Smart Contracts as Contracts of Adhesion: The Inclusion Problem of Standard Terms & Conditions in Smart Contracts

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Abstract

Regulations on standard terms & conditions use and their applications to smart contracts are among the problems literature has been dealing with since the so called "blockchain revolution". A focused analysis on how smart contracts distinguish themselves from traditional contracts, is still necessary in this regard. The code language that smart contracts are based upon renders them prone to be invalid in an environment that is still mostly technologically illiterate. This study's main objective is to detect the standards set for standard terms & conditions' inclusion to smart contracts under German, Swiss and Turkish laws. The primary argument of the study is the existence of the necessity to provide a "translation" of the code language into a natural language, for consumer contracts. Still an unrealized potential in consumer transactions realm, the design of smart contracts has to be compliant to the translation condition, if they are to gain vast application which the futurists have aspired to.

Keywords: *smart contracts, standard terms & conditions, code language, language risk.*

JEL Classification: K12, K15

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1. Introduction

Smart contracts (SCs) have created questions in various contract law issues. Regulations on standard terms & conditions (STCs[3]) use and their applications to SCs, are among these problems. SCs would probably show a tendency to be in the form of

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[3] From here on in, when referring a singular standard term & condition, we will shorten it as "STC".

contracts of adhesion (CoAs), if they are to find vast application[4]. However, based on a code language rather than a natural one, regulations on STCs may render them invalid[5]. In this study, we examine potential problems under German, Swiss and Turkish law. We contain our analysis within the inclusion problem: Under which conditions STCs can be regarded as part of the consensus in SCs? By using comparative law instruments and with its sole focus on the inclusion problem, our research aims to deepen the scholarship on this particular problem. After the introduction we present in this subsection, in Section 2, we will explain the preconditions of the application of STC inclusion control and its relation to SCs. In Section 3, we will analyse the conditions stipulated for an STC to become a part of the contract and discuss what kind of burdens these conditions create for STC users in SCs. The consequences of non-fulfilment of these conditions will be elaborated in the Section 4.

2. SCs as CoAs

SCs are computer codes stored in a distributed ledger, utilized for processing pre-formatted formulas and by this manner, executing operations without an external intervention, in an immutable manner[6]. Contrary to the naming of smart *contracts*, they do not necessarily have to be contracts in a legal sense. Literature identifies four scenarios in this regard[7]: (i) Where there is an SC that is not reflecting a legal agreement,

[4] This tendency is exacerbated in SCs for its costly production process in comparison with traditional contracts, see, Kelvin F. K. Low and Eliza Mik, "Pause the Blockchain Legal Revolution," *International and Comparative Law Quarterly* 69, no. 1 (2020): 173, https://doi.org/10.1017/S0020589319000502; Mateja Durovic and Chris Willett, "A Legal Framework for Using Smart Contracts in Consumer Contracts: Machines as Servants, Not Masters," *Modern Law Review* 86, no. 6 (Nov 2023): 1409, https://doi.org/10.1111/1468-2230.12817; Martin Hanzl, *Handbuch Blockchain und Smart Contracts* (Wien: Linde, 2020), 107. The creation of SC codes is a technical process which can get even more complex with elaborate contracts, see, Oscar Borgogno, "Smart Contracts as the (New) Power of the Powerless? The Stakes for Consumers," *European Review of Private Law* 26, no. 6 (2018): 890, https://doi.org/10.54648/erpl2018060. For an analysis of overall effect of SCs to contractual transaction costs, see, Jeremy M. Sklaroff, "Smart Contracts and the Cost of Inflexibility," *University of Pennsylvania Law Review* 166, no. 1 (2017): 296 ff; Massimiliano Vatiero, "The "Dark Side" of Smart Contracts: A Contract Theory Perspective," *European Management Review* 21, no. 3 (2024): 516 ff., https://doi.org/10.1111/emre.12676.

[5] For an assessment claiming that these regulations would harm SCs' wider popularization, see, Mükerrem Onur Başar, "Akıllı Sözleşmeler ve Özel Hukuk Uygulamasında Ortaya Çıkması Muhtemel Sorunlar," *İstanbul Hukuk Mecmuası* 80, no. 4 (December 2022): 1086, https://doi.org/10.26650/mecmua.2022.80.4.0001.

[6] Blaise Carron and Valentin Botteron, "How Smart Can a Contract Be?", in *Blockchains, Smart Contracts, Decentralised Autonomous Organisations and the Law*, ed. Daniel Kraus, Thierry Obrist, and Olivier Hari (Edward Elgar, 2019), 106; ELI, *ELI Principles on Blockchain Technology, Smart Contracts and Consumer Protection - Report of the European Law Institute*, European Law Institute (European Law Institute, 2023), 23, https://www.europeanlawinstitute.eu/projects-instruments/instruments/eli-principles-on-blockchain-technology-smart-contracts-and-consumer-protection/; Mateja Durovic and Andre Janssen, "The Formation of Blockchain-Based Smart Contracts in the Light of Contract Law," *European Review of Private Law* 26 (2018): 755, https://doi.org/10.54648/erpl2018053; Louis-Daniel Muka Tshibende, "Contract Law and Smart Contracts: Property and Security Rights Issues," *European Review of Private Law* 26, no. 6 (2018): 872, https://doi.org/10.54648/erpl2018059; Kevin Werbach and Nicolas Cornell, "Contracts Ex Machina," *Duke Law Journal* 67, no. 2 (2017): 331.

[7] We are following the distinction offered by ELI Principles here, see ELI, *Principles*, 24. The literature

solely representing a modification in a computing system[8], (ii) where there is an SC that is utilized as an execution instrument of an already concluded contract[9], (iii) where there is an SC that is the only embodiment of the mutual expression of parties' will (= on-chain SCs)[10], (iv) where the agreement has on-chain and off-chain components at the same time (= hybrid SCs). Our study is exclusively concerned with the third and fourth categories.

CoAs are contracts whose terms are unilaterally prepared by one party without pre-contractual negotiations and put forward to the other party on a *"take-it-or-leave-it"* basis[11]. CoAs include, either in part or in whole, STCs[12]. The use of STCs is subjected to restrictive regulations in many countries. Like in Germany and Turkey, some Continental lawmakers have preferred to devote special provisions regarding this matter[13]. Some, like in Switzerland, tries to tackle problems arising from STC use with general principles and provisions rather than all-encompassing rules for STCs[14]. Below, we will investigate in which situations, SCs can be classified as CoAs[15].

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have already taken notice of different scenarios mentioned above, see Mirjam Eggen, "Smart Contracts und allgemeine Geschäftsbedingungen", in *Brücken bauen: Festschrift für Thomas Koller*, ed. Susan Emmenegger et al. (Bern: Stämpfli, 2019), 167 ff; Carron and Botteron, "How Smart Can a Contract Be?", 111 ff; Durovic and Janssen, "The Formation", 759 ff; Pınar Çağlayan Aksoy, *Akıllı Sözleşmelerin Kuruluşu ve Geçerlilik Şartları* (Istanbul: On Iki Levha, 2021), 85 ff.

[8] For instance, if a business uses an SC for detecting the remaining stocks in their warehouses, no contract exists. For a similar example see, Martin Heckelmann, "Zulässigkeit und Handhabung von Smart Contracts," *Neue Juristische Wochenschrift*, no. 8 (2018): 206; Marisaria Maugeri, "Smart Contracts, Consumer Protection, and Competing European Narratives of Private Law," *German Law Journal* 23, no. 6 (2022): 902, https://doi.org/10.1017/glj.2022.58.

[9] In this case, the legal agreement between parties is probably going to be classified as an "off-chain" contract, meaning that being concluded outside the realm of a specific distributed ledger, see Durovic and Janssen, "The Formation", 760; Çağlayan Aksoy, *Akıllı Sözleşmeler*, 90; ELI, *Principles*, 24. De Filippi et al. anticipate that most of the SCs in practice would be classified under this type, since a lot of contractual provisions are not compatible to be translated into the code language, Primavera de Filippi, Chris Wray, and Giovanni Sileno, "Smart Contracts," *Internet Policy Review* 10, no. 2 (2021): 5, https://doi.org/10.14763/2021.2.1549.

[10] *Durovic* and *Lech* refer these kinds of SCs as *"pure smart contracts",* see, Mateja Durovic and Franciszek Lech, "The Enforceability of Smart Contracts," *Italian Law Journal* 5, no. 2 (2019): 497, https://doi.org/10.23815/2421-2156.ITALJ. The German-speaking authors sometimes use the terminology "*echte"* and "*unechte"* SCs which can be translated as real and pseudo SCs, see, Hanzl, *Handbuch*, 44 ff.

