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Law and economics of price personalization: relevance of secondary-line injury cases under Article 102(c) TFEU

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ABSTRACT

This paper examines the legal and economic implications of price personalization under EU competition law, particularly Article 102 TFEU. While evidence of price personalization's prevalence is mixed, the paper analyses whether competition law is the appropriate tool for addressing this practice. Through analysis of primary-line and secondary-line injury cases, the paper argues that Article 102(c) TFEU, although technically applicable, may not be the most suitable instrument for regulating price personalization due to its ambiguous effects on consumer welfare. The paper contributes to existing literature by separately examining primary-line and secondary-line injury cases and their relevance to price personalization. It suggests that alternative legislative frameworks, particularly consumer protection directives like the Omnibus Directive, may be more appropriate for addressing price personalization concerns. The paper emphasizes the importance of transparency and consumer trust in implementing price personalization practices and calls for further research on the redistributive effects of personalized pricing between different consumer groups.

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KEYWORDS Price personalization; Article 102; price discrimination; welfare; consumer

1. Introduction

With the advancement in digital technologies, firms have found it possible to obtain information on consumer preferences which can be used towards individualizing or personalizing prices for consumers based on their willingness to pay. Consumer welfare is one of the goals of competition law and as a result one of the goals of Article 102

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TFEU.[1] Individualizing prices through price discrimination can have varying effects on consumer welfare but usually has a positive effect on total welfare as the consumer base increases.[2] Consumer welfare is determined by subtracting what a consumer is willing to pay from what they actually pay while total welfare refers to the change in overall output (consumer welfare + producer welfare).

However, even though there may be a rise in total welfare, a situation that may give rise to concern is when this practice resembles "first-degree price discrimination" or "perfect price discrimination" which is considered to be a practice that allows a firm to capture all the consumer surplus leading to a decrease in consumer welfare (rent transfer effect).[3] The worst-case scenario relating to price personalization is one where a monopolist seller price discriminates precisely between consumers and chooses to sell to only consumers that have a high willingness to pay and excludes those with a lower willingness to pay, or charges them a price higher than their willingness to pay closer to equilibrium price (misallocation effect).[4] This is the situation which prompted the writing of the current paper.

The legality of a practice such as price personalization is a balancing act of the costs incurred such as lower privacy standards, discrimination on certain grounds between consumers, rent transfer effect, misallocation effect, with benefits of the practice such as an increase in total output (output expansion effect).[5] Price discrimination and price personalization are closely associated concepts as the notions of fairness, welfare and trust that are associated with price discrimination, also play a role in price personalization.

The usage of competition law (Article 102 TFEU) to cases of end consumer price discrimination has been a debatable topic much before the emergence of digital platform firms.[6] The aim of this paper is to highlight such considerations that have been made previously relating to price discrimination and assess whether and how they apply to price personalization. The paper draws on the work of Townley et al.,[7] who have provided

[1]Konstantinos Stylianou and Marios Iacovides, 'The Goals of EU Competition Law: A Comprehensive Empirical Investigation' (2022) Legal Studies 1–29 <https://doi.org/10.1017/lst.2022.8>.
[2]Mark Armstrong, 'Price Discrimination' (2006) MPRA Paper, University Library of Munich, Germany 6.
[3]ibid 7–8.
[4]ibid.
[5]ibid 10–12.
[6]Pinar Akman, 'To Abuse, or Not to Abuse: Discrimination Between Consumers' (2007) 32 European Law Review 492.
[7]Christopher Townley, Eric Morrison, and Karen Yeung, 'Big Data and Personalised Price Discrimination in EU Competition Law' King's College London Law School, Research Paper No. 2017-38. The empirical evidence of its occurrence is not considered in their paper which it is in this paper.

a comprehensive overview of the economics and legality of price personalization, and extends the discussion by arguing that price personalization should only be prohibited using when there is a misallocation effect occurring along with calling for a more transparent approach to the practice in order to maintain consumer trust. The paper includes the Omnibus Directive's suggested amendment in relation to notifying consumers regarding price personalization.

To this end, the paper will discuss the effects of personalized pricing on consumers and assess whether it is beneficial to consumers through its redistributive effects or whether it requires to be regulated through legislation such as data protection or consumer protection or be dealt with by competition law enforcement under Article 102 TFEU when it concerns dominant online firms.[8] Prior to discussing its effects, the paper will consider evidence of its occurrence which is limited in today's day and age, and provide a conceptual understanding of the different terms that are associated with price personalization. It is to be noted that the focus of this paper is restricted to "price" personalization alone rather than related but important aspects such as product personalization or other marketing strategies which have been considered in past research works.[9] The conclusions of the paper are focused on price personalization actions by dominant firms.[10]

The paper contributes to the current literature on the application of competition law and other legislation(s) to personalized pricing cases by considering the concepts such as trust, fairness, and efficiency and their relation to how personalized pricing is perceived and what its effects on welfare are. The paper also discusses the role that fairness and consumer perceptions play while assessing whether personalized pricing enhances or reduces welfare and tries to assess whether competition law (mainly Article 102(c) but also Article 102(a)) is the right tool to be used in personalized pricing cases.

The paper is divided into six sections with five further sections along with this introduction. Section two will provide definitions to the terms price discrimination and price personalization and provide a conceptual

[8]Inge Graef, 'Algorithms and Fairness: What Role for Competition Law in Targeting Price Discrimination Towards end Consumers' (2018) 24(3) Columbia Journal of European Law 540. She argues that personalized pricing may not fit into the scope of Article 102 TFEU cases.

[9]Alan L Montgomery and Michael D Smith, 'Prospect for Personalization on the Internet' (2009) 23 Journal of Interactive Marketing 130.

[10]Dominance in EU law can be presumed when a firm has at least 50% market share as decided in Case C-62/86 *AKZO v Commission* [1991] ECR I-3359. In some cases, such as Case 27/76 *United Brands v Commission* ECR 1978-00207, and C-95/04 *British Airways v Commission* ECR 2007 I-02331 dominance was found even though the firm had less than 50% market share based on additional factors.

basis for further discussion in Sections three to five. Section three will consider past evidence that help in understanding the level of occurrence of price personalization currently, current norms that droive opinions on the practice, and the perspectives of coneumrs on the practice. Section four will consider the role of Article 102(c) TFEU in price personalization cases by considering primary-line and secondary-line injury cases. This section contributes to the current literature by providing new analysis to application of competition law to price personalization practices. Section five considers the use of other legislation to deal with price personalization as some limitations will have been noticed in using Article 102(c) TFEU alone in section five. Section six will conclude.

2. Conceptual understanding of price personalization and price discrimination

2.1. Price personalization

Before beginning on a qualitative assessment of the practice, it is essential to provide a base definition. Personalized pricing or price personalization (used interchangeably in this paper) is the practice of setting different prices for identical products to individuals based on information collected on them. The OECD defines it as *any practice of price discriminating final consumers based on their personal characteristics and conduct, resulting in prices being set as an increasing function of consumers' willingness to pay*.[11]

A narrower definition is provided by the Office of Fair Trading and its successor, the Competition and Markets Authority (CMA) of the UK who define it as *as the practice where businesses may use information that is observed, volunteered, inferred, or collected about individuals' conduct or characteristics, to set different prices to different consumers (whether on an individual or group basis), based on what the business thinks they are willing to pay*.[12]

The second definition limits the focus to practices that involve prices being marketed on the basis of consumer data while the first definition has a much wider scope. The CMA's definition is the one that will be considered in the rest of the paper owing to its precision. Price personalization that involves perfect price discrimination between end users is

[11]OECD, 'Personalised Pricing in the Digital Era' Background Note by the Secretariat, Organisation for Economic Co-operation and Development (OECD), DAF/COMP (2018)13, (28 November 2018) 9.
[12]CMA, 'Pricing Algorithms Economic Working Paper on the Use of Algorithms to Facilitate Collusion and Personalised Pricing' (October 2018) 37.

termed online behavioural discrimination by some.[13] It will be considered whether this is a possibility in today's age with the available tools and data for firms.

Botta and Wiedemann describe personalized pricing in online markets to be the practice of using information gathered from users to profile them and discriminate based on preferences.[14] Price discrimination is used by firms to capture consumer surplus as the firm is able to maximize its profits by segregating consumers who would be willing to pay more vis-à-vis those who would be willing to pay less and charge them accordingly. In this manner, the consumers that weren't willing to pay the previous price benefit from price discrimination.

The collection and usage of consumer information to engage in price discrimination is depicted in Figure 1 below.

It is important to consider whether there is evidence of occurrence of price personalization. This will be considered after defining the term price discrimination and describing the forms of price discrimination. The term price discrimination has also had considerable differences in its definition.

2.2. Price discrimination

Price discrimination is practiced by firms as a marketing strategy to increase the number of consumers that they are able to sell to.[15] An accepted definition of price discrimination is that it refers to the practice of charging different prices for two identical products which have the same marginal cost.[16] Therefore, price discrimination can be said to occur when a firm has the same cost to supply goods to consumers but charges them different prices. It also needs to be noted that price discrimination can be said to occur when a firm has different costs to supply different consumers but charges them a uniform price which results in a varying price to marginal cost ratio.[17]

The figure below (Figure 2) illustrates a simple form of price discrimination where the first figure shows a uniform or constant price, while the

[13] Ariel Ezrachi and Maurice Stucke, 'The Rise of Behavioural Discrimination' (2016) 37(12) European Competition Law Review 485, 485–92.
[14] Marco Botta and Klaus Wiedemann, 'To Discriminate or Not to Discriminate? Personalised Pricing in Online Markets as Exploitative Abuse of Dominance' (2020) 50(3) European Journal of Law and Economics 404.
[15] Hal R Varian, 'Price Discrimination' (1989) 1 Handbook of Industrial Organization 597, 654.
[16] Mark Armstrong and John Vickers, 'Competitive Price Discrimination' (2001) 32(4) The RAND Journal of Economics 579, 581.
[17] Massimo Motta, *Competition Policy: Theory and Practice* (Cambridge University Press 2004) 491.

