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Global Class Actions: Towards A Blockchain-Based Dispute Resolution System

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Abstract

Mass injuries caused by the violations of multinational firms are becoming more and more common in today's globalised economy as goods and services are sold worldwide, and the harm these goods and services cause affects many widely scattered victims in different countries. Even if the same or almost identical factual situations injure consumers worldwide, whether they obtain any remedies varies from jurisdiction to jurisdiction as each country designs its class action procedure differently. In order to overcome jurisdictional variations and compensate consumers with small claims in a more effective and efficient manner, this article deliberates on the idea of incorporating blockchain-based dispute resolution methods into class action proceedings. In this light, the article discusses to what extent blockchain-based dispute resolution systems can be used in class actions to provide better access to justice to consumers at the global level.

Keywords Blockchain-based dispute resolution · Class actions · Consumer damages · Access to justice · Online dispute resolution

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Introduction

Today's world, which is shaped by truly international markets (Bermann, 2009, p. 93), is faced with an ever-increasing number of mass injuries resulting from infringements of multinational corporations (Hensler et al., 2021; Strong, 2012, p. 912). These injuries can be observed in different areas of law, ranging from product to environmental liability, from consumer and competition to securities law, and from civil to human rights abuses (Hensler, 2009, pp. 7-8). Since products and services are marketed globally, the problems arising from these products and services concern many individuals and institutions around the world (Hensler et al., 2021, pp. 1-2). This leads to the same or similar facts leading to large-scale legal injuries (Hensler et al., 2021, p. v) that harm numerous broadly dispersed victims in various jurisdictions (Nagareda, 2014, p. viii).

There is a rise in mass claims caused by multinational corporations having parallel operations worldwide. One of the most prominent cases is the Volkswagen case, called the diesel emission scandal. A group of researchers at the University of West Virginia found out in September 2015 that Volkswagen had been installing software to make the vehicles with diesel engines pass emission tests in laboratories, whereas the cars emitted up to 40 times more pollution than the standards allowed during the regular drive (Jung & Sharon, 2019, p. 6; Weninger, 2016, p. 94). It was also discovered that eleven million diesel vehicles worldwide had this software, among which 590,000 were located in the United States (US) (Jung et al., 2019, p. 6) and eight million in the European Union (EU) (Hotten, 2015; BEUC, 2019). After the public announcement of the US Environmental Protection Agency (EPA) (EPA, 2015), the scandal rapidly got the attention of other countries (Stadler, 2021, p. 338).

The deceptive practice of Volkswagen caused not only financial but also emotional and psychological loss to consumers (Dadush, 2022; Schmitz, 2020, p. 343) and paved the way for affected consumers to seek remedies through a class action mechanism in the US (Schmitz, 2020, p. 342). Australian and Canadian consumers followed the consumers in the US and lodged class action lawsuits against Volkswagen as well (Weninger, 2016, p. 97). The launch of the class action by US diesel car owners also motivated consumers to ask for compensation in the EU, but this sheds light on the fact that European judicial systems have severe shortcomings when it comes to dealing with mass claims involving such a large number of plaintiffs (Stadler, 2021, p. 338; BEUC, 2020). Therefore, the diesel emission scandal reveals

that individual procedures of the countries lead to different outcomes even when an identical incident causes loss to numerous consumers in the same way (Harsagi, 2019, p. 282).

There also is an example of mass claims that originate from cryptocurrencies sold by 42 defendants located in numerous countries, such as the British Virgin Islands, Canada, Cayman Islands, China, Estonia, Hong Kong, Israel, Japan, Malta, Seychelles, Singapore, South Africa, Switzerland, Taiwan, US, and Vietnam (Castor & Copeland, 2020). The allegation made by the claimants who invested in 79 tokens as securities (Mason, 2022) is that the defendants, who are the companies operating in the cryptocurrency exchange market, sold unregistered securities as digital tokens (Castor et al., 2020) and did not let the investors know that they are buying securities rather than digital assets (Barnett et al., 2022). Since the start of 2020, the investors have filed 200 class action lawsuits and other private litigation (Skolnik, 2022) just in the US to seek monetary relief and injunctions (Mason, 2022). It is clear that these tokens have been sold by cryptocurrency companies worldwide, but a class action lawsuit is only brought before the US courts.

Another case example concerns Apple's breach of contract with its iCloud subscribers (Richardson, 2021). The allegation made by the claimants is that Apple did not comply with the service terms and conditions of the contract and stored the data of its iCloud subscribers on third-party servers belonging to Amazon, Microsoft and Google without their knowledge (Avery, 2022) despite the assurance given in the contract (Richardson, 2021). The subscribers state that if they knew Apple did not have the required infrastructure and had been using the cloud space of other entities, they would not have paid the subscription fee for the iCloud for 5GB storage as they considered the Apple brand trustworthy and valuable (Avery, 2022). A class action filed against Apple in the US has been settled for \$14.8 million, and the class members who are US residents paying a subscription fee for iCloud within the timeframe set by the lawsuit received a pay-out.¹ It is again clear that Apple, which has a worldwide operation, might run its business using the same contract term. However, only US residents receive a payment.

All these cases show that we live in a global economy where goods and services are manufactured and purchased all over the world (Weninger, 2016, p. 94). Therefore, when it comes to marketing goods and services, borders lose. However, when it comes to resolving the

¹ The Information Website for the *Williams v. Apple Inc.* The settlement, <https://www.storageclassactionsettlement.com/> (accessed 18 March 2023).

disputes originating from these goods and services, borders are of importance for litigants as jurisdictional differences in national laws and procedures affect the scope and the way in which their access to remedies (Schmitz, 2020, p. 340). Even though the same or similar factual circumstances induce the same or similar harm to consumers around the world, whether they receive any remedies vary from jurisdiction to jurisdiction (Schmitz, 2020, p. 340). In that regard, it is necessary to accept that the factual situation that causes loss to consumers is identical, but what a legal system considers harm depends on both the substantive law and the procedural rules. In order to build global access to a justice system that would treat consumers equally, the differences in substantive and procedural law across jurisdictions also need to be solved.

In addition, the digital economy's expansion with the rise of cryptocurrencies and other digital assets has resulted in the emergence of different types of legal disputes. The digital economy has made possible new kinds of transactions and business models that were not possible in the past, and thereby new types of disputes have also come into existence as a direct consequence of this. The globalisation of trade brings along the consideration of access to justice through collective consumer redress mechanisms on a global basis. One can contend that a global mechanism should offer efficient and fair outcomes for consumers regardless of where they reside (Schmitz, 2020, p. 340).

This article seeks to contribute to the body of the literature on class actions by discussing the possibility of integrating blockchain-based dispute resolution (BDR) systems into such actions to overcome jurisdictional differences in the procedural design and thereby provide consumers having low-value claims with remedies in a more effective and efficient way at the global level. To date, the use of BDR systems in consumer class actions has not been addressed before. This article argues that adding a BDR system to the class action procedure can deliver effective justice to consumers harmed by the same or similar conduct around the world. In this respect, this article proceeds as follows. Section 2 defines the class action procedure and its functioning in resolving mass claims. Section 3 explores the class action procedures—or lack thereof—of four chosen jurisdictions to shed light on their differences in how they operate and provide remedies in mass claim cases. Section 4 examines the possibility of designing a global class action using technology-based dispute resolution systems and offers further reflections on the benefits of such a system in delivering access to justice to consumers in mass claim situations.

Class Action Introduced

Traditionally, two-party litigation involves a single plaintiff suing a single defendant. The traditional model, however, does not resolve the dispute between parties where a breach of law results in widespread harm, thereby causing loss to a large number of persons (Şahin, 2019, p. 3). The mechanism that resolves the conflict between parties where one of the parties consists of numerous persons in a single proceeding takes different names. Civil law jurisdictions generally call this mechanism ‘collective actions’ (see e.g. Brazil, France, Italy, and Spain, Gidi, 2003, pp. 335-336) and ‘group actions’ (see e.g. Sweden, Lindblom, 1997) and common law jurisdictions like the US, Australia and Canada call it ‘class actions’ (Mulheron, 2004, p. 5.) (Şahin, 2019, p. 4). For consistency, this article uses the term ‘class actions’. Class actions can be defined as a court-based mechanism that enables one or more persons as representatives of the class (the representative party) to sue on behalf of similarly situated persons who are harmed by the same or a similar wrongful act (the class) and whose therefore claims have the same or similar issues of fact or law in common (shared issues) (Mulheron, 2004, p. 3; Şahin, 2019, p. 6). In a class action, the court’s decision on the shared issues binds the class as a whole (Mulheron, 2004, p. 3). If awarded, the remedy also applies to all members despite the fact they have not actively participated in the litigation (Yeazell, 1987, p. 1; Şahin, 2019, p. 6), at the end of the litigation, the members collect the damage award pro rata (Şahin, 2017, p. 185).