[11] Elena d'Agostino, *Contracts of Adhesion Between Law and Economics* (Springer, 2015), 2. Friedrich Kessler, "The Contracts of Adhesion-Some Thoughts about Freedom of Contract Role of Compulsion in Economic Transactions," *Columbia Law Review* 43, no. 5 (1943): 631; Necip Kocayusufpaşaoğlu, *Borçlar Hukuku Genel Bölüm, Birinci Cilt: Borçlar Hukukuna Giriş, Hukuki İşlem, Sözleşme* 7ed. (İstanbul: Filiz Kitabevi, 2017), § 23, Rn. 5; Ernst A. Kramer, Thomas Probst, and Roman Perrig, *Schweizerisches Recht der Allgemeinen Geschäftsbedingungen (AGB)*, 2 ed. (Zürich: Stämpfli, 2023), Rn. 42.

[12] Kessler, "The Contracts of Adhesion", 631; Kocayusufpaşaoğlu, *Borçlar Hukuku*, § 23, Rn. 5

[13] See, German Burgerliches Gesetzbuch ("BGB") § 305-310, Turkish Code of Obligations ("TCO") Art. 20-25.

[14] Claire Huguenin, *Obligationenrecht Allgemeiner und Besonderer Teil*, 3 ed. (Zürich: Schultess, 2019), § 6, Rn. 608; Cristoph Müller, *Art. 1-18 OR mit allgemeiner Einleitung in das Schweizerische Obligationenrecht*, ed. Regina E. Aebi-Müller and Cristoph Müller, Berner Kommentar zum schweizerischen Privatrecht, (Stämpfli, 2018), Art. 1, Rn. 292.

[15] It should be noted initially that we do not agree with *Benseghir* and *Bendriss,* who argue that SCs are *by definition* CoAs. See Mourad Benseghir and Halima Bendriss, "The Consumer's Right to Withdraw from

2.1. Unilateral Formulation of the Terms

German Civil Code ("BGB") § 305 stipulates that only pre-formulated and unilaterally provided terms can be considered as STCs. Turkish Code of Obligations ("TCO") Art. 20 puts forward a similar condition. In Swiss law, unilateral preparation is also seen as a condition[16]. One important point regarding SCs here, is that the difference between *using* and *crafting* the terms. The criterion is *using* the terms, not the latter[17]: A seller in a distributed ledger system may use a contract code crafted by a third party, like a platform operator ("PO"). In these cases, also, one must consider the terms as STCs[18].

The issue here is the cases where it is difficult to refer neither of the parties as the *user* of a set of contract terms[19]. An illustration of this, would be peer-to-peer (P2P) loan transactions[20]. In these constructions, the PO acts only as an intermediary and provides the code[21]. The loan agreement here is *crafted* by the PO. However, neither the borrower nor the lender can be referred to as the *user* of the STCs: Neither party dictates the terms to the other; they mutually agree on them[22]. In cases like this, the prevailing opinion is that the SC in question cannot be considered as a CoA[23]. However, for German law, a distinction exists: If the relationship between parties can be classified as a business to consumer ("B2C") relationship (= consumer contract), BGB § 310(3)(1)[24] dictates a different approach: The entrepreneur must be considered as the user unless they prove that the terms in question were introduced into the contract by the consumer[25]. Thus, for the loan agreement example above, if the SC is a B2C contract, the entrepreneur is going to be deemed as the user, since BGB § 310(3)(1) directly

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Blockchain Smart Contracts Challenges and Solutions", in *Tech Fusion in Business and Society: Harnessing Big Data, IoT, and Sustainability in Business: Volume 2*, ed. Reem Khamis Hamdan (Cham: Springer Nature Switzerland, 2025), 680. An SC does not necessarily have to be a CoA.

[16] Kramer, Probst, and Perrig, *AGB*, Rn. 75; Müller, *BernKOM*, Art. 1, Rn. 272; Huguenin, *OR*, Rn. 605.

[17] Matteo Fornasier, "§§ 305–306a BGB", in *Münchener Kommentar zum Bürgerlichen Gesetzbuch, Band 2, Schuldrecht - Allgemeiner Teil I* (C.H. Beck, 2022), BGB § 305, Rn. 14; Yeşim M. Atamer, *Sözleşme Özgürlüğünün Sınırlandırılması Sorunu Çerçevesinde Genel İşlem Şartlarının Denetlenmesi*, 2 ed. (Istanbul: Beta, 2001), 66.

[18] Thomas Riehm, "Smart Contracts und AGB-Recht", in *Rechtshandbuch Smart Contracts*, ed. Tom Braegelmann and Markus Kaulartz (München: C.H.Beck, 2019), Rn. 16; Çağlayan Aksoy, *Akıllı Sözleşmeler*, 210.

[19] Heckelmann, "Smart Contracts", 507.

[20] Ibid.

[21] For an analysis of the legal relationship between the PO and the contracting parties see Stephan D. Meyer and Benedikt Schuppli, ""Smart Contracts" und deren Einordnung in das schweizerische Vertragsrecht," *Zeitschrift für juristische Weiterbildung und Praxis* (2017): 210 ff.

[22] Heckelmann, "Smart Contracts", 507.

[23] Ibid.; Nico Bilski, *Blockchain-Technologie, Smart Contracts und selbstvollziehende Verträge* (Leipzig, 2019), 71; Riehm, "Smart Contracts", Rn. 17; Çağlayan Aksoy, *Akıllı Sözleşmeler*, 211; Doğa Ekrem Doğancı, *Blokzincirine Dayalı Akıllı Sözleşmelerin Hukuki Nitelikleri, Kuruluşu, Yorumu, İfası ve Bazı Örnek Uygulamalar* (Istanbul: On Iki Levha, 2021), 196.

[24] *"In the case of contracts between an entrepreneur and a consumer (consumer contracts) the rules in this division apply with the following provisos: Standard business terms are deemed to have been presented by the entrepreneur, unless they were introduced into the contract by the consumer…"*

[25] Fornasier, "MünchKOM", BGB § 305, Rn. 26 and BGB § 10, Rn. 97; Bilski, *Smart Contracts*, 72.

concerns such contracts that are crafted by neutral-third parties[26].

In Turkish law, a similar provision applicable to B2C contracts can be found in Law on Consumer Protection ("LCP") Art. 5(3): *"The party who draws up the contract, should they claim that a standard term is individually negotiated, shall prove it."*[27]. There are differences between BGB § 310(3)(1) and LCP Art. 5(3) though. BGB § 310(3)(1) indicates that if the contract includes standard terms, even though these terms are provided by a neutral third party, it is assumed that they are presented by the entrepreneur unless otherwise proven. On the other hand, LCP Art. 5(3) places the burden of proof on the party who *draws up* the contract, not on *the entrepreneur* like BGB does in an almost *a priori* manner[28]. Thus, the functions of LCP Art. 5(3) and BGB § 310(3)(1) are different. LCP Art. 5(3), only repeats the natural conclusion of the burden of proof problem: If it is established that *there are* STCs, then it is up to the one who puts them forward to the other party to prove otherwise (that the terms are individually negotiated). We could have reached the same conclusion even if LCP Art. 5(3) did not exist, by just relying on the general principles set in Turkish Civil Code (TCC) Art. 6[29]. On the other hand, what BGB § 310(3)(1) does is more than just repeating such a conclusion[30]. It assumes the *existence* of STCs and its *use* by the entrepreneur even though there are standard terms provided by a neutral third party and would not be attributable to any party if BGB § 310(3)(1) did not exist. In Swiss law, no similar rule to BGB § 310(3)(1) can be found. Even so, some authors suggest a similar approach[31]. We contest the application of this approach to the SCs similar to the loan agreement example above: Without a legal basis like BGB § 310(3)(1), it is not possible to accept such a fiction in cases where it is practically impossible for the entrepreneur to prove that the terms are introduced by the consumer. In such contracts, to allocate the risks posed by the related restrictive regulations on the entrepreneur, is a policy choice and therefore must be up to the lawmaker to follow or not[32].

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[26] Fornasier, "MünchKOM", BGB § 310, Rn. 93; Bilski, *Smart Contracts*, 71.

[27] Law No. 6502, Turkish Official Gazette, No. 28835, 7.11.2013.

