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Foreword

This paper takes stock of recent developments related to online consumer ratings and reviews and their effects on consumer behaviour. It provides an overview of key consumer benefits and risks associated with user-generated feedback, and identifies consumer policy challenges, including misleading and deceptive practices, a lack of accuracy, and consumer biases. It also points to issues for further consideration by consumer policy makers and enforcement authorities, as well as businesses and consumer organisations.

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Table of Contents

Foreword **2**

Executive summary **4**

1. Introduction **6**

1.1 Background 6
1.2 Scope and objectives 7

2. The business environment **8**

2.1 Reasons for businesses to enable consumer ratings and reviews 8
2.2 The roles played by businesses in supporting consumer ratings and reviews 8
2.3 Business' management of consumer ratings and reviews 9
2.4 Financing business models 10

3. Consumer experiences and sentiments **11**

3.1 Consumer benefits 11
3.2 Consumer use of online ratings and reviews 11
3.3 Consumer perceptions 12

4. Issues with online consumer ratings and reviews **14**

4.1 Fake ratings and reviews and other misleading and deceptive practices 14
4.2 The accuracy of consumer ratings and reviews as quality cues 18
4.3 Consumer behavioural biases in the production and use of ratings and reviews 20

5. Conclusion **22**

References **24**

Boxes

Box 1. Example of an online consumer rating and review 6
Box 2. Case study – Comparing expert reviews with consumer reviews 20

Executive summary

In today's dynamic and rapidly changing e-commerce marketplace, authentic online consumer ratings and reviews can benefit consumers and businesses alike. On the one hand, they allow consumers to make faster and informed decisions that match their needs and preferences. On the other hand, they enable small businesses and new entrants to enter a market or expand, and provide businesses with a feedback loop allowing them to continuously improve their products and manage their reputation.

While consumers have widely used online ratings and reviews from their peers over the past decades, available data suggests that their confidence in user-generated feedback is highly contextual and variable. Trust may be affected by a range of risks and challenges, such as:

- **Misleading and deceptive practices** impacting the authenticity and impartiality of online ratings and reviews. These include:
  - Fake reviews, which have become increasingly sophisticated and difficult for consumers to identify;
  - Incentivised reviews with insufficient disclosures about sponsorship;
  - Suppression of negative feedback.
- **A lack of accuracy** of consumer ratings and reviews, which are generally provided by a small number of consumers and may not be representative of average consumers' views.
- **Consumer biases**, which can affect both the production and use of online consumer ratings and reviews. Consumers tend to write and be more influenced by extremely positive or negative ratings and reviews, and to rate products more positively if a number of positive ratings and reviews are already available (social influence bias). Consumers are inclined to post more polarised ratings and reviews to influence ratings and reviews of a product in order to align them with their own opinion (self-selection bias).

While this paper does not seek to draw policy conclusions, it identifies issues for potential further consideration to improve the authenticity and impartiality of online consumer ratings and reviews. Such issues are as follows:

- **Online platforms could help to increase the relevance** of ratings and reviews about products and sellers through the use of additional data, such as consumer complaints and return rates. They could also improve their methods of calculating ratings to help reduce grade inflation;
- **Businesses could improve their methods of collection, moderation and publication** of reviews based on best practices developed by international consumer networks and other organisations;
- Governments could **ensure that consumer authorities are equipped with sufficient resources** to allow them to push back against harmful practices. **Governments could also reach out to businesses to raise awareness** of the current legislation and provide them with best practices;

- **Consumer authorities and businesses could cooperate more closely** in taking actions against fake ratings and reviews;
- Research could be developed to **better understand the effects of certain practices**, such as incentivised reviews or the effects of their disclosures on consumers;
- Initiatives aimed to **educate consumers on how to identify fake and misleading reviews** could also be developed.

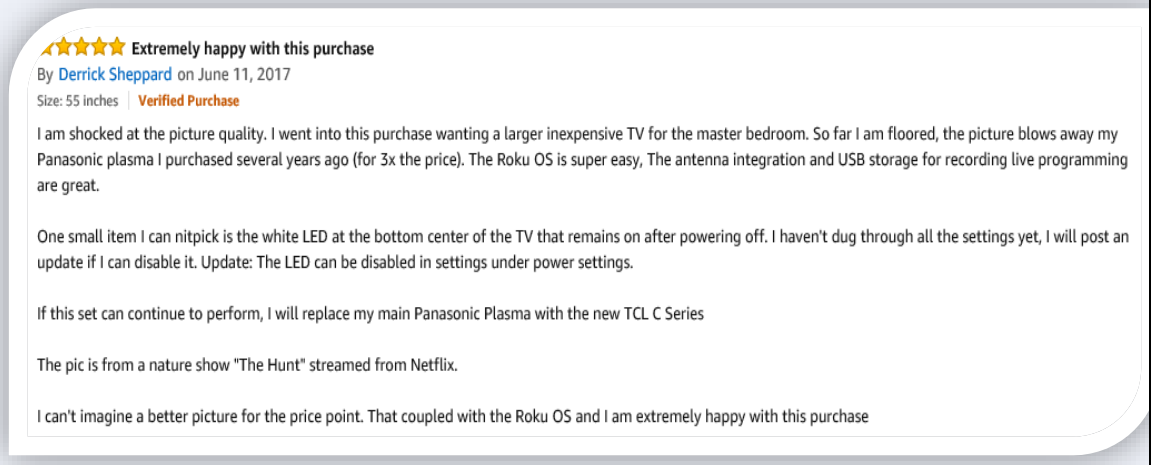
1. Introduction

1.1 Background

Consumers have long benefitted from sharing opinions and experiences about the quality and usability of goods and services (hereafter "products"). With the rise of the internet, e-commerce and online platforms, ratings and reviews have become increasingly available, widespread and influential. Millions of consumers generate and rely on ratings and reviews produced by other consumers to inform their purchasing decisions. Businesses have recognised their power to shape consumer purchasing behaviour and have developed systems to obtain, curate and display online consumer ratings and reviews, which have today also become important advertising instruments without which many businesses could not operate.