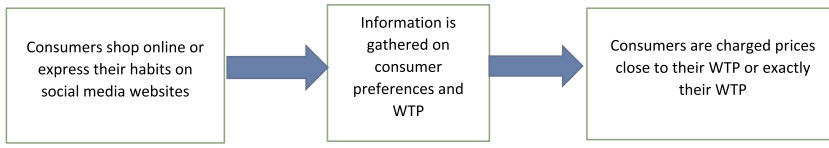

Figure 1. Data collection leading to personalization.

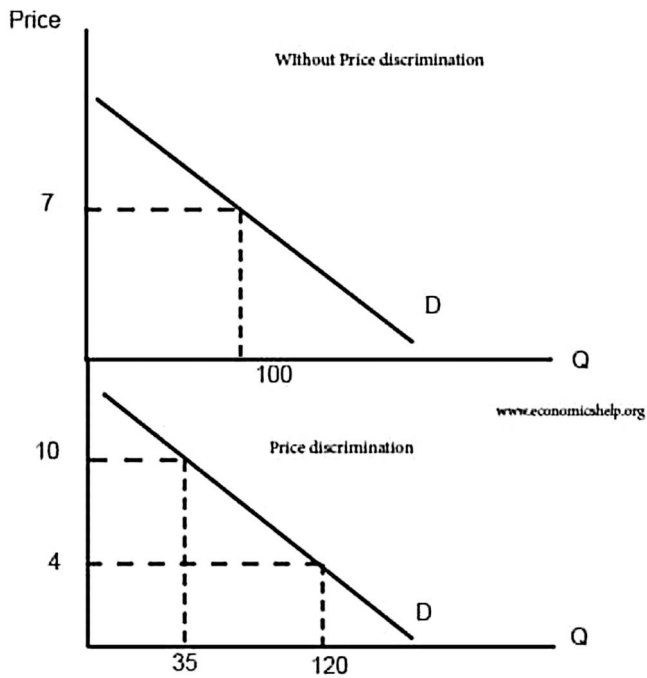

Figure 2. Price discrimination illustration.

second reflects a situation where the firm price discriminates. In the first graph, the firm charges 7 currency uniformly and sells 100 units netting a total revenue of 700 currency. In the bottom graph, the firm price discriminates and sells 35 units at 10 currency and 120 units at 4 currency netting a total revenue of 830 currency (Figure 2).[18]

Price discrimination is a practice that can be carried out by both a dominant as well as non-dominant firm. However, Varian notes that there are three conditions that are necessary for successful price discrimination. They are – (1) The firm must have some market power or

[18]Tejvan Pettinger, 'Price Discrimination' *Economics Help* (July 2019) <https://www.economicshelp.org/microessays/pd/price-discrimination/>.

influence over the market,[19] (2) the firm must have the ability to discriminate between consumers, and (3) the firm must be able to prevent arbitrage.[20] While the second and third conditions are widely accepted as requirements for successful price discrimination, the requirement of the first condition for successful price discrimination is debatable.[21]

Based on real-world examples, price discrimination can be classified on the basis of three degrees.[22]

First-degree price discrimination refers to perfect price discrimination where the firm knows exactly what price each consumer would be willing to pay and charges them accordingly. This requires perfect knowledge of the consumers' preferences. Second-degree price discrimination occurs when a firm offers self-selecting options to consumers such as quantity discounts. Third-degree price discrimination occurs when firms offer different prices to different consumer groups which are segmented through identifiable characteristics of consumers such as old age discounts or student discounts.[23]

Some forms of price discrimination are accepted even though all consumers may be aware of such discrimination taking place such as temporal pricing or category-based pricing. Grouping of consumers into different categories and offering a price based on each category for identifiable products such as old age or student discounts are grouped under third-degree price discrimination,[24] while offering self-select options such as discounted last-minute flight tickets or train tickets where the price charged is dependent on the number of units bought or the time the product is bought, comes under second-degree price discrimination. Barring arbitrage, both of these forms can have output expanding effects as more consumers are able to afford the price discriminated product or service.

One aspect to note is that second-degree price discrimination may involve individual differences of preference in consumers which gets reflected in them choosing a price that they would be willing to pay. For example, consumers may choose hotel rooms on a hotel room booking website based on whether they offer last day refunds. This decision would be mainly influenced by the consumer's choice of wanting to incur a cost for to insure their booking and planning ahead for any eventuality. Another consumer who is less concerned about not

[19]Varian notes that a certain amount of market power is required to be able to sort out consumers.
[20]See Varian 598–99.
[21]See Motta 492.
[22]See Varian 600. These classifications are due to Pigou's Seminal work in 1920.
[23]See Motta 491–93.
[24]See Armstrong 1–4.

being able to access the hotel may not incur the extra cost for last day refunds. A similar example is of publishers selling hard cover books at a higher price to extract more revenue from consumers who are willing to purchase a book on its release compared to consumers who are willing to wait for the soft cover books so that they can buy them at a lower price.[25] However, in both these examples, the consumer that pays more is able to achieve a product that is slightly different than the one obtained by the one paying a lower price. Due to this, it can be considered that there is a difference in the product characteristic as well in second-degree price discrimination examples.

First-degree or perfect price discrimination consists of instances where consumers are charged up to the maximum price that they may be willing to pay based on precise and accurate information available to the seller regarding their WTP.[26] In case perfect price discrimination is possible, a dominant firm or a monopolist would be able to transfer all the surplus from the consumers to itself while this is not the case in second and third-degree price discrimination where consumers tend to keep some of the surplus. A graphical representation of perfect price discrimination is presented below (Figure 3).[27]

First-Degree Price discrimination can have ambiguous effects on welfare depending on each case and depending on the welfare measure adopted. If the welfare measure adopted is total welfare, then the result will be an overall increase in total welfare as a result of an increase in output which is the fundamental characteristic of total welfare. If the measure of welfare chosen is consumer welfare, the process carried out to calculate the change in consumer welfare as a consequence of perfect price discrimination instead of a uniform price would be far more tedious as each consumer's welfare increase or decrease needs to be included individually and computed together to assess the change. This paper will highlight the importance of welfare measures while considering the use of competition law and other legislations in price personalization cases in order to ascertain whether to initiate a case under Article 102 TFEU. The primary concern with regard to first-degree price discrimination being practiced by a monopolist is that the rent transfer effect and misallocation effect would be greater than the output expansion effect.

[25]Gunnar Niels, Helen Jenkins, and James Kavanagh, *Economics for Competition Lawyers* (2nd edn, Oxford University Publications 2016) 183 [4.87].
[26]See Varian 600–02.
[27]Economics Online, Price Discrimination, 20 January 2020, <https://www.economicsonline.co.uk/business_economics/price_discrimination.html/>.

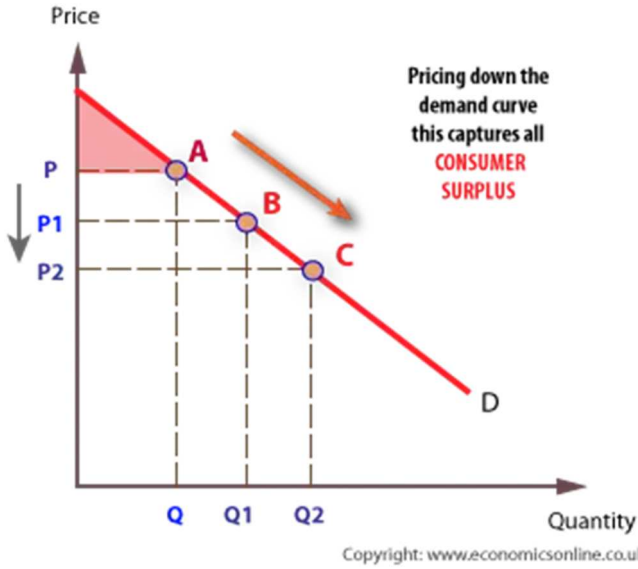

Figure 3. Perfect price discrimination: note that the triangle P1AB will be dead-weight loss (lost surplus).

Primarily, it is important to consider whether this is a practice that currently is seen to occur widely or if these considerations are forward looking for future cases which might undermine the importance of the study. Therefore, the following section will consider the evidence of price personalization.

3. Occurrence of price personalization: a literature review of price personalization

There has been some criticism of the practice based on different reasons. Some suggest that price personalization may lead to a reduction of consumer and total welfare,[28] some others find the practice to involve discrimination on certain grounds that may not be acceptable to society,[29] while others suggest that online platforms are able to misinform

[28]Topi Miettenen and Rune Stenbacka, 'Personalized Pricing versus History-Based Pricing: Implications for Privacy Policy' (2015) Information Economics and Policy 33 <https://doi.org/10.1016/j.infoecopol.2015.10.003>, who use a two-period model and find a reduction to consumer and total welfare; See also Ramsi Woodcock, 'Personalized Pricing as Monopolization' (2019) 51(2) Connecticut Law Review 311, who argues that disallowing arbitrage in itself is harmful for consumers.