[28] This is why some authors call what BGB § 310(3)(1) does is creation a legal fiction, rather than just a presumption, Fornasier, "MünchKOM", BGB § 310, Rn. 89; Bilski, *Smart Contracts*, 71; Ayşegül Küçükdağlı, *Unterschiedliche Schutzstandards im Recht der Allgemeinen Geschäftsbedingungen: Eine Rechtsvergleichende Analyse Des Europäischen, Deutschen Und Türkischen Rechts* (Berlin: Berliner Wissenschafts-Verlag, 2017), 207; Riehm, "Smart Contracts", Rn. 36.

[29] Murat Aydoğdu, "6098 sayılı Türk Borçlar Kanununda Düzenlenen Genel İşlem Koşullarının Konu Bakımından Uygulama Alanı," *Dokuz Eylül Üniversitesi Hukuk Fakültesi Dergisi* 13, no. 2 (December 2011): 18.

[30] For a similar comment while comparing BGB § 310(3)(1) and European Council Directive 93/13/EEC on Unfair Terms in Consumer Contracts see Küçükdağlı, *Schutzstandards*, 208.

[31] Atamer, *Genel İşlem Şartları*, 71.

[32] Nonetheless, in cases where the service provider gives one of the contracting parties options to tailor some terms in their respective SCs, one can name that party as the user, since, at this point, it can be argued that the service provider's position is closer to a representative than a neutral third party; Fornasier, "MünchKOM", BGB § 305, Rn. 26; Atamer, *Genel İşlem Şartları*, 70-71. (Like Airbnb providing options to the lessor to choose between different kinds of standard contracts. See a detailed analysis of these types of contracts, Fornasier, "MünchKOM", BGB § 305, Rn. 26.). While commenting of Swiss law, *Furrer* offers a *per analogiam* application of the STC controls in such situations, see, Andreas Furrer, "Die Einbettung von Smart Contracts in das schweizerische Privatrecht," *Anwaltsrevue*, no. 3 (2018): 110.

In cases where the parties have negotiated the terms before including them into the contract, one can no longer name them as STCs; the term in question is an *individually* agreed term[33]. If the parties agree to use terms provided by a neutral third party, is it appropriate to consider these terms as individually agreed? It can be argued that peers who conclude such a contract must be deemed to have done so after a negotiation process, which allows us to assume the terms as individually agreed[34]. But for the German law, BGB § 310(3)(1), which stipulates a fiction for B2C contracts, must be taken into consideration.

2.2. The Intention to Use the Terms for Multiple Contracts

BGB § 305(1) specifies that in order for a term to be classified as an STC, it must be pre-formulated to be used for more than one contract. TCO Art. 20(1) frames a similar condition: STCs must be prepared with an intention to be used for multiple contracts. TCO Art. 20(1) clearly states that the mere *intention* to use for multiple contracts is enough. This conclusion is also accepted in German law with an interpretation of BGB § 305(1)[35]. Lacking a well-contoured definition, in Swiss law, the question of whether the condition of intention to use for multiple contracts is going to be looked for is doubted. Yet, it seems that the affirmative approach is the predominant one[36].

An intricate problem regarding SCs here, is again caused by the decoupling of the contracting parties and the PO. The question is briefly this: Whose intention is the determinative factor: (i) The contracting party who is or is assumed to be the user of the terms or (ii) the person who crafts them? This question can be critical for P2P contracts. Some authors argue that since the intention to use the terms in multiple contracts belongs to the PO rather than the actual contracting parties, these terms cannot be classified as STCs[37]. Another opinion contrarily argues that the *crafters'* intention to use

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[33] BGB § 305b prioritizes an individually agreed term over an STC, irrespective of their inclusion time to the contract, see Fornasier, "MünchKOM", BGB § 305b, Rn. 5. Priority of individually agreed terms is also accepted in Swiss and Turkish laws, see Huguenin, *OR*, Rn. 613; Kramer, Probst, and Perrig, *AGB*, Rn. 287; Kocayusufpaşaoğlu, *Borçlar Hukuku*, § 23, Rn. 20; Atamer, *Genel İşlem Şartları*, 125; O. Gökhan Antalya, *Marmara Hukuk Yorumu - Borçlar Hukuku Genel Hükümler Cilt: V/1, 1*, 2 ed. (Istanbul: Seçkin, 2019), Rn. 2288. With regards to SCs, it is emphasized in the literature that if the SC in question is designed to take notice of the other contracting party's choices, it is necessary to classify the terms as individually agreed terms; Çağlayan Aksoy, *Akıllı Sözleşmeler*, 209; Doğancı, *Blokzinciri*, 196.

[34] Atamer, *Genel İşlem Şartları*, 70. This problem has commonalities with the problem of whether these kinds of contracts are consumer transactions or not, see, Pınar Çağlayan Aksoy, "Smart Contracts: to Regulate or not? Global Perspectives," *Law and Financial Markets Review* 16, no. 3 (July 2022): 234, https://doi.org/10.1080/17521440.2023.2298192.

[35] Fornasier, "MünchKOM", BGB § 305, Rn. 18.

[36] In favour of the condition, see Huguenin, *OR*, Rn. 605; Müller, *BernKOM*, Art. 1, Rn. 272; Andreas Furrer and Markus Müller-Chen, *Obligationenrecht Allgemeiner Teil*, 3 ed. (Schultess, 2018), 141. Rejecting the condition by arguing that its foundations are not sound, see Kramer, Probst, and Perrig, *AGB*, Rn. 82.

[37] Heckelmann, "Smart Contracts", 507. (Heckelmann criticizes the contrary jurisprudence on this matter by arguing that they are unjustified). For the same approach to a similar problem in STCs in general see, Selahattin Sulhi Tekinay et al., *Tekinay Borçlar Hukuku Genel Hükümler*, 7 ed. (İstanbul: Filiz Kitabevi,

the terms in multiple contracts is enough[38]. We think that this conviction is tenable, since the wording of BGB § 305(1) is not forcing us to accept that the user of the standard terms must have the intention to use them for multiple contracts. The wording of TCO Art. 20(1) is problematic on this matter since it seeks the intention of the crafter, but we believe that this hurdle can be overcome by a teleological interpretation of the norm[39].

3. Conditions for Inclusion

3.1. Burden to Inform the Opposing Party About the Existence of the STCs

BGB § 305(2)(1) stipulates a burden for the user of an STC to inform the opposing party ("OP") about the existence of it. TCO Art. 21(1) also brings about a similar provision while in Swiss law, it is accepted that the user must provide the OP a clear reference to the STCs[40]. How should a user inform the OP about the use of STCs in the SC formation phase? Some authors argue that the principal condition for the fulfilment of this burden is to provide the OP the means of access to the SC code as a whole[41]. We think that the problem of access to the code, is rather related to the second condition stipulated for the inclusion[42]. A clear reference sought by the relevant regulations can be ensured by using a hyperlink[43]. A general proclamation of the STC use made off-chain would also be sufficient[44]. In cases where the STC text is made a part of the contractual text itself and presented to the OP, the condition is fulfilled *eo ipso,* because of the contractual document's design[45].

1993), 156. Some authors counter Heckelmann's approach by stating that it is possible to assume that the user has the intention to use the terms multiple times, because the material reality would be like this in most of the cases, Doğancı, *Blokzinciri*, 195.

[38] Çağlayan Aksoy, *Akıllı Sözleşmeler*, 212. For the same opinion on the STCs in general see, Fornasier, "MünchKOM", BGB § 305, Rn. 19; Mathias Habersack, "BGB § 305 Einbeziehung Allgemeiner Geschäftsbedingungen in den Vertrag", in *Ulmer/Brandner/Hensen, AGB-Recht* (Köln: Verlag Dr. Otto Schmidt, 2022), BGB § 305, Rn. 24; Vedat Buz, "Immer noch "allgemeine" Geschäftsbedingungen? Kritische Gedanken zum Vielzahlkriterium nach § 305 Abs. 1 BGB," *Archiv für die civilistische Praxis* 219, no. 1 (2019): 11; Atamer, *Genel İşlem Şartları*, 66.

[39] For the interest-based analysis of the problem see Atamer, *Genel İşlem Şartları*, 67, fn. 33. As the author implies, the exclusion of such third party-crafted standard terms from the restrictive controls would give an opportunity to businesses to exploit the regulation through the use of standard terms crafted by third party interest groups. A typical example for this is the use of standard rental agreements crafted by landlords associations, see Fornasier, "MünchKOM", BGB § 305, Rn. 19.

[40] Kramer, Probst, and Perrig, *AGB*, Rn. 133; Atamer, *Genel İşlem Şartları*, 83.

[41] Eggen, "Smart Contracts", 162-63; Çağlayan Aksoy, *Akıllı Sözleşmeler*, 218-19.