The concept of online consumer reviews is rather straightforward (see Box 1) and refers to: "A consumer's opinion and/or experience of a product, service or business. Reviews can be found on specialist websites and on the websites of many retailers, retail platforms, booking agents, and trusted trader schemes (schemes helping consumers to select a trader)" (ICPEN, 2016[1]). In addition to written online consumer reviews, an increase in the use of video reviews has been observed (Pew Research Center, 2016[2]).

Box 1. Example of an online consumer rating and review



Ratings are non-narrative appreciations of goods and services that are projected on a scale of marks or stars (e.g. stars from 1 to 5). Ratings and reviews often appear alongside each other. Sometimes, businesses engage in the translation of narrative reviews into ratings (Authority for Consumers and Markets of the Netherlands, 2017[3]). Ratings provide less information on the specific features of a good or service than reviews. They make it easier for consumers to compare larger numbers of goods and services. One study suggests that

ratings carry less weight in the consumers' decision-making process than reviews (Archak, Ghose and Ipeirotis, 2011[4]). However, it may be difficult to disaggregate the overall effect of ratings and reviews since they are often presented together.

Recently, reversed ratings and reviews (part of two-sided feedback systems) have been developed and implemented by businesses (e.g. Uber and Airbnb) to rate their customers. In some systems, these ratings and reviews create trust for the seller to offer his good or service (e.g. for a home owner to rent out an apartment or house).

Consumer ratings and reviews are distinct from reviews produced by experts (namely individuals, groups, or institutions possessing, as a result of their experience, study, or training, knowledge of a particular subject, which knowledge is superior to what ordinary individuals generally acquire) (US FTC, 2017[5]). These reviews generally carry more weight in the consumers' decision-making process.

They are also distinct from endorsements typically created by people with authority, such as celebrities and social media influencers. Social media influencers can be fitness gurus, gamers, beauty bloggers, fashionistas, foodies, and travel experts (OECD, 2019[6]). Their endorsements generally carry more weight in the consumers' decision-making process than endorsements from other peer consumers, due to their perceived expertise, authenticity or authority. Endorsements made by experts, celebrities, and social media influencers are often incentivised.

1.2 Scope and objectives

This report builds on the OECD *Recommendation of Council on Consumer Protection in E-commerce* (E-commerce Recommendation), which provides that (para.17) (OECD, 2016[7]):

> "*Endorsements used in advertising and marketing should be truthful, substantiated and reflect the opinions and actual experience of the endorsers. Any material connection between businesses and online endorsers, which might affect the weight or credibility that consumers give to an endorsement, should be clearly and conspicuously disclosed.*"

The paper takes stock of recent developments related to online consumer ratings and reviews and their effects on consumer behaviour. It provides an overview of key consumer benefits and risks associated with online consumer ratings and reviews, and identifies consumer policy challenges. It also points to issues for further consideration by consumer policy makers and enforcement authorities, as well as businesses and consumer organisations.

The focus of this paper is on online ratings and reviews created by ordinary consumers. However, many of the issues analysed also apply to reviews or endorsements produced by experts, social media influencers, and other professional personalities.

2. The business environment

This section describes some important features and market dynamics around online consumer ratings and reviews.

2.1 Reasons for businesses to enable consumer ratings and reviews

Businesses actively encourage online consumer ratings and reviews for several reasons. Online consumer ratings and reviews allow potential buyers to track a seller's past performance and to make faster and more informed decisions. They drive initial sales, customer satisfaction, repeat sales, and ultimately profit, as well as shareholder value (Langhe, Fernback and Lichtenstein, 2016[8]). According to a 2013 US study, 96% of retailers rank consumer ratings and reviews as an effective tool for driving conversion (ReviewsTracker, 2013[9]). They can increase a business's ranking on search platforms and review websites. This is especially the case with regards to online reviews or endorsements made by social media influencers, who often partner with brands and promote products to their social media audiences or "followers" (OECD, 2019[6]). Small and medium-sized enterprises in particular may find that ratings and reviews on online platforms have a significant impact on sales (EC, 2017[10]).

Businesses may use consumer ratings and reviews as part of their advertising and marketing strategy. They can provide consumers with information about product's performance in a real-word environment and give consumers information that is relevant to their intended use of the product or service. As such, they can help instil trust in sellers who may not be known to potential buyers. High levels of consumer trust can boost business reputation, which allows the business to attract more buyers and charge higher prices (Tadelis, 2016[11]; Langhe, Fernback and Lichtenstein, 2016[8]).

Indeed, online platforms have used consumer rating and review systems as an ex-post trust-building mechanism (OECD, 2019[12]). Academic literature on online platforms like eBay and Amazon has found that the reputation of a seller affects demand (Tadelis, 2016[11]). In the context of peer platform markets, findings from a 2017 OECD survey suggest that the use of reputation systems is one of the most important trust-building mechanisms and a key tool for enhancing consumer engagement in peer platform markets (OECD, 2017[13]).

Furthermore, both positive and negative reviews have a substantial impact on a business's reputation and sales. Negative reviews could have major negative effects on a business: consumers generally heed negative reviews more than positive reviews. There is however some evidence that consumers are more likely to purchase products that have a mix of mostly good and some bad reviews rather than products that have all good reviews because consumers may be suspicious if there are only glowing reviews. When there are negative reviews, it makes the overall source of the reviews appear to be more genuine (OECD, 2019[14]).

