



Behavioral Economics in The Era of Digital Subscriptions: Choice or Manipulation

Dijital Abonelikler Çağında Davranışsal Ekonomi: Seçim mi Manipülasyon mu?

© Cezara Georgiana RADU¹ © Edi Cristian DUMITRA² © Razvan-George COTESCU³

¹ Bucharest University of Economic Studies, Bucharest/Romania, radu.cezara.georgiana@gmail.com

² Bucharest University of Economic Studies, Bucharest/Romania, edi.dumitra@economie.ase.ro

³ Bucharest University of Economic Studies, Bucharest/Romania, razvan.cotescu@economie.ase.ro

ABSTRACT

The current research paper explores the relationship between behavioral economics and the practices used in the current economic environment in which a large part of consumption is done through digital subscriptions, identifying whether they represent genuine consumers' choice or can be considered a form of manipulation. In the current context of accelerated digitalization, subscriptions for services such as streaming platforms, software applications, and educational portals, have become ubiquitous, determined and supported by sophisticated marketing strategies and data-based algorithms. At the same time, the study highlights how the design based on choice architecture and the use of AI do both contribute to the personalization of the user experience and the exploitation of cognitive vulnerabilities. Based on a bibliometric analysis, the research identifies the connections between consumers behaviour and business models based on digital subscriptions. The study highlights the importance of personalized offers and choice architecture in influencing consumer decisions, often to their detriment. At the same time, the paper explores the possibility of non-ethical practices of digital subscription based business models in manipulating consumers' choices and behavior. The results can sustain that the economic success of business models based on digital subscriptions depends strongly on the equilibrium between satisfying consumer needs and generating a stable profit for suppliers. Hence, the research contributes to the scientific literature by providing an understanding of how digitalization is transforming consumers' choices and offers insights into the responsibility of those business models to always call for good practices.

Keywords: Human Resource Management, Generation Z, Holland Personality Test, Personality Types, Cryptocurrency

ÖZET

Bu araştırma makalesi, davranışsal ekonomi ile tüketicinin büyük bir kısmının dijital abonelikler yoluyla yapıldığı mevcut ekonomik ortamda kullanılan uygulamalar arasındaki ilişkiyi araştırmakta ve bunların gerçek tüketici tercihini mi temsil ettiğini yoksa bir manipülasyon biçimi olarak mı değerlendirilebileceğini belirlemektedir. Hızlanan dijitalleşmenin mevcut bağlamında, yayın platformları, yazılım uygulamaları ve eğitim portalları gibi hizmetlere yönelik abonelikler, sofistike pazarlama stratejileri ve veri tabanlı algoritmalar tarafından belirlenip desteklenerek her yerde bulunur hale gelmiştir. Çalışma aynı zamanda, seçim mimarisine dayalı tasarımın ve yapay zekâ kullanımının hem kullanıcı deneyiminin kişiselleştirilmesine hem de bilişsel hassasiyetlerin istismar edilmesine nasıl katkıda bulunduğunu vurgulamaktadır. Bibliyometrik bir analize dayanan araştırma, tüketici davranışları ile dijital aboneliklere dayalı iş modelleri arasındaki bağlantıları tanımlamaktadır. Çalışma, kişiselleştirilmiş tekliflerin ve seçim mimarisinin tüketici kararlarını etkilemedeki önemini, çoğu zaman da onların zararına olacak şekilde vurgulamaktadır. Çalışma aynı zamanda, dijital aboneliğe dayalı iş modellerinin tüketicilerin seçimlerini ve davranışlarını manipüle etmede etik dışı uygulamalarda bulunma olasılığını da ortaya koymaktadır. Sonuçlar, dijital aboneliklere dayalı iş modellerinin ekonomik başarısının, tüketici ihtiyaçlarının karşılanması ile tedarikçiler için istikrarlı bir kâr elde edilmesi arasındaki dengeye bağlı olduğunu ortaya koymaktadır. Dolayısıyla araştırma, dijitalleşmenin tüketicilerin tercihlerini nasıl dönüştürdüğüünün anlaşılmasını sağlayarak bilimsel literatüre katkıda bulunmakta ve bu iş modellerinin her zaman iyi uygulamalar çağrısında bulunma sorumluluğuna ilişkin içgörüler sunmaktadır.

