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REGULATION OF THE US ADVERTISING MARKET: TRENDS TOWARDS DECENTRALIZATION AND DIGITALIZATION

Current public and voluntary advertising regulation in the US has been examined. The main weaknesses of existing regulatory system which led to undesirable social effects have been determined. It has been found that among the important factors that provoke the increase of inappropriate advertising in the US are over-centralization of the industry administrative system, low regulatory transparency, weak software and lack of effective monitoring tools. The main benefits of blockchain mechanism for the US advertising market have been described. New regulatory system of marketing industry (decentralized autonomous organization) which is based on blockchain technologies has been proposed. It has been substantiated that open blockchain regulatory system will be able to provide new level of democratization and transparency of the US advertising market and to change the very concept of administration soon.

Keywords: US advertising market, blockchain, decentralized autonomous organization, smart contract, marketing communications.

Problem statement. In resent years topic of blockchain technologies has experienced a rapid growth of popularity in the scientific and amateur communities. Indeed, it has become clear that blockchain brings new awareness of the concept of financial interactions and collaboration which reduces the role of government, banks and other intermediaries significantly. Besides, through decentralization and clear transparency blockchain develops new principles of interaction not only between private individuals, but between an individual and public administration as well. Central regulatory and self-regulatory bodies can become a structural part of blockchain systems to bring new standards of resolving conflicts among market players. Our last studies show that US marketing sector needs such transformation to protect the rights of all market players more effectively.

Firstly, it should be pointed out that term "advertising market" is used broadly and embraces different tools of marketing communications (MC): media advertising, direct marketing, sponsorship, public relations, event-marketing, Internet marketing and expositions. Although, the advertising market in the US demonstrates stable growth during last decade[1], this development is hampered by different negative social effects. In particular, legitimate consequences of functioning advertising market are connected with inefficient regulation of alcohol advertising in social networks and TV which provoke growth of alcohol addiction among young people[2]. Another problem of the US advertising market is the absence of appropriate email-marketing regulation, particularly tobacco digital advertising[3]. Rising amounts of ads promoting dangerous products such as unhealthy food are aimed on children and provoke increasing of childhood disease[4]. Experience shows that federal and local public bodies as well as self-regulatory system are not capable to resolve such problems provoking decrease of social stability. Such inability to take effective decisions is due to the whole complex of reasons which will be described below.

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Analysis of the recent research. Nowadays, the amount of publications which focuses on perspective usage of blockchain technologies in the private business and governmental spheres is constantly growing. In particular, the latest experience of successful implementation blockchain into the sphere of public services in Norway and Estonia has been discussed by Svein Ølnes, Arild Jansen[1] and Parol Jalakas[2], respectively. Mahdy Miraz and Maaruf Ali emphasized that blockchain can be used to secure even human-to-human transaction, as well as this technology is particulary suitable for countries with low level of public trust[3]. Emergence of decentralized autonomous organizations as a consequence of spreading blockchain systems and as new phenomena of public regulation sphere have been examined by Ying-Ying Hsieh, Jean-Philippe Vergne, Philip Anderson, Karim Lakhani and Markus Reitzig[4]. However, in our view, there are still some unexplored sectors of economy which should be boosted thanks to the usage of blockchain technologies in the regulatory process and one of them is the sector of advertising.

The aim of the research. The main aim of this research lies in exploring perspectives of implementation blockchain technologies into regulating mechanism of the USA advertising market.

Main material. In order to analyze the main shortcomings of the current regulatory system of the US advertising market it is needed to examine its logical structure first. Such structure is illustrated below in Figure 1.

As we see, public regulatory and self-regulatory systems are based on the central bodies which provide control for implementation of the industry legislation and self-regulatory codes, as well as review and deal with citizens` complains. On the US federal level such main regulators are the Federal Trade Commission (FTC), particularly the Bureau of Consumer Protection[5] and the Federal Communications Commission (FCC)[6] which regulates media communication. In special cases bodies such as the Food and Drug Administration (FDA), the Securities and Exchange Commission (SEC), the Environmental Protection Agency (EPA), and the Department of Agriculture (USDA) may be involved in the regulatory process as well.

On the local level the central regulatory bodies are offices of consumer affairs. The US self-regulatory system is presented by the American Association of Advertising Agencies ("4A")[7], the American Advertising Federation (AAF)[8], the Association of National Advertisers (ANA)[9] and the Council of Better Business Bureaus (BBB). These four main organizations have formed central regulatory core: the Advertising Self-Regulatory Council (ASRC)[10].