[42] Namely, the burden to provide an opportunity to learn about the content of the STCs, see, infra 3.2.

[43] Habersack, "AGB-Recht", BGB § 305, Rn. 135b. See also, Doğancı, *Blokzinciri*, 261.

[44] Doğancı, *Blokzinciri*, 139.

[45] Markus Kaulartz, "Herausforderungen bei der Gestaltung von Smart Contracts," *Zeitschrift zum Innovations- und Technikrecht*, no. 4 (2016): 205; Markus Kaulartz and Jörn Heckmann, "Smart Contracts - Anwendungen der Blockchain-Technologie," *Computer und Recht* 32, no. 9 (2016): 622, https://doi.org/10.9785/cr-2016-0923. See also Carron and Botteron, "How Smart Can a Contract Be?", 129; Eggen, "Smart Contracts", 162. In general see Fornasier, "MünchKOM", BGB § 305, Rn. 67; Kramer, Probst, and Perrig, *AGB*, Rn. 138.

In business to business ("B2B") contracts, jurisdictions prefer a less stringent approach. In cases where the use of a certain type of SC containing STCs is customary in a B2B relationship, even a reference may not be necessary[46]. Even such a custom is non-existent, BGB § 310(1) exempts the user from the condition stipulated in BGB § 305(2) in B2B contracts. STCs can successfully pass the control even though the user did not inform the OP about the use of them as long as the OP knew or should have known the other contracting party uses STCs[47]. Such a distinction for B2B contracts can be observed also in the Swiss law. Some authors argue that the information condition must be applied in a less rigid manner, even though they abstain from an outright abandonment preferred in BGB[48]. It is argued that the standards on the clearness of the reference would be more flexible than it would be in B2C contracts. A reflection of this approach can be seen in the literature viewing an implied reference to the SCs sufficient[49]. On the other hand, since no distinction can be observed in TCO regarding the B2B or B2C contracts, the question of differing standards between them is contested. Some authors see no difference between B2B and B2C contracts in this regard[50]. Some authors, however, suggest a flexible application[51]. We agree with this latter approach via a teleological interpretation of the related TCO norms.

3.2. Burden to Provide an Opportunity to Learn About the Content of the STCs

3.2.1. Is a "Translation" Necessary?

3.2.1.1. Arguments in Favour of the Necessity

The burden to provide an opportunity to learn about the content of STCs finds itself a place in BGB § 305(2)(2), TCO Art. 21(1), and also in Swiss law[52]. The opportunity condition raises the question in SCs whether the user is under the burden of providing a translation or at least an approximate description of the SC code in a natural language. As can be anticipated by the formulation of the problem, literature

[46] For the notion of commercial customs and their relation to STCs' inclusion to the contract see, Atamer, *Genel İşlem Şartları*, 106-07; Ayşegül Küçükdağlı, "Tacirler Arası Sözleşmelerde Kullanılan Genel İşlem Koşulları Denetimine İlişkin Yaklaşımlar: AB, Alman ve Türk Hukuklarına Göre Karşılaştırmalı Bir Değerlendirme," *Legal Hukuk Dergisi* 17, no. 203 (2019): 4687.

[47] Fornasier, "MünchKOM", BGB § 305, Rn. 105.

[48] Kramer, Probst, and Perrig, *AGB*, Rn. 253.

[49] Yeşim M. Atamer, *Tacirlerin Genel İşlem Şartlarına Karşı Korunması* (İstanbul: İstanbul Ticaret Odası, 2001), 21.

[50] Adem Yelmen, *Türk Borçlar Kanunu'na Göre Genel İşlem Şartları* (Ankara: Yetkin Yayıncılık, 2014), 72.

[51] Küçükdağlı, "Yaklaşımlar", 4686; Murat Aydoğdu and Nalan Kahveci, *Genel İşlem Koşulları Şerhi - Türk Borçlar Kanunu Madde 20-25*, 2 ed. (Ankara: Seçkin Yayıncılık, 2022), TBK m. 21, Rn. 44; Hilal Yüksel Maamer, *Genel İşlem Koşullarında Kapsam (Yürürlük) Denetimi* (İstanbul: Filiz Kitabevi, 2023), 122, fn. 66.

[52] Swiss approach infers this condition from the principle of trust, which finds its basis on Swiss Civil Code Art. 2, Müller, *BernKOM*, Art. 1, Rn. 323; Kramer, Probst, and Perrig, *AGB*, Rn. 143.

shows a tendency to resolve it by an analogy with the use of foreign languages[53] in contracts[54]. Initially, it should be noted that no general obligation to provide a translation for a contract that its provisions were agreed in a language that the OP has no sufficient command of exists[55]. Indeed, the general rule is that the party who has decided to enter into a contract that they cannot understand the language of is deemed to have assented to bear the "language risk"[56].

Nevertheless, for some specific instances, authors offer to delimit this approach, for the OP's favour. If, from the user's perspective, it is evident that the OP does not have a sufficient command in the contract language, then, it is contended that it is not reasonable to leave the language risk on them[57]. However, another approach argues contrarily that a translation of STCs to an additional language is only necessary when a significant target customer group understands that additional language and lacks the proficiency in the language which the STCs have been crafted in[58]. The language risk must not be considered to have shifted from the OP to the user, just because the user noticed the OP's deficiency in the contract language[59]. Unless the user's target customer group contains a linguistically homogeneous customer sub-group, it would not be practical and thus not reasonable to expect from the user to anticipate and act accordingly to their prospective contract partners' language abilities[60]. We concur with

[53] Before our investigation on the inclusion problem of STCs, it is necessary to touch upon a preliminary question in Turkish law. Law No. 805 on The Compulsory Use of Turkish in Businesses (see, Turkish Official Gazette, No. 353, 22.4.1926) Art. 1 stipulates that all kinds of companies and institutions with Turkish nationality are obligated to "keep" their contracts within Turkey, in Turkish language. Seen as an archaic restriction in the literature, it is contested if a non-compliance to the compulsory use of Turkish in contracts would result in their invalidity; for a detailed discussion, see, Esen Esen, "İktisadi Müesseselerde Mecburî Türkçe Kullanılması Hakkında Kanun'un Milletlerarası Tahkim Anlaşmaları Üzerindeki Etkisi," *Public and Private International Law Bulletin* 40, no. 1 (2020 2020): 224 ff., https://doi.org/10.26650/ppil.2020.40.1.0024. We agree with the interpretation asserting that a non-compliance to the compulsory use of Turkish would not cause the contract's invalidity, since Law No. 805 Art. 4 implies that Art. 1 is only concerns with the interpretation of the contract, rather than its validity, see, Haluk Tandoğan, *Borçlar Hukuku, Özel Borç İlişkileri, Cilt: II*, 5 ed. (İstanbul: Vedat Kitapçılık, 2010), 746.. Thus, in our opinion, the code language that SCs based upon will not result in their invalidity under the Law No. 805.

[54] Hanzl, *Handbuch*, 123, fn. 645. For a more restrained approach to this analogy see, Doğancı, *Blokzinciri*, 132. For other significant consumer law implications of the use of the code language in SCs see, Son T. Nguyen, "Consumer Protection Against Unfair Contract Terms in the Age of Smart Contracts," *Federal Law Review* 51, no. 4 (2023): 500 ff., https://doi.org/10.1177/0067205X231205048.

[55] Fornasier, "MünchKOM", BGB § 305, Rn. 71; Michael Kling, *Sprachrisiken im Privatrechtsverkehr* (Tübingen: Mohr Siebeck, 2008), 524-25. See also Carsten Schäfer, "Vertragsschluss unter Einbeziehung von Allgemeinen Geschäftsbedingungen gegenüber Fremdmuttersprachlern," *JuristenZeitung* 58, no. 18 (2003): 882.

[56] Kramer, Probst, and Perrig, *AGB*, Rn. 169; Müller, *BernKOM*, Art. 1, Rn. 330; Schäfer, "Vertragsschluss", 883; Kling, *Sprachrisiken*, 521. Literature draws a parallel between such a contracting party to the one who has the chance to read and understand the conditions before assenting to them but prefers not to, see Kramer, Probst, and Perrig, *AGB*, Rn. 169; Kaulartz and Heckmann, "Smart Contracts", 622.

[57] Kramer, Probst, and Perrig, *AGB*, Rn. 169; Müller, *BernKOM*, Art. 1, Rn. 330; Fornasier, "MünchKOM", BGB § 305, Rn. 71; Çağlayan Aksoy, *Akıllı Sözleşmeler*, 216.

[58] Schäfer, "Vertragsschluss", 882.

