

Sources of information about the behaviour of TV viewers using RPD measurement

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Abstract

Objective/Thesis: The article aims to show how television content distribution technology is conducive to obtaining information about viewers' behaviour for the media market, answering the question of how data allows the building of behavioural profiles and adjusting the program offer of the TV station.

Concept/Test methods: The basis for writing this article was the results of pilot studies conducted in selected television companies on the possibility of using RPD data to build awareness about the needs of viewers and the use of personalised advertising in the future. The research on the RPD data obtained from Gemius allowed to conduct analysis in September – October 2022 at the Red Carpet station. The determinant of inquiring for new sources for research was the COVID-19 period, when conducting research with respondents was limited.

Results and conclusions: The research confirms the technological possibilities of using RPD data to build behavioural profiles of TV viewers. Interviews conducted at the same time confirm the market's willingness to use data in new business areas.

Originality/Cognitive value: The author presented a variety of measurement data obtained from many forms of television content distribution. These data can be a supplement to the current research or be used independently to obtain knowledge about the activity of households in front of TV screens. The future of using RPD data is seen in personalised advertising, known as DAI. Potential analyses and data presentations were shown on RPD data from cable and IPTV operators. The potential of building knowledge about viewers and the use of RPD data for new advertising models is one of the new directions of development for TV broadcasters.

Research limitations: The research was conducted on one RPD data source – obtained from cable and IPTV operators. However, it is reasonable to extend the research to other areas of content distribution, such as Digital Terrestrial Television as well as satellite and OTT broadcasting.

Keywords

Advertising. Media consumer. TV market. Television. RPD, Big Data. COVID-19.

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1. Introduction

Digital transformation is significantly influencing the development of many areas of business. Not only have technological advances contributed to this, but the COVID-19-induced pandemic also fostered the acceleration. At that time, the dynamics of using internet tools increased significantly, and the e-economy gained an even stronger foothold. From a technological capacity point of view, many areas for data acquisition have opened. With the pandemic, the possibilities for research by traditional methods became more difficult. Due to the social constraints caused by the COVID-19 pandemic, perceptible changes also began to affect obtaining information for research.

The paper aims to show how technology in content distribution helps the media market obtain information on audience behaviour, which allows the building of behavioural profiles and adapting the programme offerings of a TV station. Technological data addresses the research problem of limited access to respondents but also responds to the media market's need for accurate measurement data to analyse audience behaviour. The basis for this paper was the results of a pilot study conducted at selected TV companies on the possibility of using RPD data to build awareness of viewer needs and the use of personalised advertising in the future.

Research conducted on Gemius RPD data from September to October 2022 on the Red Carpet station confirms the technological possibilities of obtaining audience behaviour data. Interviews were conducted in two rounds – the first as part of the *Telemetrics Project – construction and implementation of the RPD panel* and follow-up interviews in 2022. Free-form interviews were conducted with representatives of broadcasters, the regulator, research institutions and advertising professionals. The results indicate the market's desire to use RPD data in new business areas. The interviews were conducted with TV market experts as part of a project that concerned creating an ICT system like a media data warehouse (RPD data, reference signals and EPG data). One of the system's main tasks was to acquire RPD (return-path-data) from operators of digital TV services, standardise and collect this data, and, in the future, make it available in an aggregated manner to media market stakeholders, including media houses or advertising agencies. The future of advertising is seen in its personalisation, and RPD data is the best source of knowledge about viewers.

2. Research during COVID-19

The convergence of the TV and online markets is changing viewers' behaviour. The viewers are no longer seen as passive recipients of content. Developments in technology have led to a situation where viewers are increasingly becoming active

content creators, and it is up to them to determine how they receive the content. Audiences are becoming increasingly aware and demanding of broadcasters and the market offerings. On the other hand, broadcasters need data and knowledge to meet viewers' expectations (Chmielewska & Zawiślińska, 2020, p. 47).