2.2 The roles played by businesses in supporting consumer ratings and reviews

There are several different capacities in which businesses support online consumer ratings and reviews (Authority for Consumers and Markets of the Netherlands, 2017[3]; UK CMA, 2015[15]; Consumer Focus, 2012[16]). Such roles may in practice blur and overlap. For example, price-comparison websites and social media platforms also engage in (indirect)

sales, branch or business organisations take the role of price-comparison websites and businesses that sell and review their own products and services also sell and review those of others. Distinguishing among them is however useful in understanding different interests and incentives as well as the dynamics in the market. At least four different roles can be identified:

- Businesses that sell their own products and/or services online. Their websites contain consumer ratings and reviews of their own products and services (type 1);
- Price-comparison websites, reservation websites, online search engines (like Google or Bing), and websites from consumer associations that facilitate consumer ratings and reviews on the products and/or services that are being compared, rated or reviewed. They do not necessarily engage in direct sales to consumers (type 2);
- Businesses that supply an infrastructure for consumer ratings and reviews to other businesses, such as embedding consumer ratings and reviews programmes into sellers' websites. Such businesses may offer services for the administration of ratings and reviews, or provide access to databases of consumers that are willing to rate and review goods and services, with a view to soliciting and incentivising new consumers to rate and review. This type of businesses does not directly sell goods and/or services to consumers (type 3);
- Online platforms, such as social media services, that have the flexibility to enable consumers to leave ratings and reviews on products of other businesses. They also constitute environments for type 3 businesses to recruit potential reviewing consumers (type 4).

In addition, a new type of review has emerged in the last decade: businesses that provide reputation management services. Understandably, some businesses seek to protect their image and brand from harm caused by competitors that could create or incentivise fake negative reviews. They therefore engage with consumer ratings and reviews, directly or through reputation management firms, to prevent or end certain consumer behaviours. Such behaviours include, for instance:

- Preventing consumers from using negative ratings and reviews to demand free products, services or other benefits from the business;
- Preventing or ending consumers' aggressive interactions or their use of abusive language in their reviews.

2.3 Business' management of consumer ratings and reviews

The extent to which businesses manage ratings and reviews differ, as do the methods they use to do so (UK CMA, 2015[15]). Generally, the management process contains the following steps:

- **Verification**: Submitted ratings or reviews could be published directly, but will often be verified by the businesses beforehand.
- **Moderation**: As a second step, the content of a review or rating can be moderated. Businesses will have different criteria for the moderation. This can lead to the removal/rejection or the acceptance of a ratings or review.

- **Complaint resolution**: Some businesses contact consumers who have written negative ratings or reviews in an attempt to solve the consumer's problem, possibly with the hope of creating a positive rating or review.

The steps of this process can be conducted manually or in an automated way through algorithms. Sometimes, the process is a combination of the two. Increasingly, businesses contract third parties to manage the consumer rating and review process for them (type 3) (UK CMA, 2015[15]).

The two main systems in operation for online consumer ratings and reviews can be characterised as primarily "open" or "closed" systems. In the first system, anyone can post a ratings and reviews, while in the second system ratings and reviews can only be posted by confirmed buyers. In practice, hybrid systems also exist in which one system incorporates features of the other (UK CMA, 2015[15]). For example, an open system could show ratings and reviews from both confirmed and non-confirmed buyers.

In 2009, the US Federal Trade Commission (US FTC) made clear that online ratings and reviews incentivised by a business were covered by the US FTC's Endorsement Guides. In addition, the agency clarified that it would view consumer ratings and reviews written in return for free goods and services as advertising subject to FTC enforcement. To date, many jurisdictions have followed a similar approach.

2.4 Financing business models

Consumer rating and review systems are funded in different ways, including through:

- Marketing budgets (type 1 businesses);
- Advertisements on the website (type 1 and type 4 businesses);
- Click-through fees (type 2, 3 and 4 businesses);
- Payments received from subscriptions or sales of rating and review infrastructure (type 3 and 4 businesses).

It should be noted that businesses could potentially experience tension or even a conflict between their short-term interests in generating more sales by manipulating ratings and reviews, and long-term interests of generating trust by upholding the quality and trustworthiness of online consumer ratings and reviews (OECD, 2019[14]). The balance between the two interests may be impacted by the level of ethical awareness of businesses involved (UK CMA, 2015[15]), especially because a consumer's ability to identify fake and misleading ratings and reviews may be limited or non-existent.

3. Consumer experiences and sentiments

This section describes how consumers providing online ratings and reviews experience and relate to them. It also sets out the benefits of those online consumer reviews for other consumers.

3.1 Consumer benefits

Online consumer ratings and reviews provide consumers and businesses with a number of benefits, enabling (ICPEN, 2016[1]; UK CMA, 2015[15]; Hennig-Thurau et al., 2004[17]; Hall and Rosenburg, 2009[18]; OECD, 2017[19]; OECD, 2019[6]):

- Better and faster purchasing decisions;
- Enhanced competition among businesses;
- Consumers to narrow down their search;
- Consumer access to a wider range of products;
- The sharing of opinions and experiences among peers.

In addition, online consumer ratings and reviews allow consumers to share opinions and experiences with vast numbers of other consumers, without direct intervention from advertisers and businesses (Thorsten Hennig-Thurau, 2004[20]; Hall and Rosenburg, 2009[18]). They provide consumers with additional means of assessing the quality of products within the purchasing process, even when a purchase is eventually made off-line. Also, online consumer ratings and reviews help to resolve information asymmetries between businesses and consumers. They can create a feedback loop for businesses, which can inform the continued improvement of their products (OECD, 2017[19]). Furthermore, online consumer ratings and reviews facilitate product comparison (services), which can lead to more competition, lower prices, better quality and improved consumer experience.

In particular, online consumer ratings and reviews play an important role in relation to the quality and usage of products that consumers cannot examine and assess well due to information asymmetries. In addition to experience and credence goods, examples include expert services, such as medical procedures or automobile repairs, whose effectiveness can only be determined over time.