Anahtar Kelimeler: İnsan Kaynakları Yönetimi, Z Kuşağı, Hollanda Kişilik Testi, Kişilik Tipleri, Kripto Para

ARTICLE INFOS

Article History

Received: November 26, 2024

Accepted: December 8, 2024

Article Type

Research Article

Corresponding Author

Edi Cristian DUMITRA

MAKALE BİLGİSİ

Makale Geçmişi

Başvuru Tarihi: 26 Kasım 2024

Kabul Tarihi: 8 Aralık 2024

Makale Türü

Araştırma Makalesi

Sorumlu Yazar

Edi Cristian DUMITRA

1. Introduction

Over the past decade, subscription services have shown significant growth, especially across industries that have been strongly reshaped

by the latest COVID-19 pandemic. This aspect can only highlight how the subscription-based e-commerce activities will expand even with a higher speed in the future, reshaping the retail domain from the traditional model. The benefits from a digitalized subscription-based

e-commerce are substantial, and some examples can be mentioned, such as: time savings, convenience, and the ability to discover personalized products, while reducing the fatigue of decision-making. At the same time, for providers, subscriptions also have the capacity to offer exclusivity, contributing to higher and stable revenue determined by the valuable data collected and used for product personalization and marketing (George, 2024).

Meanwhile, digital marketing, strongly inspired by the trends of behavioral economics, has the power not only to adapt offers and services designed to best fit users' interests, but also to exploit users' vulnerabilities. Although described as beneficial for all, in reality, some marketing specialists will perceive these practices as forms of social control. The latest do account the fact that by using concepts such as *choice architecture* and *powerful data collection*, the producers can manipulate consumers' decisions, taking advantage of their cognitive biases and habits (Nadler and McGuigan, 2018).

Hence, finding the relationship between digital subscriptions and consumer behavior is the main research gap that the present study aims to provide a statement for the research question developed by the title of the current scientific paper: *Are the digital subscriptions a choice or a manipulation in the current economic environment?*

2. Literature Review

The current digital era is described best by the consumer behavior which is shaped and reshaped continuously by the complex economic environment where choices and decisions are increasingly influenced by the implementation of the latest digital technologies into business models and sophisticated marketing strategies that are used in order to create user-based value (Klopčič et al., 2020).

Digital subscriptions, which are mostly defined by services such as streaming platforms, software applications, education or fitness platforms, are constructed and established on business models and strategies that take advantage of cognitive biases and consumers' psychological vulnerabilities for achieving their economic goals (Schneider and Imai, 2020).

However, the phenomenon has been studied by scholars for a long time. Hence, behavioral economics provides several frameworks for analyzing how the design of *"choice architecture"* or *"algorithm selection"* can influence seemingly voluntary consumers' decisions, but which are often manipulated through business and marketing strategies. Such strategies are common in the current economic environment. Worth mentioning are: default settings, A/B testing, and personalized offers of products or services (Castellini et al., 2023).

Meanwhile, it should be highlighted how the digitalization of markets has strongly increased the use of algorithmic profiling and automated decision-making. This is a process that has been regulated fast-forward by the paradigm shift that has occurred in online consumption, especially during and after the COVID-19 pandemic. Hence, platforms such as Amazon, eBay and other e-commerce apps have registered a continuous increase of users, while monitoring consumer behavior by using big data to optimize consumer-provider relationships and personalized offers designs (Helberger et al., 2022).

At the same time, these practices, based on device-networks and smart trackers, facilitated the creation of virtual representations of consumers, creating personalized profiles that can directly contribute to the commercial exploitation of consumers, through user experiences and unfair commercial practices (Kozyreva et al., 2020).

Meanwhile, manipulative practices are not a recent technique used by digital marketing specialists or subscription-based services providers. Manipulative practices are particularly common in online marketplaces, in which the architecture of choice is strongly designed to provide businesses, providers, and organizations, unfairly competitive advantages. Those tactics are well-known for exploiting

psychological vulnerabilities and cognitive biases, leading consumers to make disadvantageous decisions (McDonald and Concha, 2024).

Some of the most common examples in manipulative practices can include inadvertent sign-ups to unwanted services, default settings that facilitate excessively the collection of personal data while developing pricing strategies and pressure-based selling tactics, that might drive to overpayments or unwanted purchases, well known nowadays as overconsumption (Reyna, 2018).