Recent studies of the current advertising regulatory system in the US reveal major disadvantages not only toward the public administration, but especially towards the process of the industry self-regulation. One of the main difficulties concerns outdated online archive of the Advertising Self-Regulatory Council[11]. It is necessary to create a ledger which would facilitate searching of precedents among existing decisions

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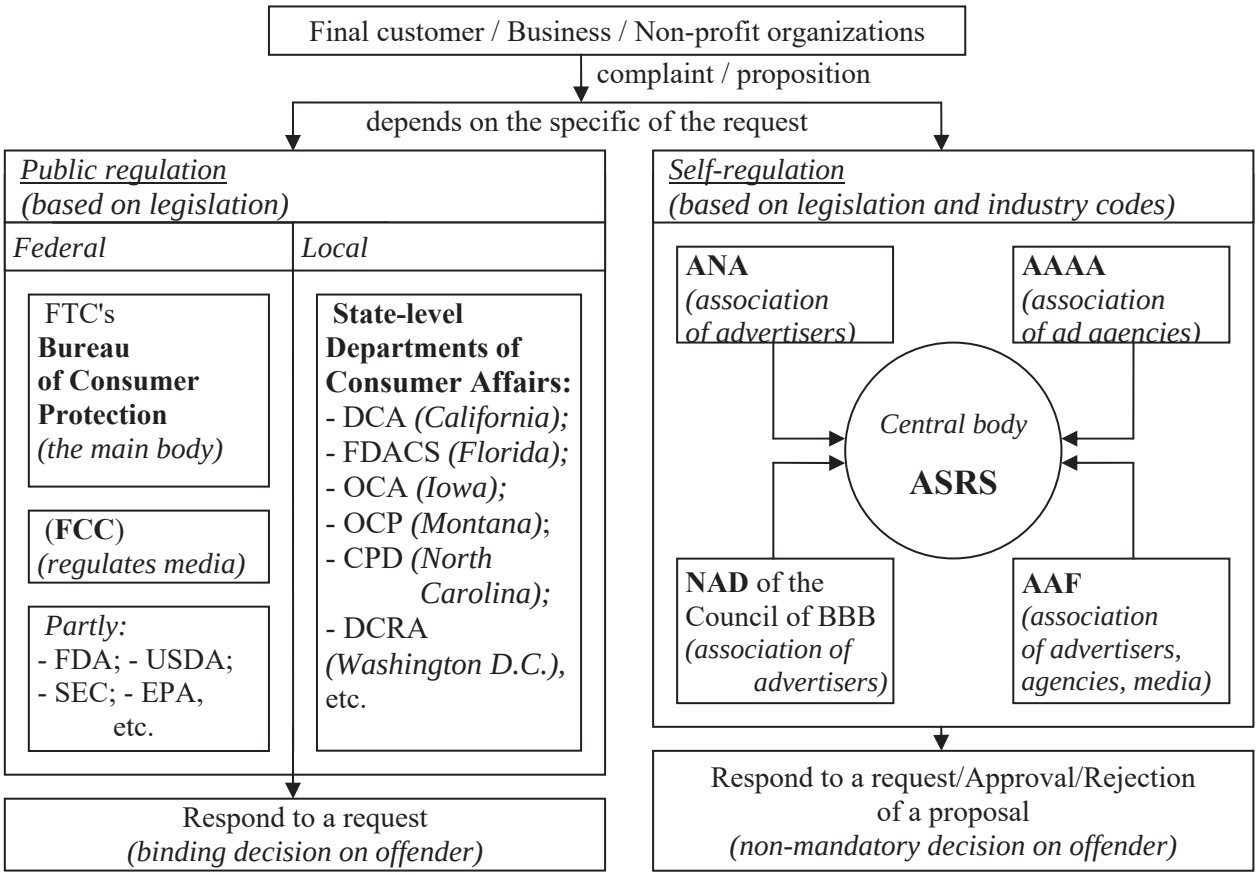

Fig. 1. The current regulatory system of the US advertising market

Elaborated by the author from[1].

