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The Pandemic and the Perception of Streaming Portals by Polish Viewers

Keywords: Video-on-Demand services; COVID-19; Poland; customer preferences

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Abstract

Theoretical background: The COVID-19 pandemic has become a kind of change, forcing the development and adaptation of specific online tools that were not as evolutionary as revolutionary. The sanitation regime introduced, and the subsequent lockdowns have forced societies to adjust to the situation at short notice. It can be presumed that the situation in the Polish Video-on-Demand (VoD) services market during the COVID-19 pandemic was also transformed, particularly since lockdowns had to be introduced and the cinema industry was virtually frozen.

Purpose of the article: The article focuses on the Polish market for VoD services. The aim of the paper was to determine what features of streaming portals are most important for Polish viewers. The result of the chosen objective is to present recommendations that can positively influence the strategies of streaming portals. **Research methods:** The study was conducted in August 2021, nearly a year and a half after the first COVID-19 infection in Poland. The article poses a complementary research question on how individual groups assess the importance of specific features of streaming portals. The research material was obtained through a survey conducted on 1,000 respondents. The study used Importance Index taking values from the range [-1; 1].

Main findings: The survey showed that the assessed features of streaming portals are essential for the respondents, the most important of which was the possibility for the respondents to watch at home. On the other hand, among the variants of variables describing social groups for which particular features were more important, women, students, people living with someone, and generally young or middle-aged people dominated.

Introduction

At the beginning of the 21st century, Castells (2001) stated that "(t)he internet is the fabric of our lives" (p. 1). Already at that time, he noticed the uniqueness of this relatively new medium, which turned out to have a revolutionary impact on a number of everyday activities. Currently, it is difficult to overestimate the impact of the internet on social life and social communication (Amichai-Hamburger & Hayat, 2011) or habits related to internet commerce (Huseynov & Yıldırım, 2019). In fact, the internet is significant in every area of life, including entertainment and work. It is no different in the area of consumption of audio-visual content, including full-length feature films and TV series. The first attempts to introduce Video-on-Demand (VoD) services to the internet appeared already in the 1990s. Movielink, which started operating in 2002 (Vogel, 2020), was the first service of this type, supported by a major studio. Movielink activity was local (operated only in the United States). In a sense, it was a prelude to the later global revolution of forms of access to audio-visual content. It should be remembered that in the United States at that time, internet penetration was at the level of approximately 59%, with the world average at the level of 10.5% (The World Bank, 2021). Despite modest beginnings, by 2021, the global market for various VoD services had grown to approximately USD 86.3 trillion (Lindlahr, 2021). Currently, the most popular VoD pricing model is SVoD or Video-on-Demand Subscription. This model is preferred by the most prominent players on the market, i.e. Netflix, Amazon, Disney+ or HBO. In addition, there are other pricing models, such as TVoD (Transactional Video-on-Demand), also referred to as PPV (Pay-Per-View), which usually includes DTO (Download-to-Own) and DTR (Download-to-Rent) and AVoD (Ad-based Video-on-Demand) (Lindlahr, 2021; Vogel, 2020). VoD services, in particular SVoD services, belong to a wider group of OTT-type media (Over-the-Top), i.e. those providing some content (in this case audio-visual) via the internet, but without the direct involvement of the internet provider (Kim et al., 2021).

The revolution in the form of viewing audio-visual content is closely linked to the development of the SVoD pricing model and OTT services. Such a combination gave rise to the online giants of the current audio-visual content market and led to the dissemination of online distribution. The SVoD market is forecasted to grow at a CAGR of 10.2% from 2021 to 2025, to reach a value of USD 127 trillion (Lindlahr, 2021). It is forecast that the entire OTT services market will be even larger and will reach USD 223.07 trillion in 2026 (Kim et al., 2021). The popularisation of new media for audio-visual content delivery may decrease the profitability of older media. That phenomenon was evident when television came into use. Between 1948 and 1958, there was a marked decline in the number of cinema tickets bought on the US market (fewer than half as many were sold in 1958 as in 1948), which was directly correlated with the spread of television in American households (Epstein, 2012). That historical example shows how significant transformations in audience preferences can be triggered by technology. As Havick (2000) wrote at the beginning of the 21st century, the internet will have a significant impact on the society of the era of television communication, among others, in terms of the possibility of individual content control. Thus, it is necessary to consider the issues of audience preferences not only in terms of content but also due to the medium of content delivery.

During the COVID-19 pandemic, the acceleration of SVoD market development was noticed. Overall, the whole OTT services segment grew, with the video games market in the first place and the VoD services market in the second. The estimated growth in the value of the VoD market during the COVID-19 pandemic period was 6%, whereby the release of Disney+ and the introduction of lockdowns are considered significant factors. It should also be noted that the observed development mainly concerns SVoD (Lindlahr, 2021). The COVID-19 pandemic has become a kind of change (Amankwah-Amoah et al., 2021), forcing the development and adaptation of specific online tools that were not as evolutionary as revolutionary. The sanitation regime introduced, and the subsequent lockdowns have forced societies (especially those with lower online skills) to adjust to the situation at short notice. For example, the developments in the education sector, which was essentially paralysed during the pandemic and forced to rely on remote contact tools and information technology, are very symptomatic (Shirish et al., 2021).

Technological advancements and the unique circumstances of the COVID-19 pandemic have created new opportunities in the VoD services market, impacting its operation. This served as the primary motivation for researching the preferences of viewers using streaming platforms, as these changes would necessitate adjustments to the distribution strategies of audiovisual content. In this context, this article outlines two objectives. The first objective is cognitive, concentrating on identifying the features of streaming portals that are most significant to Polish viewers. The second objective relates to application dimensions and involves formulating recommendations to enhance the distribution strategies of streaming platforms.

It can be presumed that the situation in the Polish VoD services market during the COVID-19 pandemic was also transformed, particularly since lockdowns had to be introduced and the cinema industry was virtually frozen. The pandemic period, regardless of its absolutely negative, not to say dramatic, consequences for society, can be treated as an excellent time to examine the preferences of Polish viewers who in some way lost access to parts of the media with audio-visual content, especially full-length features, as well as had to limit other activities in the field of broadly understood entertainment. Capitalising on these unique circumstances, a decision was made to undertake a study on viewer preferences concerning the significance of particular features of streaming platforms. The survey was conducted roughly eighteen months after the initial identification of COVID-19 in Poland, with data collected in August 2021.

The research question addressed in this study is: How do different groups rate the importance of specific features of streaming portals? Answering the question posed in this way will enable the attainment of the cognitive goal (prioritizing the importance of the various features of the portals) as well as the application goal (formulating recommendations based on the hierarchy of feature importance). In developing an answer to this question, a method of analysis of variance was applied, using the proposed Importance Index, calculated from a non-standard coding of responses given on a five-point scale.

Recommendations concerning the distribution strategies of audiovisual content by streaming platform owners appear vital here, given that the pandemic and post-pandemic periods experienced a notably sharp decline in the use of cinemas as a means of accessing films. The decline in the use of cinemas as a medium of access to films was particularly severe. Press reports show that in Poland in July 2020 (one month after the cinemas were launched after the first pandemic wave), cinema attendance was 90% lower than before the 2019 pandemic (Dziennik Gazeta Prawna, 2020). In contrast, at the end of Q2 2021, only one-tenth of cinema ticket sales were recorded compared to 2019 (Zielińska, 2021). The quoted data come from press reports and do not show the continuity of changes; however, they indicate that viewers are reluctant to return to cinemas even during the period of lifting some restrictions. The cited data originate from press reports and do not demonstrate the continuity of changes; however, they suggest that even during periods when some

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restrictions were lifted, viewers were hesitant to return to cinemas. This is particularly significant in the realm of full-length feature production and, more broadly, in the selection of audiovisual formats, which increasingly focus on introducing highbudget TV series or miniseries.

Literature review

The subject matter of this article belongs to the area of research on the use of the internet as a medium that allows viewers to watch a variety of audio-visual content, including films, series, and television programmes. It belongs to the scope of research on the internet-based distribution of selected types of information goods via streaming media. The literature background of this article is mainly related to the impact of the digital revolution and the internet penetration on viewing habits and distribution strategies of various audio-visual content.