3.2 Consumer use of online ratings and reviews

Available data suggests that consumers check and read online ratings and reviews before making transactional decisions. A 2017 OECD survey revealed that around 70% of consumers see ratings and reviews as crucial or very important to their transactions, with only small differences apparent per country (OECD, 2017[13]). Google has found that mobile searches for product ratings and reviews increased by 35% from 2015 to 2017 (Google, 2018[21]). In the United States, a 2013 study found that 63% of consumers are more likely to purchase from a website containing product ratings and reviews (ReviewsTracker, 2013[9]). A US survey carried out in 2016 has further shown that 82% of Americans say they sometimes consult online ratings and reviews when buying something for the first time, including 40% who say they always or almost always do so (Pew Research

Center, 2016[2]). A consumer survey conducted in 2018 in Japan showed that consumers in the country always (34%) or frequently (50%) check online ratings and reviews before making a purchase (Mitsubishi UFJ Research and Consulting, 2018[22]). In the United Kingdom, research conducted in 2015 showed that the country's annual consumer spending of GBP 23 billion is influenced by online ratings and reviews, and that 54% of consumers use ratings and reviews (UK CMA, 2015[15]). A study developed in 2018 has further revealed that 86% of consumers in the United Kingdom read reviews on local businesses (Brightlocal, 2018[23]).

Online consumer ratings and reviews have also significant impacts on consumer's offline behaviour. Pew Research found that, in 2016, 45% of consumers check reviews before purchasing in a physical store (Pew Research Center, 2016[2]).

However, there is also some evidence suggesting that consumers do not necessarily rely on online ratings and reviews. For instance, a 2017 consumer survey in the EU Member States revealed that only 22% of consumers in peer platforms markets always use a review system before a transaction, while 27 % use them frequently. On the other hand, a majority of consumers do not review peer providers regularly. Only 26% of consumers sometimes verify peer-providers before a transaction while another 32% never or rarely do so (EC, 2017[24]).

3.3 Consumer perceptions

Consumers seem to generally consider online ratings and reviews as important and reliable sources of information (UK CMA, 2015[15]; Consumer Focus, 2012[16]). For example, a 2012 study in the United States revealed that 65% of potential consumers selected a product that was not in their initial consideration set after checking online consumer reviews (Shandwick, 2012[25]). A 2015 study suggests that consumers are likely to spend 31% more on businesses with excellent reviews and 86% of people will hesitate to purchase from a business that has negative online reviews (Saleh, 2015[26]). The 2017 Ipsos Global Trends study found that 70% of consumers across 23 countries agree with the statement: "What I read about other people's good or bad experiences influences the companies or brands I choose" (IPSOS, 2017[27]).

Ratings and reviews appear to facilitate trust in sellers/providers, and to a large extent consumers appear to trust ratings and reviews (OECD, 2016[28]). In a survey conducted in 2013 in the UK, 8 out of 10 consumers stated that they trust online reviews as much as personal recommendations (LCSR, 2013[29]). A 2014 study in Germany shows that 86% of consumers consider online reviews 'credible' or 'very credible' (Conrady, 2014[30]). A 2016 US study found that 51% of consumers who read online reviews say they generally give an accurate picture of the true quality of the product, while 65% of consumers who always or almost always read online ratings and reviews believe that they are generally accurate (Pew Research Center, 2016[2]). Another research in the UK in 2013 showed that 64% of consumers find the opinions of other consumers the most trustworthy sources of information (Lightspeed Research, 2013[31]).

The degree to which extent online ratings and reviews form a single or predominant source of information for consumers however remains unclear. The 2017 OECD study on peer platforms suggests that while 73% of surveyed consumers considered the ability to review online consumer ratings as reviews as "crucial" or "very important" to their willingness to engage in a transaction, larger percentages of respondents prioritised secure payment methods (81%) and the security and confidentiality of their personal data (78%). The study

also indicates that, in peer platforms markets, reviews and ratings are not always crucial to the decision of whether to go ahead with a transaction, although they are seen as important sources of information (OECD, 2017[13]). In addition, a survey conducted in Japan reported that 46.5% of consumers rely on information on online review sites, which is nearly equivalent to that on TV (46.9%) (Mitsubishi UFJ Research and Consulting, 2018[22]).

Other research shows that online reviews may overweigh other quality indicators such as price and brand name, implying that consumers may give much significance to online reviews when making purchasing decisions (Langhe, Fernback and Lichtenstein, 2016[8]). A 2018 survey shows that while trust in a brand plays a strong role in determining *where* consumers shop, they rely heavily on other people's opinions to decide *what* to buy (Price Waterhouse Cooper, 2018[32]).

There is also evidence that consumers have a mixed view over the trustworthiness of online ratings and reviews. A 2017 study by the European Commission (EC) suggests that consumers using peer platforms do not use peer reviews and rating systems systematically and they do not always trust them. The EC study shows that limited consumer trust in peer platforms may be explained by various factors, including subjectivity of reviews, uncertainty about representativeness, and the fear for fake reviews. The study also suggests consumer trust in peer platforms seem to be contextual and consumers actually use a number of elements to evaluate the overall reliability of a platform and of its peer providers (EC, 2017[24]). The 2017 OECD study finds that, although the majority of consumers value reviews and ratings when considering whether to use a seller/provider, and many provide feedback, consumers recognise that reviews and ratings cannot always be trusted, mainly because of dishonest or fake reviews (OECD, 2017[13])

A 2017 market study in Norway sheds another light on consumer trust in online ratings and reviews. The study suggests that biased consumer ratings and reviews on products in peer platform markets where consumers tend to avoid giving negative ratings for the fear of damaging established personal relationship with sellers, lead to lower reliability of consumers into the platform markets' review system (Berg and Kjørstad, 2017[33]).