When a wrongful act harms millions of persons, a need for a realistic and practical means for these persons to access a remedy becomes apparent (Şahin, 2017, p. 185). A class action mechanism satisfies this need because first representation makes the class ‘a single litigative entity’ (Yeazell, 1987, pp. 1-2), and by doing so, the claims of class members are decided in a single lawsuit (Şahin, 2019, p. 6). This, in turn, results in the avoidance of repetition (Elhauge & Geradin, 2011, p. 31) by using the same body of evidence in litigation (Directorate-General for Internal Policies, 2012, para 4.2) and therefore precluding each member from spending effort and cost against the same defendant for the same conduct (Keske, 2010, p. 74). Compared to traditional litigation, a class action is a time and cost-efficient tool to manage numerous claims because the members share the risks, burdens and costs of the litigation, and the court can decide the matter within reasonable delay and costs in a single lawsuit (EU Commission, 2011, para 5). In the end, similarly situated claimants obtain similar recoveries (Mulheron, 2004, p. 49). The mechanism, therefore, brings uniformity of decisions along, promoting proportionality and fairness for litigants (Nazzini, 2011, p. 141). That said, the next section will examine the class action procedures or the lack thereof of four selected jurisdictions

to shed light on the differences in the way they operate and the remedies they offer in mass claim cases.

Class Action Mechanisms of Selected Jurisdictions

United States

The US is seen as a ‘hometown of class actions’ (Mulheron, 2004, p. 9) as this procedure was signed into law in the Federal Rules of Civil Procedure (FRCP) rule 23 in 1938, before it took its current form in 1966 (Mulheron, 2004, p. 9; see it first became law in 1842 in Federal Equity Rules, rule 48, Spence, 2002, p. 23). According to the FRCP rule 23, the initial step for a case to proceed as a class action is certification. The criteria for the class action certification involve numerosity, commonality, typicality of claims and adequacy of the representative (FRCP rule 23(a)). Two additional criteria must be satisfied in class actions for damages: *i.* common issues to the class must predominate over individual issues (predominance), and *ii.* a class action must be a superior tool *vis-a-vis* other available methods for fair and efficient adjudication of the dispute (superiority) (see the further criteria assessing these, FRCP rule 23(b)(3)).

The numerosity test takes into account the size of the class (Mulheron, 2004, p. 115). This means that a class should be consisted of a large number of individuals (Mulheron, 2004, p. 113) whose participation in the action is unrealistic and particularly difficult (Mulheron, 2004, p. 121), thereby rendering the class action practical and efficient way to resolve the dispute (see that it is not possible to set an exact number, Mulheron, 2004, p. 124). After establishing that the class involves numerous members, the aim of the tests of the adequacy of the representative and the typicality of claims is to assemble the claims that can be handled in a single proceeding. According to the adequacy test, there should be no opposing interest between the representative and class members (826 F. Supp. 1019 *In re Catfish Antitrust Litigation*, para 1037) so that the representative party can “[f]airly and adequately protect the interests of the class.” (FRCP, rule 23(a)(4).) The typicality test also seeks to form a class whose members have the same or similar grievances (Andreangeli, 2014, p. 109) and are harmed by the same course of conduct (826 F. Supp. 1019 *In re Catfish Antitrust Litigation*, para 1036; 692 F.3d 1212 *Ault v. Walt Disney World Co.*, para 1216).

The tests of commonality and predominance determine the likeness of the claims in the class (Erbsen, 2005, p. 998). The commonality test strives to group claims that have questions considerably pertaining to the resolution of the dispute (Andreangeli, 2014, p. 105;

564 U.S. 338, 131 S. Ct. 2541 *Wal-Mart Stores, Inc. v. Dukes*, para 2551). In parallel, the predominance test in class actions for damages aims to consolidate claims with common issues that prevail over individual issues. This requires assessing to what extent individual issues need to be dealt with during the proceeding (Manual for Complex Litigation (MCL), 2004), i.e. whether such an action is the suitable tool for addressing myriad claims (Erbsen, 2005, p. 998). The certification of class actions for damages entails the satisfaction of the superiority test, which is closely linked with the other tests. The superiority test aims to justify that there exist no other more practical means of handling the dispute than the class action mechanism.² A class action is generally found as the superior tool where the value of the class members' claims makes the pursuit of individual proceedings unfeasible (Calkins, 1997, p. 439).

If the class action involves claims for damages, the system operates on an opt-out basis where all putative class members are presumed to be members of the class unless they leave (Kliebard et al., 2020). Thus, the lead (named) plaintiff (representative party), who is one of the members of the class and is almost always found by a lawyer (Fisch, 1997, p. 171), should only describe the class on whose behalf the case is filed (FRCP 23(c)(1)(B).) and is not required to specify the precise number of the class (Marcus & Sherman, 1985, p. 243). It is enough that the class members are identifiable (Fischer, 2011, p. 47). Since the class does not need to comprise individually identified persons, there should be a mechanism in place to inform the members of their rights. This mechanism is notice that must be issued in class actions seeking damages (FRCP 23(c)(2)(B).) when the action is certified, or a settlement is provisionally approved (FRCP 23(e)(2); Eisenberg & Miller, 2004, p. 1535). The contents of the notice must describe the existence and scope of the class action, the relief requested, the effect of the action on the rights of the members, and the means by which they can safeguard those rights or exclude themselves from the class (MCL, 2004, p. 289; Anderson & Trask, 2010, p. 177; see also FRCP 23(c)(2)(B)). Upon receiving the notice, members can opt out of the action, but opt-out rates are close to zero in consumer class actions for damages. Eisenberg and Miller discovered in their research that the average opt-out percentage for thirty-nine consumer class actions was less than 0.2% in eleven years (Eisenberg et al., 2004, p. 1532). If the class action involves claims for declaratory or injunctive relief, then the mechanism works on a mandatory basis where the members do not, in principle, have the right to receive a notice or to be excluded from the class (FRCP 23(b)(2)) (Mulheron, 2004, p. 31). However, the court has the discretion to provide such rights to the members (702 F.3d 364 *Johnson v. Meriter Health Servs. Employee*

² See Notes of Advisory Committee on Rules—1966 Amendment to Rule 23(b)(3) (1996) http://www.law.cornell.edu/rules/frcp/rule_23 (accessed 18 March 2023).

Ret. Plan, paras 370-371). In hybrid cases where the claims involve both monetary and equitable relief, the court should provide members with a notice and a right to opt out (564 U.S. 338, 131 S. Ct. 2541 *Wal-Mart Stores, Inc. v. Dukes*, para 2558)

Damages in US class actions must be capable of being computed on a class-wide basis (569 U.S. 27, 133 S. Ct. 1426 *Comcast Corp. v. Behrend*, para 1433; Mulheron, 2004, p. 409; Davis & Cramer, 2010, p. 998). In this respect, the plaintiffs are expected to demonstrate that there existed a method for determining damages on a class-wide basis (569 U.S. 27, 133 S. Ct. 1426 *Comcast Corp. v. Behrend*, paras 1432-1433). Although the damage computation itself frequently varies depending on the characteristics of each class member, courts usually calculate and divide damages based on a methodology given by the claimant's experts (Kliebard et al., 2020). The amount awarded to the class is sometimes a lump sum to be paid by the defendant and sometimes found through applying a formula to the claims of individual members, but it never necessitates proof of individual damages (Mulheron, 2004, pp. 407-408). The next step following the award is apportioning damages among class members. Distribution is less problematic when the class is small and the participants' identities are known. However, in opt-out actions, the class includes numerous consumers, none of whom must be named or subject to legal action before the distribution stage. Thus, distributing the award to all class members may not always be possible, particularly when claimants are asked to come forward and produce supporting paperwork (Forde, 1996, p. 1; Pace, 2007, p. 43). The undistributed or unclaimed sum can also be observed where class members cannot be found,³ do not know about the damages award, are unable to offer any proof of purchase, or do not think their loss justifies a claim (Jones, 2012, p. 177).