[59] Kling, *Sprachrisiken*, 525-26.

[60] Ibid., 526.

this view since it offers a reasonable solution[61].

What would an application of these principles seem like in SCs? Authors who adopt the first approach argue that, at least in B2C contracts, since it is objectively not reasonable to expect from a consumer to possess a proficiency in the code language[62], the user must be considered under the burden of providing a translation of the SC code[63]. We think that the second approach would also reach similar conclusions. It can be argued that the code language, especially in cases where the SC in question is of a complex nature, is uncomprehensible for large customer groups. Therefore, it would be a tenable argument that even if a more liberal approach is going to be adopted, user of an STC is required to provide a translation of the contract code into a natural language that the target consumer group is expected to possess a sufficient command of. These convictions can be improvised however, on an *ad hoc* manner, depending on the specific traits that a particular target customer group possess[64].

3.2.1.2. Arguments Against the Necessity

One counter argument to the conclusions presented above, however, has been put forward by authors who emphasize the distinction between negotiation and contract languages and its implications in the distribution of the language risk. The significance of this distinction shows itself when these languages bifurcate[65]: If for instance, the

[61] It is also worth noting that even when the OP bears the language risk, the rest of the regulations on STCs, especially the rules for unusual clauses, provide a significant protection for them, see ibid.

[62] Kaulartz and Heckmann, "Smart Contracts", 622; Müller, *BernKOM*, Art. 1, Rn. 331; Ruxandra Lupu, "Zulässigkeit, Handhabung und rechtliche Grenzen bei der Gestaltung von Smart Contracts," *Zeitschrift zum Innovations- und Technikrecht*, no. 1 (2020): 5; Bilski, *Smart Contracts*, 72. See also Rolf H. Weber, "Smart Contracts: Vertrags- und verfügungsrechtlicher Regelungsbedarf?," *Zeitschrift für Immaterialgüter-, Informations- und Wettbewerbsrecht* (2018): 294; Evripidis Rizos, "A Contract Law Approach for the Treatment of Smart Contracts' 'Bugs'," *European Review of Private Law* 30, no. 5 (2022): 789, https://doi.org/10.54648/erpl2022037; Eleonor Gyr, "Blockchain und Smart Contracts - Die vertragsrechtlichen Implikationen einer neuen Technologie" (Doctoral Thesis, Universität Bern, 2019), Rn. 307, https://www.boristheses.unibe.ch/.

[63] Müller, *BernKOM*, Art. 1, Rn. 331; Bilski, *Smart Contracts*, 72; Çağlayan Aksoy, *Akıllı Sözleşmeler*, 221; Nikolas Gugenberger, "Smart Contracts, ICOs und Datenschutz", in *Handbuch Multimedia-Recht*, ed. Thomas Hoeren, Ulrich Sieber, and Bernd Holznagel (München: C.H.Beck, 2024), Rn. 15; Özge Bölükbaşı, "Akıllı Sözleşmelerin Genel İşlem Koşulları Bakımından Değerlendirilmesi," *Sakarya Üniversitesi Hukuk Fakültesi Dergisi* 11, no. 1 (August 2023): 206, https://doi.org/10.56701/shd.1278275; Halil Can Bentli, "Akıllı Sözleşmeler ve Genel İşlem Şartları" (Master's Thesis, Ankara Sosyal Bilimler Üniversitesi, 2023), 50, https://tez.yok.gov.tr/UlusalTezMerkezi/. For distance consumer contracts see, Doğancı, *Blokzinciri*, 265. ELI, in their *Principles,* which is aiming to provide a framework to create harmonized solutions in EU states, suggests a mandatory rule for SCs as B2C contracts. In ELI's opinion, these SCs must always be translated into a natural language, see, ELI, *Principles*, 43. For same conclusions in EU and UK laws see, Durovic and Janssen, "The Formation", 770. For Austrian law see, Hanzl, *Handbuch*, 124. See also, Ghassan Adhab Atiyah, Ahmed Ismael Ibrahim, and Ahmed Abdulkhudhur Jasim, "Enforcement of Smart Contracts in Cross-Jurisdictional Transactions," *International Journal of Law and Management* (2024): 19, https://doi.org/10.1108/ijlma-06-2024-0220.

[64] Hanzl, *Handbuch*, 124. In SCs between consumers (C2C contracts), same rules shall be applicable. But we can anticipate that in C2C realm, the application of regulations for STCs would rather be seldom due to the unilateral formulation condition.

[65] For a detailed analysis regarding this distinction see, Kling, *Sprachrisiken*, 517 ff.

parties conduct the negotiations in Language 1, but the contract is crafted in Language 2 ("L2") in which the OP has no sufficient command of, the inclusion of the STCs can be rejected[66]. Yet, when the negotiation and the contract language are both L2, inclusion is admitted[67]. In the latter scenario, the fact that the OP did not reject to conduct the pre-contractual negotiations in L2 allows the user to rightfully assume that the OP has enough capacity to conclude a valid contract crafted in that language[68]. Since, for on-chain SCs, the negotiation and contract language will be the same, some authors argue, the OP must bear the language risk[69]. In our opinion, however, this argument would be only partially tenable if the following point remains untouched: In a considerable number of cases, on-chain SC formation processes do not have a negotiation phase at all[70]. The OP only assents to the SC code presented to them[71]. Hence, an argument relying on the bifurcation of the negotiation and contract languages must be neglected[72].

Another counter argument to the interpretation we've outlined above also relies on another established doctrine on the use of STCs. In cases where the text of the STCs is incorporated into the contract text itself (the German and Swiss authors often dub these types of contracts as *formularverträge* = standard form contracts[73]), it is contended that the two conditions for inclusion we discussed in parts 3.1 and 3.2 of this article will be *eo ipso* realized[74]. The reason for this lies on the convergence of the physical existence of the contract and the text of the STCs: Provided that the OP has been presented with the text of the contract, *the text design itself* fulfils the opportunity

[66] Atamer, *Genel İşlem Şartları*, 98; Doğa Ekrem Doğancı, *Genel İşlem Koşullarında Saydamlık Denetimi* (İstanbul: On İki Levha, 2018), 171.

[67] Kling, *Sprachrisiken*, 517; Schäfer, "Vertragsschluss", 883; Fornasier, "MünchKOM", BGB § 305, Rn. 71; Hanzl, *Handbuch*, 124.

[68] Fornasier, "MünchKOM", BGB § 305, Rn. 71; Kramer, Probst, and Perrig, *AGB*, Rn. 271, fn. 1272.

[69] Hanzl, *Handbuch*, 124; Doğancı, *Blokzinciri*, 136-37.

[70] Rolf H. Weber, "Linguistische Kommunikation und technischer Code in Verträgen", in *Gedenkschrift für Claire Huguenin*, ed. Wolfgang Portmann et al. (Dike Verlag AG, 2020), 502; Bronwyn E. Howell and Petrus H. Potgieter, "Uncertainty and Dispute Resolution for Blockchain and Smart Contract Institutions," *Journal of Institutional Economics* 17, no. 4 (2021): 547, https://doi.org/10.1017/s1744137421000138. This is also the case in some other e-commerce contracts, see Kling, *Sprachrisiken*, 526.

[71] The elimination of the traditional pre-contractual negotiation process would also be exacerbated by the need of standardization in SC code creation; in support of this view see, Primavera de Filippi and Aaron Wright, *Blockchain and the Law: The Rule of Code* (Cambridge, Massachusetts; London, England: Harvard University Press, 2018), 86; Kristin B. Cornelius, "Standard Form Contracts and a Smart Contract Future," *Internet Policy Review* 7, no. 2 (2018): 4, https://doi.org/10.14763/2019.2.1412.

[72] *Hanzl* seems to touch upon the distinction we emphasize. He initially explains that a burden to translate the code exists (see Hanzl, *Handbuch*, 124.) and then, takes note of a scenario that all aspects of the transaction carried out on the blockchain (in the code language) and argues that there would be no burden to translate in such cases because of the convergence of the negotiation and the contract language. We agree with *Hanzl* in his argument but anticipate that such a negotiation would rather be a matter in B2C contracts which already no burden to translate exists under the related regulations of Germany, Switzerland and Turkey, see, infra 3.2.2.

[73] Fornasier, "MünchKOM", BGB § 305, Rn. 67; Habersack, "AGB-Recht", BGB § 305, Rn. 65; Astrid Stadler, *§§ 256–326 BGB*, 19 ed., ed. Rolf Stürner, Jauernig Bürgerliches Gesetzbuch Kommentar, (München: C.H.Beck, 2023), BGB § 305, Rn. 7; Kramer, Probst, and Perrig, *AGB*, Rn. 147; Kaulartz, "Herausforderungen", 205.