[29]Alan Sears, 'The Limits of Online Price Discrimination in Europe' (2019) 12 The Columbia Science & Technology Law Review; See also Ezrachi and Stucke; See also Ramsi A Woodcock, 'Big Data, Price Discrimination and Antitrust' (2017) 68 Hastings Law Journal 1371, 1420.

consumers regarding the value of certain products which leads to misperception regarding surplus.[30]

There are on the other hand clear benefits that arise from price personalization. The most obvious one out of those is regarding the ability of new consumers being able to access previously inaccessible products.[31] The benefit of price personalization with the possibility of redistribution of wealth from the wealthy to the poor customers leads to allocative efficiency and increases social welfare as unequal prices are charged to unequal players.[32] Some have showed that price discrimination can intensify competition in scenarios where there is no firm-to-firm knowledge of their respective strong and weak consumers.[33] The practice has been also defended by Competition Authority heads of some countries.[34]

There are many studies that point towards occurrence of price personalization while others have indicated that price personalization may not be a widely occurring phenomenon in online websites. There are also different outcomes based on whether the metric to assess a price difference for an identical product is an operating system difference, geographical difference or temporal difference. In 2018, the European Commission's market study on price personalization found evidence of the conduct being more prevalent in certain markets such as hotel and airline booking than in websites selling shoes and TVs. The study however did not find sufficient evidence of personalized pricing occurring at a large scale across EU Member States.[35] The EU reached a similar finding in their report on personalized pricing and concluded that currently there isn't sufficient evidence to hold that the practice is widely prevalent.[36]

One of the earliest empirical study on the existence of price personalization is by Mikians et al., who conducted a study in 2012 to assess the existence of online price discrimination (and also search discrimination which is not relevant to this paper) and found no such existence when it came to different Operating Systems/Browser

[30]Oren Bar-Gill, 'Algorithmic Price Discrimination: When Demand is a Function of Both Preferences and (Mis)Perceptions' 86 University of Chicago Law Review (Forthcoming); See also BEUC Report 2023.
[31]Case 27/76, *United brands v Commission of the European Communities* ECLI:EU:C:1978:22.
[32]Etye Steinberg, 'Big Data and Personalized Pricing' (2020) 30(1) Business Ethics Quarterly 97, 117.
[33]James C Cooper, Luke M Froeb, Daniel P O'Brien and Steven T Tschantz, 'Does Price Discrimination Intensify Competition? Implications for Antitrust' (2005) 72(2) Antitrust Law Journal 327, 373.
[34]Sam Thielman, 'Acting Federal Trade Commission Head: Internet of Things Should Self-Regulate' *The Guardian* (March 2017) <https://www.theguardian.com/technology/2017/mar/14/federal-trade-commission-internet-things-regulation>.
[35]European Commission, 'Consumer Market Study on Online Market Segmentation Through Personalised Pricing/Offers in the European Union', ISBN 978-92-9200-929-8, 19 July 2018.
[36]OECD, 'Personalised Pricing in the Digital Era' – Note by the European Union (28 November 2018).

combinations.[37] However, they found existence of price differences based on geographical location of customer of up to 166%.[38] They also found evidence of price difference when the origin Uniform Resource Locator (URL), which directs users to a website, is considered of up to 23%.[39] Vissers et al. did not find any evidence of price discrimination based on location (Locations were in Belgium and USA).[40]

In Hannak et al.'s 2014 study comprising a survey of a wide variety of online firms such as online retail sites and travel booking sites consisting of 300 real-world users and synthetically generated fake users, it was found that nine out of sixteen popular e-commerce websites engaged in personalization which was evidenced by either price discrimination or price steering.[41] An example of the price inconsistency shown in the paper by Hannak et al. is attached below where the real users versus controlled user accounts showed a clear price difference (Figure 4).[42]

In 2018, Hupperich et al. were unable to prove that price differences existed when search requests were sent to four accommodation and one rental website from several locations.[43] They concluded that in some cases price differences were noticed but they were individualized cases rather than systemic price differentials in their setup of disguised systems based on digital fingerprints.[44] In 2018, Hindermann provided a survey-based overview of previous studies on price personalization and found that there was evidence of discrimination on user-based, location-based, and technical features.[45] A Canadian News Agency investigation found price discrepancies of up to 70 $ based on levels of privacy

[37] Jakub Mikians, László Gyarmati, Vijay Erramilli, and Nikolaos Laoutaris, Detecting Price and Search Discrimination on the Internet, Conference: Hotnets, <https://doi.org/10.1145/2390231.2390245>.

[38] ibid. Geographical price differences are to be considered with scepticism as other reasons might lead to a price difference apart from price discrimination by the firm.

[39] ibid.

[40] Thomas Vissers, Nick Nikiforakis, Nataliia Bielova, and Wouter Joosen, 'Crying Wolf? On the Price Discrimination of Online Airline Tickets' 7th Workshop on Hot Topics in Privacy Enhancing Technologies (HotPETs 2014), Jul 2014, Amsterdam, Netherlands. ffhal-01081034f.

[41] Aniko Hannak, Gary Soeller, David Lazer, Alan Mislove, and Christo Wilson, 'Measuring Price Discrimination and steering on E-commerce Web Sites' in *Proceedings of the 2014 Conference on Internet Measurement Conference (IMC '14)* (New York, NY, USA, Association for Computing Machinery 2014) 305–18.

[42] ibid 312–13.

[43] Thomas Hupperich, Dennis Tatang, Nicolai Wilkop, and Thorsten Holz, 'An Empirical Study on Online Price Differentiation' in *Proceedings of the Eighth ACM Conference on Data and Application Security and Privacy. CODASPY '18* (New York, NY, USA, ACM 2018) 76–83.

[44] ibid.

[45] Christoph Michael Hindermann, Price Discrimination in Online Retail, ZBW – Leibniz Information Centre for Economics, Kiel, Hamburg, 2018.

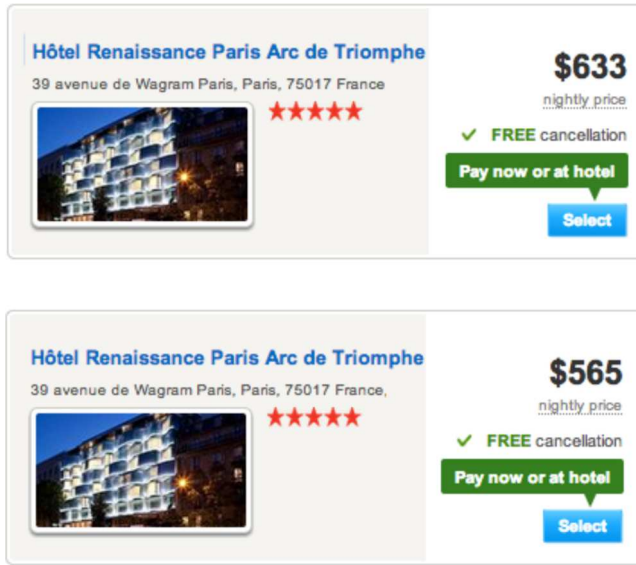

Figure 4. Price difference on hotel search.

which was modified based on allowing or disallowing cookies on one's browser.[46]

This section clearly shows that not every firm engages in price personalization but there is some evidence of it occurring albeit limited. It is unwise to pass it as a generalization, but it is also unwise to consider it as an activity that takes place only in a few markets based on the existing evidence which is unsure of either conclusion. While it may not be impossible for personalized pricing to take the firm of First-Degree price discrimination in the future, there is no evidence to show that personalized pricing resembles anything more than sophisticated third-degree price discrimination currently. It was also seen that price personalization was beneficial when there is sufficient competition in the market. One of the considerations is regarding the assessment of price personalization by dominant firms. For this, the paper will engage with the use of Article 102 TFEU by considering the concepts that may be applicable. Prior to that, the paper will discuss certain perspectives relating to how price personalization may be viewed from a consumer stand point to ascertain whether the law needs to play a role.

[46]Katie Pedersen, How companies use personal data to charge different people different prices for the same product, CBC Marketplace, CBC Business, Nov 24 2017, How companies use personal data to charge different people different prices for the same product | CBC News.

3.1. Normative perspectives on price discrimination: an extension to the current literature on price personalization

This section will discuss various norms relating to fairness, welfare and trust that play a role in while determining the legality and need for regulation of price discrimination. For this, this section will consider price discrimination carried out by firms in an imperfectly competitive setting, an oligopolistic setting, and a monopoly setting. The effects of price discrimination in intermediate and final markets are different. While in the case of intermediate firms, the upstream firm can distort competition in the downstream market, there is no competition that exists between end users which the dominant discriminatory firm can distort.[47] Price discrimination in the case of end users leads to lowering of prices for those consumers who were unable to afford the product earlier or unwilling to pay the earlier price.[48] When price discrimination concerns end consumers, notions such as fairness, efficiency and welfare are grouped under the notion of normative considerations in this paper. While a price may be fair in one case, it may not be an efficient price and vice versa. To what extent these notions motivate the law is a question this section seeks to answer.

3.2. Price discrimination: different considerations

Price discrimination can have varying effects based on the market setting that is of concern. One example of this is shown by Bester and Petrakis in a duopoly market which is characterized by offering of coupons by one seller to the customers of the other seller in order to incentivize them to leave their respective sellers.[49] It was concluded that couponing reduced consumer switching costs and intensified competition between sellers.[50] Hviid and Waddams found that banning price discrimination in the UK's retail energy market would lead to higher prices as a higher uniform price would be levied to all.[51] Both these papers show the importance of considering the long-term effects of price discrimination as a simple ban may not be an effective solution.

[47] See Akman 2012, 231–65.
[48] ibid 248–50.
[49] Helmut Bester and Emmanuel Petrakis, 'Coupons and Oligopolistic Price Discrimination' (1996) 14 International Journal of Industrial Organisation 227, 242.
[50] ibid 236–38.
[51] Morten Hviid and Catherine Waddams Price, 'Non-Discrimination Clauses in the Retail Energy Sector' (2012) 122(562) The Economic Journal 236, 252.

Fairness is another important consideration when price discrimination is concerned. This can be either transactional fairness,[52] or relative fairness. Fairness as understood as equality and equal treatment and welfare (under the consumer or total welfare standard) may have conflicts when price discrimination is concerned.[53] Banning price discrimination based on any notions of fairness may have some drawbacks as such a decision would not be based on economic considerations.[54]

Total welfare is the easier standard to implement in the case of price discrimination as it considers the overall benefit or loss to the market in terms of accounting for the distributional effect between different user groups which the consumer welfare standard seems to ignore.[55] Including any notions of fairness may not be possible if a total welfare standard is opted for as the main determinant of total welfare is an increase of output which is a purely economic consideration.

However, a seller has a duty to be perceived as fair to all their buyers. While, price discrimination may have benefits for consumers, it needs to be carried out in a manner that consumers do not feel exploited through deceptive conduct by firms.[56] Such conduct could be punished through regulation or competition law enforcement in case of a dominant firm.