Several options have been discussed to deal with the problem of undistributed awards. One option distributes the award on a pro-rata basis between the identified class members or who completed a claim form (Jones, 2012, p. 177; Davis, 2014, p. 894). Nonetheless, this raises concerns as to overcompensation because these members of the class get more than the loss they incurred, whereas others receive nothing. Another option is to transfer the unclaimed award to a governmental entity (see treasury was one of the options raised during the UK collective action debate, BIS, 2013, para 5.66.). Although this alternative is inexpensive to adopt (Mulheron, 2009, p. 316), it does not indemnify the class members injured by illegal

³ See In a 1995 class action lawsuit in the US alleging price-fixing of infant items, \$91 million was awarded to the plaintiffs who met the group criteria. Further claimants could not be discovered despite efforts from 1995 to 2000, leaving slightly under \$1 million in unclaimed cash. *In re Infant Formula Multidistrict Litigation*, Case no 4:91-cv-00878-MP (N.D. Fla. 2005) 3-4 <https://casetext.com/case/in-re-infant-formula-multidistrict-litigation> (accessed 18 March 2023).

conduct. Therefore, the cy-près doctrine, which attempts to indirectly benefit class members by designating the undistributed sum to the subsequent best use (Mulheron, 2009, p. 314) has been widely used in the US (Cohen, 2019). The cy-près doctrine has two types: distribution in the form of lower prices, often known as price-rollback cy-près (Mulheron, 2009, p. 218) and organisational cy-près (Mulheron, 2009, pp. 217-218).

Price-rollback cy-près requires the defendant to reduce its prices for the service or product subject to the illegal conduct for a limited time until the remaining sum is spent (Dam, 1975, p. 63). This approach is practical since it avoids any interaction between the defendant and those who would benefit from the decreased pricing, and it is cost-effective because there are almost no distribution costs (Alexander, 2000, p. 16). However, price-rollback cy-près raises concerns about the compensation of the harmed consumers. Firstly, price-rollback cy-près may lead to overcompensation as it offers lower prices to all consumers in the given time period. The doctrine does not distinguish between harmed and unharmed consumers, meaning unharmed consumers can also enjoy reduced prices (see Wheeler, 1973, p. 1342). The doctrine does not identify those who have previously filed a claim or received compensation, meaning some class members can enjoy double recovery (Dam, 1975, p. 63; Mulheron, 2014, p. 428). Secondly, the doctrine is unable to compensate affected consumers who do not wish to buy the service or product in question (Mulheron, 2014, p. 428).

In organisational cy-près, the remainder is given to a selected organisation whose mission is to further the litigation's goals (Kleefeld, 2007, p. 208) or to stop future incidents that have harmed class members (56 F. Supp. 2d 355 *Jones v National Distillers*, para 358). Owing to the similarity between the objective of the class action and the organisation, organisational cy-près has been advantageous to the class members (Kleefeld, 2007, p. 208). Yet, selecting an organisation suited for each case's specifics might be challenging (BIS, 2013, para 5.64). One of the most significant drawbacks of this doctrine is its inability to provide any compensation to the affected consumers.

Class actions are funded individually or in combination with a conditional or contingent fee agreement ('no win-no fee' arrangements) (see 'no win no fee' arrangements call for the attorney to fund the action but receive remuneration if the case is successful, Keske, 2010, pp. 46-47) with the attorneys working on the case, after-the-event (ATE) insurance and third-party litigation funding (see Barker, 2012, p. 451). In the US, the 'no-way' costs rule is applicable, meaning both parties are responsible for their own costs irrespective of the outcome of the case (Mulheron, 2014, p. 436). The FRCP rule 23(h) states, "*In a certified class action, the court may award reasonable attorney's fees and nontaxable costs that are authorised by law or by*

the parties' agreement.” Settlement is also subject to the court’s approval, and the conditions of the approval are explained in detail in the FRCP rule 23(e). The court should send a notice to the members, then hold a public hearing and can only approve the settlement on finding that it is fair, reasonable, and adequate. For instance, the class action against Volkswagen ended up with a settlement in a short time after the case was filed (Stadler, 2021, p. 338).⁴ Under the settlement, car owners in the diesel emission scandal received a one-time payment of between \$12,500 and 44,000 per vehicle,⁵ of which cost \$9.5 billion to Volkswagen in total (BEUC, 2020).

Apart from class action mechanisms, the US has another type of large-scale litigation available: Federal multidistrict litigation (MDL) (Strong, 2012, p. 930). MDL was developed in the 1960s following the flood of electrical equipment price-fixing cases in federal courts (Sherman, 2008, p. 2205). In September 1960, several groups of electrical equipment manufacturers were charged with a price-fixing conspiracy covering a long list of products (Watkins, 1961, p. 97) so that the infringement at the different levels of the supply chain harmed myriad victims. The victims filed 1,912 separate civil actions in 36 different federal judicial districts involving a total of 25,714 claims in 20 product lines (Peterson & McDermott, 1970, p. 737). The fact that these actions clogged the courts showed the need for a procedural tool (Sherman, 2008, p. 2205) to conduct the litigation in an efficient and convenient manner (Peterson et al., 1970, p. 737). In April 1968, Congress enacted the MDL statute (28 U.S. Code § 1407 - Multidistrict litigation) (Peterson et al., 1970, p. 740). In the event that there are civil actions involving one or more common questions of fact pending in different districts, the MDL transfers these actions to any district court for coordinated or consolidated pretrial proceedings (28 U.S. Code § 1407(a)). Upon finding that the transfer is both *i.* just and efficient means for the resolution of claims and *ii.* convenient for the parties and witnesses to transfer these actions to a single court (28 U.S. Code § 1407(a)); the judicial panel on multidistrict litigation appoints a judge or judges of a district to conduct pre-trial depositions in coordinated or consolidated proceedings (28 U.S. Code § 1407(b)). In order to avoid wasteful repetition, all cases benefit from coordinated discovery under the MDL (Sherman, 2008, p. 2206).

⁴ See also “[D]efendants successfully managed the settlement administration process despite the enormous claims volume.” Federal Trade Commission’s Final Status Report (2020). In re Volkswagen “Clean Diesel” Marketing, Sales Practices & Products Liability Litigation MDL No. 2672 <https://www.ftc.gov/system/files/documents/cases/1623006vwfinalstatusreport.pdf> (accessed 18 March 2023=.

⁵ VW Diesel Settlement. (2017, 16 November). *Classaction.com* <https://www.classaction.com/volkswagen/settlement/> (accessed 18 March 2023).

It is, however, clear that the MDL differs from class actions in two ways. First, the MDL brings multiple claims with common questions of fact together on an aggregative, rather than representative basis. Second, the MDL combines the claims merely for coordinated or consolidated pretrial proceedings; thus, the claims are later disaggregated to resolve individual issues and final disposition (Strong, 2012, pp. 930-931). Therefore, compared to other claim aggregation mechanisms and individual litigation, the class action mechanism is still the only practical, realistic and convenient means that provide access to a remedy in mass harm situations for numerous claimants with especially small claims. However, as pointed out above, the class action procedure has its own drawbacks concerning damage distribution, with which technology-based dispute resolution systems can help.

United Kingdom

In the United Kingdom (UK)⁶, three different procedural mechanisms are available to resolve mass claims. The first is group litigation orders (GLO) introduced in 2000 in Civil Procedure Rules 1998 (CPR), part 19, sec III. This procedure can be applied to all types of claims⁷ and empowers a single court to handle multiple individual claims with common or related issues of law (GLO issues – CRP 19.10). Under the GLO, a group register is created for the case at hand; the claimants with claims having common or related issues put their names on this register (opt-in) until a date permitted by the court (CRP 19.13). One of the registered claims proceeded as a test case (CRP 19.15) (Andrews, 2012, p. 19), and the ruling given in the test case becomes binding on the others in the register (CRP 19.12) (Andrews, 2012, p. 19; Bernard & Bourjade, 2013, p. 14). In this mechanism, the registered claimants are parties to the case and members of the class at the same time (Andrews, 2012, p. 19). The GLO does not function based on representation. Apart from the GLO issues, non-GLO issues, such as individual levels of compensation, will be heard in separate individual cases (Ashurst, 2021). As a result, the GLO is a case management tool rather than a class action mechanism (Walle, 2013, p. 179) and has not much difference from individual litigation (Mulheron, 2005, p. 47).

The second mechanism is representative actions under the CPR, sec II. According to CPR 19.6 a representative action may be brought by or against one or more persons with the same interest in a claim. One or more of those persons act as representatives in the court and

⁶ The UK refers to England and Wales in this article.

⁷ BIICL. Collective Redress. <https://www.collectiveredress.org/collective-redress/reports/ew/overview> (accessed 10 December 2022).