for all interested parties. Another disadvantage lays in the lack of communication transparency. In many cases self-regulatory body needs to consult with outside experts as well as coordinate its decisions with public bodies and voluntary organizations, but such communication often stays hidden for responding party and challenger, which causes lack of trust to the regulatory system in general. Furthermore, the slowness of the trial procedures should be mentioned. Processing time for complaints is too long due to imperfect and costly expedited review process and weak software of the regulator. Besides, public regulatory system and self-regulation are separated from each other. Thus, even if some ready industry decision requires enforcement, public body will initiate its own independent investigation and judgment which causes significant loss of time. As it was mentioned before, the FTC is a central public body, which deals with inappropriate advertising. As noted by experts in the field, the FTC investigation process is often too slow and its results are hidden not only from wider society, but sometimes even from some interested parties such as challengers[2]. One of the reasons for such restrictions is a frequent discrepancy of the FTS`s and the ASRC`s resolutions. All described factors decrease significantly the social trust to the administrative system and the whole advertising market as well. Taking into account all of the aforementioned, we can

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argue pretty convincingly, that existing regulatory system has to be reorganized in order to increase its efficiency.

In this research we shall not go deep into technical side of blockchain, but we shall restrict to general principles and peculiarities of this technology. Blockchain can be described as an immutable and distributed ledger of transactions inside a participants` network. It is a "chain" of validated transactions which are secured through cryptographic hashing. Each block in the "chain" is stored with timestamp and transaction data along with a cryptographic hash pointer to the previous block[1].

It is noteworthy that blockchain will not necessarily increase effectiveness of every social system. There are certain general conditions which lead to decision of blockchain usage: shared data among multiple parties, low level of trust between peers and auditability of the regulatory activity[2]. As we see, administrative system of advertising market fully satisfies these requests. In the US like in many other countries society has a low level of confidence in advertising industry due to the complex of problems which have been described shortly above. Information about legal provisions of the market and resent violations are shared among all the main parties, but it is not always fully and easily accessible and transparent. Auditability of the regulatory system from outside will allow to increase social trust.

The main advantages of blockchain technology for advertising market lay in:

1. Decentralization of the regulatory system. Blockchain does not include any central body regulating transactions among market players. The transactions do not need approval of any single authority, thus the problem of partisanship vanish. At the same time, such radical decentralization demands changing mindsets of all parties. The readiness of the governmental authorities to become only one of many structural elements of the blockchain regulatory system is particularly crucial.

2. Maximum engagement of all sides of the market to the regulatory process. No decision can be reached without being approved by the 5 main market players: consumers, advertisers, media, marketing agencies and local or federal market authority.

3. Data protection. Blocks with information are immutable and only the participants of the system have option to "write" information creating new blocks. Along with this, any external user (consumers, companies of advertising market, public organizations) can "read" information or become a part of the system and "write" it.

4. "Smart contract" usage. Smart contract – is a software code stored on the blockchain that will execute a transaction automatically when certain conditions are met[3]. Such algorithm enables immediate decision making if any actor of the market found guilty.

5. Cost savings via automatization and digitalization. Blockchain can reduce significantly costs by eliminating central "core" of regulation and by low need in staff to maintain the system.

Modern public management is already moving from the question "what is blockchain and what are its main benefits?" to the question "how to use advantages of this technology in the best way?". Blockchain forces public authority to weaken control of economy, digitalize process of engagement with society, creating special neutral place for communication and transactions. Today, Scandinavian countries, Estonia, Australia and South Korea are getting the first experience of usage blockchain technologies in different public spheres like voting, land registration, identity management, supply chain traceability[4]. There are some initiatives which are connected with blockchain technologies in the USA as well. Blockchain programs were introduced by several states to increase public services efficiency,

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for example the Delaware Blockchain Initiative and the Illinois Blockchain Initiative, as well as the Platform for mobile voting in West Virginia. At the same time, we did not found any information about implementation of blockchain into public marketing sphere which on the one hand might be the sign of unwillingness of related agencies, but on the other one, does not deny unexplored benefits and opportunities of this technology. In general, comparing with some European and Asian countries, in the United States usage of blockchain technology in public services is not progressing fast enough, local authorities in states such as Arkansas, South Dakota, Indiana, Iowa and Texas show no interest or take a dim view of blockchain spreading[1].

