_{1x_1}=30.3\% \cdot 390.7$ into equation (9), we have $CV=39.5$ billion Euros.

4.3. Details on the estimation in 6.3.5

Given the estimation results in 6.3.5, we have

- The turnover realised online – i.e. the value of Internet retailing in Euros across all the EU countries, under this hypothetical scenario – is 15% of 2604.5 billion Euros, which is 390.7 billion Euros;
- The price elasticity is -4;
- The difference between online choice under this hypothetical scenario and current online choice is 241.5 vs. 37.6;
- The average number of products in offline retailing in the EU is 14.80.

Thus, we plug in 37.6 as x , 241.5 as N , and the Pareto slope found by Brynjolfsson, Hu, and Smith (2003) which is -0.871 into equation (12). We find that the sales due to increased online choice under this hypothetical scenario (i.e., an increase of online choice from 37.6 to 241.5) is 42.1% of the total Internet sales under this hypothetical scenario. This means that current Internet sales is 57.9% (which is 100%-42.1%) of the total Internet sales under this hypothetical scenario. Therefore, increased online choice under this hypothetical scenario could improve current Internet sales by 72.7% (which is 42.1%/(100%-42.1%). Substituting $\alpha=-4$, and $p_I x_I=72.7\%*390.7$ into equation (9), we have CV=94.6 billion Euros.

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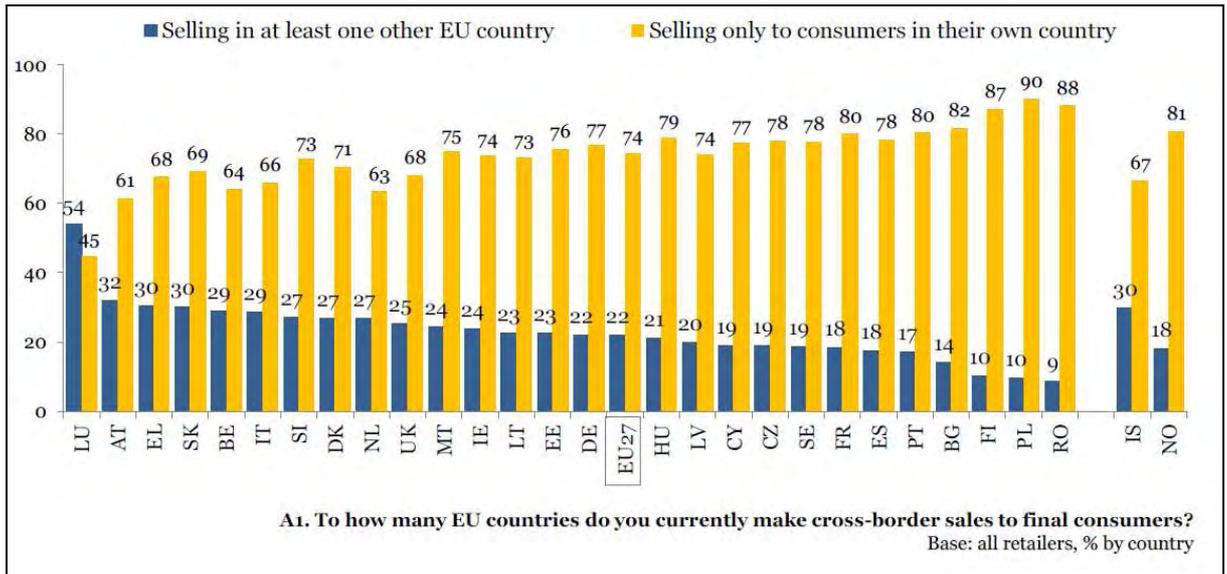
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Annex 4: Retailers' Attitudes towards Cross-border Trade

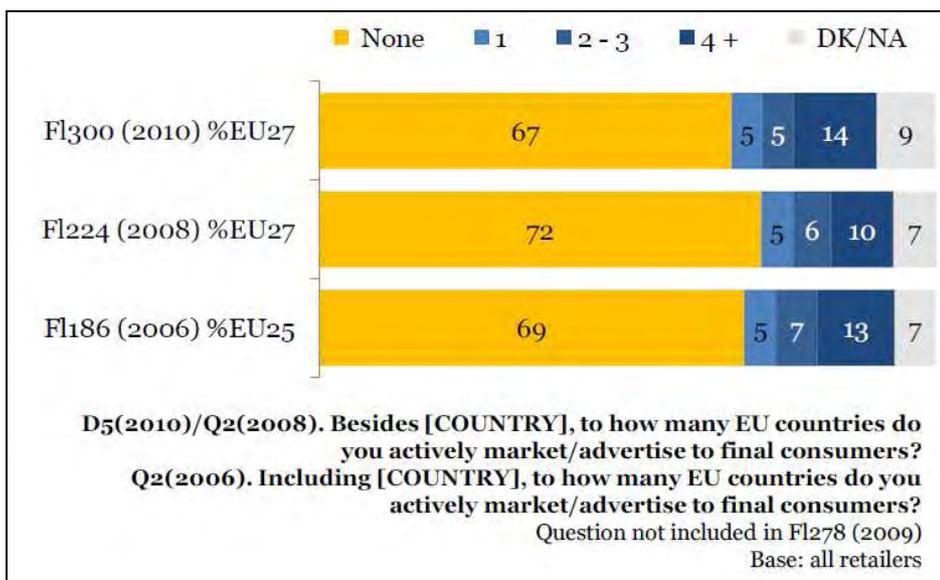
The following figures are from the Flash Eurobarometer 300 (Retailers Attitudes towards Cross-border Trade and Consumer Protection). Information from these figures was used in the main report in Section 5.1.2.