The 2017 OECD survey also found that consumer trust in online ratings and reviews may have been damaged with the prevalence of fake and misleading ratings and reviews. Indeed, around half of surveyed consumers have seen ratings or reviews that they considered to be dishonest. Similarly, some consumers find it difficult to differentiate between sellers/providers because there are so many have high ratings (OECD, 2017[13]).

4. Issues with online consumer ratings and reviews

Despite the many benefits that online consumer ratings and reviews can bring to consumers, the following consumer risks and challenges have been identified (OECD, 2016[28]; US FTC, 2016[34]):

- Fake ratings and reviews and/or misleading practices;
- Inaccurate ratings and reviews that do not always provide objective quality cues;
- Consumer biases in producing and using ratings and reviews.

4.1 Fake ratings and reviews and other misleading and deceptive practices

The growing use of online consumer ratings and reviews for marketing and sales purposes has been coupled with fake and misleading review practices for the promotion of goods or services, or for discrediting competitors. Such misleading practices include, for example (OECD, 2018[35]; OECD, forthcoming[36]):

- Failure to disclose incentivised reviews;
- Suppressing negative feedback;
- Manipulating genuine consumer ratings.

Both fake ratings and reviews, and misleading practices distort information for consumers and run afoul of the OECD's E-commerce Recommendation.

4.1.1 Fake ratings and reviews

Some countries have identified a growing practice of fake reviews designed to look like independent and authentic consumer reviews. Producing large numbers of favourable ratings and reviews that appear as the authentic experiences of impartial consumers (sometimes referred to as "astroturfing") often aims to boost their ratings or lower those of their competitors (Competition Bureau Canada, 2015[37]). Some businesses have for example encouraged their own employees to post positive ratings and reviews or to incentivise consumers to do so. A 2018 investigation by the UK consumer organisation Which? shows how consumers are being recruited and rewarded to write fake reviews through social media groups[1]. Some businesses have also hired "reputation enhancement firms" or "search engine optimisation" (SEO) firms, who pay third parties to post fake online ratings and reviews (Competition Bureau Canada, 2015[37]). These ratings and reviews are often complete fabrications and no actual consumer has been involved in their production in any way.

While fake ratings and reviews are often used in connection with misleading or fraudulent practices, such as subscription traps and scams, they can also be deployed by legitimate businesses to bring economic benefits (Mayzlin, Dover and Chevalier, 2014[38]). As shown by a 2013 US case brought by the New York State Attorney General, the production of fake reviews can be an extensive, well-organised and profitable operation[2].

A number of studies have produced widely varying estimates of the volume of fake reviews in the marketplace. A 2015 French study identified between 10% and 30% of reviews to be fake, with up to 45% of them suspicious (Munzel, 2015[39]). Other cross-country estimates

range from 1% to 16% of the reviews to be fake (ICPEN, 2016[1]). The EC considers fake reviews as one of the most market-distorting factors in the e-commerce sector (EC, 2014[40]). Recent news stories show that businesses providing fake review services can be found online and that some fake reviews can still pass verification mechanisms of platforms undetected.

Although there is little research available, it might be assumed that the risks of fake reviews are higher in 'open' review systems, and that 'closed' systems are more likely to have safeguards to prevent fake reviews from being posted. However, if businesses whose products and services are being reviewed engage in producing fake reviews by themselves, fake reviews can also occur in 'closed' review systems. In that case, one would expect the consumer harm to be more extensive as consumers will generally put more trust in the reviews of a 'closed' system.

Several studies show that consumers have difficulty identifying fake ratings and reviews. One study concludes that consumers identify them "roughly by chance" (Ott, Cardie and Hancock, 2012[41]). Another study shows that consumers that have been warned about fake reviews actually overestimate their ability to recognise them. Consumers also rely on software to identify fake reviews (Munzel, 2015[39]).

Businesses that use ratings and reviews, including online platforms, have continuously made efforts to minimise the numbers of fake ratings and reviews on their websites, including through the use of algorithms and machine learning, as well as manual control mechanisms to identify and block fake ratings and reviews. However, with the efforts of circumventing their protective measures continuously evolving, some online platforms admit that they cannot guarantee that their websites do not contain fake reviews (OECD, 2019[14]).

During the roundtable on online consumer reviews organised as part of the 96th CCP meeting in November 2018, some jurisdictions highlighted the importance of getting a better understanding of the monetary value of fake ratings and reviews and the corresponding detriment to consumers. Developing such a theory of harm could help consumer authorities to prioritise cases on fake reviews. Closer cooperation between industries and regulatory bodies could also help improve the understanding (OECD, 2019[14]).

Tackling the issue of fake ratings and reviews requires legislation that prohibits deceptive and fraudulent practices (OECD, 2016[42]). Self-regulation could also form an important contribution with the market applying and upholding standards. In addition, as discussed during the CCP's roundtable, there may be benefits from information sharing and closer cooperation between consumer authorities and online platforms where appropriate (OECD, 2019[14]).

Another possible response discussed at the roundtable is the development of third party certification systems for ratings and reviews. However, certification, as a general requirement for review systems to operate, could produce entry barriers that advantage existing businesses over ones that want to enter the market (OECD, 2019[14])

Finally, a commonly deployed policy solution is raising consumer awareness about fake ratings and reviews. Through consumer outreach, consumers could be educated about the risks of fake ratings and reviews and informed on how to recognise fake ratings and reviews and act on them. This could be a task for businesses, civil society as well as governments (OECD, 2019[14]).

4.1.2 Other misleading and deceptive practices

Some businesses have used the architecture and administrative processes of ratings and review to mislead consumers.

Negative reviews

Some businesses have suppressed genuine negative ratings and reviews by, for instance, deleting, blocking or punishing negative reviews (OECD, forthcoming[36]). Others have manipulated content or influenced consumers to change it (UK CMA, 2015[15]). Such practices have in turn affected ratings and reviews by other consumers (Aral, 2014[43]).