Several basic research approaches can be distinguished in the relevant literature. They show significant transformations of both the viewers' preferences and companies' business strategies related to the film and television industry. The first approach is related to the increasing use of streaming media to distribute audio-visual content and combining it with the distribution price strategy consisting of subscription fees. This refers to the development of SVoD (Subscription Video on Demand) services, which are usually studied within a given geographical and cultural area (Wayne & Castro, 2020) to demonstrate their adaptation and possible transformations in markets related to the distribution of audio-visual content (Albornoz & García Leiva, 2021; Cunningham & Scarlata, 2020; Rios & Scarlata, 2018). Much attention has been paid to how new forms of distribution are disrupting the status quo in pay television markets (Wayne, 2020; Zboralska & Davis, 2017), as it is considered a close substitute for SVoD services. In a study on time spent watching audio-visual content, Liebowitz and Zentner (2016) noted that the rise in internet penetration does not translate into an increase in the average viewing time. In other words, the average time viewers are prepared to spend watching a variety of audio-visual content is a relatively constant value, independent of the variety of that content, which the internet objectively increases.

Consequently, shifting some activity to streaming platforms does not cause people to watch more. Thus, what happens here is a substitution, i.e. viewers moving to new media to audio-visual reception content, not an extension. While there is a certain type of substitution of traditional media in terms of the distribution of audio-visual content (in the above example, television, including pay television and cable), it is also vital to examine if only media are being substituted or if there is also the substitution of content. Research into the role of content from traditional TV stations in the offer of leading SVoD services has shown different approaches to this topic (Wayne, 2018). In the research, Wayne (2018) compared the business strategies of Amazon

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and Netflix, which led to conclusions about the different branding approaches of SVoD services. Amazon supported the brand using content from other stations, while Netflix is rather willing to build the brand based on its own productions. The strategy Wayne observed indeed applies to Netflix, which provides an increasing amount of original content available only on the service, commonly referred to as exclusive. The substitution of SVoD services and the online distribution of audio-visual content, in general, is one of the reasons for the change in windowing strategy. This applies particularly to full-length features and is associated with disrupting the traditional distribution model. The issue here is properly managing the length of availability and distribution channels, specifically integrating online channels into the distribution cycle (Das, 2008). This phenomenon has been explored by Doyle (2016), among others, who noted that not only new release windows had been created due to the inclusion of diverse VoD models in the distribution process, but there have been fundamental changes in the entire windowing strategies. The owners of copyrights to audio-visual content broadcast also through traditional channels lost control over the release of windows, which is strongly associated, among others, with the market power of SVoD services (Clement et al., 2018). At the beginning of the 21st century, this situation was different when there was a phenomenon of substitution between the distribution channels of autonomous media (DVDs) and possible cannibalisation (Mukherjee & Kadiyali, 2011). This phenomenon concerned the propensity to buy or rent mainly full-length audio-visual content, i.e. films, and it occurred in the context of the operation of video rental shops, which were basically completely eliminated from the market and replaced by SVoD services. Various approaches to capturing and implementing distribution strategies are evident in the existing literature. The present study, by design, concentrates exclusively on those strategies pertaining to online channels in the broadest context, aligning with the concept of socially responsible distribution as elucidated by Vachani and Smith (2008). This framework contemplates the inclusion of digitally marginalized individuals in implemented activities. Irrespective of the motivating factors, Premkumar (2003) emphasizes that any digital distribution strategy necessitates addressing several key issues, encompassing copyright protection, communication infrastructure, pricing options, and payment methods. It is noteworthy that the traditional marketing perspective encapsulating the four elements of the marketing mix – product, promotion, price, and distribution - remains salient (Ram & Xu, 2019).

The second research approach is concerned with the very transformation in viewers' preferences and the new developments this involves. These studies are of great importance due to their theoretical and practical value. They are also crucial in various social sciences, including economics (the study of preferences and expectations that affect demand – McKenzie et al., 2019; Pereira & Tam, 2021; Shin & Park, 2021), management (the study of business and price strategies – Noh, 2021; Rahe et al., 2021; Sanson & Steirer, 2019) and sociology (the study of new psychosocial phenomena – Flayelle et al., 2019, 2020; Rubenking & Bracken, 2018; Vaterlaus et al., 2019; Viens

& Farrar, 2021). Wu et al. (2025) conducted a comprehensive meta-study on the impact of content personalisation and its association with the intention to subscribe to SVoD services. They demonstrated that factors such as perceived content value, habit formation, and the appeal of alternative platforms influence the decision to subscribe to streaming services. The factors they identified are, therefore, both psycho-social (perceived value, habits) and economic (alternative choices) in nature.

In fact, the scopes of these studies are largely overlapping, as the preferences and expectations for content and forms provided by SVoD services are linked to new psychosocial phenomena, such as binge-watching (marathon viewing), which can be defined as "[1]ong periods of focused, deliberate viewing of sequential television content that is generally narrative, suspenseful, and dramatic in nature. Binge-watching may be a planned, purposeful activity, or unintentional" (Rubenking & Bracken, 2021, p. 2). The definition cited is just an example among many, and there is no clear consensus on how to define the term. However, one should be inclined towards a formula related to the number of episodes of a given series watched at a time (Anghelcev et al., 2021). The development of new forms of viewing content and the emergence of specific viewing habits among viewers lead to transformations in business strategies, particularly those related to content coverage and broadcasting mechanisms. The broadcast of the series is of particular importance here, namely the premiere of all episodes of a given season at the same time. Thus, this leads to the phenomenon of compulsive watching SVoD, which generates the goals conflicts in individuals who engage in such activity. This is because the phenomenon of binge watching leads to the displacement of such goals as physical activity, regular consumption of meals, or appropriate sleep (Walton-Pattison et al., 2018). It is therefore a form of habit that can be of great importance in viewers' preferences. Responding by SVoD services to such habits may be the source of their competitive advantage, apart from the problems of the psychosocial condition of viewers, which is also the subject of research in the context of negative and positive effects of binge watching (Tefertiller & Maxwell, 2018). By the way, the phenomenon of binge watching disturbs the deliberations of Liebowitz and Zentner (2016), because it is important not only to increase the scope of content, but also to be able to watch it continuously. This may lead to the aforementioned compulsive behaviour and a strong influence on the habits of viewing the content on SVoD websites and the time devoted to them. Johnson et al. (2025) underscore the pivotal role of habits in daily media consumption, which they link to their conceptualised idea of "default viewing". This concept denotes the inclination to revert to the default settings of devices created for viewing audiovisual content, thus minimising the viewer's effort in deciding about content selection. Consequently, this process shapes viewing habits and, in turn, influences preferences. All these elements translate into building business strategies of SVoD services, although not only in the context of the recipients preferences, because the SVoD service brand is also associated with the satisfaction of critics, which is reflected in building a dual portfolio of content (Noh, 2021).

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The third research approach, which is worth paying attention to, is related to unauthorised copying and digital piracy. The problem of unauthorised copying is as old as the film and television industry. Already in the era of pioneers of cinematography, the issue of unauthorised copying and dissemination of works was known (Solomon, 2011). This problem, especially in terms of digital piracy, comes to life regularly with copying and communication technology development. In the 1980s, a strong impact of copying devices on the profitability of industries related to the production and distribution of information goods, including the audio-visual ones (Besen, 1986; Besen & Kirby, 1987; Johnson, 1985).

Further development of copying technology, including the development of the internet, has contributed to the escalation of various forms of unauthorised copying, including digital piracy. As a serious threat to the industry, this phenomenon was noticed in the case of music files (Gopal et al., 2004). The size of audio files matters largely, as they are simply smaller than audio-visual files. However, the problem grew with the development of bandwidth and the possibility of storing files by internet users. In the context of the study of the importance of SVoD services in the contemporary distribution of audio-visual content, the overall relationship related to their positive impact on the level of unauthorised copying, including digital piracy, is of great importance. Poort and Weda (2015) noted that in Denmark, in the period of 4 years (from 2008 to 2012), there was an apparent decrease in the level of unauthorised copying of music files (the phenomenon of file sharing decreased). This decrease amounted to 13 percentage points and was correlated with the emergence of legal access sources to music. These studies also showed that at that time, there was an increase in unauthorised copying of film files (by 7 percentage points), which did not yet have adequate legal services in this period. McKenzie et al. (2019) indicate that there are indications that the development of SVoD services contributes to a decrease in the level of digital piracy. However, they point out that these are merely unconfirmed premises. In turn, de Matos et al. (2018), as part of an experiment to provide access to audio-visual content resembling SVoD services for 45 days, showed that the probability of using sources providing unauthorised content did not decrease. They also noted that SVoD services do not provide enough content for what is needed.