Nevertheless, the most frequently used manipulative practices in digital services subscription-based are based on algorithm selection. Those can be described as business strategies in which a simple model of transforming an input to an output through defined processes and applications defined by *big data* analysis and automatic functions (Lindström et al., 2024).

At the same time, algorithm selection, as considered for the present study, is used for a variety of purposes. Algorithm selection is considered to be one of the most successful business strategies and instruments in the current digital economy, hence the popularity and the economic success of platforms that deliver digital services or products, such as Google, Facebook, Amazon, or Netflix. Usually, applications and platforms based on algorithm selection include terms such as *"algo"*, *"intelligent"*, or *"computational"*, which are varied and can complicate the scientific research of this phenomenon (Lutzer et al., 2016).

Nevertheless, as the scholars also identified in the previous scientific research, in the current context of digitalized economy defined by the adoption and implementations of the latest technologies into business models and strategies, crucial questions arise about the ethical boundaries between optimizing the user experience and its commercial exploitation, calling into question whether consumers' choices are genuine or manipulated (Chen, 2024).

Hence, numerous studies have been conducted to identify and to analyze the policies that have been implemented to regulate digital platforms, focusing especially on countering social media manipulation. As a starting point, in their study, Maathuis and Chockalingam (2023), claimed that the most important part of limiting the manipulatory activities on the digital platform is to understand the continuous relations between *human, infrastructure, and policy* in order to adopt the most efficient digital safety regulations. At the same time, it should also be taken into consideration that while imposing the regulations on digital safety, it must be respected and applied *the doctrine of special responsibility* (Alexiadis and De Streel, 2020, p. 2) which clearly states that the common market is completely distributed between the providers of subscription services, and the market share should be determined by consumers' behavior, based on the free economic market characteristics, such as supply, demand, price, informational symmetry, and so on.

At the same time, it should also be considered how a restrictive *forward policy* can be implemented, because the scientific literature has proven how misinformation and manipulation, especially through fake news, do count as the most unethical practices present in the social media environment, determined by centralized distribution which can lead to high reach of users from the digital community platforms (Ng et al., 2021).

But information is usually widely available, and the freedom of speech is a fundamental human right. Therefore, by making their decisions regarding digital subscriptions, are the consumers informed or manipulated?

3. Research Methodology

This research is based on a bibliometric analysis, so that the link between digital subscriptions and consumer behavior can be investigated. The analysis is centered on the co-occurrence of

keywords, so that links can be established, which can later be used for a better understanding of everything that means buying and using digital subscriptions.

Also, the data were collected through the database of the Bucharest University of Economic Studies, accessing the Scopus website. The searched articles started with the keywords "consumer", "digital" and "subscriptions". At the same time, 251 articles were downloaded. When processing the data, keywords irrelevant to the study and duplicates were eliminated, and in the case of keywords with similar meanings, it was decided to keep a single representative word, which would include the others.

The VOSViewer software was used for data analysis. Following the download of the aforementioned articles, 1845 keywords were identified. Out of these, 57 met the criteria. After data processing, 32 keywords were kept, being considered the most representative for the

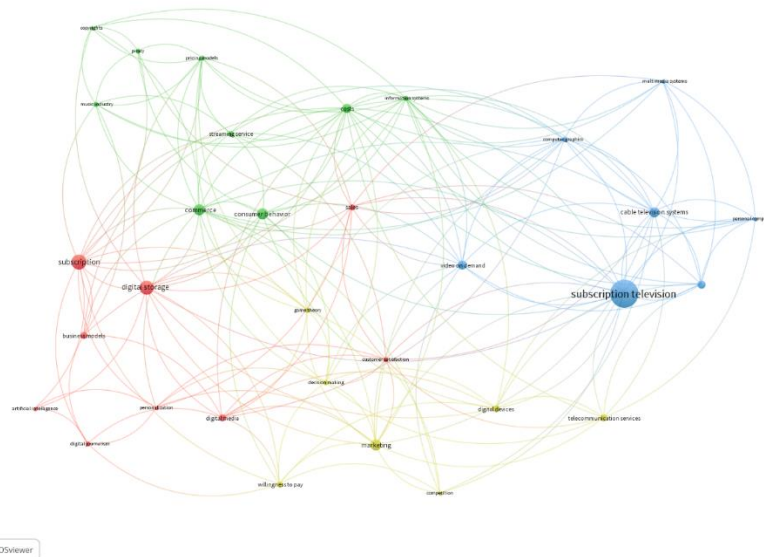
study. In addition, the analysis includes 4 clusters, 180 links and a total link strength of 276.