For price discrimination to work successfully in imperfectly competitive markets or monopolistic markets, maintaining consumer trust is a must as consumers have been noted to feel more negative emotions (unfairness) when they are charged a higher price due to price discrimination than positive emotions when they are offered a lower price.[57] Disclosing the fact that price discrimination occurs at the outset may be an effective way for a discriminating firm to successfully carry our the practice. This is to prevent consumers from taking revenge for feeling that they have been wronged or have been offered an unfair price as it has been shown in the past that consumers tend to carry out such actions.[58]

[52]Bruce Lyons and Robert Sugden, 'Transactional Fairness and Unfair Price Discrimination in Consumer Markets' CCP Working Paper 20-07 (October 2020) <https://ideas.repec.org/p/uea/ueaccp/2020_07.html>.

[53]ibid 258–60.

[54]Thomas Gehrig and Rune Stenbacka, 'Information Sharing and Lending Market Competition with Switching Costs and Poaching' (2007) 51(1) European Economic Review 77, 99.

[55]Michael Harker, 'Antitrust Law and Administrability: Consumer versus Total Welfare' (2011) 34(3) World Competition 433.

[56]See Lyons and Sugden 14–15. They propose transactional fairness to be the main principle that governs price discrimination.

[57]Lan Xia, Kent B Monroe and Jennifer L Cox, 'The Price is Unfair! A Conceptual Framework of Price Fairness Perceptions' (2004) 68(4) Journal of Marketing 1, 1–15.

[58]Zaid Mohammad Obeidat, Sarah Hong Xiao, Zainah al Qasem, Rami al dweeri, and Ahmad Obeidat, 'Social Media Revenge: A Typology of Online Consumer Revenge' (2018) 45 Journal of Retailing and Consumer Services 239, 255. The paper studies different types of online revenge behaviours

3.3. Consumer response

Chen et al. show that the presence of more consumer information can intensify competition as firms attempt to poach the other firm's customers, but competition can be stifled when more consumers become active in identity management and begin to avoid being charged a personalized price and obtain the lower uniform price.[59] There is a cost to gather information for consumers and firms may still be able to benefit from segregating consumers into informed and uninformed consumers.[60]

Such separation may be more likely in the digital era. Consumers can protect themselves by limiting the amount of information available regarding them in case they would want to avoid being profiled for price personalization.[61] Consumers can engage in identity management by misleading the platform through tactics such as deleting cookies, creating new accounts etc., but may be limited in their ability to do so due to tracking technologies and browser fingerprints.[62] Consumers could also voluntarily disclose their data in a manner that they selectively reveal their data based on what they feel will be beneficial to them when their data gets used for personalization.[63]

Coming to the application of the law to price personalization, Article 102 TFEU mainly deals with situations where a dominate firm engages in exclusionary or exploitative conduct. Conduct that involves consumers feeling that they have been offered unfair or discriminatory prices can come within its scope subject to certain limitations as will be seen in

enacted from a sample of Jordanian and British consumers; See also Roger Bougie, Rik Pieters, and Marcel Zeelenberg, 'Angry Customers Don't Come Back, They Get Back: The Experience and Implications of Anger and Dissatisfaction in Services' (2003) 31 Journal of the Academy of Marketing Science 377, 393; See also Xia and others 10.

[59] Zhijun Chen, Chongwoo Choe, and Noriaki Matsushima, 'Competitive Personalized Pricing', Monash Economics Working Papers, No 02-18, Available at SSRN: <https://doi.org/10.2139/ssrn.3136880>.

[60] Steven Salop, 'The Noisy Monopolist: Imperfect Information, Price Dispersion and Price Discrimination' (1977) 44(3) The Review of Economic Studies 393, 406; See also Steven Salop and Joseph Stiglitz, 'Bargains and Ripoffs: A Model of Monopolistically Competitive Price Dispersion' (1977) 44(3) The Review of Economic Studies 493, 510.

[61] CBC Marketplace, 'Online Price Discrimination Exists – and It Can be Beaten' (16 May 2015) <https://www.cbc.ca/news/canada/british-columbia/online-price-discrimination-exists-and-it-can-be-beaten-1.3072746>.

[62] Erik Larkin, 'Browser Fingerprints: A Big Privacy Threat', Privacy Watch, PCWorld, March 2010, Browser Fingerprints: A Big Privacy Threat | PCWorld; See also Erik Larkin, 'Are Flash Cookies Devouring Your Privacy?', Privacy Watch, PCWorld, October 2009, Are Flash Cookies Devouring Your Privacy? | PCWorld.

[63] S Nageeb Ali, Greg Lewis, and Shoshana Vasserman, 'Voluntary Disclosure and Personalized Pricing', Stanford University, Graduate School of Business, Research Papers 3890 <https://shoshanavasserman.com/files/2020/08/Voluntary-Disclosure-and-Personalized-Pricing.pdf>; See also Sinem Hidir and Nikhil Vellodi, 'Privacy, Personalization and Price Discrimination', (2021) 19(2) Journal of the European Economic Association 1342.

the case laws from the following section on the application of Article 102 TFEU to price personalization.

4. Application of competition law to price personalization

Under the "As-Efficient-Competitor" test established in the *Intel* case, nothing under Article 102 TFEU precludes a dominant firm from conducting competition on the merits.[64] The consideration in this section of the paper is whether price personalization can be considered to be within competition on the merits. So far, it has been discussed that price personalization can have benefits for consumers as some consumers may be offered lower prices, but these prices would get subsidized by those that have a higher WTP and get charged a higher than uniform price.[65] It is hard to judge the effect of a purely exploitative effect on consumers using Article 102 TFEU due to the varying effects on consumer welfare and also due to the fact that there are very few Article 102 TFEU cases that deal with end consumer exploitation.

Under Article 102 TFEU, a dominant firm that engages in abusive conduct can cause two types of harms namely, exclusionary or exploitative.[66] Within Article 102, clause (c) of the provision prohibits a dominant firm from "applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage". There are many ways a firm can price discriminate. Some of the past cases that have been decided by the Commission and EU courts provide more details on the scope of application of Article 102(c) TFEU. Some of the points of discussion relating to this is on whether the law applies only to transactions concerning upstream and downstream firms where a discriminatory price causes disruption to downstream competition or whether end consumers are also included within the scope of the provision.[67]

This is due to the existence of the term "competitive disadvantage" in the provision which leads one to assume that this applies only to intermediate sellers since end consumers do not compete with one another. Past EU case law on price discrimination has also required competitive disadvantage to be shown as will be seen subsequently.[68] This section

[64]See *Intel* [134–36].
[65]See Section 2.1.
[66]See Whish and Bailey 209.
[67]See Akman 2007.
[68]Case C-525/16, *MEO v Serviços de Comunicações Multimédia SA* ECLI:EU:C:2018:270.

will analyse case law and commentaries to assess whether price personalization that concerns end consumers can be brought within the scope of Article 102(c) TFEU.

One of the first cases relating to price discrimination is that of *United Brands* where the CJEU prohibited the disadvantaging of its customers by offering discriminatory prices based on geographic parameters.[69] The CJEU held that discriminating between customers of different EU Member States even though there were no cost differences in selling to customers from different Members States constituted applying dissimilar conditions to equivalent transactions and abused Article 102(c) TFEU.[70]

The requirements under Article 102(c) to prove price discrimination are to show – (1) the existence of equivalent transactions, (2) to show the applying of dissimilar conditions or dissimilar prices, and (3) to show that a competitive disadvantage was caused to the customers.[71] While the application of Article 102(c) TFEU is the primary focus of this Paper, some past cases that do not fall directly under Article 102(c) but rather under 102(a) or 102(b) are also discussed as they inform the reader regarding the types of injuries that can be caused as a result of the actions of a dominant firm.

The types of injuries based on discriminatory conduct can be categorized on the basis of whether they are exploitative or exclusionary in nature as primary-line injuries or secondary-line injuries respectively.[72] Primary-line injury cases mainly have exclusionary effects on firms competing with the dominant firm that is carrying out the abusive conduct. An example of that is a dominant firm offering more favourable conditions (discounts or price cuts) to its own affiliations and strengthening their position by disadvantaging horizontal competitors.[73] Secondary-line injury cases can have an exploitative effect on the trading partners of the firm as a result of some customers being favoured over others. An example of this is when a dominant firm price discriminates between its unaffiliated downstream customers which results in favouring some buyers over others.[74] Secondary-line injury cases can also have an exclusionary effect if the discriminating firm is vertically

[69]See *United Brands case* [183] and [214–34].
[70]ibid [228–34].
[71]Ioannis Lianos, Valentine Korah, and Paolo Siciliani, *Competition Law: Analysis, Cases, & Materials* (Oxford University Press 2019) 1146.
[72]Lena Hornkohl, 'Article 102 TFEU, Equal Treatment and Discrimination after Google Shopping' (2022) 13(2) Journal of European Competition Law & Practice 99–111.
[73]Pablo Ibanez Colomo, 'Exclusionary Discrimination under Article 102 TFEU' (2014) 51(1) Common Market Law Review, 141, 164.
[74]See Graef 543–44.

integrated.[75] For the purpose of clarity in assessment, the paper will engage with these two types of injuries separately.

4.1. Primary-line injury cases – exclusionary effects

The case of *British Airways* provided important insights into the CJEU's treatment of price discrimination and its effect using Article 102(c) TFEU. British Airways (BA) offered schemes to its agents through which they could earn additional commission based on their performance.[76] The Commission found this to be anti-competitive and in violation of Article 102 TFEU by considering that there was both a form-based and effect-based violation based on past rebates related judgments such as *Hoffman-La Roche* and *Michelin* judgments (Figure 5).[77]

The General Court (ex-Court of First instance) considered whether the fidelity/loyalty rebates had the effect of restricting agents' freedom by hindering their ability to choose freely among BA and its competitors.[78] The GC concurred with the Commission by finding that there was no economically justified reason for such conduct apart from intending to eliminate competitors from the market.[79]

Before the CJEU, BA argued that the incentives offered to agents were not of the nature where their regular income would be affected in case they do not achieve the performance-based results that would have allowed them to secure a higher commission.[80] The CJEU concurred with the Commission and GC that the scheme could lead to a noticeable increase in commission for the agents which other competitors were not able to offer at the time and thereby distort competition further.[81] This case resembles a primary-line injury being caused to other airline operators as the agent schemes led to foreclosure of competition at a horizontal level.