[74] Kramer, Probst, and Perrig, *AGB*, Rn. 138. and Rn. 150; Fornasier, "MünchKOM", BGB § 305, Rn. 67 and 74.

condition[75]. With this line of argument, some authors claim that BGB § 305(2) will not find application for these types of contracts[76]. Corollary to this, *Kaulartz* and *Heckmann* argues, some SCs, because they contain all the essential STCs in the contract text itself (like a *formularvertrag),* will not be subject to the restrictive conditions stipulated in BGB § 305(2)[77]. A result of this, it is understood, will be the salvation of the user from the burden to translate the SC code[78].

We do not agree with this interpretation which renders a non-application of BGB § 305(2) to contracts physically incorporating STCs into their text[79]. No provision in BGB expressly envisaging such an exclusion exists. A more accurate interpretation is the one purporting an *eo ipso* compliance to the conditions set in BGB § 305(2) for such contracts rather than an outright exclusion from its scope of application[80]. A practical difference of these two approaches becomes noticeable when the contract language is a language that the OP does not have a sufficient command of[81]. If an outright exclusion from the BGB § 305(2)'s scope was accepted, a burden to translate would be rejected since it would be a stretch to infer such an obligation from the general rules governing the pre-contractual negotiations. However, if the latter interpretation is going to be adopted, the *eo ipso* fulfilment of the conditions set in BGB § 305(2) could and should be ruled out: Because, in some cases we mentioned above, the relevant rules on the distribution of the language risk necessitates that a translation be provided to the OP[82]. Particularly when dealing with technologically illiterate consumer groups, users cannot be considered to have provided them the opportunity to familiarize themselves with the STCs in a reasonable way if they provided the OP only the SC code. Mere physical convergence between the texts of the STCs and the contract will not suffice to fulfill the opportunity condition[83].

3.2.2. Differing Standards in B2B Relationships?

The discussion traced above, should be further elaborated for B2B relationships. BGB § 310(1) exempts the user from the burden we discuss in this subpart

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[75] Kramer, Probst, and Perrig, *AGB*, Rn. 138. and Rn. 150.

[76] Habersack, "AGB-Recht", BGB § 305, Rn. 110; Stadler, *Jauernig BGB Kommentar*, BGB § 305, Rn. 12; Kaulartz, "Herausforderungen", 205; Kaulartz and Heckmann, "Smart Contracts", 622; Carlos Timo Scheidle, "Smart Contracts und Verbraucherschutz im Rechtsvergleich mit dem deutschen Recht" (Master's Thesis, Universität Innsbruck, 2024), 65, https://ulb-dok.uibk.ac.at/.

[77] Kaulartz, "Herausforderungen", 205; Kaulartz and Heckmann, "Smart Contracts", 622.

[78] Kaulartz, "Herausforderungen", 205; Kaulartz and Heckmann, "Smart Contracts", 622.

[79] Same conclusion for the application scope of BGB § 305(2) see, Felipe Temming, "Verstehen Sie Deutsch? Sprachenunkenntnis beim Vertragsschluss und bei der AGB-Kontrolle," *Zeitschrift für das Privatrecht der Europäischen Union* 13, no. 1 (2016): 41, https://doi.org/10.9785/gpr-2016-0110. Bilski reaches the same conclusions as we do, but with a nuance in his reasoning, see, Bilski, *Smart Contracts*, 72.

[80] Using this interpretation for BGB § 305(2) see, Fornasier, "MünchKOM", BGB § 305 Rn. 67 and 74. Similar in Swiss law see, Kramer, Probst, and Perrig, *AGB*, Rn. 138.

[81] Temming, "Verstehen Sie Deutsch?", 41.

[82] Ibid.

[83] In support of this analysis see, Bilski, *Smart Contracts*, 72.

too. Even though it is established that the commercial OP should eventually be provided the opportunity to obtain information about the content of the STCs, BGB § 310(1) shifts the burden from the user to the OP and leaves it to the commercial OP's initiative[84]. In Swiss law also a less stringent standard is followed based on the assumption of entrepreneurs' professional competence[85]. Similar to the German law, the burden to take the initiative to learn about the content of the STCs is on the OP[86]. The application of these rules, again, touches the problem of foreign language use in contracts. The patterns of distribution of the language risk show similarities in German and Swiss laws: Even when there is a significant linguistically homogeneous target commercial customer group exists, the user does not have to provide a translation of the SC code[87].

On the other hand, no provision similar to BGB § 310(1) exists in Turkish law. In the absence of such an exclusionary norm, the scope of application of TCO Art. 21 seems to include B2B contracts. Nevertheless, the matter is contested: (i) The predominant view suggests that the TCO Art. 21 is also applicable to B2B contracts[88]. (ii) Relying on the *ratio* of the regulations on STCs, a counter argument holds an exclusionary approach[89]. According to the authors advocating this line, the use of STCs should only be regarded as *unfair competition* under the related Turkish Commercial Code ("TComC") provisions and solely trigger the consequences envisaged there[90]. (iii) More nuanced approaches can be found in the literature. Some authors argue for only a partial application of the related rules, like the German lawmaker has seen suitable[91].

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[84] Habersack, "AGB-Recht", BGB § 305, Rn. 169; Küçükdağlı, *Schutzstandards*, 255.

[85] Kramer, Probst, and Perrig, *AGB*, Rn. 253; Alfred Koller, "AGB-Recht: Eine Übersicht im Lichte der neusten Entwicklungen in Gesetzgebung, Rechtsprechung und Lehre," *Actuelle Juristische Praxis* (2016): 286-87.

[86] Kramer, Probst, and Perrig, *AGB*, Rn. 256; Koller, "AGB-Recht", 287.

[87] For the German approach in general, see, Kling, *Sprachrisiken*, 537. For the Swiss approach in general, see, Kramer, Probst, and Perrig, *AGB*, Rn. 271. For similar remarks on Austrian law, see, Hanzl, *Handbuch*, 106-07. The only difference in the approaches of the German and Swiss literature can be discerned in cases where the user notices the OP's lack of proficiency in the contract language: Even though with a reservation for caution in B2B contracts, some Swiss authors leave an open door for such a shift of the language risk in these situations, see, Kramer, Probst, and Perrig, *AGB*, Rn. 271.

[88] M. Kemal Oğuzman and Turgut Öz, *Borçlar Hukuku Genel Hükümler - Cilt I*, 19 ed. (İstanbul: Vedat Kitapçılık, 2021), Rn. 502; Yeşim M. Atamer, "Yeni Türk Borçlar Kanunu Hükümleri Uyarınca Genel İşlem Koşullarının Denetlenmesi - TKHK m. 6 ve TTK m. 55, F. 1 (f) ile Karşılaştırmalı Olarak", in *Türk Hukukunda Genel İşlem Şartları Sempozyumu*, ed. Başak Şit (Ankara: BTHAE, 2011), 35; Ayşe Havutçu, "6098 sayılı Türk Borçlar Kanunu'nun Genel İşlem Şartlarına ilişkin Hükümlerinin Değerlendirilmesi," *İzmir Barosu Dergisi* 76, no. 2 (2011): 31-32; Aydoğdu and Kahveci, *Şerh*, TBK m. 20, Rn. 47; Yelmen, *Genel İşlem Şartları*, 72; Sevilay Uzunallı, "Genel İşlem Şartlarının Haksız Rekabet Hükümleriyle Denetlenmesi," *İstanbul Üniversitesi Hukuk Fakültesi Mecmuası* 71, no. 2 (January 2014): 406, fn. 111.

[89] Antalya, *Cilt: V/1, 1*, Rn. 2173; Oğuz Ersöz, "Genel İşlem Koşullarının Kişi Bakımından Uygulama Alanı ve Tacirler Hakkında Uygulanması," *İstanbul Aydın Üniversitesi Hukuk Fakültesi Dergisi* 3, no. 1 (June 2017): 94 ff.

[90] Antalya, *Cilt: V/1, 1*, Rn. 2173. TComC Art. 56 essentially grants the customers and competitors of the unfair STC users various claims, including claims for compensation. TComC Art. 62 stipulates a criminal responsibility for the unfair STC users. Some authors assert that TCO Art. 20-25 should be considered as a subsidiary tool in the application of unfair competition rules, see Oğuzman and Öz, *Cilt I*, Rn. 502.