The above literature review focuses on changes in the distribution of audio-visual content (both films and series), the transformation of viewers' preferences and the problem of digital piracy. In terms of the research conducted in this article, the conclusions on changes in preferences, especially changes in viewers' habits, which in the literature focus mainly on series, are undoubtedly important. This is mainly due to the fact that it was the series that were the showcase of streaming portals, although this trend is changing. The research proposed in this article concerns preferences in a specific area, i.e. in Poland, but, firstly, they are preferences of viewers who operate on a relatively mature SVoD market. Secondly, they have experienced a strong impact of the external factor, which is the COVID-19 pandemic. The maturity of the SVoD

market means that it should be expected from Polish viewers that they already have experience in using SVoD portals and have already developed some habits. In turn, the impact of the COVID-19 pandemic was an obvious incentive to look for home entertainment in exchange for forms of entertainment in the public space.

Research methods

A number of research methods are used for research in the field of online distribution of audio-visual content. These may be, for example, case studies when considering the actions and impact of prominent market players such as Netflix or Amazon (cf. Clement et al., 2018; Wayne, 2018). The research also examines the business strategies of entities related to the production and distribution of audio-visual content (cf. Doyle, 2016). Experimental research is also used, e.g. in the context of willingness-to-pay (cf. McKenzie et al., 2019). Modelling, including econometric modelling, is also widely used to study various types of scenarios (cf. Aguiar & Waldfogel, 2018), determining changes in demand for specific audio-visual content (cf. Mukherjee & Kadiyali, 2011), discovering viewer preferences (cf. Liebowitz & Zentner, 2016) or stating the achieved satisfaction (cf. Shin & Park, 2021). In the case of quantitative research, the research material is obtained either by collecting data on viewers' activity (cf. Liebowitz & Zentner, 2016) or using research questionnaires (cf. Shin & Park, 2021).

In this article, it was decided to use the latter approach to obtain an answer to the research question posed at the outset. The research material was obtained through the computer-assisted web interview (CAWI) method.

The survey questionnaire comprised three main groups of questions. The first group focused on alterations in the frequency with which respondents utilised various media or audiovisual content distribution channels as a result of the pandemic. The second group addressed the frequency of use of specific streaming platforms. The final group of questions related to the core of the study, exploring the significance of specific features of streaming platforms for the respondents.

Furthermore, the questionnaire featured a section on the demographic characteristics of the research sample, which comprised 1,000 respondents. This sample was randomly selected from the Badanie-Opinii.pl research panel, which belongs to the Biostat® Research and Development Centre. This organisation ensures that the sample is representative of Poland. Table 1 illustrates the distribution of the research sample based on the collected demographic data. The research material was collected in August 2021, i.e. after the third and before the fourth wave of the COVID-19 pandemic (considering the course of the pandemic in Poland). Therefore, it was a period of a reduced number of infections and loosening of restrictions. Table 1 presents the distribution of the research sample.

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Variable	Variant	n	%
Sex			
	female	520	52.0
	male	480	48.0
Age			
	18–24	115	11.5
	25–34	220	22.0
	35–44	260	26.0
	45–54	166	16.6
	55–64	145	14.5
	65+	94	9.4
Professional status			
	pupil	8	0.8
	student	66	6.6
	employed person	675	67.5
	self-employed	62	6.2
	retiree or pensioner	146	14.6
	unemployed	79	7.9
	other	8	0.8
Residence status			
	I live alone	100	10.0
	I live with a roommate	99	9.9
	I live with my parents	151	15.1
	I live with my own family	650	65.0
	other	-	_
Educational level			
	primary or lower secondary education	33	3.3
	basic vocational	99	9.9
	secondary	498	49.8
	higher	370	37.0
Place of residence			
	village	215	21.5
	town with up to 20,000 residents	261	26.1
	town with up to 100,000 residents	239	23.9
	city with up to 200,000 residents	55	5.5
	city with up to 500,000 residents	60	6.0
	city with over 500,000 residents	170	17.0
Net income per house			
*	up to 500	18	1.8
	500-1,000	58	5.8
	1,000–2,000	354	35.4
	2,000–3,000	310	31.0
	More than 3,000	226	22.6
Refusal		34	3.4

Table 1. Distribution of the research sample

Source: Authors' own study.

Data were collected through a survey, among other things, on how the structure of usage of particular audio-visual content distribution channels changed during the COVID-19 pandemic (or, more precisely, by the end of the third wave), which streaming portals Poles use. However, these statistics are only a background for the

data used to answer the initial research question. The question about particular features of streaming media was formulated in the form of a closed cafeteria, with the possibility of determining the severity of significance according to the symmetrical Likert scale. When asked: "how do you evaluate the individual features of streaming media", respondents could choose the intensity of significance (definitely invalid, rather invalid, difficult to say, rather important, definitely important) for the following features: (1) the possibility to watch at a convenient time, (2) the possibility to watch again, (3) the possibility to interrupt the screening, (4) the possibility to watch at home, (5) price, (6) the timeliness of the content, (7) the offer and diversity of content, (8) the uniqueness of the content, (9) no advertising, and (10) the possibility to watch entire seasons of the series in one go (binge-watching).

To determine the hierarchy of importance for the respondents of individual features, the proposed Importance Index was used, requiring the application of appropriate response coding, presented in Table 2 (second column). The proposed coding ensures a maximum difference between the "important" and "unimportant" response options, while a smaller difference between their intensity graduated with the terms "rather" and "definitely". The justification for this type of coding was provided by Sokołowski (2007).

Importance Index – the author's proposal – is the quotient, where the average value of the encoded variable is a dividend, and the divisor is number three, which is the module of the maximum value of this average. This coefficient can take values from -1 to 1 ([-1; +1]), where the sign specifies that a given feature is unimportant (negative sign) or important (positive sign), assuming that the values are outside the range from -0.3333 to 0.333 ((-0.333; +0.333)). Table 2 (the third column) shows the ranges of the Importance Index for each response.

Answer	Coded value	Importance Index intervals
Definitely unimportant	-3	[-1.000; -0.833]
Rather unimportant	-2	(-0.833; -0.333]
It's difficult to say	0	(-0.333; +0.333)
Rather important	2	[+0.333; +0.833)
Very important	3	[+0.833; +1.000]

Table 2. Response Coding and proposed classes of Importance Index values

Source: Authors' own study.

A grouping of similar means was used when interpreting individual features, according to the method described by Markowska et al. (2021, p. 56). In this study, the average values of the Importance Index were subjected to grouping. This method consists in counting the differences between the ordered averages. The two most significant differences indicate the lines of demarcation for the three groups. The Markowska et al. method was extended with an additional criterion, according to which the difference must be significant at least on 0.05 level. Groups of values formed in this way are marked by colour intensity in consecutive tables.

Results and discussion

This research extends the theoretical foundations of the internet's impact on audiovisual content consumption (Amichai-Hamburger & Hayat, 2011), analysing transformations in viewer preferences during the COVID-19 pandemic, which served as a catalyst for change (Amankwah-Amoah et al., 2021).

Discussion of the results of the study should begin with the general information. Table 3 shows how the frequency of respondents' use of individual media or channels of distribution of audio-visual content has changed. Streaming media definitely gained popularity: 34.7% of respondents said they used free streaming portals more often, and 29.7% said they used paid streaming portals. In addition, 6.9% of respondents started using paid streaming portals, although they did not use them before the COVID-19 pandemic. It can be said that about one-third of Polish society increased its frequency of using streaming media. This conclusion is not surprising, as the pandemic period has generally led to a decrease in the scope of other activities that are part of the broadly understood entertainment. The Polish VoD market is in line with the overall upward trend reported by Lindlahr (2021). In particular, the first two answers in Table 3 clearly show that Poles watched more audio-visual content at home during the pandemic than before. They used cinema less often, which was undoubtedly influenced by restrictions and a general limitation of activity in the public space.