Businesses have also treated negative reviews differently from positive ones by, for example, unduly postponing the publication of negative reviews under the pretext of reviewing them or solving the problem for the consumer (Danish Consumer Ombudsman, 2015[44]). Sometimes negative reviews have been published in the order of the original submission date, even when they were held back from publication for an administration period. Such practice has made them virtually invisible to consumers (Authority for Consumers and Markets of the Netherlands, 2017[3]). Negative reviews have also been treated as complaints or false claims and thus funnelled an internal route instead of being published (OECD, 2019[14]; US FTC, 2017[45]). Some examples have also been observed in which businesses sought to contractually bind consumers not to leave negative feedback (OECD, 2019[14]; OECD, forthcoming[36]; US FTC, 2017[45]).

In particular, third party review facilitators (type 3 businesses) could have additional incentives to distort the content of online consumer review. Their business models depend on their success of generating positive feedback for their clients to gain future business. Safeguarding the integrity of consumer ratings and reviews may not always be top priority for these businesses.

Incentivised reviews

Offering rewards to consumers for their ratings or reviews is a way for businesses to increase the number of more (positive) ratings and reviews. Consumers can be rewarded in different manners, including through, for instance, monetary payment, discounts, store credits, and other financial benefits. The provision of "free" goods or services, otherwise being offered "in kind" rewards, can also be used to incentivise consumers to post reviews (OECD, 2019[46]; OECD, forthcoming[36]).

Incentivised reviews in blogs, online videos and social media platforms have increasingly been observed and become a key component to advertise products. They can raise issues for consumers who may have difficulty determining whether posts made on social media, blogs, or in other "word-of-mouth" contexts, reflect unbiased opinions or paid advertising. This has become especially problematic given that many businesses often provide free products to social media influencers (OECD, 2019[6]). Concerns have been raised about the fact that many advertisers and online content providers, such as social media influencers, do not disclose payments or other commercial arrangements clearly and conspicuously, making it difficult for consumers to assess the weight and credibility of the endorsements and the products recommended (OECD, 2019[46]; OECD, forthcoming[36]). Consumers may be unable to recognise that they are seeing paid endorsements with insufficient disclosures (OECD, forthcoming[36]).

The effects of offering rewards on the ratings and reviews are being debated. One study has shown that reviews become more favourable towards the business offering the

incentive. Buyers reciprocate the sellers' 'good deeds' with more frequent and more favorable feedback. In other words: sellers can buy feedback, but such feedback is likely to be biased (Cabral and Li, 2015[47]). This may lead to a decrease in the authenticity and impartiality of online consumer reviews, which may affect consumer trust.

To prevent incentives from biasing ratings and reviews, one academic observer suggested that ratings and reviews should focus on relevant information on the product or seller rather than on sentiments. In this view, consumers would know that they can trust businesses that incentivise reviews to obtain only valid, relevant product information (OECD, 2019[14]). It is unclear, however, whether consumers would find such reviews useful since one value of consumer reviews is that they contain subjective assessments.

A positive effect of incentivising reputational feedback could be that consumers with more moderate opinions will provide feedback, which could increase the numbers of consumers that rate and review, reducing the polarisation of ratings and reviews (Marinescu et al., 2018[48]).

One potential downside could be that established positive reputations can function as a market entry barrier for new business that do not yet have an online reputation. However, markets for ratings and reviews could potentially help alleviate some of these barriers.

In practice, many large online platforms do not accept ratings and reviews that are based on undisclosed incentives (OECD, 2019[14]). As a minimal standard, it would not be desirable if business were to explicitly request positive feedback in return for rewards (UK CMA, 2015[15]) and would not be accordance with the E-commerce Recommendation if incentivised ratings and reviews are published without appropriate disclosures about such fact (OECD, 2016[42]; OECD, 2019[46]; OECD, forthcoming[36]).

Aggregated ratings and other emerging practices

Many websites and online platforms produce aggregated ratings on products or sellers. These ratings usually consist of the number of positive reviews as a percentage of the total amount of reviews. Due to the way the ratings are created, they are generally high and show little distribution; an effect called grade inflation. Ratings tend to be inflated across online markets. Some academic observers question whether consumers are able to make useful distinctions between good and less good sellers or products, based on inflated ratings (Schoenmüller, Netzer and Stahl, 2018[49]; OECD, 2019[14]). Consumers may also be misled when aggregated scores are based on incentivised ratings (OECD, forthcoming[36]) or same reviews posted in different platforms (NAD, 2019[50]).

A potential way to remedy grade inflation, suggested by an academic observer, could be to add the number of transactions that were not reviewed by buyers (so-called 'silent reviews') to the equation that determines the seller's aggregated rating. During an experiment, these alternative ratings (Effective Percent Positive or EPP) were better able to predict whether a buyer returned to buy from the same seller again (Tadelis, 2016[11]).

Some online platforms not only allow for the consumer to provide feedback on the seller, but also for the seller to score the consumer (e.g. Airbnb and Uber). However, depending on the architecture of the system, a two-sided feedback mechanism could produce retaliatory effects that are likely to inflate the consumers' ratings and review of the seller's products and/or services. A seller's negative score might affect the consumer's future willingness to transact with the seller, quality and price of products and/or services. In fact two-sided feedback systems could penalise negative ratings and reviews (Tadelis, 2016[11]).

A solution to this issue could be for the consumer and the seller to rate one another without knowing the content of each other's rating and/or review (OECD, 2019[14]).