[91] O. Gökhan Antalya and E. Doğa Doğancı, "Genel İşlem Koşullarında Saydamlık Kuralının, Bunun TBK

Some authors defending the applicability of TCO Art. 20-25 argue for a less strict inclusion control[92].

Putting aside the question of what is the *de lege ferenda* preferable solution to the problem[93], we consider that, since there is no clear rule excluding B2B contracts from the scope of application of TCO Art. 20-25, there *will be* an inclusion control. However, the standards should differ. A less strict interpretation is suitable, considering the need of practicality in commercial transactions[94]. This proposed lenient approach can also be applied to the problem of language risk. We think it is possible to infer such an interpretation from TCO Art. 21, that an STC user is not required to provide a translation of the code they utilize in an SC, when dealing with an entrepreneur[95].

3.2.3. Is an Implied Waver Valid?

In case of a translation or any other means to ensure sufficient comprehension is lacking, it is offered that a possible way for the SC to pass the inclusion control would be a valid waiver from the OP from their right to be provided the opportunity to familiarize themselves with the content of the STCs[96]. However, since the restrictions set in TCO Art. 20-25 are of a mandatory nature[97], a valid waiver in Turkish law is out of the question. German lawmaker, abstaining from legislating a clear provision that declares the related regulations as mandatory, has chosen to imply such a conclusion, with BGB § 306a, which stipulates that the restrictions of BGB § 305-310 apply even if they are circumvented by other constructions[98]. Hence, such a waiver should also be invalid in German law. In Swiss law, a waiver salvaging the user from the burdens we've discussed so far is generally not accepted[99].

3.3. Acceptance

"The meeting of the minds" necessitates an acceptance. If the OP accepts the

m. 20 vd.'daki Görünümlerinin ve TTK m. 55 f. 1 f ile TBK m. 20 vd.'nın Birlikte Uygulanabilirliğinin Değerlendirilmesi," *Marmara Üniversitesi Hukuk Fakültesi Hukuk Araştırmaları Dergisi* 24, no. 2 (December 2018): 838 ff., https://doi.org/10.33433/maruhad.503192. (Authors argue that B2B contracts are only subject to the "transparency rule" which they infer from TCO Art. 25).

[92] Atamer, "Yeni Türk Borçlar Kanunu", 35; Füsun Nomer Ertan, *Haksız Rekabet Hukuku* (İstanbul: On İki Levha, 2016), 369 ff; Küçükdağlı, "Yaklaşımlar", 4686-87.

[93] For analyses regarding possible legal policy choices, see, Küçükdağlı, "Yaklaşımlar", 4657 ff; Yeşim M. Atamer, "Genel İşlem Koşulu mu Bireysel Pazarlıkla Kurulan Sözleşme mi? Tüketici ve Tacir İşlemleri Açısından Karşılaştırmalı Olarak Başvurulabilecek Değerlendirme Kriterler", in *Yeni Türk Borçlar Kanunu ve Yeni Türk Ticaret Kanunu Sempozyumu, Makaleler, Tebliğler* (İstanbul: Vedat Kitapçılık, 2013), 110 ff.

[94] Atamer, "Yeni Türk Borçlar Kanunu", 35.

[95] This approach can be supported with the provision of TComC Art. 18 which stipulates that a merchant is under the burden to act prudently in their commercial endeavours.

[96] Eggen, "Smart Contracts", 163. For an argument stating that this waiver presumption would leave the technologically illiterate persons without legal protection see, Weber, "Smart Contracts", 294; Weber, "Linguistische Kommunikation", 503; Çağlayan Aksoy, *Akıllı Sözleşmeler*, 220.

[97] Oğuzman and Öz, *Cilt I*, Rn. 502; Yüksel Maamer, *Kapsam Denetimi*, 52.

[98] Aydoğdu, "Konu Bakımından", 12; Yüksel Maamer, *Kapsam Denetimi*, 53.

[99] Kramer, Probst, and Perrig, *AGB*, 144. For different approaches in B2B contracts see, ibid., 146.

STCs after a thorough reading, inclusion is unproblematic[100]. However, when the OP accepts the STCs without reading or understanding them because of a language barrier, the "global acceptance" problem arises. A global acceptance will be sufficient for the fulfilment of the acceptance condition. Neither German and Swiss nor the Turkish laws do not pursue actual knowledge of the content of the STCs[101]. The user only has to provide the opportunity for the OP to learn about the content of the STC[102].

3.4. The Case for Unusual Clauses

The unusualness rule has a function to curb the risks for the OP especially in cases where they accept STCs globally[103]. Unusual terms are deemed to be excluded from the contract. BGB § 305c and TCO Art. 21(2) provide specific provisions for this rule. In Swiss law, unusualness rule is inferred from the principle of trust which finds its basis on the Swiss Civil Code Art. 2[104]. Unusualness rule protects the OP from the inclusion of STCs that they reasonably would not expect to encounter.

A possible hindrance for an SC to pass the unusualness rule, may be caused by its very nature: the code language it uses. Can a contract term be dubbed as unusual, just because it's written in code form? Literature generally answers this question in favour of the validity of SCs[105]. The code language, in and on itself, would not render an STC as unusual, most of the cases. However, especially in hybrid SCs, where the contract is concluded off-chain but with a reference to a set of STCs on-chain, the code nature of SCs is able to cause unusualness[106]. An unusualness may also be caused by the content of the STCs coded in an SC[107]. In this regard, an SC is no different from a traditional contract[108].

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[100] In this option, the literature labels the acceptance as a "full acceptance", see, Müller, *BernKOM*, Art. 1, Rn. 315; Atamer, *Genel İşlem Şartları*, 102.

[101] For Swiss law, see, Kramer, Probst, and Perrig, *AGB*, 121. For Turkish law, see, Atamer, *Genel İşlem Şartları*, 102.

[102] In this respect, global acceptance is a general consumer behaviour, not just in the SC realm but in overall consumer transactions, see, Marina Kasatkina, "Consumer Protection in the Light of Smart Contracts," *ELTE Law Journal* 2021, no. 1 (2021): 97, https://doi.org/10.54148/ELTELJ.2021.1.95. In US law, the validity of contracts concluded upon a global acceptance is grounded on the "duty to read" doctrine, see, Omri Ben-Shahar, "The Myth of the 'Opportunity to Read' in Contract Law," *European Review of Contract Law* 5, no. 1 (2009), https://doi.org/10.1515/ERCL.2009.1.; for results of this on SCs, see, Ghassan Adhab Atiyah, Nazura Abdul Manap, and Saidatul Nadia Abd Aziz, "Legitimacy of Smart Contracts Written in Encrypted Code on Blockchain Technology Under Current Contract Law: A Comparative Study," *Intellectual Discourse* 31, no. 2 (2023): 431, https://doi.org/10.31436/id.v31i2.1922.

[103] Kramer, Probst, and Perrig, *AGB*, Rn. 122.

[104] Ibid., Rn. 193.

[105] Kaulartz and Heckmann, "Smart Contracts", 622; Çağlayan Aksoy, *Akıllı Sözleşmeler*, 222.

[106] Hanzl, *Handbuch*, 126; Çağlayan Aksoy, *Akıllı Sözleşmeler*, 222. *Hanzl* emphasizes cases where a special notice about the use of SC codes is lacking, see, Hanzl, *Handbuch*, 126. If a reference is provided to STCs but without a special notice on the coded character of them, Hanzl's argument is functional. It should be noted however, in cases where the OP is not provided with a reference at all, before the unusualness test, the unfulfillment of the burden to inform about the use of STCs is going to cause invalidity.

[107] Carron and Botteron, "How Smart Can a Contract Be?", 129; Çağlayan Aksoy, *Akıllı Sözleşmeler*, 222.

[108] Eggen, "Smart Contracts", 163.

4. The Consequences of Non-Fulfilment of the Conditions for Inclusion

BGB § 306 specifies consequences of non-fulfilment of the conditions stipulated for the inclusion of STCs. The principal result is that the STCs do not become a part of the consensus between parties. BGB § 305c repeats this conclusion for unusual clauses. BGB § 306(1) and (3) declare that the remainder of contractual provisions as effective, provided that this would not bring unreasonable hardship for a contracting party even if the alterations foreseen in BGB § 306(2) apply. BGB § 306(2) concerns with the gaps that can be caused by the non-inclusion and its completion by the statutory provisions. Without *to-the-point* regulation, Swiss law reaches similar conclusions. STCs and unusual clauses in them do not become a part of the consensus between parties[109]. The judge would fill the gaps in the contract that may arise from non-inclusion[110]. The remaining clauses are valid[111], unless the non-included parts do not make up the *essentialia negotii* of the contract that the parties had attempted to conclude[112].