The CJEU considered the question of whether Article 102(c) TFEU applies to *British Airways* where the dominant firm discriminated between agents that achieve certain performance targets and those that do not by offering differing incomes.[82] The CJEU held that such

[75]See Hornkohl.
[76]Case C-95/04 P, *British Airways v Commission*, ECR 2007 I-02331 [9–10].
[77]*Virgin/British Airways* (IV/D-2/34.780) Commission Decision of 14 July 1999 [96].
[78]Case T-219/99 *British Airways* EU:T:2003:343[270].
[79]ibid [277–88].
[80]See *British Airways* [49].
[81]ibid [113–25].
[82]ibid [144].

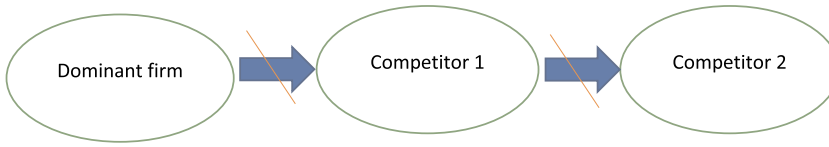

Figure 5. Depicts the effect on competition due to price discrimination by the dominant firm towards its direct competitors.

behaviour falls foul of Article 102(c) TFEU and does not need actual quantifiable harm to each business partner to be shown individually.[83] The harm that the CJEU found to have occurred to the agents signifies that there was also an element of secondary-line injury in the case. The case shows that both categories of harm may be visible in the same case.

Some other cases that developed the primary-line injury jurisprudence are *Post Danmark I* and *Tomra*. In *Post Danmark I*, the dominant firm, Post Danmark (PD) offered lower rates for its services to the former customers of its competitor and offered its own pre-existing customers higher rates.[84] This case is also interesting in that both types of injuries could be envisaged as PD discriminated between customers and could have said to have caused a secondary-line injury along with the primary-line injury caused to its competitor due to loss of customers. However, the CJEU held that a pricing practice in itself cannot be considered discriminatory just because some customers have been charged a lower price while others a higher one,[85] and that a likely exclusionary effect needs to be shown as well in order to fall within Article 102(c) TFEU.[86]

In *Tomra,*[87] the CJEU found that rebate schemes which were individual to each customer had the same effect as exclusivity clauses.[88] The individualized rebate schemes prevented customers from switching to other competitors as they were nudged to buy all the equipment due to the discounts being based on each buyer's individual requirement. The aim of this was to exclude competitors from the market causing a primary-line injury and the CJEU held that *Tomra* abused its dominant position. The position of the Court seems to have regressed from an effects-based analysis when primary-line injuries are concerned since *Tomra* was decided after *Post Danmark I*. Notably, *Tomra* was not a

[83]ibid [145].
[84]Case C-209/10, *Post Danmark A/S v Konkurrencerådet* ECLI:EU:C:2012:172 [8].
[85]ibid [30].
[86]ibid [44].
[87]Case C-549/10 P, *Tomra Systems ASA and Others v European Commission* ECLI:EU:C:2012:221.
[88]ibid [78–80].

case concerning Article 102(c) TFEU but is notable in that it informs the understanding of primary-line injury cases.

Another such case is that of *Intel* which needs to be discussed in light of primary-line injury cases. In the case of *Intel,* the General Court continued a formalistic view that exclusivity rebates led to an exclusionary effect as it foreclosed the market for its competitors.[89] The CJEU overturned the General Court's judgment in *Intel* and created a new criterion for assessment of exclusionary abuses by only considering the foreclosure of as-efficient competitors.[90] The Court also took the view that any anti-competitive effect that arises out of the conduct of the dominant firm may be counter balanced with any possible advantages in terms of efficiency that benefits consumers.[91] *Tomra* and *Intel* are cases that are worth mentioning in this discussion because they inform the discussion on whether certain pricing practices that involve discriminatory price cuts at a downstream level (rebates in the case of these two) can lead to foreclosure of horizontal competition.

In price personalization cases, there may be a possibility to apply primary-line injury cases by assuming that price personalization leads to redistributive benefits which can be weighed against the harm done to competition. For example, if an online shoe seller is able to price discriminate effectively and allow more consumers to be able to purchase their product, this can be considered an overall benefit to consumers. This can be weighed against the level of market foreclosure that occurs by using the *Intel* criterion.[92]

Considering the AEC tes that is considered in abuse of dominance cases after the cases of *Intel*, to determine whether the rival that has been harmed due to the conduct is as efficient as the dominant firm,[93] the ability of the online firm to price personalize can be judged to be due to its dominant position which allows it access to information on consumers. If other competitors are provided data on consumers, it may allow them to carry out a similar practice and compete with the dominant firm.[94] However, this might lead to issues pertaining to Article 101 TFEU which deals with horizontal and vertical coordination by competitors which are not within the scope of this paper.[95]

[89]See *Intel* GC judgment.
[90]See *Intel* CJEU judgment [134].
[91]ibid [140].
[92]ibid.
[93]See *Intel* CJEU case [139].
[94]See *Oscar Bronner* case.
[95]Kasper Drazewski, 'Each Consumer a Separate Market?' (July 2023) BEUC position paper on personalised pricing.

Therefore, it can be concluded that primary-line injury cases are inapplicable to the case of price personalization. This leads us to the second type of injury that may occur due to price discrimination and see whether it may be applicable to price personalization cases.

4.2. Secondary-line injury – exploitative effects

In Figure 6, when competition between downstream competitor 1 and downstream competitor 2 gets affected due to the discriminatory conduct of the dominant firm, it is referred to as secondary-line injury. In the EU, the first instance of price discrimination occurred in *United Brands v Commission* where the dominant firm engaged in geographic price discrimination while selling bananas to its national distributors across the EU which the court found to have violated Article 102(c) TFEU.[96]

Subsequently, the CJEU found dissimilar conditions to have been applied to equivalent transactions in *Corsica Ferries*[97] where the discrimination carried out by the port controller was regarding on whether maritime transport undertakings transport between different Member State ports or between ports with the National territory (cabotage).[98] A similar finding was concluded by the Commission and the General Court in the case of *Clearstream Banking AG v Commission.*[99] The case dealt with discriminatory prices being charged to the customers of a dominant clearing and settlement service provider.[100] It was also held that there is no requirement to show a quantifiable proof of competitive disadvantage being suffered by the complainant as long as it is evident that the actions of a dominant firm can be seen to have led to distortion of competition.[101]

The *British Airways* case clarified the position of the Court regarding secondary-line injuries as BA discriminated between agents that achieved certain performance targets and those that do not by offering differing incomes.[102] The CJEU held that such behaviour falls foul of Article 102(c) TFEU and does not need actual quantifiable harm to each business partner to be shown individually.[103] As mentioned previously, *British*

[96]See *United Brands* case.
[97]Case C-18/93, *Corsica Ferries Italia Srl v Corpo dei Piloti del Porto di Genova* EU:C:1994:195.
[98]ibid [38–40].
[99]Case T-301/04, *Clearstream banking AG v Commission* ECR 2009 II-03155.
[100]ibid [194].
[101]ibid [192–93].
[102]ibid [144].
[103]ibid [145].

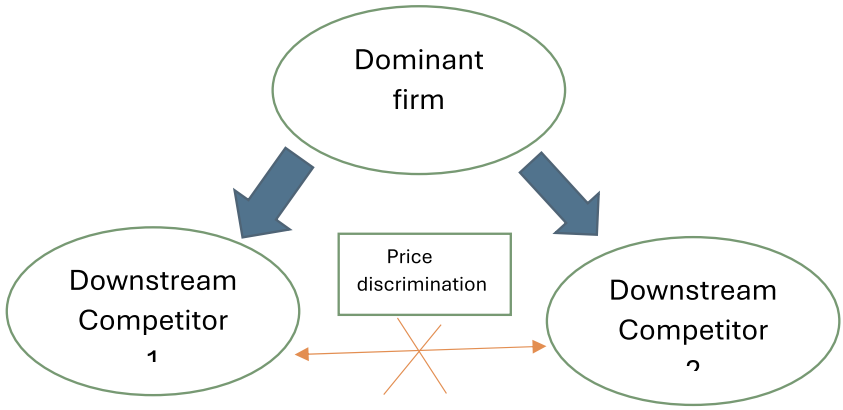

Figure 6. Depicts the hampering of competition downstream due to price discrimination by the upstream firm.

Airways is a case that has elements of both types of injuries as does *Post Danmark I* but the difference in the latter is that it reversed the position taken in *British Airways* and made the finding of exclusionary effects a requirement to show an abuse under Article 102(c) TFEU.[104] Another important case that informed regarding the scope of secondary-line injury cases is that of *Kanal 5* where the dominant copyright management organization charged royalties based on the remuneration of different TV channels rather than the services provided by that organization.[105] It was concluded that such differential treatment would place these companies at a competitive disadvantage compared to their competitors leading to a secondary-line injury.[106]

The most recent case on secondary-line price discrimination is the *MEO* case where it was noted that all relevant circumstances must be taken into consideration in the analysis of whether a competitive disadvantage is caused as a result of price discrimination.[107] This was a move away from *British Airways* and confirming *Post Danmark I* as the standard of proof was made more rigorous. The court held that it needs to be proved that the conduct of the dominant firm is likely to restrict competition by considering the duration of the price charged, the conditions of the market, and existence of a strategy to exclude competitors.[108]

[104]See Post Danmark [30–45].
[105]Case C-52/07, *Kanal 5 Ltd and TV 4 AB v Föreningen Svenska Tonsättares Internationella Musikbyrå (STIM) upa* ECLI:EU:C:2008:703[42–48].
[106]ibid [47–48].
[107]Case C-525/16, *MEO v Serviços de Comunicações Multimédia SA* ECLI:EU:C:2018:270 [28–31].
[108]ibid [31].