Figure 1: Number of EU countries where retailers make cross-border sales to final consumers



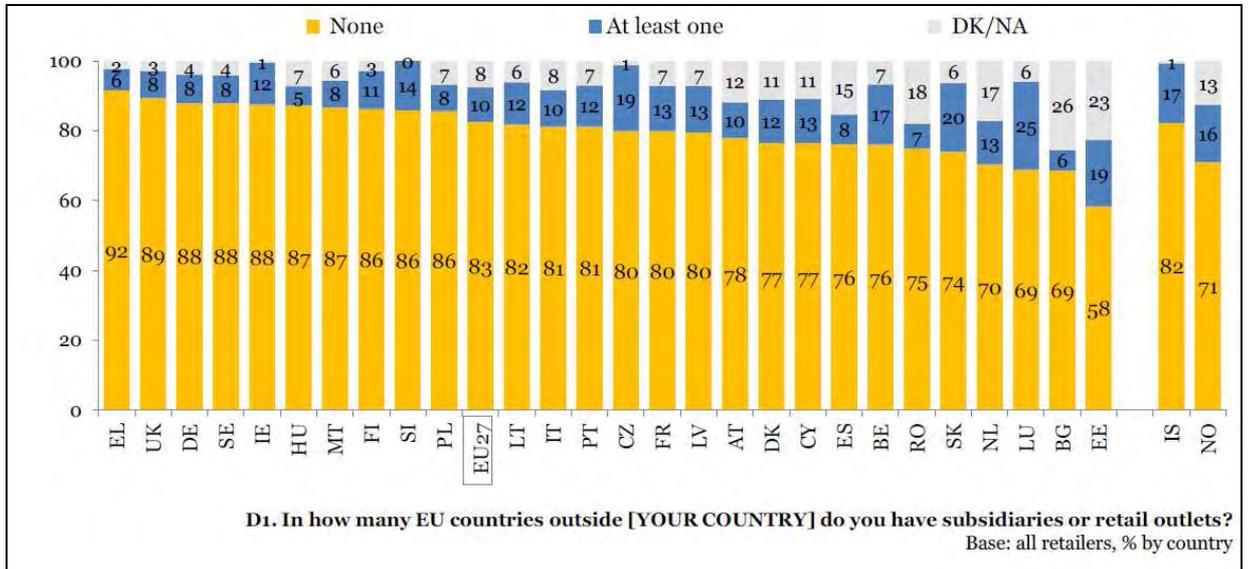
Source: Flash Eurobarometer 300: Retailers Attitudes towards Cross-border Trade and Consumer Protection (p. 21).

Figure 2: Number of other EU countries where retailers actively market/advertise to final consumers



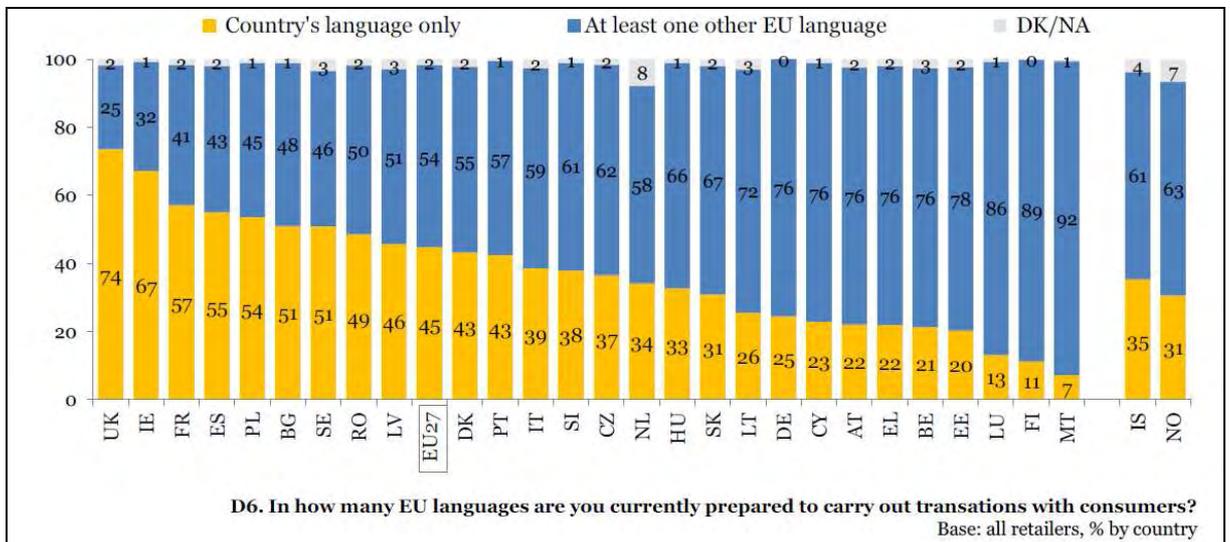
Source: Flash Eurobarometer 300: Retailers Attitudes towards Cross-border Trade and Consumer Protection (p. 22).

Figure 3: Number of EU countries where retailers have subsidiaries or retail outlets in other EU countries



Source: Flash Eurobarometer 300: Retailers Attitudes towards Cross-border Trade and Consumer Protection (p. 17).

Figure 4: Number of EU languages that can be used to carry out transactions with consumers



Source: Flash Eurobarometer 300: Retailers Attitudes towards Cross-border Trade and Consumer Protection (p. 16).