TCO Art. 21 on the other hand uses a rather uncommon terminology and dubs the STCs failed the inclusion control as "deemed as unwritten". The unusualness of this framing is caused by its alien character to the traditional classification of invalidity[113]. The traditional classification relies on a four-pronged system where there are non-existent, null, rescindable and incomplete legal transactions[114]. Even with modern theories which tend to recognize different and *sui generis* kinds of invalid legal transactions[115], "deemed as unwritten" still seems odd to the scholarship[116]. Enacted in 2011 as part of the renovation of the former Turkish Code of Obligations, the term "deemed as unwritten" caused a deep controversy in the literature. Since these discrepancies and their consequences would not differ in traditional contracts and SCs, we do not pursue a lengthy discussion on this topic. Rather, we consider it would be adequate to highlight the general tendencies and briefly state our opinion. (i) One of the two main currents in the literature considers "deemed as unwritten" in terms of the concept of "non-existence", which occurs when a legal transaction lacks its basic foundational components[117]. For contracts, these components are mutual expression of

[109] Kramer, Probst, and Perrig, *AGB*, Rn. 175; Müller, *BernKOM*, Art. 1, Rn. 376.
[110] Kramer, Probst, and Perrig, *AGB*, Rn. 175; Müller, *BernKOM*, Art. 1, Rn. 377.
[111] Kramer, Probst, and Perrig, *AGB*, Rn. 175.
[112] For different scenarios that the remaining clauses are not sufficient to form a contract because of a failure to form its *essentialia negotii,* see, Atamer, *Genel İşlem Şartları*, 120-21; Muzaffer Şeker, *Yazılmamış Sayılma*, 3 ed. (İstanbul: On İki Levha, 2022), 182 ff.
[113] Oğuzman and Öz, *Cilt I*, Rn. 510.
[114] Andreas B. Schwarz, *Medeni Hukuka Giriş*, trans. Hıfzı Veldet Velidedeoğlu (İstanbul: Üniversite Kitabevi, 1942), 155 ff; Pakize Ezgi Akbulut, *Borçlar Hukukunda Kesin Hükümsüzlük Yaptırımının Amaca Uygun Sınırlama (Teleolojik Redüksiyon) Yöntemi ile Daraltılması* (İstanbul: On İki Levha, 2016), 30.
[115] General information for such theories, see, Huguenin, *OR*, Rn. 433 ff. Ernst A. Kramer, *Inhalt des Vertrages, Art. 19-22 OR*, ed. Arthur Meier-Hayoz, Berner Kommentar zum schweizerischen Privatrecht, (Stämpfli, 1991), Art. 20, Rn. 308 ff; Akbulut, *Teleolojik Redüksiyon*, 52 ff; Kocayusufpaşaoğlu, *Borçlar Hukuku*, § 43, Rn. 27 ff.
[116] Atamer, "Yeni Türk Borçlar Kanunu", 31.
[117] Oğuzman and Öz, *Cilt I*, Rn. 510; Fikret Eren and Ünsal Dönmez, *Eren Borçlar Hukuku Şerhi, Cilt I,*

intent by the parties and an agreement on the *essentialia negotii* of the contract[118]. Where the conditions for inclusion are not fulfilled, some authors argue, it is impossible to claim that a *mutual* expression of intent by the parties exists: The acceptance part is missing. (ii) The second main current argues contrarily that there is a mutual agreement between parties, however established with a *qualitatively* weak acceptance from the OP's side. So, there *exists* a contract in these situations, however, a null one[119]. (iii) There are other authors claiming that "deemed as unwritten" is a product of modern invalidity theories and must be assessed in these lines[120].

We agree with the "non-existence" interpretation, but with a slight theoretical difference[121] from the dominant approach we've outlined above. The main consequences of the "non-existence" of the STCs are (i) the non-convertibility of the invalid contractual norms to valid ones and (ii) the user's inability to rely on the "OP's abuse of the right" defence[122]. It should also be noted that, although the general rule is that the non-existence can be invoked by either of the parties, TCO Art. 22 gives this claim exclusively to the OP. On the other hand, like in German and Swiss law, the invalidity of the STCs will not automatically result in the whole contract's invalidity.

5. Conclusion

The fundamental outputs of our analysis can be summarized as follows:

(i) In order for a contractual term to be subject to STC controls, it must be unilaterally formulated. In contracts where parties use standard terms crafted by neutral third parties, this situation raises doubts on whether the unilaterality is present or not. In German law, BGB § 310(3)(1) creates a *fiction* in these situations: If the contractual parties consist of an entrepreneur and a consumer (a consumer contract), then, the entrepreneur is deemed as the *user* of the terms. Unless this fiction is broken (by proving that the consumer has introduced the terms), the contract is subjected to STC controls. BGB § 310(3)(1) is effective in SCs that are crafted by neutral third parties like platform operators. Lacking a norm like BGB § 310(3)(1) on the other hand, such a legal fiction cannot be accepted in Swiss and Turkish laws.

(ii) Another precondition for a term to be classified as an STC is the intention for it to be used for multiple contracts. In SCs whose codes provided by neutral third parties, whether this precondition is fulfilled or not is contested. We agree with the

m. 1-48 (Ankara: Yetkin Yayıncılık, 2022), Madde 21-22, Rn. 12; Şeker, *Yazılmamış Sayılma*, 172; Yüksel Maamer, *Kapsam Denetimi*, 218. For a nuanced approach to the non-existence argument see, Aydoğdu and Kahveci, *Şerh*, TBK m. 21, Rn. 24.

[118] Kocayusufpaşaoğlu, *Borçlar Hukuku*, § 43, Rn. 2.

[119] Hüseyin Hatemi and K. Emre Gökyayla, *Borçlar Hukuku Genel Bölüm*, 5 ed. (İstanbul: Filiz Kitabevi, 2021), § 9, Rn. 12; Şebnem Akipek Öcal, "6098 Sayılı Türk Borçlar Kanununun Genel İşlem Koşulları Hükümlerinin Konu Bakımından Uygulama Alanı," *İzmir Barosu Dergisi* 80, no. 3 (2011): 196.

[120] Antalya, *Cilt: V/1, 1*, Rn. 2281; Doğancı, *Denetim*, 214.

[121] Which is analysed in detail by *Şeker,* see, Şeker, *Yazılmamış Sayılma*, 95 ff. There is no practical difference between the explanation we adopted here from the dominant argument, thus, for the sake of brevity, we abstain from further discussion on the matter.

[122] Yüksel Maamer, *Kapsam Denetimi*, 217.

approach arguing that it will be fulfilled, because the neutral third party has the intention of the codes to be used in multiple SCs and it suffices. We argue that this argument can be supported by a teleological interpretation of the related legal norms.

(iii) All three jurisdictions we've investigated in this study, put a burden on the STC user to provide an opportunity to learn about the content of the STCs. This raises the question for SCs that if a translation is required or not, since they rely on code language, which a considerable amount of the population is not technologically literate enough to comprehend. While there is no general obligation of a contracting party to translate the terms to their prospective counterparts, STC regulations may alter this rule. If the STC user targets a technologically illiterate sub-group, then, they should provide a translation of the contractual code to a natural language that this subgroup is expected to possess a sufficient command of. In consumer contracts, this would be the case in a considerable number of situations. In cases the user is under the burden to provide a translation, an implied waiver from the OP, cannot salvage the user because of the mandatory character of the related regulations. In B2B contracts, a translation is unnecessary. This conclusion is inferred from the BGB § 310(1) which stipulates an exemption for B2B contracts. No such an exclusionary norm exists in TCO. However, a teleological interpretation of TCO Art. 21(1) -which renders providing a translation discretionary- seems viable. Similar arguments are also supported by the Swiss literature.

(iv) It can be asserted that the code language that SCs are based upon would rarely cause STCs to be deemed as "unusual". The probability of such a scenario can be anticipated to be higher in hybrid SCs than on-chain SCs.

(v) SCs do not show characteristic differences regarding the consequences of non-fulfilment of the conditions for inclusion: STCs which cannot pass the inclusion control do not become a part of the contract. This main consequence is clearly stated in BGB § 306 and generally accepted in Swiss literature. TCO Art. 21 declares these STCs as "deemed as unwritten". This controversial notion means, in our opinion, "non-existence". Thus, these STCs cannot be converted to valid ones by interpretation and their invalidity cannot be denied by the user with an "abuse of the right" defence. If the non-existent STCs form the *essentialia negotii* of the contract, then the whole contract will be non-existent.

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