The Court's line of argument in Paragraph 26 of the *MEO* case states that … *the mere presence of an immediate disadvantage affecting operators who were charged more, compared with the tariffs applied to their competitors for an equivalent service, does not, however, mean that competition is distorted or is capable of being distorted.*[109] This line of argumentation is similar to the Court's argument in Paragraph 134 of the *Intel* judgement where the Court held that … *not every exclusionary effect is necessarily detrimental to competition* … .[110] It can therefore be said that there are similarities in the way that both primary-line injury and secondary-line injury cases have been decided by the Court by considering the above two cases. The Court's reasoning suggests a move to a more economics-based analysis when price discrimination cases are concerned.

The jurisprudence on secondary-line injury cases was provided an addition through the case of *Google Shopping* where the General Court stated in Paragraph 155 that … *comparable situations must not be treated differently and different situations must not be treated in the same way unless such treatment is objectively justified* … .[111] The case tacitly extends the non-discrimination principle to non-price cases as well which suggests a move towards uniformity in case assessment in the application of Article 102 TFEU. Following *Unilever*, the separation between price and non-price cases is further removed as the AEC test may be applicable for both.[112]

4.3. Application of Article 102(c) TFEU to end consumers – can it be applied to price personalization?

Noticeably, the cases discussed so far have mainly involved discriminatory conduct against intermediate customers. However, the focus of price personalization mainly concerns end consumers. When it comes to applying Article 102 TFEU, Akman, who has written extensively on its application to price discrimination,[113] argues that the increase or decrease in welfare of the intermediate customer may not correlate to the same to an end consumer and vice-versa by referring to the fact that when an upstream firm may use non-linear pricing to increase the

[109]ibid [26].
[110]See *Intel* case [134].
[111]Se *Google Shopping* [155].
[112]See *Unilever* [56–62].
[113]Three papers by Akman relating to price discrimination cited in the paper.

surplus of a downstream firm, it may result in a decrease in intermediate customer welfare but may not harm end consumer welfare.[114]

This is because, if the intermediate customer/ reseller tries to pass on the price to the consumer, they have an alternative option to buy from since price discrimination would not be feasible without the existence of multiple intermediate customers. Another reason for this distinction is due to the possibility of the upstream seller and the intermediate seller being integrated while such a possibility cannot be envisaged with end consumers.[115] Therefore, the question arises whether Article 102(c) TFEU is applicable to cases relating to end consumer price discrimination.

One of the only cases that concerns end consumer price discrimination is a Commission Decision from 1998 relating the Football World Cup held that year in France.[116] In 1998, the Commission passed a Decision against Le Comité français d'organization de la Coupe du monde de football 1998 (CFO), an organization that was responsible for the sale of tickets for the 1998 Football World Cup in France for applying discriminatory conditions while engaging in the sale of tickets to end consumers. CFO had charged discriminatory prices to those whose postal address was situated outside France by charging them additional fares. The Commission held that this disadvantaged the general public outside of France.[117]

As seen in Sections 2.2 and 2.3, the case law on price discrimination involving the Commission and other EU Courts (Article 102(c)) requires a certain degree of harm or harmful effect being caused to the structure of competition as contended by the defendant, CFO.[118] The Commission rejected the notion that the structure of competition needs to be disrupted for the application of Article 102 TFEU to a case of price discrimination by stating that Article 102 also seeks to protect the interests of consumers.[119] In addition to this, the Commission added that protection of consumers can be achieved by either prohibiting certain anti-competitive conduct that indirectly affects consumers or by prohibiting conduct that directly affects consumers in an adverse manner.[120]

[114]Pinar Akman, '"Consumer" versus "Customer": The Devil in the Detail' (2010) 37(2) Journal of Law and Society 327, 327–30.
[115]See Varian 623–24.
[116]Case IV/36.888 *1998 Football World Cup*.
[117]ibid [93–98].
[118]ibid [99].
[119]ibid [100].
[120]ibid.

By considering the *1998 Football World Cup* Decision itself, it would be fair to consider that Article 102(c) TFEU applies to end consumers. However, *Post Danmark I* and *MEO* have clearly laid down that a competitive disadvantage needs to be shown which leads to distortion of competition. This would suggest that the CJEU's decision has indirectly overridden the Commission's Decision from 1998 even though neither of the two cases explicitly mention the *1998 Football World Cup* case.

Prior to *MEO*, it had been suggested by Akman that an effects-based approach must be employed instead of a form-based one when the application of Article 102(c) TFEU was concerned and a decrease in consumer welfare (overall fall in consumer surplus) must be shown for a price to be found abusive.[121] She also suggests using price discrimination only when there is an exclusionary harm also involved as the effects of price discrimination on end users may be complex (when intermediate customers rather than end consumers are involved). She says that both exploitation and exclusions should exist for a harm under Article 102 to be found. In the case of price discrimination, she argues that competition law should not ban a practice that may be welfare enhancing and that a case-by-case approach as seen in economics should be utilized.[122]

Price discrimination cases dealing with end consumers alone with no harm done to competitors rarely exist. The use of the unequal treatment principle established in *Google Shopping* could be said to include end consumers as that part of the judgment is not restricted to business users.[123] The same case also allows the possibility of considering an objective justification which is likely to be proved in a case concerning end consumer price personalization as there is high likelihood of an increase in total output which can be considered an overall improvement to the market.[124] The case law analysis carried out in this section would also back this proposition as the CJEU has also tended to only find an abuse when business customers have been adversely impacted rather than end consumers. The paper therefore argues that Article 102(c) TFEU may not be a correct fit for price personalization cases on the basis of the Court's past rulings and the current approach relating to maximizing consumer welfare that has been one of the goals of EU competition law.[125]

[121]Pinar Akman, *The Concept of Abuse in EU Competition Law: Law and Economic Approaches* (Hart Publishing 2012) 260–65.
[122]ibid.
[123]See *Google Shopping* [155].
[124]ibid [560]. Google was unable to show that the benefits outweighed the harm.
[125]See *Servizo Elletrico* [45–48].

However, the paper also poses a different question considering the above analysis which is whether Article 102 TFEU should be considered to play a role in price personalization cases. This question is posed as it is important to consider whether direct end consumer harm is in fact an Article 102 TFEU problem. This may require the use of clause (a) of Article 102 TFEU to play a role which prohibits unfair trading conditions from being imposed. Consumer Protection Directives may be more relevant in the case of price personalization instead of Article 102(c) TFEU due to the varying effects of price personalization being considered within the scope of Consumer Protection Directives.[126] As seen from Article 102(c) TFEU cases, even though price personalization may fall within its scope, this paper argues that it should not be used in its current form.

4.4. Article 102(a) TFEU and price personalization

The CMA is one of the only competition agencies that has dealt with the issue in some manner by contributing a report on it.[127] The OECD is one of the international organizations that has contributed a similar report.[128] It also finds mention in the Furman Report.[129] However, No NCA or the EC have brought forth a case of personalized pricing due to its ambiguous effect on consumer welfare.[130] This is also a result of a higher burden of proof due to the *MEO* case..[131] An effects-based approach to price discrimination cases is preferable when judging price personalization cases which gives the firm an opportunity to prove that the act of price discrimination leads to efficiencies for consumers and the market by more users joining the market.[132]

There are notable benefits to price discrimination which need to be considered when developing a legal framework to tackling cases relating to first-degree price discrimination which may have exploitative aspects.[133] It is widely agreed that the welfare effects of personalized pricing can have positive or negative effects and that price discrimination under Article 102(c) TFEU may not be the right tool to be used to deal

[126]See below Section 5.1.
[127]See CMA Report on pricing algorithms.
[128]See OECD Report.
[129]See Furman Report [3.26].
[130]See Botta and Wiedemann.
[131]See *MEO* case.
[132]ibid 10–14.
[133]Mariateresa Maggiolino, 'Personalized prices in European Competition Law', Bocconi Legal Studies Research Paper No. 2984840 (2017).

with personalize pricing.[134] It is therefore important to consider the application of the other legislations to deal with the issue. There may be a case for using Article 102(a) TFEU (unfair trading conditions) along with data protection, consumer protection and anti-discrimination laws in order to prohibit and punish the harmful actions of a dominant firm as a result of price personalization.

Coming to how these normative considerations relate to secondary-line price discrimination, it is evident in the way cases have been decided to concluded that aspects such as fairness and trust have played a smaller role in the development of competition law cases as much as aspects related to exclusionary harms have. While these norms about a fair price and mutual trust between consumers and firms are important, application of the law requires objectivity. The varying effects of end consumer price discrimination make it hard to allow the application of competition law in a uniform manner as the balance between fairness, trust and efficiency is a delicate one.

Economides and Lianos make the case for application of competition law to situations where the benefit in terms of a greater number of users being able to afford a product due to price personalization which wasn't possible with uniform prices is outweighed by the loss in welfare as a result of an increase in prices for some consumer due to personalization.[135] They also argue that consumers value not only a price within their willingness to pay, but also the competitive process that is involved in setting a price due to interaction between sellers and buyers. Competition law can be involved in instances of lack of transparency by firms while engaging in personalized pricing but they question whether competition law is the best tool to be used in situations of personalized pricing due to the complexity involved in determining the effect on welfare.[136] To assess whether Competition law has a role to play, the scope of Article 102(a) TFEU needs to be understood.