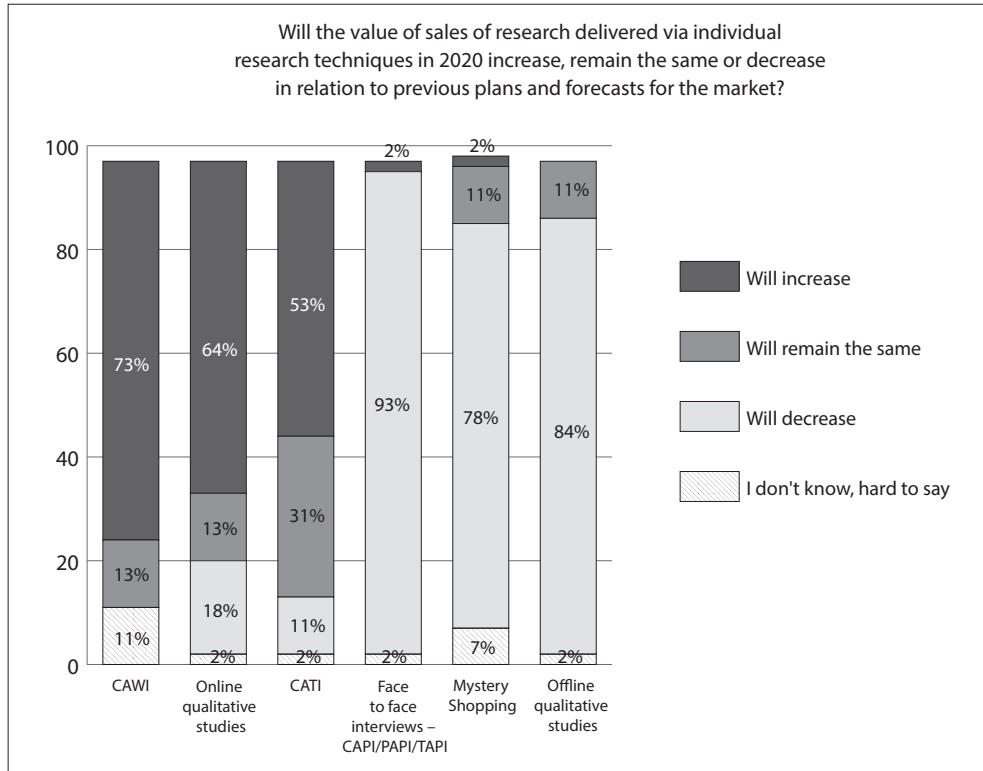


Figure 1: Analysis of research companies during the pandemic.

Source: OFBOR (2020). *Badania będą jeszcze bardziej cyfrowe*.
Available at: <https://www.ofbor.pl/index.php/aktualnosci> [19.12.2023].

Until the onset of the COVID-19 pandemic, a downward trend in television interest was noticeable across Europe (KRRiT, 2017). During the pandemic, particularly during the initial period of restrictions on movement outside the home, there was an increase in consumption of most media – including television. Citing Nielsen Audience Measurement data, in March 2020, the average daily TV viewing time increased to almost 5 hours per day. This is an increase of 27 minutes compared to the same period in the previous year. A significant increase in viewing was seen in the 55+ generation, where viewing time increased by 53 minutes, and in the 40–54 age group, with an increase of 52 minutes. The smallest increase in viewing, of around 5 minutes, was seen in viewers between 13 and 24 years

old, i.e. Generation Z (Nielsen, 2020). The increased interest in television and the internet was also evident in the Ipsos Poland study (2020).

Research conducted by the Polish Association of Public Opinion and Marketing Research Firms (Organizacja Firm Badania Opinii i Rynku – OFBOR) on ‘The impact of the current situation on the state of research companies’ shows that the COVID-19 pandemic has affected the increase in the number of surveys conducted digitally and by telephone.

Respondents unequivocally (73%) confirmed the trend of increasing sales of surveys conducted via the internet, known as CAWI. In addition, 64% indicated an increasing preference for qualitative research conducted online and 53% for telephone surveys. This increase reflects the growing interest in modern methods of obtaining information. The technical data available on the market effectively meets these needs.

It is also important to note the concerns that companies have shared. The majority of agencies, 81 per cent, declared that the pandemic period had negatively affected their business. Eight per cent predicted a decline in the sales value of the research market (Goczał, 2020).