At the same time, this analysis highlighted the co-occurrence of keywords, but also the density of the network, so that there is a detailed evaluation of the relationships between the keywords. The role of network density was to provide an overview of the associations between the terms used and the links created in the network. Following the analysis of the network, a good interconnection was observed, which is evidenced by the connections made between the 4 clusters, but also due to a high density. Also, the analysis of clusters emphasized not only their independent study, but also the relationships that are realized between them.

4. Results and Discussions

Figure 1

The co-occurrence network of articles based on keywords



Source: Data collected by the authors and processed with VOSviewer

As can be observed in fig. 1, the bibliometric analysis highlights the connections made between the clusters and how the main nodes are interconnected. Thus, cluster 1, with the red color, includes 9 keywords: artificial intelligence, business models, customer satisfaction, digital journalism, digital media, digital storage, personalization, sales, subscription. Out of these, there are two large nodes, such as "subscription" and "digital storage". The first recorded 15 links, 18 occurrences and a total link strength of 18, while the second counted 14 links, 17 occurrences and a total link strength of 22.

Cluster 2 is represented by the green color and like the previous one contains 9 keywords: commerce, consumer behavior, copyrights, costs, information systems, music industry, piracy, pricing models and streaming service. However, in terms of the number of nodes, unlike cluster 1, it registered 4 large nodes, like "commerce" with 19 links, 14 occurrences, and total link strength is 29; "consumer behavior" where the number of links was 12, the number of occurrences 14, and total link strength 17; "costs" which recorded 21 links, 11 occurrences and the highest number of total link strength in this cluster, 31; and the last big node is "Information Systems" with 17 links, only 7 occurrences, but with a total link strength of 17.

As for cluster 3, it can be observed that it has a blue color and contains the following keywords: cable television systems, computer graphics, consumer electronics, multimedia systems, personal computers, subscription television, video on demand. The largest node of this cluster is represented by "subscription television", with 17 links, 34 occurrences and a total link strength of 61, which makes it the most connected node in the entire network. Also, the second largest node in this cluster is "cable television systems" with 13 links, 12 occurrences and a total link strength of 25.

Cluster 4 is the last of this network, being represented by the yellow color and is composed of 7 keywords, such as: competition, decision making, digital devices, game theory, marketing, telecommunication services and willingness to pay. This cluster is made up of approximately similar nodes, only one standing out by its size, more precisely "marketing", which consists of 15 links, 14 occurrences and total link strength 23.

The links between these clusters suggest that digital platforms have developed a lot and cover a wide range of fields, from music, film, entertainment, to journalism, books, magazines and more. Also, the online streaming area has become more and more appreciated by consumers. For example, platforms such as Netflix, Spotify, HBO Max,