4.5. Use of Article 102(a) TFEU for end consumers

Article 102(a) TFEU is applicable to cases where prices may be seen to be excessive in relation to the price of a comparator or a past price charged by the dominant firm. The most recent CJEU case on excessive pricing is

[134]See Townley and others.
[135]Nick Economides and Ioannis Lianos, 'Restrictions on Privacy and Exploitation in the Digital Economy: A Competition Law Perspective' (2021) 17(4) Journal of Competition Law & Economics 765, 810–47.
[136]See above Section 3.1.

found in the case of the *Latvian Copyright Society* where the Court found an abuse of dominance on the part of the only copyright society in Latvia for charging rates that were two or three times more than those in other Baltic States and more than 50–100 per cent of the average level when compared to 20 other Member States.[137] The court noted that there is no single method or minimum threshold for comparison when it comes to cases of excessive pricing but the factor that determines an unfair or excessive price is that the price charged should be significantly higher and repetitive in nature or persistent.[138] The Court considered whether the price charged in the case was above reasonable levels which does not justify the economic value of the product or service provided.[139]

It would be hard to apply this to end consumers in the case of personalized pricing because the price charged to all consumers is not uniformly excessive but is differentiated. It would be hard to compute whether the overall price charged is excessive or not.[140] However, the second part of Article 102(a) TFEU which prohibits unfair trading conditions form being applied to consumers may be applied. In *Duales System Deutschland (DSD)*, it was held that by making license fee conditional on the usage of the dominant firm's logo, the firm was imposing unfair commercial terms as the conditions are disproportionate. Therefore, an unfair trading condition may be imposed when a dominant firm does not adhere to the principle of proportionality.[141] The case of *AstraZeneca* established that a dominant firm seen to be using false information can be said to be imposing unfair trading conditions.[142]

In *SABAM*, it was concluded that clauses that required the authors, composers and publishers to transfer the management of their copyright works to the copyright collecting society *(SABAM)* are abusive as they impose unfair trading conditions on the members. The conditions were considered unfair due to the fact that they encroached upon the rights of the members without any necessary need but restricts the

[137]Case C-177/16, Autortiesību un komunicēšanās konsultāciju aģentūra/Latvijas Autoru apvienība v Konkurences padome (AKKA/LAA), JUDGMENT OF THE COURT (Second Chamber), 14 September 2017, Paragraphs [7–13].
[138]ibid [49] and [58].
[139]ibid [56].
[140]Mariateresa Maggiolino, 'The Antitrust relevance of Granular Versioning' in Rosa Maria Ballardini, Petri Kuoppamäki, and Olli Pitkänen (eds), *Regulating Industrial Internet Through IPR, Data Protection and Competition Law* (Wolters Kluwer 2019).
[141]Case C–385/07 P, *Der Grüne Punkt – Duales System Deutschland GmbH v Commission*, ECLI:EU:C:2009:456.
[142]Case C-457/10 P, *AstraZeneca v Commission*, ECLI:EU:C:2012:770 . Case dealt with misleading the patent office. However, transparency is one of the principles that has been inferred from this case.

rights of the artists.[143] Similarly, in *GEMA*, it was held that clauses in collecting society's statutes need to fall within the test of absolute necessity in order to be termed fair.[144] In the case of *Telemarketing*, the CJEU held that an abuse would be found where a dominant entity reserves to itself or its subsidiary any ancillary activity which may be carried out by another undertaking without any necessary justification.[145] These cases established principles of proportionality (*DSD*), necessity (*Telemarketing, SABAM and GEMA)* and truthfulness (*AstraZeneca).*

The application of this theory of harm to price personalization can be done by Competition authorities in cases where consumer data is used without their consent in order to price personalize. Such usage can be considered to breach the necessity and proportionality principles established in the abovementioned cases as carrying out price personalization using consumer data without their consent breaches general principles of EU law which are covered within consumer, data protection, and competition laws. The theory of harm can be similar to the one found by the CJEU in the *Facebook Germany* Decision where a breach of data protection laws was found to be incidental to a finding of an abuse of dominant position under Article 102 TFEU.[146] However, there would be a high error cost in case price personalization is prohibited and consumers end up worse with uniform prices. Therefore, it is likely that an objective justification could be argued by the defendant firm. Therefore, neither Article 102(a) nor Article 102(c) TFEU are well equipped to deal with price personalization due to limits in their scope.

The paper will now consider few relevant areas of law that may be able of more help than Article 102 TFEU in dealing with price personalization cases.

5. Usage of other legislations

To deal with price personalization, Bourreau et al. suggest the use of data protection (GDPR), consumer protection (Unfair commercial practices Directive that talks about misleading consumers) or anti-discrimination

[143]Case C-127/73, *Belgische Radio en Televisie and société belge des auteurs, Compositeurs et éditeurs v SV SABAM and NV Fonior*, ECLI:EU:C:1974:25.
[144]*GEMA* Statutes Commission Decision (Case IV/29.971) 82/204/EEC [1982] OJ L94/12 [36].
[145]Case 311/84, *Centre Belge d'Etudes de Marche-Telemarketing (CBEM) v SA Compagnie Luxembourgeoise de Telediffusion (CLT) and Information Publicite Benelux (IPB)* [1985] ECR 3261. The dominant firm reserved itself certain rights relating to television marketing.
[146]See *Facebook Germany* CJEU Decision.

(Geo-blocking Directive) laws in the EU. They argue that competition law may be applicable when personalized pricing also leads to exclusionary effects such as market foreclosure by a dominant firm through loyalty discounts but note that price personalization needs to be handled on a case-by-case basis due to the differing effects.[147]

5.1. Unfair commercial practices directive and other directives related to consumer protection

The relevant consumer protection legislations are those that concern contracts between consumers and traders such as the Consumer Rights Directive (CRD) 2011[148] and the Unfair Commercial Practices Directive (UCPD) 2005.[149] The Modernisation and Better Enforcement Directive (Omnibus Directive) 2019[150] brought in key amendments in the CRD by extending the Directive to digital contracts where personal data is provided by consumers to the firm in addition to providing obligations on firms to provide pre-contractual information including in the case of price personalization.[151] In order to assure transparency in instances of personalized pricing, Article 6 and 7 of the UCPD can be referred to which deal with misleading actions and omissions respectively. Not providing information regarding personalization can amount to misleading the consumer as the consumer then assumes that they are being offered a uniform price.[152] Under the CRD, the consumer also has a right to withdrawal within 14 days in case they are not happy with a personalized price provided by a firm.[153] This can act as a back up to the transparency requirements present in the UCPD.

The UCPD contains flexibilities in its provisions in order to accommodate vulnerable consumers under Article 5(3) UCPD which prohibits commercial practices that materially distort the economic behaviour of a clearly identifiable group of consumers. The UCPD

[147]Marc Bourreau, Alexandre de Streel, Inge Graef, 'Big Data and Competition Policy: Market Power, Personalized Pricing and Advertising', Project Report, CERRE (2017) <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2920301>.
[148]Directive 2011/83/EU of the European Parliament and of the Council of 25 October 2011.
[149]Directive 2005/29/EC of the European Parliament and of the Council of 11 May 2005.
[150]Directive (EU) 2019/2161 of the European Parliament and of the Council of 27 November 2019.
[151]ibid.
[152]Alexandre De Streel and Florian Jacques, Personalised pricing and EU law, 30th European Conference of the International Telecommunications Society (ITS): 'Towards a Connected and Automated Society', Helsinki, Finland, (16th–19th June, 2019) 7–9.
[153]ibid 10.

can be used to mitigate the harm as it requires assessment of a particular practice from the perspective of an average member of a group.[154] The mental and physical infirmity of a person is a ground to consider a person as vulnerable which may include elderly consumers as it is widely accepted that mental disorders which may arise due to old age may limit the consumers' ability to make efficient purchasing decisions towards their benefit.[155] Some of the other grounds to consider a person or group vulnerable may be low income, low education or low social class which may allow a firm to influence them into buying their product.[156]

When data is used to discriminate between different users and different groups, Article 5(3) UCPD can be used to make sure that price discrimination leads to an economic benefit to a group if that group is seen to be a vulnerable group. This provision can be used to prevent online firms from exploiting consumers who have limited knowledge of how online markets work. Firms can target certain groups of consumers that are more vulnerable such as people above a certain age group or those from an area that is deprived of resources to educate themselves of the way firms market their products using big data which contains their personal information and may not be aware of ways to counter those practices such as by identity management techniques or voluntary disclosure selective data.

For the UCPD to be applicable, a practice needs to be considered unfair in nature. When consumers are not aware of pricing techniques of firms, they fall prey to price increases as a result of personalization in some cases. This may be considered unfair as it may fall under Article 6 UCPD which deals with misleading actions. If the consumer is informed that they are receiving a personalized price and the consumer consents for it, the practice cannot be deemed unfair.[157] It may therefore be in the interest of the firm and the consumer for online firms to be more transparent regarding price personalization.

[154]Natali Helberger, Frederik Zuiderveen Borgesius, and Agustin Reyna, 'The Perfect Match? A closer look at the relationship between EU Consumer Law and Data Protection Law' (2017) 54(5) Common Market Law Review.
[155]Bram Duivenvoorde, 'The Protection of Vulnerable Consumers under the Unfair Commercial Practices Directive' (2013) 2(2) Journal of European Consumer and Market Law 69, 79.
[156]ibid 78–79.
[157]See De Streel and Jacques 5.

5.2. General data protection regulation (GDPR)[158] and the digital markets act (DMA)[159]

In order for personalization of any form to occur, one indispensable aspect that is required is information and data on users. It is only by using data on users that firms can discriminate between the users. This makes legislation that deal with data protection relevant in these cases such as the GDPR and DMA. The GDPR contains rules regarding transparency as well as rules on how data of consumers should be used. The principle of data minimization (Article 5) states that the data of consumers should only be used for the stated purpose which makes transparency regarding price personalization an automatic obligation in case it is a use that goes beyond the initial purpose for which the data was extracted.