One related emerging issue that affects the utility of reviews and ratings for consumers arises in the context of traditional advertising. Today, it is widely agreed upon that businesses use ratings and reviews as a form of advertising their products and services (OECD, 2017[19]). Increasingly, advertisers are touting consumer reviews in advertising, making claims like "Most Recommended" or "Most 5-Star Ratings." In the United States, at least one self-regulatory organisation, the National Advertising Division of the Better Business Bureau (NAD) has addressed this practice, providing guidance on the application of traditional truth-in-advertising principles in this context (NAD, 2019[50]). The NAD has advised that review data should be limited to reviews that are associated with verified purchases, and represent the actual views of consumers. In addition, reviews gathered across multiple platforms should be vetted to ensure that the same review is not counted multiple times.

The role played by online platforms

In relation to misleading review practices, there are policy issues regarding the role and responsibilities of online platforms in ensuring the authenticity and impartiality of online consumer ratings and reviews. At a high level, there is consensus that online platforms have a role to play in promoting truth-in-advertising principles (OECD, 2016[7]). This could include, for example, implementing and enforcing internal rules requiring content providers on online platforms, including social media influencers, to disclose clearly and conspicuously material connections with advertisers in their reviews. Online platforms could also play a role in developing better ratings design through, for instance, increased and fair use of two-sided feedback mechanisms (OECD, 2019[51]).

In addition, to enable consumers to identify good sellers or products, online platforms could analyse and provide other quality information on sellers or products, such as information from consumer complaints. Machine learning software may also assist in picking up the relevant information to this purpose (OECD, 2019[14]; Tadelis, 2016[11]).

4.2 The accuracy of consumer ratings and reviews as quality cues

As described in the former section, the accuracy of online consumer ratings and reviews can suffer from deliberate deceit or manipulation. This section examines some of the ways in which inaccuracy of ratings and reviews can result from non-deliberate actions or flaws in the way review systems operate (see Box 2). This topic has generally attracted less attention at a policy level than the issue of fake or misleading ratings and reviews.

Even if online ratings and reviews are not completely accurate, they can still help consumers to compare the relative values of sellers or goods and services. However, it would be beneficial for ratings and reviews to have a substantial level of accuracy on the usability and quality of products or services.

Most studies agree that the vast majority of consumer reviews are written by an estimated 1% of all consumers (Bezzubtseva and Ignatov, 2013[52]; Nielsen, 2006[53]). It is likely that this group of consumers does not represent an average group of consumers, and may not always reflect or address the relevant quality aspects for the other 99% of consumers. Secondly, sample sizes run a risk of being too low to provide accurate quality signals (OECD, 2019[14]) and consumers may not necessarily be aware of it (Langhe, Fernback and Lichtenstein, 2016[8]). A potential way to increase the number of consumers that rate or

review could be by sending reminders (Schoenmüller, Netzer and Stahl, 2018[49]) or providing rewards (EC, 2017[24]).

Another reason that consumer reviews may not represent the average consumer experience of a good or service is that consumers are more likely to write reviews on either very positive or negative ways, the so-called 'polarisation' of reviews (Consumers Council of Canada, 2016[54]; Schoenmüller, Netzer and Stahl, 2018[49]).

Furthermore, research suggests that the risks of inaccurate consumer reviews can be higher in markets with experience goods and services that are bought based on subjective quality aspects. Consumers often produce reviews right after the purchase of a good or service. Therefore, especially for goods and services with a longer lifespan, reviews may not provide a reliable quality cue for the longer term (e.g. durability). Asking consumers for an update of a review after a certain amount of time could guarantee more valuable information (Consumers Council of Canada, 2016[54]).

There is also a risk that users of consumer reviews, particularly those who engage in e-commerce via online platforms, might not always be able to distinguish between reviews about a transaction (e.g. delivery times and charges) and reviews about a product's usage or quality (Tadelis, 2016[11]).

Box 2. Case study – Comparing expert reviews with consumer reviews

A study developed in 2016 examined empirically the actual and perceived relationships between the average online user rating and objective quality of products (Langhe, Fernback and Lichtenstein, 2016[8]). The study used a data set containing 344 157 ratings from Amazon.com that concerned 1 272 products across 120 product categories.

Since expert ratings are the most commonly used measure of objective product quality, the study measured the relationship between user ratings on Amazon and expert judgments of product quality based on scores from Consumer Union's *Consumer Reports* magazine, the most commonly used measure of objective quality in the consumer behaviour literature in the US.

The study found that consumer ratings lack convergence with expert reviews and that consumer scores do not predict re-sale value of a product in the used-product marketplace. It concluded that consumer trust in the average user rating appears to be based on an 'illusion of validity', and that:

- Average consumer ratings are often based on insufficient sample sizes which limits their informative capacity;
- Average consumer ratings for more expensive products and premium brands are higher;
- When providing quality inferences and purchase intentions, consumers heavily weight the average rating compared to other quality cues like price and the number of ratings.
- Consumers may apply different quality parameters to products or services, even when scoring more objective quality aspects;

One qualification to these findings is that the *Consumer Reports*' scores are based on tests that use sophisticated measures and tools unavailable to most consumers (as compared to the Amazon user ratings, which were based on consumers' subjective experiences with the products). In addition, *Consumer Reports'* full ratings are only available with fees (although the organisation does publish some limited information online) while any consumer can read Amazon ratings. The article resulted in a debate between various scholars (Langhe, Fernback and Lichtenstein, 2016[8]).

4.3 Consumer behavioural biases in the production and use of ratings and reviews

4.3.1 Biases in the production of consumer ratings and reviews

When producing ratings and reviews, consumers seem to be influenced by various behavioural biases. One such bias is social influence. According to a 2014 study, consumers tend to rate goods and services more positively if a number of positive ratings and reviews are already available. This seems especially true if these ratings and reviews are from friends or relatives (Aral, 2014[43]).