Answer	Free Streaming Portals	Paid Streaming Portals	Terrestrial TV	Satellite television	Internet TV	Cinema	Autonomous media
I used before the pandemic, during the pandemic I use more often	34.7	29.7	17.2	15.6	14.9	4.2	8.6
I used before the pandemic, during the pandemic I use less often	6.4	6.3	9.1	8.3	6.5	32.0	8.3
I used before the pandemic, during the pandemic I use equally often	42.9	27.5	35.9	30.9	26.1	14.4	22.2
I used before the pandemic, now I have stopped	1.9	3.9	5.9	5.3	4.8	23.1	7.6
I had not used before the pandemic, I started during the pan- demic	2.1	6.9	2.9	3.1	5.5	2.7	5.0
I did not use before or during the pandemic	12.0	25.7	29.0	36.8	42.2	23.6	48.3

Table 3. Changes in the frequency of using individual media during the COVID-19 pandemic (%)

Source: Authors' own study.

In principle, there are no significant changes only concerning autonomous media and thus relatively outdated forms of distribution of audio-visual content. The presented data show that the general trend towards the transfer of viewers to streaming platforms during the pandemic was maintained, whereas nearly a third of respondents had just increased the amount of time spent on using these platforms. On the other hand, among the main streaming portals in Poland, free access to YouTube and paid

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access to Netflix dominate. Table 4 summarises the distribution of legally operating streaming portals popular among Poles.

Indication	Not at all	Occasionally	Regularly	Occasionally or regularly
YouTube without premium service	16	26	58	84
Netflix	31	19	50	69
HBO GO	56	25	18	44
Player	49	33	18	51
CDA without premium service	46	39	16	54
Ipla TV	53	33	15	47
TVP VOD	59	30	12	42
VOD.pl	51	38	12	49
YouTube Premium	75	16	10	25
CDA Premium	73	19	9	27
CANAL+ online	72	21	7	28
Amazon Prime Video	81	14	5	19
Disney+	78	17	5	22
Apple TV+	87	10	3	13

Table 4. Frequency of using streaming portals in Poland (%)

Source: Authors' own study.

The results obtained with the Importance Index regarding the characteristics of streaming portals are given in Table 5. Respondents considered that each of the proposed features was important to them – these features obtained a value of Importance Index above 0.333, and the average responses are positive.

The analysis of the importance of streaming portal features aligns with three research streams: (1) the development of the SVoD model and its impact on traditional television markets (Wayne & Castro, 2020; Zboralska & Davis, 2017), (2) the transformation of viewer preferences from economic, managerial, and sociological perspectives (McKenzie et al., 2019; Noh, 2021; Flayelle et al., 2020), and (3) the relationship between legal streaming services and unauthorised copying (McKenzie et al., 2019).

Indication	Importance Index
Ability to watch at a convenient time	0.645
Ability to watch again	0.588
Possibility of interrupting the screening	0.645
Ability to watch from home	0.701
Price	0.625
Content timeliness	0.544
Offer and diversification of content	0.654
Uniqueness of content	0.510
No ads	0.620
The ability to watch entire seasons of the series at the same time	0.577

Table 5. Importance Index values for individual features of streaming portals

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Figure 1 shows the hierarchy of importance of individual features of streaming portals for respondents. The importance of individual features determines the direction for further interpretation. The conclusions of the results are summarized in the Appendix, specifically in Tables 7.1 to 7.10.

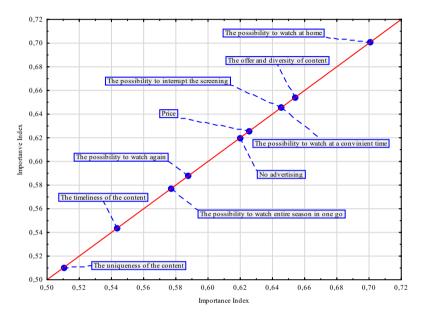


Figure 1. Values Importance Index for individual features of streaming portals

Source: Authors' own study.

The results of the analysis are given in order of importance, following the hierarchy of features presented in Figure 1. This sequence corresponds to the numbering of the tables in the Appendix.

Thus, the first feature, which is the "possibility of watching at home", has the most significant importance for the general respondents (Importance Index at the level of 0.701 - in the further part of the article, the values given in brackets mean Importance Index unless otherwise indicated). Significant differences in attaching importance to this feature in individual groups of respondents concern variables: gender, age, professional status, and residence status (the values of *p* from parametric and non-parametric tests in all cases reached the level below 0.05). This feature is much more appreciated by women (0.740) than by men (0.658). Due to age, this feature is most appreciated by people up to 54 (all Importance Index values above 0.7 - rounded to the first decimal place). The younger the respondents, the higher the Importance Index. In the case of professional status, students are particularly distinguished (0.807). In turn, for living, this feature is more important among people who live with someone: with parents (0.821), with a roommate (0.721) or

with a family (0.684). These findings confirm fundamental shifts in audiovisual content distribution strategies described by Doyle (2016), where copyright owners cede control over release windows to SVoD services (Clement et al., 2018). The observed preference for home viewing reflects a broader trend of "default viewing" (Johnson et al., 2025).

The second feature, i.e. the "offer and diversity of content", shows differences in the following features: gender, age, and social status (the values of p from parametric and non-parametric tests in all cases reached a level below 0.05). As with the previous trait, women (0.700) also clearly value the "offer and diversity of content" (for men, Importance Index at 0.605).

Likewise, the same is true for age, as this quality is valued most by those under 54 years of age (all values Importance Index above 0.7 – rounded to the first decimal place). The importance of this feature decreases with the age of the respondents. Among the variables of professional status, students (0.728) and employees (0.687) stand out.

The third feature, and thus the "possibility of viewing at a convenient time", is diversified in the case of the following variables: gender, age, professional status, and residence status (p values from parametric and non-parametric tests in all cases reached the level below 0.05). In terms of gender, it is still women (0.691) who place more importance on streaming portals than men (0.596) and those under 54 (all Importance Index values above 0.7 – when rounded to the first decimal place). As before, the weight of this quality decreases with age.

In the case of professional status, the possibility of viewing at any time is indicated by pupils (0.667), students (0.693), employees (0.693) and, in general, people with a different professional status (0.714). They were people on parental and maternity leave, carers of people with disabilities, and freelancers and working without an employment contract. Due to residence status, people living with their parents stand out (0.740).

The possibility of interrupting the screening is a variable for which differentiation occurs due to age, professional status, and residence status, as well as net income per one member of the household (values of *p* parametric and non-parametric tests below 0.05). When it comes to the age variable, young people up to 34 years of age attach the most significant importance to the possibility of interrupting the screening (between 18 and 24 years of age – 0.742, and between 22 and 34 years of age – 0.727). On the other hand, due to the professional status: pupils (0.750) and students (0.711), then employees (0.678) and persons with a different status (0.667). As far as the financial possibilities of households are concerned, the possibility of interrupting the screening is essential for less wealthy people, earning up to PLN 2,000 net per family member (above 0.685).

The fifth feature, i.e. "price", shows a significant differentiation for the variable "professional status" and only in the case of the value p from the parametric test. In principle, most variants show that this feature is important for this variable. These

are both pupils and students, employees, pensioners, and the unemployed (over 0.579). It should be noted here that this group can be arbitrarily divided so that the price is more important for pupils, students, and employees than for pensioners and the unemployed.

The sixth feature is "no advertising". Only two variables show significant relationships in this case: residence status (p = 0.0224 from the non-parametric test and p = 0.0550 from the parametric test) and the net income per household member (p = 0.0281 – parametric test). In the case of residence status, this feature was most important for people living with a roommate (0.734). In contrast, in the case of available cash, the discussed feature was important for people with lower incomes, i.e. up to PLN 2,000 per person in the household (above 0.648). There was a higher Importance Index for those who refused to report income (34 respondents).

The seventh feature – "possibility of watching again", is crucial for respondents divided by: gender, age, and professional status (p values from parametric and non-parametric tests in all cases reached a level below 0.05). In the case of gender, women (0.646) are more important than men (0.524). On the other hand, when it comes to the age of the respondents, the most significant importance of this feature is attributed to people up to 44 years of age (over 0.649), while within the 25–34-year range, the weight of this feature is the highest. As part of the professional status variable, students more often point to the possibility of viewing the content again (0.772).