The provision that directly deals with personalization and profiling in the GDPR is Article 22 of the GDPR which states that "The data subject shall have the right not to be subject to a decision based solely on automated processing, including profiling, which produces legal effects concerning him or her or similarly significantly affects him or her." Under Article 22(1) GDPR and under Article 22(3) GDPR, the data subject can contest the decision after obtaining information regarding the decision.[160] In case a user is profiled using inaccurate information on them, they have a right to rectify the data under Article 16 GDPR.[161]

With regard to the combining of data from different sources, under Article 5(2) of the DMA, a gatekeeper firm defined under Article 3 of the proposed Act is prohibited from combining data sourced from core platform services with personal data from any other services or third-party services unless the user explicitly provides consent for it. Consent is defined under Article 4(11) GDPR. Under Article 30, the DMA has also proposed fines of up to 10 per cent of the company's worldwide annual turnover creating a high penalty for non-compliance with obligations set in Articles 5 and 6 which was not possible with previous consumer protection and data protection legislations.[162]

Borgesius and Poort argue that data protection law can be applicable to personalized pricing as it relates to processing of data under Article 4 of

[158]Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 September 2016.
[159]See DMA.
[160]See De Streel and Jacques 13–14.
[161]ibid 12.
[162]The GDPR allows fines of up to 4 per cent Worldwide turnover under Article 83.

the GDPR and Article 5 refers to lawful processing which requires transparency. The consumers active consent is a requirement under the GDPR's various provisions which would make price personalization without their consent illegal. Article 22 of the GDPR refers to far reaching effects of automated decisions that significantly affects the consumer. In case of an increase in price due to personalization, the provision can be raised as a defence. Therefore, price personalization that leads to a lower price may be accepted from a regulation point of view and any increase in price compared to a reference price can be considered illegal.[163] The trust of the consumer is also an important aspect that needs to be considered. It has been seen in studies that consumers are averse to price discrimination.[164] Transparency requirements with respect to personalization and regulation against price increases due to price personalization can keep the trust aspect intact. Transparency with respect to personalization is an important aspect as consumers are averse to situations that they may potentially regret later.[165] That is why Borgesius and Poort argue that firms should inform consumers of cookies being embedded in the operating systems and also regarding the use of their personal data for price tailoring.

5.3. Anti-discrimination legislations

There are many EU legislations that uphold non-discrimination as a principle such as the EU Charter, Geo Blocking Directive, Race Directive and Article 18 of the TFEU. In order for a discrimination to not violate this principle or any related Directive, it should be to pursue a legitimate aim and the discrimination needs to be necessary to reach this aim.[166] Therefore, it is important for price personalization to not be indirectly based on a restricted category covered by one of the Directives such as race, sex, ethnic origin or directly on Nationality. If a pricing algorithm uses any of the above metrics to discriminate between users, the practice may be prohibited.[167]

However, an important consideration that is to be kept in mind while applying anti-discrimination legislation is one regarding the economic

[163]ibid 355–63.
[164]J Turow, J King, CJ Hoofnagle, A Bleakley, and M Hennessy, 'Americans Reject Tailored Advertising and Three Activities that Enable It' (2009) <https://ssrn.com/abstract=1478214>.
[165]Graham Loomes and Robert Sugden, 'Regret Theory: An Alternative Theory of Rational Choice under Uncertainty' (1982) 92(3680 The Economic Journal 805.
[166]See De Streel and Jacques 17–19.
[167]ibid.

benefit to those from lower income groups. For example, if an algorithm discriminates between groups based on their ethnicities where the people from a certain ethnicity belong to a lower income group, then in such a case the discrimination would result in them getting a lower price while those from a different ethnicity who are considered to part of a higher income group receive a higher price. While it is possible that not everyone from an ethnic group in an area is from a lower income group, the discrimination would largely be based on that groups overall WTP rather than on the basis of other social aspects. The point here is that discrimination based on race or ethnicity in such a case may be able to provide economic benefits to people of lower income and create a positive redistribution effect.[168]

In such a case where there is an objective benefit that arises out of discriminating based on race or ethnicity, such a discrimination can be justified if under Article 2(2)(b) of the Race Directive[169] if the discrimination has a legitimate aim and the means to achieve the aim are appropriate and necessary. Similarly, such objective justification is also available under Article 2(1)(b) of the Gender Directive[170] where discrimination on the basis of sex may be justified based on the same conditions as of those in the Race Directive.[171] These provisions can allow consideration of instances when an economic benefit may arise as a result of discrimination based on prohibited grounds.

In the EU single market, if place of stay or country of residence is used as a ground for discriminating between consumers, the Geo-blocking Regulation[172] may be applicable. Geo-blocking occurs when a seller limits or blocks access to their online interfaces to consumers based on their nationality, residence or place of establishment. This is prohibited under Article 3(1) of the Regulation. This prevents personalization based on the location of the user unless the user explicitly consents towards a different online interface than the trader's regular online interface under Article 3(2) of the Regulation. This is a step further from Article 20 of the Services Directive[173] which prohibited discrimination based on the service recipient's nationality or residence.[174]

[168]See OECD Report 40–41.
[169]Council Directive 2000/43/EC of 29 June 2000.
[170]Directive 2006/54/EC of the European Parliament and of the Council of 5 July 2006.
[171]See De Streel and Jacques 19–20.
[172]Regulation (EU) 2018/302 of the European Parliament and of the Council of February 2018.
[173]Directive 2006/123/EC of the European Parliament and of the Council of 12 December 2006 on services in the internal market.
[174]See Bourreau and others 46–47.

5.4. Omnibus directive

In 2019, the Omnibus Directive[175] was enacted which consisted of amendments being made to many past Directives and included a provision on personalized pricing making it the first EU legislation to tackle the practice directly. Article 4(4) of the Omnibus Directive amends Article 6(1) of the Consumer Rights Directive and includes that consumers be informed in a clear and comprehensible manner where " … the price was personalized on the basis of automated decision-making" under the new Article 6(1)(ea) CRD provision. In its recital, the Directive seeks to differentiate "dynamic" or "real-time" pricing which are affected by market demands from personalized pricing and seeks to prevent individuals from being profiled through automated decision making.[176]

Automated decision making in the Directive may seem to cover personalization on the basis of affiliation of consumers to certain groups, based on past online behaviour, or also based on aspects such as age, demography and other aspects that may be available online.[177] The ambit of coverage would include both discounts and higher prices offered to consumers which makes Article 6(1)(ea) CRD a comprehensive provision when it comes to protecting the rights of consumers in terms of price personalization only taking place when they have been clearly informed. However, even if consumers are provided with the information that is used to personalize prices, they might not be able clearly determine where personalization would lead to higher or lower prices for them.[178]

The evaluation of whether personalized pricing is more beneficial to a consumer may be a matter of speculation based on Article 6(1)(ea) CRD as the seller only has the obligation to inform the consumer that the price was personalized. The process of personalization does not need to be shared with the consumer which is omitted from the Omnibus Directive. However, the provision does satisfy issues relating to consumer trust which was one of the main concerns that were noted in relation to price personalization being conducted.[179] Using this legislation may be the way forward in terms of price personalization cases.

[175]Directive (EU) 2019/2161 of the European Parliament and of the Council of 27 November 2019 amending Council Directive 93/13/EEC and Directives 98/6/EC, 2005/29/EC and 2011/83/EU of the European Parliament and of the Council as regards the better enforcement and modernization of Union consumer protection rules.
[176]ibid Recital [45].
[177]Peter Rott, Joanna Strycharz, and Frank Alleweldt, 'Personalised Pricing', European Parliament's Committee on Internal Market and Consumer Protection, November 2022, 29.
[178]ibid 30–32.
[179]See Borgesius and Poort; See also BEUC.

5.5. Section summary

Consumer protection legislations are available for any harm that occurs to consumers as a result of a practice that may be considered unfair under the UCPD or violate the rights of consumers under the CRD. Some of the harms that can arise out of price personalization that can be dealt by these directives are extraction of consumer data without their active consent, not informing consumers that their data is used for personalization, and also misleading consumers regarding prices for a product. When it comes to data extraction, the GDPR can act as more suitable legal avenue to be used as it specifically deals with how personal data of a consumer ought to be processed under Article 5 GDPR. Price personalization can also be dealt with directly using the GDPR in case of a price increase as a result of a consumer's personal data being used for discrimination. When it comes to the legitimacy of the grounds that are used to discriminate between a group of users, Anti-Discrimination Directives such as the Geo-Blocking, Gender and Race Directives(s) provide strict guidelines on the parameters that may be considered illegal for discrimination. The only way of discriminating on those parameters can be to show an economic benefit arising from such an act. Compared to Article 102(c) TFEU, Consumer Protection Directives (especially the Omnibus Directive) seem to be more suitable in assessing price personalization.

6. Conclusion

This paper started off by considering whether price personalization is a conduct that occurs widely currently. It was found that there is evidence of its occurrence in some studies while others did not find such evidence. Due to its occurrence in some studies and the possibility of it occurring more in the future with firms being able to collect more information on users to better the personalization, this paper considered the use of competition law in cases relating to price personalization and found that the two may not be a suitable match considering the ambiguous effects of price personalization on consumer welfare. In cases where there is no increase in total welfare, competition law may play a role in prevent price personalization, but this is not possible under the current standard of assessment in the EU under Article 102(c) TFEU. Other legislations discussed in Section 2.6 may be more relevant to price personalization cases.

The paper contributed to the current literature by providing a unique perspective on the application of Article 102(c) to price personalization by considering the use of primary-line and secondary-line injury cases separately. The paper found that Article 102(c) can apply to price personalization which led the paper to consider whether it should be applied to these cases. To find this, the paper engaged with social norms that play a role in price discrimination considerations to see whether this would be an acceptable practice from a consumer's point of view. The paper argued that a disclosure regime may allow a firm to carry put price discrimination which may be beneficial to consumers as there is mostly an increase in output due to price discrimination. By gaining consumer trust, the procedural fairness of price personalization can be maintained which will allow the market to function sustainably.

The distributional effects of personalized pricing which allow newer consumers to enter the market at the cost of older consumers need to be studied more in order to assess whether poorer consumers benefit from richer consumers being charged a higher price. This would allow for a redistributive effect and one that reduces inequality. Evidence proving such redistribution as a result of price personalization can pave the way for even lesser regulation and legislative actions.

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