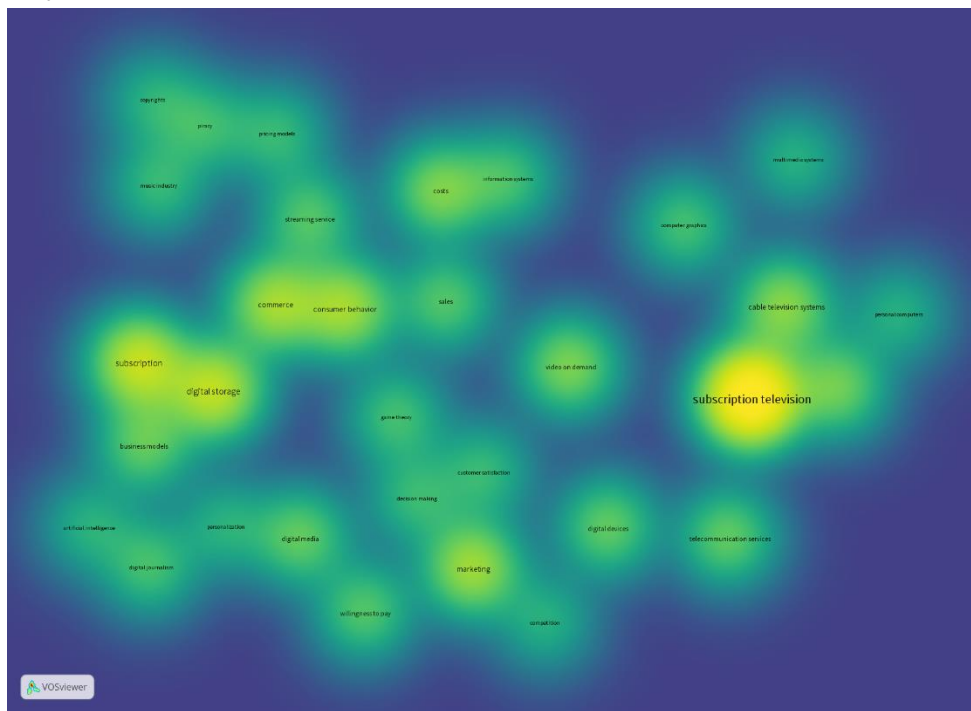
Disney+ offer customers various types of digital subscriptions. However, in order for subscriptions to satisfy consumers' desires as much as possible, they have integrated artificial intelligence into the platforms. Netflix uses this tool to provide users with personalized movie suggestions (Gonçalves et al., 2024).

It is also well known that online consumers rely heavily on reviews when they choose to buy a product, but in the case of digital subscriptions, reviews are not found in the classic form, as a section presenting the product/service, but rather in the form of posts on social media, in the form of user comments on the various marketing campaigns that companies launch (Wu et al., 2024). Thus, the question arises whether consumers make the decision to purchase a certain subscription because they really want it or because the environment they are part of manipulates them. Many users of online subscriptions use them either for reasons related to relaxation or to learn something

new, factors that can place them in the area of voluntary choices. On the other hand, those people who allow themselves to be influenced by certain advertisements, marketing campaigns or other individuals to buy such services, can fall into the category of those whose decisions are manipulated. People subscribe to cable services for various reasons, but among the most common are the level of entertainment that TV programs can bring into people's lives, the desire to relax, to be informed. If in the past the cable television version was the main option to watch movies, nowadays more and more individuals prefer online streaming platforms such as Netflix, because in addition to the wide range of movies they have available compared to cable television, it is also flexible, users having the possibility to use it anywhere from their smartphone, also working in the offline version by previously downloading the desired movies.

Figure 2

Density visualization of keywords



Source: Data collected by the authors and processed with VOSviewer

Fig. 2 shows the density of keywords. Thus, it can be seen that there is a strong connection between subscriptions and the digital environment. Although consumers are aware that each digital subscription comes with certain costs, the perceived value ultimately comes down to the satisfaction that the individual feels (Kim and Kim, 2020).

Also, many types of subscriptions come with a free version, but which often contains ads and certain restrictions of the service, such as Spotify, which also offers users a free version, but with certain limitations, such as the fact that they can skip a song only a certain number of times or switching from one song to another is done by running certain advertisements. However, because the company wants as many users as possible to have the premium version, which has no restrictions, it offers users a free premium subscription for 1-3 months, depending on the campaign it runs. This is utilized by many other companies and is seen as a smart marketing strategy, because 1-3 months is enough time for users to get used to a premium version, and later at the end of the free period, switching to the old subscription that does not involve costs, will no longer seem useful to them, because they will no longer feel satisfaction in using that service. For this

reason, many people choose to keep a premium membership (Schlicher et al., 2024).

5. Conclusions and Further Studies

The main conclusions that emerge from the study refer to the fact that with the evolution of technology and consumer preferences have developed. From the use of cable television to the transition to streaming platforms or online gaming platforms, respectively documentaries, such as newspapers or magazines in digital format, all these things represent choices that the consumer has come to make today.

The bibliometric analysis highlighted the fact that there is a clear connection between digital subscriptions and consumer behavior. People's choices are based on social and economic factors, but on the other hand, studies have shown that their choices can be influenced by certain technologies, such as artificial intelligence, which can present them with personalized services or products for their own desires. From this point of view, it is recommended that when consumers want a certain digital subscription, they try to make rational decisions, based strictly on what they need, not on what companies want. This can be

done by researching credible sources and doing market research, so that they can make the best choices.

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