“[a]ny judgment or order given in a claim in which a party is acting as a representative [i]s binding on all persons represented in the clai[m].” (CPR part 19.6(4)). There are also representative actions specific to competition law infringements. The first was laid down in the former sections 47A and 47B of the Competition Act, authorising specified bodies to bring representative actions on behalf of consumers harmed by competition infringements before the Competition Appeals Tribunal (CAT). It was an opt-in representative action requiring the identification of all class members at the time the action was filed (EU Commission, 2010). In a representative action for damages, the representative party, i.e. the consumer association, had to present the court with a claim form encompassing *i.* each consumer’s name (CAT, 2005, para 6.77), *ii.* the amount claimed with the evidence and calculations (CAT, 2005, para 6.78), and *iii.* each consumer’s consent to the action (CAT, 2005, para 6.77; CAT, 2003, rule 33(1)(c)). Subsequent to the first and only representative action, *JJB Sports* (Case 1078/7/9/07), the consumers’ association Which? announced that the unnecessary costs and complexity of the opt-in litigation made it nearly impossible to bring another action under this regime (BIS, 2013, para 155). This was one of the reasons for the UK to initiate the reform process of private competition law enforcement (Sahin, 2014). After long debates, Consumer Rights Act 2015 (CRA 2015) has adopted the third mechanism, i.e. a new class action regime for competition infringements and made the opt-out actions a possibility for the CAT to choose (CRA 2015, sch 8, sec 47B(11)).

The Competition Appeal Tribunal Rules 2015 (CAT rules 2015) para 78 first states that with the authorisation by the CAT, a member of the class or an ideological claimant who is just and reasonable to act in the litigation can be the representative party and secondly specifies the criteria for the determination of the suitability of the claims to be dealt with in a class action. CAT rules 2015 para 79 sets out two more criteria additional for the CAT to decide whether class actions should proceed on opt-in or opt-out bases: “(a) *the strength of the claims; and (b) whether it is practicable for the proceedings to be brought as opt-in collective proceedings, having regard to all the circumstances, including the estimated amount of damages that individual class members may recover.*” According to the CAT rules 2015 para 80, an opt-out action can be possible for the class composed of UK-domiciled persons, but class members who are not domiciled in the UK have only one option available to them, that is to opt in to the action.

The CAT rules 2015 paras 81-82 require the notice to be sent to the class members in a certain format and explain how the class members can opt in to or opt out of the action upon receiving the notice. Para 92 allows an aggregate damages assessment, by doing so, avoids

individual damages calculations. If aggregate damages are awarded, the CAT will specify how they are allocated and when class members must claim to receive their share (Hennah & Baratt, 2022). Para 93 states that undistributed awards can be paid to the representative party or another person that the CAT finds appropriate.⁸ CRA 2015 schedule 8 also states that the CAT would not award exemplary damages in class actions. The loser-pays rule applies to class actions and for attorney's fees damages-based agreements (no win-no fee arrangements) which are available in civil litigation, are not permitted in opt-out actions (Sahin, 2014, pp. 444-445). Settlement in opt-out actions is subject to not only the court order but also detailed rules specified in the CAT rules 2015 paras 94 *et seq.*

Under this regime, the CAT in August 2021 certified a class action against Mastercard (*Merricks v Mastercard* [2021] CAT 28) involving 46.2 million consumers (*Merricks v Mastercard* [2021] CAT 28, para 3) who allegedly suffered a loss of around £300 each (Bushell et al., 2021), and in total more than £14 billion (*Merricks v Mastercard* [2021] CAT 28, para 3). With respect to the diesel emission scandal, a class action was filed on behalf of 91,000 claimants. The case was settled, Volkswagen agreed to pay £193 million in total and the claimants roughly received more than £2,100 each (Jolly, 2022).

Turkey

In Turkish legislation, no class action mechanism is available to deal with the damage claims of numerous victims. Two aggregation mechanisms are laid down in the Code of Civil Procedure 2011 (CCP 2011). One of the aggregation mechanisms is the necessary and permissive joinder of parties. In this mechanism, victims who share the same cause pursue their claims together against the same defendant (arts. 57-60 of the CCP 2011) for the purposes of procedural economy and avoidance of conflicting decisions (Erdönmez, 2015, p. 696). In the necessary joinder of parties, it is required by law that the court reach a joint decision about separate proceedings. In permissive joinder of parties, the court has the discretion whether to make a joint assessment about separate proceedings (arts. 57-60 CCP 2011). Joinder of parties requires the court to apply all the procedures on an individual basis, meaning that each plaintiff's case is independent of the others and that each plaintiff pleads independently (arts. 57-60 CCP 2011). The court determines the claims and damages awards of plaintiffs separately and holds

⁸ See that the CAT may award damages in any manner it deems appropriate in order to maximise recovery and compensation for the class, *BT Group Plc v Le Patourel* [2022] EWCA Civ 593, para 88.

plaintiffs liable for the litigation costs individually (Court of Cassation Decision, 2013). Thus, this procedure does not function as a class action.

The other aggregation mechanism is consolidation of claims, allowing the court to join the cases of plaintiffs filed in one suit if they have some commonality (art. 166 CCP 2011). The precondition for this procedure to work is that the cases are already brought by plaintiffs. It functions the same as a joinder of parties and holds each plaintiff's case separate from the others (Şahin, 2017, p. 184).

A class action mechanism, however, can be used to obtain injunctions or declaratory judgments. Article 73/6 of the Consumer Protection Act 2013 (CPA 2013) allows the Ministry of Trade or consumer associations to file a lawsuit for injunctions in consumer courts to end an illegal situation that can harm consumers. In parallel to this provision, article 74/1 of the CPA 2013 grants a right to the Ministry of Trade, consumers or consumer associations to bring a class action to identify defective goods on sale, to stop their production or sale, and to remove defective goods from the market. Article 113 of the CCP 2011 authorises associations and other legal entities to commence a class action on behalf of their members to ask for the court to either issue a declaratory judgment that determines the rights of these members or grant an injunction that puts an end to the illegal situation or that prevents the violation of their rights. The Turkish Commercial Code 2011 article 56 provides a similar mechanism. It enables trade associations to bring a class action on behalf of their members to stop unfair competition (Şahin, 2017, p. 184). Still, trade associations do not have a right to bring a class action to seek damages.

In Turkish legislation, the loser-pays rule applies to the litigation costs (art. 326(1) CCP 2011). In case of partial success, the court distributes the litigation costs according to the success rate of the parties (art. 326(2) CCP 2011). If there is more than one person who lost the case, the court may divide the costs of the proceedings among them or may decide to hold them jointly and severally liable for the costs (art. 326(3) CCP 2011). With respect to attorney's fees, the law does not permit attorneys to represent their clients for less than the statutory fee according to Article 164 of the Attorney Act 1969. The same article also sets a cap on the fee an attorney can receive in a case, according to which the fee cannot exceed twenty-five per cent of the value of the lawsuit or amount awarded. In cases where the value cannot be measured by money, the attorney receives the fee set in the minimum wage tariff (art. 164 Attorney Act 1969). These rules regarding litigation costs and attorney's fees also apply to aggregation mechanisms.

Consequently, even if numerous claimants are harmed by the same or similar conduct, it is not possible under Turkish law to bring a class action for damages on their behalf. The only

way the victims can obtain compensation is to sue individually, which is neither realistic nor practical in mass harm situations. In Turkey, the diesel emission scandal did not result in any compensation for 323,000 victims⁹ harmed.

Germany

There are several different aggregation mechanisms available to the victims of mass harm in German procedural law (see the sector-specific procedures for capital market disputes and in environmental law, Lennarz & Wende, 2022), but neither functions as a class action and offers compensation to numerous claimants. Firstly, the Code of Civil Procedure (ZPO¹⁰) allows necessary (§ 62) and simple (§ 59)¹¹ joinder of parties where several claims are combined in joint proceedings on the basis of either procedural or substantive reasons (Lennarz & Wende, 2022). The result of the joinder of parties is joint oral and evidentiary hearings (Masling & Hinderer, 2020); accordingly, the claims keep their independence and are treated individually throughout the litigation (Lennarz et al., 2022). Therefore, it is impossible to perceive this procedure as a class action. Secondly, the consolidation of claims laid down in § 147 ZPO consolidates several cases based on identical facts pending before the same courts for these cases to be heard and decided simultaneously for the purposes of procedural economy (Lennarz et al., 2022). This procedure can only apply to separately-initiated parallel proceedings and, with the other requirements for its application by courts, is not fit to deal with myriad claims.¹² Thirdly, claim assignment laid down in § 398 of the Civil Code (BGB¹³) allows the assignment of claims to one entity (Vogt, 2017). This entity bundles these claims into one lawsuit in its own name and on its own account and shoulders all the costs and risks in and out of the court proceedings.¹⁴ Claim assignment is not an action that is filed on behalf of a class as the entity owns these individual claims (ELI, 2014, p. 56). Claim assignment can also solely function in

⁹ Volkswagen, Türkiye’de 323.000 aracı geri çağırıyor! (2015, 19 October) *Cumhuriyet* <https://www.cumhuriyet.com.tr/haber/volkswagen-turkiyede-323000-araci-geri-cagiriyor-390468> (accessed 18 March 2023).