A number of studies also found that consumers tend to provide feedback with an extreme distribution and to be skewed to the positive, with numerical feedback (ratings) more affected than narrative feedback (reviews). At least one author has concluded that ratings and reviews lose informative capacity as a result of the extreme distribution (Schoenmüller, Netzer and Stahl, 2018[49]). Another study states that consumers are inclined to post more polarised ratings and reviews since they want to influence ratings and reviews of a product in order to align them with their own opinion (self-selection bias) (Antonis Matakos, 2016[55]). A 2018 study, which confirms the selection bias, suggests that (monetary) incentives could reduce the effects of the selection bias by attracting ratings and reviews from consumers with moderate opinions (Marinescu et al., 2018[48]).

Another study found that the online interaction of consumers with sellers influences their assessment of a product. Consumers who discuss the specific features of a product tend to appreciate it more (herding bias). The same study also found that consumer ratings and reviews partly reflect the differences between the true quality of the product and the prior expectations as inferred from previous reviews (Talwar, Jurca and Faltings, 2007[56]).

Another study confirms that consumers' tendency to value extreme reviews is the main driver for the wide distribution of ratings. Cognitive dissonance - the fact that consumers tend to be positive on purchase to justify their decisions - also drives ratings to be skewed to the positive. The study notes that the wide distribution is not caused by scaling or wording of ratings and reviews (Schoenmüller, Netzer and Stahl, 2018[49]).

In addition, a 2017 EC study on peer platform markets suggests that only 20% of users left a negative review or rating after encountering a transactional problem, implying potential biases in the production of online consumer ratings and reviews (EC, 2017[24]).

4.3.2 Biases in the use of consumer ratings and reviews

Similar behavioural biases have been observed with respect to consumer usage of ratings and reviews. On the one hand, consumers seem to be more influenced by extreme ratings and reviews, both positive and negative (OECD, 2019[14]). On the other hand, some research suggests that consumers are more likely to discard extreme reviews as dishonest or fake (NBER, 2012[57]).

Consumers also tend to value negative reviews more than positive reviews (J. Chevalier, 2006[58]). Finally, research suggests that narrative or textual reviews appear to have more impact than non-narrative or non-text (e.g. statistical) reviews (Blal and Sturman, 2014[59]; Hamby, Daniloski and Brinberg, 2015[60]).

A study aimed at identifying the factors that influence the effectiveness of online word of mouth messages - including online consumer reviews and ratings observed that the research on the topic remains largely fragmented and that findings are sometimes inconsistent and even contradictory (Montazemi and Qahri-Saremi, 2014[61]). There is however a clear indication that consumers are more or less biased when providing and using ratings and reviews, although it is less clear exactly in what ways and to what extent.

5. Conclusion

Overall, online consumer ratings and reviews bring a number of benefits to consumers and businesses alike. For consumers, they can lead to better informed purchasing decisions, reduced search costs, lower prices and increase the quality of products and services. They facilitate consumer engagement in e-commerce and help build trust between consumers and businesses. Consumers in general rely on online consumer ratings and reviews in their purchasing decisions, both online and offline. Businesses, for their part, use consumer ratings and reviews as a tool to improve their products on a continued basis and to help manage their reputation. As a result, some businesses have developed mechanisms for obtaining more favourable ratings and reviews from consumers. This has led to the development of a new market in which businesses provide other businesses with rating and review-infrastructure services.

From a consumer protection point of view, certain aspects regarding the operation of online consumer ratings and reviews are problematic, and could, in some cases cause harm to consumers:

- Fake and misleading review practices, which negatively impact both consumer decision-making and trust;
- Inaccurate consumer reviews, which do not always provide objective quality cues;
- Consumer behavioural biases in producing and using online ratings and reviews.

To address these issues, many jurisdictions and organisations have implemented measures to mitigate the (potential) negative effects of online consumer ratings and reviews, such as legislation, guidance, enforcement action, community guidelines and consumer education. Such measures indicate that as a basic requirement, rating and review systems should be managed in a fair and transparent manner. They should provide information on genuine consumer experiences, and businesses should be transparent about the ways in which they incentivise, edit, filter and publish reviews. Online platforms have a role to play in maintaining authentic and impartial reviews.

Consumer laws in many jurisdictions require compulsory disclosures by businesses about the material connections between a business and a reviewer (e.g. disclosure on the fact that a review was incentivised or edited). While there is not much evidence about the impact or effectiveness of these disclosures, most consumer agencies however assert that such disclosures affect the weight and credibility a consumer gives to a review. Studies on behavioural insights offer reasons to suspect that some disclosures may be more effective than others in conveying information about sponsorship or incentives than others (OECD, 2018[62]). Although there is a wide range of research about effective disclosure design, additional research into the effectiveness and optimal design of disclosures for online ratings and reviews would be useful.

There is also little empirical evidence about the effectiveness of the various standards and requirements aimed at improving business practices related to online consumer ratings and reviews. Further research on the extent to which businesses abide by these standards and requirements and actually improve the quality of online consumer ratings and reviews could be beneficial.

Continued efforts to address these issues are needed to improve the integrity and authenticity of online consumer ratings and reviews. Measures that could be in this regard developed may focus on the following points:

- Online platforms could help to increase the relevance of consumer ratings and reviews about products and sellers through the use of additional data, such as consumer complaints and product return rates. They could also improve their methods of calculating ratings to help reduce grade inflation;
- Businesses could improve their methods of collection, moderation and publication of reviews based on best practices developed by international consumer networks and other organisations;
- Governments could ensure that consumer authorities are equipped with sufficient resources to allow them to push back against harmful practices. Governments could also reach out to businesses to raise awareness of the current legislation and provide them with best practices;
- Consumer authorities and businesses could cooperate more closely in taking actions against fake ratings and reviews;
- Research could be developed to better understand the effects of certain practices, such as incentivised reviews or the effects of their disclosures on consumers;
- Initiatives aimed to educate consumers on how to identify fake and misleading reviews could also be developed.

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Notes

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