The possibility of binge-watching differentiates respondents due to age, professional status, and residence status (values p from parametric and non-parametric tests below 0.05). In the case of gender, women (0.644) pay more attention to the possibility of binge-watching than men (0.505). However, in terms of age, those up to 44 years old (above 0.631) pay more attention, and the younger they are, the higher the Importance Index value. It corresponds with the professional status, as students value this type of content viewing the most (0.728). Within residence status – the most influential here is the option of living with parents (0.706). The moderate importance of binge-watching in the results contrasts with literature highlighting its psychosocial significance (Rubenking & Bracken, 2018; Walton-Pattison et al., 2018). The concentration of this preference mainly among students indicates that streaming platforms' strategies of releasing entire seasons simultaneously may be more effectively aimed at specific audience segments.

The "timeliness of content" is strongly related to gender, age, and professional status, which show a relationship with the discussed feature. For these variables, the p from parametric and non-parametric tests are below 0.05, in all cases, except for the age variable (only for the non-parametric test below 0.05). As before, women (0.644) value the timeliness of content more than men (0.505). The timeliness of the content is more important for people under 54 years of age (within the range 0.530–0.592 with the Importance Index being higher than 0.530 and not higher than 0.592). In the case of professional status, the current content is most important for students (0.675).

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The last feature, "content uniqueness", is associated with three variables: age, professional status, and residence status (the values of p from parametric and non-parametric tests in all cases reached a level below 0.05). In terms of age, people aged 35–44 (0.612) attach the greatest importance to the uniqueness of content. In the context of professional status, these are students (0.535) and employees (0.548), and due to the status of residence, these are people living with a roommate (0.502), with parents (0.554) and with their own family (0.528).

The results presented above are summarised in Table 6 to present the overall picture of individual groups for which the studied features of streaming portals are particularly important. It should be remembered that these features are generally crucial for the respondents, as the Importance Index value for each of them was above +0.333. The general regularities revealed in the conducted study indicate that, in principle, four variables are essential: gender, age, professional status and residence status. The demographic and social characteristics traditionally adopted in the research are far less critical. Determining the significance of the proposed features of streaming portals turned out to be independent of education and place of residence (the number of inhabitants). It is also very interesting to conclude that the dependence of the analysed characteristics with income occurred with only two features, and none of them was a "price".

Women attached much greater importance to individual features related to the functionality and quality of content. Age was similarly important, but it should be noted that middle-aged people also attached greater importance to the individual features of streaming portals – not just the young. The same holds true for those in the second decade of middle age, i.e. those over 50. In other words, this indicates that today's 50-year-olds are more strongly connected to new forms of audio-visual content than were their peers at the beginning of the 21st century.

The distributions of the "age" and "professional status" options are also crucial in determining the groups that particularly value the features of streaming portals. Students stand out here, i.e. people who generally have a certain amount of time to watch audio-visual content and are no longer controlled by parents who may impose restrictions regarding this issue. However, it should be considered that the survey was addressed to adults (over 18 years of age), which means that students living with their parents were a small group which does not reflect the full characteristics of this professional variant. In the second place, the group that particularly valued the individual features were the employed, which may mean that they have a greater amount of free time than people running their own business.

In terms of residence status, those living with parents and with a roommate or roommates prevail. Therefore, they are usually people who fit into the scheme of being a student or beginning adult life and do not yet have their own families. In fact, this confirms that the individual features of streaming portals are more important for younger people, who are still learning at the beginning of their life journey. Interestingly, income hardly plays a role in the group structure that values

	·						,,					
	Uniqueness of content		Females	Between 35 and 44 years old	- 1		1					
	Content timeliness							Female	Up to 54 years	Students Employed persons	With roommate(s) With parents With own family	1
nt groups	Possibility to watch entire seasons of the series in one go		Females	Up to 44 years	Students	With parents	ı					
Table 6. The highest importance of streaming portal features for respondent groups	No ads		1	1	Pupils	With roommate(s)	Up to PLN 2,000 Refusal					
ning portal featu	Price	variants	1	1	Pupils Students Employed persons Retirees or pensioners Unemployed	1	ı					
ortance of strean	Possibility of interrupting the screening		I	Up to 34 years	Pupils Students Employed persons Other employment status	With parents	Up to PLN 2,000					
The highest impo	Possibility to watch at a convenient time		Females	Up to 54 years Up to 34 years	Pupils Students Employed persons Other employment status	With parents	1					
Table 6.	Offer and diversification of content		Females	Up to 54 years	Students Employed persons	1	1					
	Possibility to watch from home		Females	Up to 54 years	Students	With roommate(s) With parents With own family	1					
	Streaming Portal Features	variable	<i>Sex</i> Female Male	Age 18–65+	Professional status Pupil Student Employed person Self-employed Retiree or Dnemployed Other	Residence status Alone With roommate(s) With parents With own family Other	Net income per household member					

Pobrane z czasopisma Annales H - Oeconomia http://oeconomia.annales.umcs.pl Data: 19/08/2025 23:51:34

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the features of streaming portals to a greater extent. The income (up to PLN 2,000) differentiated the respondents' indications due to the features that would seem to be unrelated to financial capabilities. Notably, the level of income did not reveal itself even in the case of the price of streaming portals. Perhaps this means that price (while an important factor) and its importance are not determined by income. It would seem that for those less well-off price should matter. Research has not shown this to be the case. It may mean that nowadays, in the Polish market, there is a sufficiently large offer of portals, with appropriately adjusted pricing strategies, for groups of different income. One can associate this with findings on the decline of digital piracy induced by the access to SVoD portals (McKenzie et al., 2019), which decreases when legal sources are adequately available, and their prices do not constitute a significant barrier to their use. It should also consider the possibility of sharing accounts, e.g. within the family, which significantly reduces operating costs.

During the research period, in the Polish SVoD market, the service was not offered by Amazon or WarnerMedia (owner of HBO), which likewise ensured that the costs of using their offer were as low as possible.

The analysis of the most important feature, and therefore "the ability to watch from home", also gave interesting results. In addition to the obvious conclusions, such as the fact that it is important for people with a family when watching films and series is fun for everyone, it is also interesting that students appreciate this feature. This may mean a certain change in the form of consumption of audio-visual content that has taken place over the last two decades.

It is about the fact that the series have become a very attractive audio-visual form, which attracts both blockbuster movie stars and offers very high-quality content. The last decade has also brought a tendency to introduce film premieres to their homes, which are difficult to define as less important than high-budget cinema productions. This trend is not fully developed yet, although the COVID-19 pandemic period will significantly affect the full-size audio-visual content distribution model. The release of movies directly on streaming platforms can in no way be compared to the direct-to-video strategy, known from the times of the incredible popularity of video, DVD and ultimately Blu-ray rental. This means significant changes in windowing (cf. Das, 2008), which are still being developed. Another conclusion that can be formulated here is related to the fact that this feature is only less important for people living alone and the elderly. While it can be expected that people living alone would be interested in spending time away from home ("going to the cinema instead of the movie"), older people would seem to particularly appreciate the opportunity to watch movies from home. However, it seems that the elderly are not interested in streaming portals. As a result, the analysed features of portals are not favoured by them in any particular way either.

Very important are also the observations concerning fashionable binge-watching, which would seem to have become an innovation of streaming portals and is widely discussed in the literature (Anghelcev et al., 2021; Rubenking & Bracken,

2018, 2021; Tefertiller & Maxwell, 2018; Walton-Pattison et al., 2018). It turns out that this feature is not as important as it might seem. In fact, this form of viewing is preferred mainly by students, which can be explained by the time they can devote to this form of audio-visual content consumption. In the case of other social groups, it can be said that it is an innovation that is important but not decisive. Moreover, the owners of streaming platforms have recognised this and are not so much moving away from, but they are changing the distribution system of the series. One can observe the broadcasting of several episodes of a whole season or splitting a season into two parts and premiering them, not on an annual basis, but every six months.