¹⁰ ZPO refers to *Zivilprozessordnung* in German law.

¹¹ See the English translation of the articles of the ZPO, Federal Ministry of Justice. Code of Civil Procedure. <https://www.ilo.org/dyn/natlex/docs/ELECTRONIC/89715/103683/F-595450696/ZPO.pdf> (accessed 18 March 2023).

¹² Class Actions in Germany. <https://www.lw.com/thoughtLeadership/class-actions-germany> (accessed 10 February 2023).

¹³ BGB refers to *Bürgerliches Gesetzbuch* in German law.

¹⁴ See the example of CDC. (2012) Comments on the UK Government’s Proposals on Private Actions in Competition Law: A Consultation on Options for Reform Published in April 2012. 1 http://www.carteldamageclaims.com/CDC%20Comments_UK%20Proposals%20Private%20Actions%20in%20Competition%20Law_2012.pdf (accessed 10 February 2023).

situations with a small number of claimants with significant value of individual damages (Wagner, 2011, p. 75). Since it is neither practical nor realistic to reach out to a large number of victims to purchase their claims, and it would not be worthy of the effort when the value of the claims is small (Şahin, 2019, p. 33).

In Germany, the loser-pays rule applies to the litigation costs (Harsagi, 2019, p. 300) (§ 91(1) ZPO). The cost rule in case of partial success is laid down in § 92(1) ZPO, stating that if “*each party wins in part and loses in part, costs are to be offset against each other or shared proportionately.*” With respect to the attorneys’ fees, the law does not permit attorneys to represent their clients less than the statutory fee according to § 49b(1) of the Federal Attorneys Code (BRAO¹⁵) and § 4b(1) of the Attorney Remuneration Act (RVG¹⁶). Success fee, according to which the attorney’s remuneration is dependent on the outcome or success of the case or the remuneration determined as part of the amount awarded, is not allowed (§ 49b(2) BRAO). Contingency fees, on the other hand, are only possible under limited circumstances, one of which requires the monetary award to be no more than €2,000 (§ 4a(1) RVG). These rules regarding litigation costs and attorney’s fees also apply to aggregation mechanisms.

It is obvious that the aggregation mechanisms are unable to address myriad small claims in an efficient and timely manner. The German government also identifies the problem, saying that companies repeatedly harm consumers through defective products, illegal price increases or unlawful surcharges. However, consumers could not receive damages, and companies retained the money they obtained illegitimately. There are many obstacles to getting compensation under this procedural system. Firstly, consumer damages are often too low to justify the risks and costs a litigation involves. Secondly, consumers find collecting evidence and proving their case cumbersome. Thirdly, the litigation takes so long that it also acts as a barrier to consumers’ access to compensation.¹⁷ This is found particularly concerning in mass damage situations where a large number of consumers are harmed by the unlawful act of the company¹⁸, like the diesel emissions scandal. After vigorous discussions in November 2018, declaratory model actions were become law (Kleinschmidt, 2019, p. 221)¹⁹ and set out in §§

¹⁵ BRAO refers to *Bundesrechtsanwaltsordnung* in German law.

¹⁶ RVG refers to *Rechtsanwaltsvergütungsgesetz* in German law.

¹⁷ Die Musterfeststellungsklage: Hintergrund <https://www.musterfeststellungsklagen.de/hintergrund> (accessed 18 March 2023).

¹⁸ *Idem*.

¹⁹ See also the Act on the Establishment of a Civil Procedure for Declaratory Model Actions (2018, 12 July) Gesetz zur Einführung einer zivilprozessualen Musterfeststellungsklage https://www.bgbl.de/xaver/bgbl/start.xav?startbk=Bundesanzeiger_BGBl&jumpTo=bgbl118s1151.pdf#_bgbl_%2F%2F*%5B%40attr_id%3D%27bgbl118s1151.pdf%27%5D_1655802147897 (accessed 18 March 2023).

606-614 of the ZPO only weeks prior to the majority of claims against Volkswagen would have been time-barred (Lennarz et al., 2022).

A declaratory model action, despite not being a sector-specific tool (Harsagi, 2019, p. 291), is designed to address only consumer claims that share certain common issues (Hensler et al., 2021, p. 15). The procedure has two steps. As a first step, the organisations fulfil the criteria laid down in the ZPO, bring a declaratory action in order for the court to clarify the factual and legal issues common to the class of harmed consumers (Harsagi, 2019, p. 291; Kleinschmidt, 2019, pp. 221-222) who have their names written free of charge on the register created for the case at hand (opt-in) (Hensler et al., 2021, p. 16; Kleinschmidt, 2019, pp. 222).²⁰ In this model proceedings step, the court is not authorised to decide on the individual matters of the claims of the registered consumers, but its decision on common issues is binding in the second step. As a second step, registered consumers, without involving in the litigation of the first step, need to file individual cases on a follow-on basis to seek damages (Harsagi, 2019, p. 291). It is thus obvious that a declaratory model action is a procedural tool that only allows the court to give declaratory judgments and that does not compensate the registered consumers ((Hensler et al., 2021, p. 16). Affected consumers need to bring individual follow-on cases to obtain damages.

The functioning of declaratory model actions shows that it does not meet the needs of numerous consumers who wish to receive compensation as it functions on an opt-in basis in the first step and requires the consumers to individually sue for damages in the second step. Both aspects are problematic in consumer cases, hence if the defendant does not voluntarily compensate them, a declaratory model action by itself does not result in any monetary payment to the affected consumers (Hensler et al., 2021, p. 16; Kleinschmidt, 2019, pp. 224). This is exactly what happened in the diesel emission scandal. German consumer association who filed a declaratory model action on the very first day of the Act's entry into force (Harsagi, 2019, p. 285) argued that Volkswagen's software manipulation deliberately and unethically caused damage to the buyers (BEUC, 2019, p. 9). This case ended with a settlement, as Volkswagen voluntarily offered compensation to 260,000 consumers in Germany, amounting to €1,350 and €6,257 per person (BEUC, 2020, p. 10).

²⁰ See the regulation for the register for model declaratory actions Verordnung über das Register für Musterfeststellungsklagen (Musterfeststellungsklagenregister-Verordnung – MFKRegV (2018, 24 October) https://www.bgbl.de/xaver/bgbl/start.xav?startbk=Bundesanzeiger_BGBl&start=//%5b@attr_id%27bgbl118s1804.pdf%27%5d#_bgbl_%2F%2F*%5B%40attr_id%3D%27bgbl118s1804.pdf%27%5D_1655814247940 (accessed 18 March 2023).

The Need for a Global Dispute Resolution System for Class Action Lawsuits

The previous sections present a comparative analysis of class action procedures in four selected jurisdictions in order to demonstrate how consumers in different parts of the world might be subjected to the same kind of harm but receive none or different types and amounts of remedies, as was the case with the diesel emission scandal. Therefore, the time has come to establish a worldwide dispute resolution system for mass consumer claims to provide consumer protection and enable equal redress for all consumers regardless of where they live. This section will investigate to what extent technology-based dispute resolution systems can be added to the functioning of class actions to provide consumers with low-value claims with remedies.

Lessons Learned from Online Dispute Resolution (ODR) for Class Actions

While employing Alternative Dispute Resolution (ADR) offers substantial benefits for consumers over traditional court litigation, using ADR systems for cross-border issues may still present certain challenges for consumers, such as travel and face-to-face (F2F) sessions (Cortes, 2001; Katsh & Rifkin, 2001; Kaufmann-Kohler & Schultz, 2004; Hörnle, 2009; Wahab, et al., 2021; Wang, 2017). Due to jurisdictional barriers like the difficulty of determining the place of business and the high cost of legal proceedings in some regions, traditional ADR systems may be rendered obsolete by the rise of digitalised economies and advances in information and communication technologies (ICT) (Kaya, 2020, p. 13). There is a need for modernising ADR to give a cost-effective but also more practical alternative to resolve consumer disputes in order to fulfil the legal, economic, and social requirements of the globalised world (Cortes, 2018, p. 43; Kaya, 2020, p. 13).

ODR is a “[m]echanism for resolving disputes facilitated through the use of electronic communications and other information and communication technolog[y]” (UNCITRAL, 2015). In a broader sense, ODR encompasses various approaches and techniques. Essentially, it encompasses any alternative methods outside the traditional court system that leverage ICT to resolve disputes. Presently, the three most commonly employed methods within ODR systems are online negotiation, online mediation, and online arbitration.