As we have already clarified, implementation of blockchain into public marketing sphere allows to eliminate many current issues of advertising market, but how exactly existing regulatory system of the US advertising market should be transformed into open blockchain network? There is an opinion that usage of blockchain smart contract concept can be extended to the form of «decentralized autonomous organizations» (DAO) which will become the next form of free market development. Accordingly, DAO can be understood as a non-hierarchical organization which performs and records tasks on a peer-to-peer secured public network. It should be financed on the basis of internal stakeholders` voluntary contributions[2]. We propose to organize regulation of the US advertising market following DAO`s basic principles as it is illustrated below in Figure 2.

As we can see from the illustration, there are 5 parties which should take part in the regulatory process via blockchain.

1. Service customers (advertisers) who can be represented by the Association of National Advertisers, the Council of Better Business Bureaus and other relevant associations.

2. Media and non-media marketing agencies which develop and organize different MC services. Members of existing unions such as the AAAA and the AAF may be involved.

3. Non-profit media associations, for instance the Interactive Advertising Bureau (IAB).

4. Consumer associations, for example the National Consumers League.

5. Depending on the particular case, federal and local regulatory bodies which are connected with advertising. It is our considered view that public authorities must be implemented into blockchain network as a party with equal rights rather than allow government bodies to remain over the system. Such superiority which is called also “on-chain governance” may ruin non-hierarchical structure of the network and make it meaningless.

Describing potential of the regulatory network, it is important to clarify that this should be an open permissioned blockchain system. Such type of network allows anyone to read information in the ledger (for example, current regulatory norms), but unlike permissionless system, only authorised participants are able to write proposals, questions or complaints, creating transaction blocks as a result[3]. There are also closed types of blockchain networks, but they fit more closely the private financial organizations.

DAO allows to provide flexibility in the process of attracting participants to resolve each specific case, for example when it comes to food, alcohol or tobacco advertising. This means that system should be able to determine participants who are relevant to particular suggestion or complaint automatically in order to make process of regulation faster and more effective. DAO should take into account geographical region where questionable advertising is spread, location of challenger and potential offender and extent of potential damage. Obviously, such filtering may not always be reliable, at least at the launch of the network, thus a certain state authority (FTC or FCC) might exercise control over the filter mechanism, but not over the whole regulatory system.

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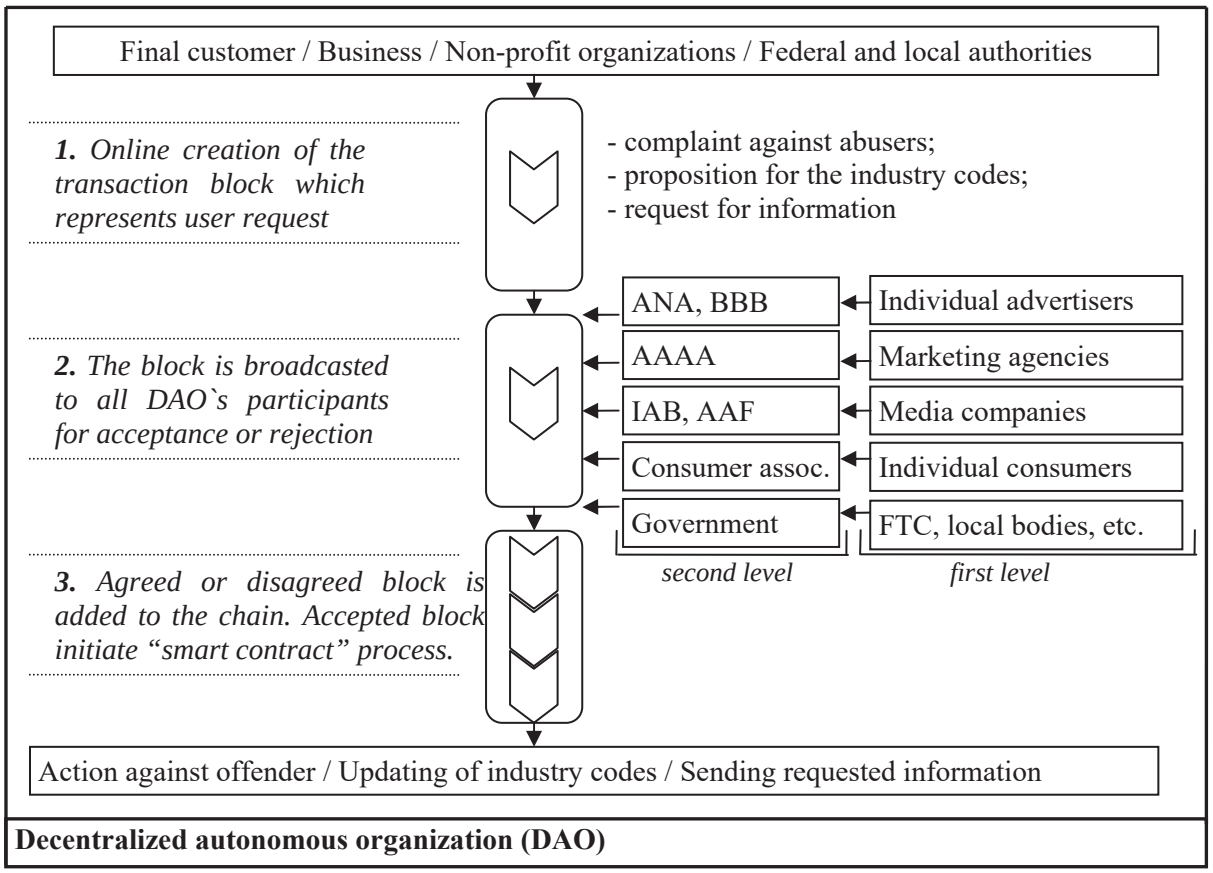