Derived from the outcomes and analysis presented in Table 6, a potential modification of the prevailing distribution strategy for streaming portals is proposed, transitioning from the current rigid subscription model to a reverse and long-term approach. Notably, distinct SVoD portals have historically embraced individualized distribution strategies. Nonetheless, the findings of this study facilitate the identification of specific variable characteristics that can serve as determinants for enhanced individualization of the offering and the repositioning of the subscription fee as an investment for the viewer. A visual representation of the proposed modification is depicted in Figure 2.

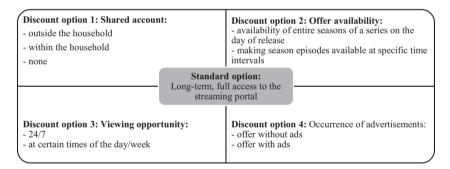


Figure 2. Differentiated pricing approaches for streaming service packages

Source: Authors' own study.

Each discount option in Figure 2 directly corresponds to specific findings from the survey. Discount option 1 (Shared account) addresses the high importance of streaming features among individuals living with roommates or parents (Importance Index 0.721 and 0.821 respectively). Discount option 2 (Offer availability) responds to the varying importance of binge-watching capabilities across age groups, with younger viewers (up to 44 years old, Importance Index above 0.631) valuing this feature significantly more than older audiences. Discount option 3 (Viewing opportunity) connects to the findings regarding the "possibility to watch at a convenient time" (overall Importance Index 0.645), which was particularly valued by younger audiences, students, and employees (all with Importance Index values above 0.693). This time flexibility was

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consistently ranked as one of the most important features across multiple demographic groups. Finally, Discount option 4 (Occurrence of advertisements) directly addresses the "No ads" feature (Importance Index 0.620), which was especially important for respondents with roommates (0.734) and those with lower incomes (above 0.648 for households earning up to PLN 2,000 per person).

The proposed differentiated pricing approaches for streaming service packages addresses key issues identified by Premkumar (2003) regarding digital distribution, while also maintaining elements of the traditional marketing mix (Ram & Xu, 2019). A flexible approach to subscription models can respond more effectively to diverse viewer preferences, potentially reducing unauthorized copying through suitable pricing strategies (McKenzie et al., 2019). Aligned with the concept of mental accounting, the fundamental proposition for the SVoD portal involves extending comprehensive long-term (quarterly/semi-annual/annual) access to the service, inclusive of all accompanying services, at the maximum subscription rate. Opting out of the long-term offer (in favour of monthly) and any of the services will be associated with the discounts granted, i.e. a reduction in the subscription price, which in aggregate in the long term will be higher than the standard option (i.e. the so-called apparent reduction in the subscription price). In essence, a viewer seeking access to all services of a streaming portal and opting for a one-time, long-term payment embraces the comprehensive standard option promoted by the portal. This includes sharing an account beyond the household, immediate availability of entire seasons of series upon premiere, 24/7 viewing capability, and an ad-free offering. Conversely, a viewer displaying indifference towards particular services or preferring frequent, regular payments foregoes specific services, ostensibly reducing the overall subscription cost. To mitigate decision complexity for viewers and ensure a streamlined selection process, the array of available discount options may be condensed into four principal categories: account sharing, offer availability, viewability, and the presence of commercials. Within each category, distinct choices may be presented for consideration.

Given the prevalence of residence status indicating cohabitation with roommates or living with parents, three distinct account-sharing options emerge: sharing outside the household, sharing within the household, and opting for no account sharing. Within the accessibility category of the offering, a nuanced differentiation is warranted. Recognizing the viewing habits of younger audiences favouring binge-watching and older viewers engaging with the SVoD portal irregularly, a choice is proposed between making entire seasons of series available on the day of release or offering individual episodes at specified intervals (e.g. daily or weekly). The viewability category proposes a divergence in access to specific content based on the time of day or day of the week, akin to the offerings of energy companies (e.g. 24/7 or restricted to night-time). Conversely, the occurrence of advertisements deemed a pivotal tool for attracting sponsors would be confined to a binary choice – either their absence or presence.

The enumerated distribution strategy categories, encompassing various discount options and their associated choices, are proffered as adaptable suggestions aligned

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with prevailing audience preferences. These proposals do not represent a rigid or closed set; instead, they are conceived to fulfil two primary objectives. Firstly, they advocate for a departure from the prevailing distribution pricing paradigm, characterized by either a single monthly subscription fee or multiple options, where the cost increases with the richness of the offering. The authors' proposition centres on a singular, comprehensive, long-term option, affording apparent discounts through selective cancellation of individual services within the SVoD portal. Secondly, the articulated perspective is grounded in the authors' analysis of viewer preferences regarding the significance of features within streaming portals for the Polish audience.

Conclusions

This study contributes to the literature on streaming media consumption by providing empirical evidence from the Polish market during the COVID-19 pandemic. The identified hierarchy of features' importance for streaming portals extends previous research on the transformation of audiovisual content distribution (Das, 2008; Doyle, 2016) and viewer preferences (Wu et al., 2025). Nevertheless, the article has two objectives: one cognitive and one applicative. The study was conducted in August 2021, nearly a year and a half after the first COVID-19 infection in Poland. The first objective of the article was to determine what features of streaming portals are most important for Polish viewers. The study showed that all of the features proposed in the survey are important. The most important was definitely the opportunity to watch audio-visual content in the comfort of a home, which can be associated with the strong impact of the pandemic on social life. Moreover, streaming media are to be used to watch content as part of home entertainment and have been developed for such purposes. The answer to the complementary research question was to indicate the groups for which the studied features of streaming portals are particularly important.

Consequently, it should be noted, first of all, that women attach greater importance to the individual features of streaming portals. Secondly, individual features are significant mainly to students and employees. Thirdly, individual features of streaming portals are more important for people living with someone, and mainly with parents. It can therefore be concluded that these are generally young people. However, age also proved to be important in the context of determining the significance of individual features of streaming portals. It turns out that not only young people (people up to 35 years of age), but also middle-aged people pay attention to the analysed features. This means that this distribution channel is well adapted to the broader spectrum of Polish society, although the young are more interested in it. Ultimately, it can be said that, in general, streaming media have a great chance to threaten traditional forms of distribution of films and series, i.e. cinema and television.

The second objective, the applicative one, was to address dimensions and to formulate recommendations that would positively influence the distribution strate-

gies of streaming portals. In the research, an endeavour was undertaken to delineate recommendations for streaming portals pertaining to their distribution strategies. The proposal illustrated in Figure 2 indicates the existence of a long-term subscription option from which apparent discounts can be obtained. Furthermore, streaming portals might contemplate, subject to the current absence of such algorithms, the diversification of their content offerings based on demographic parameters such as gender (i.e. distinguishing between content tailored for women), age (analogously catering to generations X, Y, Z), occupational status (i.e. content tailored for students, salaried workers, retirees), or residence status (e.g. content tailored for families, roommates, individuals living alone). In addition, while streaming portals offering their own productions, like Netflix, offer access to movie premieres, portals based on the productions of other movie studios should consider expanding their offerings to include theatrical releases (e.g. by signing long-term partnership agreements). Furthermore, to align with the preferences of younger generations inclined towards binge-watching, there is potential to consolidate featured films with sequels into cohesive series-like screenings.

The proposed solutions in the article, while not exhaustive in capturing the full spectrum of potential development avenues for streaming portals, serve as a meaningful contribution towards instigating a discourse on the modification of accepted business models based on distribution strategies, concurrently assessing viewers' willingness-to-pay. In a specific context, these suggestions challenge the conventional notion of consumer sovereignty (cf. Thaler, 2018, pp. 257–258), emphasizing the role of streaming portals in facilitating optimal choices beyond individual decision-making. However, it is imperative to acknowledge certain limitations inherent in the study. The temporal context suggests the need for periodic repetition of similar studies to elucidate the evolving differences in pursued business models. Moreover, a comprehensive comparative analysis is warranted, considering the dynamic nature of streaming portals' strategies, such as the recent adjustments to account-sharing terms on Netflix or the introduction of an annual subscription fee on platforms like Amazon Prime or Disney+.

The study revealed a significant impact of the COVID-19 pandemic on the rising popularity of streaming platforms in Poland – approximately one-third of respondents reported using these services more frequently. Particularly interesting is that demographic factors such as education or location did not significantly influence user preferences, while income was relevant only concerning two features of the platforms (and, interestingly, price was not one of them). There is a clear shift in audiovisual content consumption towards home entertainment, indicating a long-term transformation in the audiovisual media distribution market that extends beyond the temporary effects of pandemic restrictions.