There is a contention that ODR serves as an efficient method for resolving disputes in cross-border e-commerce transactions, as it eliminates the need for parties to travel between locations, thereby saving them time, effort, and money (Katsh & Rifkin, 2001, p. 56). International organisations and governments have acknowledged the need to build an ODR

system in e-commerce through several legislative instruments. In 1999, the OECD produced Guidelines for Consumer Protection in the Context of Electronic Commerce, and in 2007, it issued Recommendations on Consumer Dispute Resolution and Redress (OECD, 2000). Both texts call on Member States to develop fair and expeditious ADR services (including ODR) without undue cost or hardship, as well as to resolve cross-border disputes originating from e-commerce transactions.

ODR is also a valuable strategy for increasing consumer trust in e-commerce (OECD, 2002). Online platforms, such as eBay and PayPal, first developed ODR systems. Every day, numerous disputes are resolved through online channels, with many ODR providers offering their services globally. On Alibaba alone, over one hundred million disputes are settled annually using ODR (Katsh & Rabinovich-Einy, 2017, p. 15).

At the regional level, a number of jurisdictions have developed their own system of ODR. In the EU, for example, in order to build trust and provide an effective dispute resolution system for consumers, the European Parliament and the Council adopted EU Directive on Consumer ADR and EU Regulation on Consumer ODR on 21 May 2013. The EU Directive on Consumer ADR requires Member States to ensure that consumers have access to high-quality ADR bodies that adhere to procedural standards (EU Directive on Consumer ADR 2013, arts. 6-11). In February 2016, the EU Regulation on Consumer ODR introduced a web-based platform known as the EU ODR Platform. This platform allows consumers to submit complaints online and forward them to nationally approved ADR entities in each Member State (See European Parliament, 2016). These legislations have initiated a process that formalises and enhances the consumer ADR system, establishing it as a crucial aspect of EU consumer redress law (Kaya, 2022, p. 235).

In Brazil, Consumidor.gov.br, which was established in 2014 to resolve consumer disputes out-of-court²¹ is a public service offered by the Brazilian National Consumer Secretariat of the Brazilian Ministry of Justice. Consumidor.gov.br is a public alternative consumer dispute resolution platform that allows both Brazilian and foreign consumers and businesses to communicate directly over the Internet to resolve consumer disputes. This platform will enable consumers to communicate directly with traders who have volunteered to engage in the program using this site. Traders who opt to participate agree to receive, analyse, and respond to any complaints within seven days. In 2021, 1.434.101 complaints were solved through the platform, with a rate of 78% of satisfactory solutions reached.²²

²¹ Acessibilidade. <https://consumidor.gov.br/pages/conteudo/acesibilidade> (accessed 18 March 2023).

²² Statistical Panel. (2023). <https://www.consumidor.gov.br/pages/conteudo/publico/62> (accessed 18 March 2023).

Another example of an ODR provider is Modria which was founded in 2011 by Colin Rule and Chittu Nagarajan. From 2003 to 2011, Colin Rule served as the inaugural ODR Director of eBay and PayPal, overseeing the resolution of over 60 million disputes annually.²³ Modria, a prominent ODR service provider, aims to offer its services for disputes of any scale and nature, including debt, landlord/tenant issues, small claims, divorce, and custody matters. Modria provides several ODR methods: a) diagnosis, which identifies the problems in the dispute and helps in filtering out the complaints, b) negotiation, which summarises the problems, requires parties to make proposals for settlement, and allows the software to propose solutions that the parties can accept, c) mediation for which an impartial third party will be appointed to facilitate a friendly agreement, and d) arbitration, where a neutral third party resolves disputes by giving a final binding award.²⁴ Modria, like eBay, claims that most disputes will be settled through either diagnosis or negotiation without human intervention. Still, parties will need to have strong incentives to cooperate and function effectively.²⁵ Additionally, Modria provides a comprehensive case management and workflow system that handles various aspects, including case intake, document management and generation, scheduling, reporting, and status messaging.²⁶ Other ODR services, such as Resolver, Smartsettle, Virtual Courthouse and Youstice, have also recently emerged.²⁷

Moreover, the Asia-Pacific Economic Cooperation (APEC) partners with ODR providers located in APEC economies have opted-in to the APEC ODR Collaborative Framework (APEC, 2022). Under this framework, platform owners and ODR providers must build their own platforms, as well as adhere to the APEC ODR Collaborative Framework and Model Procedural Rules to offer online negotiation, mediation, and arbitration (APEC, 2022). This framework requires the listed ODR providers to be subject to the necessary laws and regulations of the participating economies (APEC, 2022).

In October 2021, the Association of Southeast Asian Nations (ASEAN) ADR Guidelines for Consumer Protection was released (ASEAN, 2021). Due to the continuous growth of cross-border trade within the ASEAN region, a unified and harmonised approach to ADR has been adopted (Riefa et al., 2022, p. 25). Recommendations have been put forward to assess different ADR methods, their implementation in each ASEAN Member State, and the

²³ Modria. About us <https://www.tylertech.com/about-us> (accessed 18 March 2023).

²⁴ *Idem*.

²⁵ *Idem*.

²⁶ Modria. Deliver fast and fair online dispute resolution. <https://www.tylertech.com/products/modria> (accessed 18 March 2023).

²⁷ For more examples of ODR providers see Provider List. (2020). <https://odr.info/provider-list/> (accessed 18 March 2023).

procedures necessary for constructing and implementing the system effectively (Riefa et al., 2022, p. 25). The ASEAN Committee on Consumer Protection (ACCP) aims to establish the ASEAN Online Dispute Resolution Network by 2025 (UNCTAD, 2018). The committee has already conducted a pilot test of the ACCP Online Complaints Function, which is integrated into the ACCP website, and has also developed rules for its operation.

Countries with less experience with online-supported mediation services have recently demonstrated an interest in expanding their capacity to provide ODR. Countries such as Pakistan (Kaya and Khan, 2022; Khan et al., 2018), Indonesia (Putri, 2019), Malaysia (Oseni & Omoola, 2017), Turkey (Kaya, 2022) and India (Ali, 2019) have recognised the benefits of ODR and are investigating the growth and regulation of their own within their respective cultural circumstances, based on lessons learned from prior international ODR implementations.

At the international level, there is, to date, no harmonised ODR system in operation. The complexity of judicial systems in different countries has posed a challenge to establishing an international treaty-based ODR system.²⁸ The recent United Nations Commission on International Trade Law (UNCITRAL) Model Law on International Commercial Mediation and International Settlement Agreements Resulting from Mediation 2018²⁹, existing the New York Convention, the UNCITRAL Model Law on International Commercial Arbitration, the United Nations (UN) Convention on the Use of Electronic Communications in International Contracts³⁰ and the UNCITRAL Arbitration Rules³¹ do not present any special commands concerning ODR, but offer some useful guidance for dealing with international disputes via ODR methods (Kaya, 2020, p. 43). Since the beginning of the new millennium, scholars have emphasised the importance of international cooperation and agreements to develop unified and harmonised ODR rules (Wang, 2017, p. 43).

Since the early 2000s, the UNCITRAL has been actively involved in the development of ODR. The UNCITRAL has established a Working Group on ODR, which is tasked with

²⁸ American Bar Association's Task Force on Electronic Commerce and Alternative Dispute Resolution in Cooperation with the Shidler Centre for Law, Commerce and Technology, University of Washington School of Law. (2002). Addressing disputes in electronic commerce: final recommendations and report. *Business Lawyer*, 58, 415-450.

²⁹ UNCITRAL. (2018). Model Law on International Commercial Mediation and International Settlement Agreements Resulting from Mediation (amending the UNCITRAL Model Law on International Commercial Conciliation, 2002).

³⁰ United Nations Convention on the Use of Electronic Communications in International Contracts (New York 2005).

³¹ UNCITRAL. (2013). Arbitration Rules; UNCITRAL. (2010). Arbitration Rules; UNCITRAL. (1976). Arbitration Rules (General Assembly Resolution 31/98).

monitoring and promoting the use of ODR, as well as developing legal instruments and standards for ODR (UNCITRAL, 2011). In 2016, UNCITRAL adopted the ‘Technical Notes on Online Dispute Resolution’, which provides guidance to Member States on the design and implementation of ODR systems (UNCITRAL, 2016). At this juncture, it is essential to highlight that the Technical Notes serve as a descriptive rather than binding document. Its purpose is to address low-value disputes that may arise in cross-border e-commerce transactions. The intention behind the Technical Notes is to provide guidance and support to third parties, ODR platforms, and institutions offering ODR services.