Fig. 2. The proposed blockchain regulatory system of the US advertising market

Elaborated by the author.

We propose to organize a two-tier blockchain regulatory system. First tier should be the level of individual digital voting where advertisers, media companies, marketing agencies, public authorities and local consumers will use blockchain system to approve or reject certain standards or rules in the ledger (industry self-regulatory codes), as well as to make a decisions about codes` offenders. Every user (individual participant) of the system belongs to one of the five major parties (second level) which were mentioned above and in the illustration. A number of individuals might abstain or vote against certain norm or proposals, but if a total amount of positive votes inside every party exceed declared level, decision can be taken. Such condition partly runs counter to the basic blockchain principle, but it is necessary to avoid possibility for the potential offenders to block undesirable decisions. Common agreement is needed only on the second level of the system from all five parties of the advertising market.

As it was mentioned before, blockchain network allows usage of smart contract technology. If any organization found guilty, system will automatically initiate certain sanctions against the offender. All potential sanction tools and the conditions for their application should be provisionally spelled out in the ledger. Such sanctions may include fines, refute of incorrect information, PR losses and exclusion from the blockchain system. Decisions of the system must be mandatory for all organizations regardless of whether the offender is involved into blockchain regulation or not. This should be achieved through full support of the local and federal governments. Another option is to leave non-participating organizations under the direct jurisdiction of the US public authorities.

We have to admit that potential of blockchain network depends on barriers which restrict the system. In other words, effective blockchain regulation can be organized at least at the national level to cover all federal and local players of the advertising market. Blockchain regulatory network should potentially transcend state boundaries and become the platform for a functioning of international

regulators for instance the International Council for Advertising Self-Regulation (ICAS) where ASRC is a party[1].

Foreseeing the future, it may be noted that decentralized autonomous regulatory networks may become an integral component of crypto economy. Individual users should receive tokens for sending constructive proposals or complaints regarding violations of advertising legislation via blockchain network. Or vice versa, individuals can loose their tokens if they abuse network or do "black" P.R. At the same time, such deep integration of crypto currency and public regulatory systems still seems like a remote possibility and should be investigated further.

Conclusions. The development of the US advertising market is slowing down by the imperfect public regulation and self-regulatory system which do not meet the needs of the industry and society at large. General issues which lay in the low transparency, lack of modern software systems, ineffective monitoring and regulating tools, weak communication between public bodies and self-regulation are complimented by a number of specific problems with alcohol, tobacco, medical and child advertising and, as a result, provoke lack of public confidence at the advertising market.

The implementation of blockchain network into the process of advertising regulation makes it possible to create fundamentally new decentralised autonomous organizations which will be able to eliminate disadvantages of the current centralized state control and self-regulation. The rise of social trust to the US advertising market can be achieved only through the increased transparency, open access to the immutable data and determined, sustained regulatory efforts towards violators. Decentralized regulation via blockchain helps to engage maximum number of interested parties into the regulatory process, avoiding bureaucratization and allows using the most effective and immediate regulatory actions through smart contract technology. Along with this, such fundamental reorganization of the regulatory process needs large amounts of willingness on the part of all parties involved.

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