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Appendix

Variable	Variant	Importance Index	<i>p</i> -value from parametric test	<i>p</i> -value from non- parametric test	
	Women	0.740	*		
Sex	Men	0.658	0.0033	0.0246	
	18–24	0.765			
	25–34	0.723			
	35-44	0.724			
Age	45–54	0.729	0.0070	0.0076	
	55–64	0.600			
	65+	0.613			
	Pupil	0.583			
	Student	0.807			
	Employed person	0.725			
Professional	Self-employed	0.460	0.0006	0.1559	
status	Retiree or pensioner	0.629			
	Unemployed	0.684			
	Other	0.571			
	Alone	0.610			
	With roommate(s)	0.721			
Residence	With parents	0.821	0.0007	0.0001	
status	With own family	0.684			
	Other	-			
	Primary or lower secondary education	0.758			
Educational	Basic vocational	0.626	0.248	0.3202	
level	Secondary	0.698			
	Higher	0.720			
	Village	0.722			
	Town with up to 20,000 residents	0.719			
Residence	City 20,000–100,000 residents	0.693	0.3908	0.4739	
	City 100,000–200,000 residents	0.764			
	City 200,000–500,000 residents	0.683			
	City over 500,000	0.643			
	Up to PLN 500	0.741		1	
N T . •	PLN 500–1,000	0.678			
Net income	PLN 1,000-2,000	0.740	0.0201	0.2007	
per household member	PLN 2,000-3,000	0.2301 0.3087	0.3087		
member	More than 3,000	0.645			
	Refusal	0.696			

Table 7.1. Possibility t	o watch from home
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Variable	Variant	Importance Index	<i>p</i> -value from parametric test	<i>p</i> -value from non- parametric test	
	Women	0.700	parametric test	1	
Sex	Men	0.605	0.0005	0.0026	
	18–24	0.649			
	25–34	0.674			
	35-44	0.719			
Age	45-54	0.719	0.0013	0.0012	
	55-64	0.561			
	65+	0.546			
		0.625			
	Pupil	0.625			
	Student	0.728			
Professional	Employed person		0.0040	0.0024	
status	Self-employed	0.527	0.0048	0.0024	
	Retiree or pensioner				
	Unemployed	0.561			
	Other	0.619			
	Alone	0.573			
Residence	With roommate(s)	0.650	0.10.00	0.1100	
status	With parents	0.691	0.1860	0.1122	
	With own family	0.659			
	Other	-			
Educational	Primary or lower secondary education	0.707			
level	Basic vocational	0.626	0.7959	0.6237	
level	Secondary	0.652			
	Higher	0.66			
	Village	0.681			
	Town with up to 20,000 residents	0.672			
Residence	City 20,000–100,000 residents	0.630	0.6249	0.9078	
Residence	City 100,000–200,000 residents	0.691	0.6249	0.9078	
	City 200,000–500,000 residents	0.639			
	City over 500,000	0.622			
	Up to PLN 500	0.574			
N T . •	PLN 500-1,000	0.713			
Net income	PLN 1,000-2,000	0.679	0 2052	0.5271	
per household member	PLN 2,000-3,000	0.648	0.3953	0.5271	
member	More than 3,000	0.628			
	Refusal	0.569			

Table 7.2. Content offering and diversification

THE PANDEMIC AND THE PERCEPTION OF STREAMING PORTALS BY POLISH VIEWERS

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	Table 7.3. Viewab			
Variable	Variant	Importance Index	<i>p</i> -value from parametric test	<i>p</i> -value from non- parametric test
~	Women	0.691		0.0010
Sex	Men	0.596	0.0018	0.0010
	18–24	0.745		
	25–34	0.681		
	35–44	0.677	0.0000	0.0000
Age	45–54	0.653	0.0002	0.0000
	55-64	0.561		
	65+	0.472		
	Pupil	0.667		
	Student	0.693		
	Employed person	0.687		
Professional	Self-employed	0.400	0.0001	0.0001
status	Retiree or pensioner	0.533		
	Unemployed	0.588		
	Other	0.714		
	Alone	0.530		
			0.0086	
Residence	With roommate(s)	0.633		0.0134
status	With parents	0.740		
	With own family	0.643		
	Other	-		
	Primary or lower secondary education	0.747		0.2564
Educational	Basic vocational	0.623	0.5168	
level	Secondary	0.655		
	Higher	0.630		
	Village	0.645		
	Town with up to 20,000 residents	0.644		0.8041
D 11	City 20,000–100,000 residents	0.637	0.0(55	
Residence	City 100,000–200,000 residents	0.733	0.3657	
	City 200,000–500,000 residents	0.733		
	City over 500,000 residents	0.600		
	Up to PLN 500	0.556		
	PLN 500-1,000	0.615		
Net income	PLN 1,000–2,000	0.694		
per household	PLN 2,000–3,000	0.616	0.1784	0.1731
member	More than 3,000	0.642		
	Refusal	0.529		

 Table 7.3. Viewable at a convenient time

Variable	Variant	Importance Index	<i>p</i> -value from parametric test	<i>p</i> -value from non- parametric test
Sex	Women	0.665	0.1(75	0.0770
	Men	0.624	0.1675	0.0779
	18–24	0.742		
	25–34	0.727		
•	35–44	0.662	0.0000	0.0000
Age	45–54	0.637	0.0000	0.0000
	55-64	0.490		
	65+	0.546		
	Pupil	0.750		
	Student	0.711		
D 0 1 1	Employed person	0.678		
Professional	Self-employed	0.453	0.0011	0.0013
status	Retiree or pensioner	0.519		
	Unemployed	0.601		
	Other	0.667		
	Alone	0.493	0.0002	0.0001
	With roommate(s)	0.646		
Residence	With parents	0.766		
status	With own family	0.641		
	Other	-		
P1 - 1	Primary or lower secondary education	0.717	0.5624	0.2371
Educational level	Basic vocational	0.626		
level	Secondary	0.630		
	Higher	0.665		
	Village	0.670		0.7547
	Town with up to 20,000 residents	0.663		
Residence	City 20,000–100,000 residents	0.612	0.4905	
Residence	City 100,000-200,000 residents	0.703	0.4905	
	City 200,000–500,000 residents	0.678		
	City over 500,000 residents	0.604		
	Up to PLN 500	0.685		0.0102
N T / T	PLN 500-1,000	0.684		
Net income	PLN 1,000-2,000	0.706	0.0402	
per household member	PLN 2,000-3,000	0.587	0.0403	0.0182
member	More than 3,000	0.621		
	Refusal	0.618		

 Table 7.4. Possibility of interrupting the screening

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	Table	e 7.5. Price		
Variable	Variant	Importance	<i>p</i> -value from	<i>p</i> -value from non-
variable		Index	parametric test	parametric test
Sex	Women	0.644	0.1893	0.4244
Sex	Men	0.605	0.1075	0.1211
	18-24	0.574		
	25-34	0.639		0.3415
Age	35-44	0.656	0.3805	
Age	45-54	0.649	0.3803	
	55-64	0.607		
	65+	0.557		
	Pupil	0.708		
	Student	0.737		
D C 1	Employed person	0.650		
Professional status	Self-employed	0.453	0.0278	0.1103
status	Retiree or pensioner	0.593		
	Unemployed	0.579		
	Other	0.381		
	Alone	0.580	0.2727	0.1053
D 1	With roommate(s)	0.579		
Residence status	With parents	0.700		
status	With own family	0.627		
	Other	-		
P1 - 1	Primary or lower secondary education	0.687		0.3738
Educational level	Basic vocational	0.556	0.3939	
level	Secondary	0.626		
	Higher	0.638		
	Village	0.633		0.5431
	Town with up to 20,000 residents	0.648		
Residence	City 20,000–100,000 residents	0.625	0.5517	
Residence	City 100,000–200,000 residents	0.509	0.5517	
	City 200,000–500,000 residents	0.617		
	City over 500,000 residents	0.624		
	Up to PLN 500	0.537		
NT / 1	PLN 500-1,000	0.638		
Net income	PLN 1,000-2,000	0.639	0.7470	0.4476
per household member	PLN 2,000-3,000	0.633	0.7470	0.4476
memoer	More than 3,000	0.611		
	Refusal	0.529		