The United Nations World Tourism Organisation (UNWTO) recently adopted Resolution A/RES/732(XXIV), ‘International Code for the Protection of Tourists’ which provides a set of principles and recommendations for ADR ODR mechanisms, as well as other services and platforms for the peaceful Resolution of disputes, that may aid Member States in resolving international disputes between tourists acting as consumers and tourism service providers (World Tourism Organisation, 2022). The Code mandates the use of ADR and ODR for the worldwide settlement of travel and tourism-related disputes in Chapter 4. This chapter covers the fundamentals of ADR and ODR. It makes recommendations for ADR, ODR and amicable mechanisms in order to guide the countries in handling consumer cases involving international tourists and help parties to such procedures while also accounting for language barriers and the unique requirements of disadvantaged or vulnerable tourists (World Tourism Organisation, 2022). This chapter is also devoted to emergency situations, considering the vulnerability of tourists in such circumstances and the substantial increase in litigation resulting from such events (World Tourism Organisation, 2022).

The project named ‘Delivering Online Dispute Resolution for Consumer’ initiated by the United Nations Conference on Trade and Development (UNCTAD) commenced in 2020 intending to provide research, analysis, technical support, and policy suggestions on the optimal implementation of Online Dispute Resolution (ODR) for consumers.³² The primary goal of this project is to take the initial strides toward establishing ODR systems for consumers in Indonesia and Thailand by leveraging blockchain and emerging technologies.³³ Objectives of the project are a) to have a better understanding of the worldwide mechanisms for resolving consumer disputes, b) to identify the various routes for providing ODR to customers, with a particular

³² UNCTAD. Delivering digital trading infrastructure and online dispute resolution for consumers as means to improve international trade and electronic commerce. <https://unctad.org/project/delivering-digital-trading-infrastructure-and-online-dispute-resolution-consumers-means> (accessed 18 March 2023).

³³ Idem.

focus on current ODR projects, c) to analyse and contrast the design and implementation of various ODR systems, as well as to identify benefits, problems, and recent advances and d) to determine the needs and gaps in delivering ODR to consumers in beneficiary nations.³⁴

Recently, states increasingly have provided or encouraged ADR and ODR as it involves fewer costs, delays, and unnecessary burdens on the economic value at stake or society and businesses (UNCTAD, 2020). This is particularly essential for cross-border consumer disputes, in which access to traditional dispute resolution and redress may be less effective. However, the World Consumer Protection Map shows that approximately 55 % of the 92 Member States that responded to the UNCTAD questionnaire do not offer cross-border dispute resolution mechanisms.³⁵ In contrast, ODR is still in its early stages. Consumers International reports state that 56% of their member organisations confirm the absence of ODR methods offered by digital service providers in their countries, with no legal obligation to provide such services (UNCTAD, 2020).

Shifting from Old to New Technologies for Providing Effective Justice

As pointed out, ODR has been utilised to resolve disputes arising from online transactions. These private justice systems are frequently the only viable method to assert a claim arising from an e-commerce or other online transaction. ODR offers a pathway to justice when the conventional state justice system struggles to handle disputes due to the exorbitant expenses associated with legal proceedings, particularly in an international context, as well as the overwhelming volume of disputes (Guillaume & Riva, 2023). Therefore, ODR is a faster, cost-effective and simpler means to provide consumers with an effective tool to obtain damages. In contrast, the most significant disadvantage of the overwhelming majority of ODR is their inability to issue decisions that can be enforced by state authorities (Ortolani, 2016, p. 595). The result of an ODR process must be legally binding to serve as a reliable means of providing access to justice. To guarantee the effectiveness of ODR without depending on the support of state courts and enforcement authorities, systems of self-enforcement of ODR outcomes should be implemented. In this light, the blockchain-based dispute resolution system can be used to develop new ways for class action lawsuits to self-enforce ODR decisions.

³⁴ Idem.

³⁵ The World Consumer Protection Map. (2021). <https://unctad.org/topic/competition-and-consumer-protection/consumer-protection-map> (accessed 18 March 2023).

Various forms of ODR are available, encompassing technology-assisted dispute resolution, technology-facilitated dispute resolution, and technology-based dispute resolution mechanisms. In the earlier stages of ODR, information technology was predominantly utilised for data transmission purposes before the advent of the second iteration of ODR (Rainey et al., 2021, p. 3). Generation two ODR has given technological tools a central role, shifting the conflict resolution process online and including features like automated decision-making and algorithm-based software (Rabinovich-Einy & Zeleznikow, 2021; Kaya et al., 2019).

Introducing Blockchain-Based Dispute Resolution Systems

The use of blockchain technology distinguishes the new generation of ODR known as BDR mechanisms (Ast & Deffains, 2021). In these instances, the entire process of dispute resolution is carried out within the digital realm of a blockchain, utilising smart contracts from the very beginning of the procedure all the way through to the resolution of the dispute and the enforcement of the final outcome (Guillaume & Riva, 2023). On a decentralised network, BDR permits the secure and transparent recording of transactions and agreements (Kaal & Calcaterra, 2018, pp. 114-115). This technology enables the construction of smart contracts, whose terms are encoded directly in computer code and automatically execute themselves (Howell & Potgieter, 2021, p. 547). Smart contracts can be used to administer the distribution of funds or assets to class action plaintiffs in a manner that is transparent and secure.

Smart contractual provisions can be more dynamic, but contract performance is more difficult to reverse (Allen et al., 2019, p. 77; Kaya, 2022, p. 529). Therefore, implementing blockchain-based smart contracts that execute automatically will create novel legal issues (Allen et al., 2019, p. 77). Since traditional dispute resolution systems cannot provide an adequate forum for adjudicating disputes involving smart contracts, non-judicial dispute resolution mechanisms will grow in prominence and significance (Michael, 2020, p. 1373). Developers of applications built on Ethereum have started implementing on-chain dispute resolution solutions in an effort to address this inherent technological deficiency in the crypto-commerce industry (Michael, 2020, p. 1373). Supporters of these platforms have asserted that they will usher in ‘a new era of low cost and universally accessible justice’ even though they are still in their infancy (Michael, 2020, p. 1373). Each of the existing platforms has its own unique features, but they all stem from the same fundamental idea: that the most efficient way to settle disputes that arise on a blockchain is through arbitration that integrates a blockchain (Rabinovich-Einy and Katsh, 2019; Schmitz and Rule, 2019; Howell and Potgieter, 2021; Kaya

and Maviş, 2022). Kleros³⁶, Aragon Network³⁷, and Mattereum³⁸ are just a few of the new Ethereum platforms that allow parties to a contract to pre-code an option for ex-post, totally decentralised arbitration.

Possible Benefits of Blockchain-Based Dispute Resolution Systems to Class Actions

When the harm experienced by each individual is relatively small, class action lawsuits provide a practicable and reliable means for those harmed to demand justice from large businesses or organisations. However, each country has a different class action design, which makes consumers subject to different rules in different jurisdictions when the infringement affects consumers similarly. While consumers are able to get compensation in one jurisdiction's class action in a more timely and cost-effective manner, other consumers who are harmed by the same conduct do not obtain any compensation or get it as a result of a long and expensive class action procedure. Additionally, distribution of the damages award can be problematic in class action cases with a class having numerous claimants. The first problem is identifying each consumer in a large class, mainly when the class is formed on an opt-out basis where the class involves identifiable but unidentified individuals. The second problem is that even if affected consumers in the class are identified, reaching out and compensating large numbers is very expensive. Especially in consumer cases, it does not worth the effort where the loss is trivial compared to the distribution cost of the damages award.

By offering a transparent, safe, and decentralised means for resolving disputes, BDR systems present a possible answer to these problems. To overcome these problems, BDR which renders a decision, must be capable of enforcing this decision. This is possible when BDR systems use smart contracts. Indeed, smart contracts have the ability to directly and autonomously enforce their own decisions on the blockchain (Guillaume & Riva, 2023, p. 3). The presence of a BDR system that possesses the ability to enforce its own decisions through smart contracts is crucial. The immutability of the blockchain renders it impractical to depend on external actors or state enforcement authorities to enforce a blockchain operation. This capability represents a significant advancement over traditional ODR systems that do not incorporate blockchain technology.

³⁶ Kleros. (2023). <https://kleros.io> (accessed 15 July 2023).

³⁷ Aragon Network DAO. (2023). <https://andao.aragon.org> (accessed 15 July 2023).

³⁸ Mattereum. (2022). <https://mattereum.com/about-us/> (accessed 15 July 2023).

Smart contracts on a blockchain network have the potential to automate the resolution of legal disputes, eliminating the need for third-party intermediaries like attorneys and judges (Schmitz & Rule, 2019). It is possible to resolve the dispute more swiftly and accurately through a class action suit if a tamper-proof digital ledger of the agreement between parties is created. The decentralised and immutable nature of blockchain technology can ensure that the records of the award are tamper-proof and readily accessible for purposes of enforcement (Buchwald, 2020, p. 1377). Furthermore, the distribution of settlement funds to the class of plaintiffs can be made in a more fair and equitable way through the use of BDR. Blockchain technology, for instance, can monitor settlement payments securely and openly, ensuring that each eligible plaintiff gets an equitable share from the fund. Also, as mentioned previously, the substantive law and the procedural rules regarding harm assessment differ across jurisdictions, which can cause trouble for consumers seeking relief through a class action. However, in the design of the BDR system, it is possible to choose one jurisdiction based on which harm assessment would take place.