Table 7.5. Price

	Table	7 .6. No ads		
Variable	Variant	Importance	<i>p</i> -value from	<i>p</i> -value from non-
, arrao re		Index	parametric test	parametric test
Sex	Women	0.644	0.1180	0.1448
	Men	0.594	011100	011110
	18-24	0.681		
	25–34	0.661		0.0973
Age	35-44	0.626	0.1956	
nge	45–54	0.588	0.1750	
	55-64	0.545		
	65+	0.606		
	Pupil	0.625		
	Student	0.711		
Professional	Employed person	0.641		
status	Self-employed	0.453	0.1316	0.2195
status	Retiree or pensioner	0.61		
	Unemployed	0.544		
	Other	0.571		
	Alone	0.553	0.0550	0.0224
Residence	With roommate(s)	0.734		
status	With parents	0.638		
status	With own family	0.609		
	Other	-		
	Primary or lower secondary education	0.707	0.6632	0.4567
Educational level	Basic vocational	0.65		
level	Secondary	0.616		
	Higher	0.609		
	Village	0.519		0.2974
	Town with up to 20,000 residents	0.531		
D 1	City 20,000–100,000 residents	0.47	0.2125	
Residence	City 100,000–200,000 residents	0.576	0.2135	
	City 200,000–500,000 residents	0.472		
	City over 500,000 residents	0.516		
	Up to PLN 500	0.648	0.0001	
NY . •	PLN 500-1,000	0.695		0.1.554
Net income	PLN 1,000-2,000	0.679		
per household member	PLN 2,000-3,000	0.587	0.0281	0.1574
member	More than 3,000	0.549		
	Refusal	0.637		

Table 7.6. No ads

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	Table 7.7. Poss	ibility to wate	h again	
Variable	Variant	Importance Index	<i>p</i> -value from parametric test	<i>p</i> -value from non- parametric test
	Women	0.646		1
Sex	Men	0.524	0.0002	0.0000
	18–24	0.649		
	25–34	0.668		
	35–44	0.649		
Age	45–54	0.528	0.0000	0.0000
	55-64	0.462		
	65+	0.454		
	Pupil	0.667		
	Student	0.772		
	Employed person	0.631		
Professional	Self-employed	0.373	0.0000	0.0000
status	Retiree or pensioner	0.383		
	Unemployed	0.623		
	Other	0.476		
	Alone	0.47	0.0538	0.0549
	With roommate(s)	0.613		
Residence	With parents	0.649		
status	With own family	0.588		
	Other	-		
	Primary or lower secondary education	0.646	0.7424	0.4472
Educational	Basic vocational	0.542		
level	Secondary	0.592		
	Higher	0.589		
	Village	0.612		0.8934
	Town with up to 20,000 residents	0.596		
D 1	City 20,000–100,000 residents	0.591	0.7027	
Residence	City 100,000–200,000 residents	0.582	0.7927	
	City 200,000–500,000 residents	0.6		
	City over 500,000 residents	0.535		
	Up to PLN 500	0.593		
X Y . •	PLN 500–1,000	0.494		
Net income	PLN 1,000-2,000	0.643	0 1027	0.0701
per household member	PLN 2,000-3,000	0.569	0.1827	0.0781
member	More than 3,000	0.558		
	Refusal	0.539		

Table 7.7. Possibility to watch again

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Variable	Variant	Importance Index	<i>p</i> -value from parametric test	<i>p</i> -value from non- parametric test
~	Women	0.644		-
Sex	Men	0.505	0.0001	0.0000
	18–24	0.728		
	25-34	0.682		
	35–44	0.631	0.0000	0.0000
Age	45–54	0.566	0.0000	0.0000
	55-64	0.368		
	65+	0.344		
	Pupil	0.833		
	Student	0.728		
	Employed person	0.632		
Professional	Self-employed	0.433	0.0000	0.0000
status	Retiree or pensioner	0.331		
	Unemployed	0.544		
	Other	0.571		
	Alone	0.527	0.0073	0.0044
N 11	With roommate(s)	0.623		
Residence	With parents	0.706		
status	With own family	0.548		
	Other	-		
	Primary or lower secondary education	0.697	0.0887	0.0561
Educational	Basic vocational	0.475		
level	Secondary	0.567		
	Higher	0.608		
	Village	0.612		0.3867
	Town with up to 20,000 residents	0.59		
Residence	City 20,000–100,000 residents	0.533	0.2522	
Residence	City 100,000–200,000 residents	0.703	0.2523	
	City 200,000–500,000 residents	0.517		
	City over 500,000 residents	0.557	1	
	Up to PLN 500	0.648		0.7639
	PLN 500-1,000	0.534	0.9731	
Net income	PLN 1,000-2,000	0.583		
per household member	PLN 2,000-3,000	0.577		
member	More than 3,000	0.569		
	Refusal	0.608		

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	Table 7.9. C	content timelin	less	
Variable	Variant	Importance Index	<i>p</i> -value from parametric test	<i>p</i> -value from non- parametric test
G	Women	0.595	0.0007	0.0005
Sex	Men	0.488	0.0006	0.0005
	18–24	0.530		
	25–34	0.568		
	35–44	0.560	0.0070	0.0136
Age	45–54	0.592	0.2072	
	55–64	0.474		
	65+	0.479		
	Pupil	0.583		
	Student	0.675		
	Employed person	0.568		
Professional status	Self-employed	0.407	0.0352	0.0341
status	Retiree or pensioner	0.483		
	Unemployed	0.465		
	Other	0.333		
	Alone	0.463	0.0926	0.1613
Residence	With roommate(s)	0.488		
status	With parents	0.605		
status	With own family	0.550		
	Other	-		
	Primary or lower secondary education	0.596		0.2903
Educational level	Basic vocational	0.492	0.663	
level	Secondary	0.545		
	Higher	0.551		
	Village	0.580		
	Town with up to 20,000 residents	0.538		
Residence	City 20,000–100,000 residents	0.506	0.4143	0.7493
Residence	City 100,000–200,000 residents	0.642	0.4145	0.7495
	City 200,000–500,000 residents	0.544		
	City over 500,000	0.527		
	Up to PLN 500	0.556	0.882 0.	
NT / -	PLN 500-1,000	0.552		
Net income per household	PLN 1,000-2,000	0.551		0.5995
member	PLN 2,000-3,000	0.552	0.002	0.3995
member	More than 3,000	0.534		
	Refusal	0.441		

Table 7.9. Content timeliness

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	v	

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	Table 7.10. Ur	inqueness of co	ontent	
Variable	Variant	Importance	<i>p</i> -value from	p-value from non-
variable	Varialit	Index	parametric test	parametric test
Sex	Women	0.521	0.4617	0.5826
Bez	Men	0.499	0.4017	0.5620
	18–24	0.536		
	25-34	0.488		
Age	35–44	0.612	0.0007	0.0003
Age	45–54	0.496	0.0007	0.0005
	55-64	0.409		
	65+	0.433		
	Pupil	0.292		
	Student	0.535		
D C : 1	Employed person	0.548		
Professional	Self-employed	0.467	0.0192	0.0171
status	Retiree or pensioner	0.421		
	Unemployed	0.408		
	Other	0.333		
	Alone	0.337	0.0017	0.0165
D 11	With roommate(s)	0.502		
Residence	With parents	0.554		
status	With own family	0.528		
	Other	-		
	Primary or lower secondary	0.55(0.36
	education	0.556	0.3712	
Educational level	Basic vocational	0.455		
level	Secondary	0.498		
	Higher	0.538		
	Village	0.519		0.755
	Town with up to 20,000 residents	0.531		
D 1	City 20,000–100,000 residents	0.470	0 (022	
Residence	City 100,000-200,000 residents	0.576	0.6032	
	City 200,000-500,000 residents	0.472		
	City over 500,000 residents	0.516		
	Up to PLN 500	0.370		
	PLN 500-1,000	0.529		
Net income	PLN 1,000-2,000	0.533		
per household	PLN 2,000-3,000	0.495	0.4358	0.4453
member	More than 3,000	0.521		
	Refusal	0.392		

 Table 7.10. Uniqueness of content