In addition to improving the efficacy of class action lawsuits, BDR can also improve the administration of claims and settlements. In traditional class action lawsuits, managing claims and settlements can be cumbersome and time-consuming, with plaintiffs frequently required to come forward and submit extensive paperwork and eligibility evidence. BDR makes it possible to expedite the claims process, making it quicker, more efficient, and more accessible to claimants. Electronic document management systems, for instance, can be used to store, organise, and administer large amounts of legal documentation, thereby reducing the processing time and resources required.

Further to these specific benefits, transparency is one of the primary advantages of utilising blockchain technology for dispute resolution. Due to the decentralised nature of blockchain, all parties involved in a dispute can view the same data, reducing the likelihood of disputes over the data's accuracy or completeness. Blockchain technology employs cryptography to secure transactions and data, making it considerably more difficult for unauthorised parties to tamper with or alter the data (Buchwald, 2020, p. 1380). This can increase confidence in the fairness and impartiality of the dispute resolution process.

Issues Relating to Blockchain-Based Dispute Resolution Systems in Class Actions

Although the ability to enforce rulings is essential in any judicial system, blockchain-based dispute resolution systems are restricted to only dealing with crypto assets and the kinds of

activities that may be codified into a smart contract (Guillaume & Riva, 2023, p. 58). However, class action lawsuits may also be filed over non-crypto assets or activities that must be carried out outside the blockchain (Guillaume & Riva, 2023, p. 58). In this particular scenario, the decision produced by a BDR process cannot be automatically and immediately carried out using a smart contract. For this reason, it is possible that state authorities' intervention will be required to put the decision into effect in the real world. This raises the question of whether a decision resulting from a BDR mechanism in a state jurisdiction can be recognised and enforced in that state jurisdiction for its execution on non-crypto assets with the assistance of state authorities (Guillaume & Riva, 2023, p. 59).

Incorporating off-chain data and events into the execution of a smart contract is a challenge that frequently necessitates the utilisation of oracles (Buchwald, 2020, p. 1379). Oracles are intermediaries between the blockchain and the outside world, providing smart contracts with off-chain data. They can provide information such as the occurrence of a particular event, conditions in the actual world, or the outcome of an external process (Buchwald, 2020, p. 1379). Oracles can play a vital role in retrieving and validating pertinent information in addressing a 'harm' that usually occurs in class action lawsuits. Oracles can be used to acquire and validate off-chain information, such as identifying the harmed party and determining the appropriate course of action. Oracles can interact with external systems, retrieve data from reliable sources, and transmit it to the smart contract for processing. However, it is essential to consider the credibility and dependability of oracles. Since they provide external data, the prospect of inaccurate or manipulated information always exists. Different strategies can be used to mitigate this, such as relying on reliable data sources or using several oracles to reach a consensus.

Another critical drawback of BDR for class actions is the difficulty in accessing crypto wallets which can be a barrier to the widespread adoption of smart contracts for everyday consumer agreements. In B2C transactions involving smart contracts and cryptocurrencies, accessing a wallet can be a potential challenge, particularly when dealing with consumers who are not familiar with cryptocurrencies or do not have a crypto wallet. To overcome this, user-friendly and accessible wallet solutions would be required. Theoretically, the consumer can be oblivious to the smart contract's existence and operation. The consumer should be made aware of the possibility of compensation funds being deposited into their bank account or wallet at the time of completion of the transactions. If the conditions of the compensation are satisfied, the smart contract could automatically transfer the compensation amounts owed to the customers

from the business's account to the customer's account if it is linked to their bank accounts or wallets.

One can argue that extraterritoriality and choice-of-law problems make it difficult for a global class action to work in practice. However, not only companies but also products are global in our digital world. As products and services become increasingly globalised, resolving disputes arising from these transactions can be more difficult. This is because the parties involved may reside in countries with various laws and regulations. Moreover, a large part of disputes is turning into crypto assets. For instance, a US consumer can pay for a Tesla car with cryptocurrency as a form of payment (Copeland & Benson, 2021). This means concluding a car purchase contract through the smart contract blockchain is possible. This example clearly shows that resolving any dispute arising from this purchase through traditional litigation systems, including ADR and ODR, is not easy.

Another example can be air transport, where the EU has adopted a Regulation on compensation and assistance to passengers in the event of denied boarding and of cancellation or long delay of flights.³⁹ According to this Regulation, if a passenger is denied boarding or if a passenger's flight is cancelled or delayed beyond its scheduled time of departure for two hours or more, the passenger is entitled to compensation between € 250 and € 600, depending on the length of the flight.⁴⁰ Despite the explicit provisions of the Regulation, air carriers refrain from fulfilling the legitimate claims of passengers and refuse to pay compensation. Still, passengers avoid going to court and exercising their rights due to high litigation costs, including court fees and the remuneration of lawyers, and lengthy court procedures. This problem can also be solved with a smart contract. A smart contract can automatically transfer compensation amounts owed to the passenger from the air carrier's account to the passenger's account in the event of any flight delays or cancellations (provided, of course, that the smart contract is linked to the passenger's and the air carrier's bank account or wallet), in consequence of the ability of air carriers to digitally monitor flight delays and cancellations (Janssen & Vennmanns, 2021, p. 68). The most recent development in Germany, where plans exist for required automatic compensation for aircraft delays or cancellations, demonstrates that this is not just wishful thinking (Janssen & Vennmanns, 2021, p. 68).

³⁹ Regulation (EC) No 261/2004 of the European Parliament and of the Council of 11 February 2004 establishing common rules on compensation and assistance to passengers in the event of denied boarding and of cancellation or long delay of flights, and repealing Regulation (EEC) No 295/91 (Text with EEA relevance) OJ L 046.

⁴⁰ *Idem* articles 4-5-6-7.

These examples show that consumer contracts should now be concluded through a smart contract. The execution of the smart contract in a timely manner may eliminate the possibility of a dispute arising. It is evident that not all disputes may already be resolved or avoided using smart contracts in the way indicated above. However, BDR has the potential to enable consumers to get remedies without the expense, time, stress, and other drawbacks associated with individual litigation.

Concluding Remarks

Today's globalised world witnesses a rising number of mass injuries caused by the infringements of multinational firms. Since goods and services are sold internationally, the same or similar facts arising from these goods and services give rise to large-scale injuries that harm numerous victims around the world. For instance, consumers around the globe suffered not only financial but also emotional and psychological harm due to the diesel emission scandal, but those living in some countries had the chance to receive compensation, while others could not even sue. The same situation has been observed in mass claims originating from Apple's breach of contract with its iCloud subscribers or from cryptocurrencies sold by cryptocurrency companies worldwide. All these cases demonstrate that even when the exact incidence affects many customers in the same way, different outcomes have been obtained due to the different legal systems of the countries. Thus, to promote access to justice for the affected consumers worldwide and provide them with practical and equitable results regardless of where they live, there needs to be a consumer class action system that can work at the global level.

Technology has completely changed how companies run and engage with their customers over the last ten years and has impacted the judicial system. New technological advancements can overcome the inherent inefficiencies of the judicial system, making the system faster, cost-effective and simpler. This is reflected in class actions as technology has made delivering effective justice in such actions more challenging. Class actions are procedural tools through which many people harmed by the same or similar conduct jointly sue another party to obtain redress, usually from a business or the government. These cases can be difficult and time-consuming to manage using conventional techniques because the class consists of numerous plaintiffs.

Therefore, with technological advancements, the desire to use ODR to increase access to justice is stronger than ever. ODR has the potential to cast light on consumer protection issues and provide redress for all consumers, regardless of their location. However, the primary

drawback of most ODR systems is their inability to issue decisions that state authorities can enforce. In other words, implementing direct self-enforcement mechanisms is essential for the success of ODR. To ensure the efficacy of ODR without the assistance of state tribunals and enforcement authorities, systems of self-enforcement of ODR decisions should be implemented. It is then possible to compensate each and every consumer who purchased goods and services that caused harm to them aim with the use of BDR systems through smart contracts in class actions. By providing a transparent, secure, and self-enforcing platform for resolving disputes, BDR will offer a promising solution for resolving class action lawsuits in a more efficient and fair way. BDR will likely play a more significant role in determining class action litigation and other types of disputes as the use of blockchain technology increases. The prospective benefits of this technology make it a promising area for future research and development, despite the remaining obstacles.

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