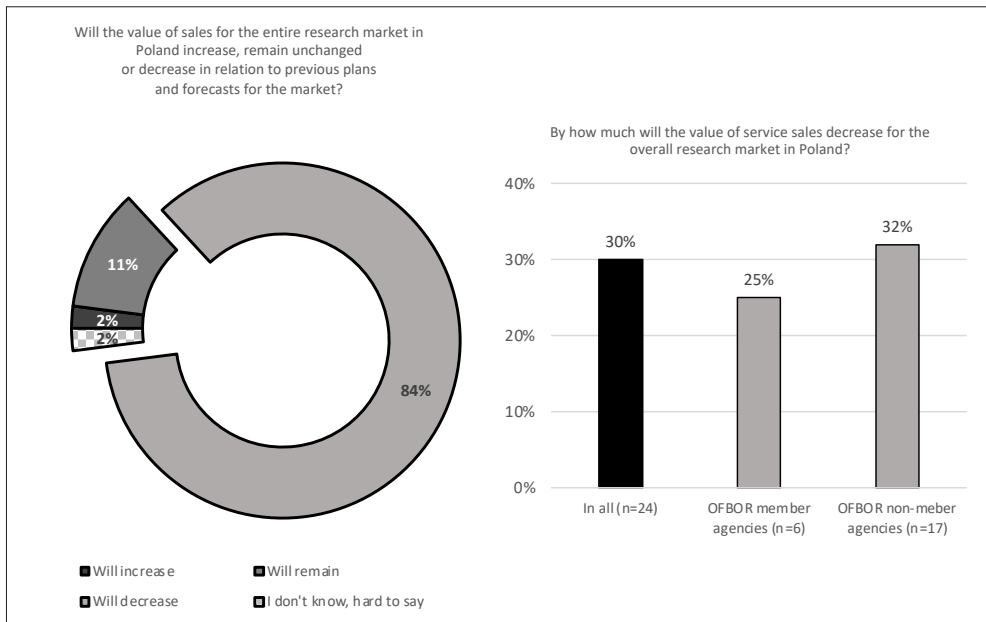


Figure 2: Sales value predictions for the research market in Poland.

Source: OFBOR (2020). Badania będą jeszcze bardziej cyfrowe.
 Available at: <https://www.ofbor.pl/index.php/aktualnosci> [19.12.2023].

Maciej Siejewicz, OFBOR spokesman, *points out that digitally realized research goes beyond just conducting interviews online. It broadly signifies the shift in the research industry towards leveraging information technologies. This trend, evolving over time, indicates an ongoing transformation across the entire industry, albeit at different paces. Moreover, "the CAWI method is not a discovery but only a temporary solution that companies have reached for logistical and business reasons, not because it is some innovative method hitherto undervalued* (Goczal, 2020).

Television content distribution technology now allows for data acquisition that was previously uncommon. RPD data, short for *Return Path Data*, is information collected from cable TV decoders, as well as from other systems such as HbbTV, transmitted via a return path. In the case of decoders, this return path includes data transmission from the decoder to the operator (Bochyńska, 2022). It is, therefore, the data associated with content distribution that is becoming the answer to the needs of the media market. It is worth noting that this field is now highly expansive. Both in Poland and around the world, there are several different ways of receiving TV content, such as satellite, cable, IPTV, OTT (Over-the-Top) or Terrestrial TV.

The sectors and companies researching and analysing individual media and their users have been well-established in our market for years. As Popiołek and Cyrek stated, traditional methods of measuring media audiences are not always appropriate in the face of contemporary changes in the media industry. The convergence of media and the evolution of consumer habits require a more comprehensive research approach that considers the diversity of media and how they are consumed (Popiołek & Cyrek, 2022, p. 157). Therefore, new methods are increasingly sought, including data obtained using new technologies.

Institutions such as the NASK, KIM, GPW DAI, and the research company Geminius are building knowledge about the TV market using RPD data (Grabowski, 2023, p. 10). For the National Broadcasting Council (Krajowa Rada Radiofonii i Telewizji – KRRiT), regulating the use of RPD data is one of the key actions from 2019. *Based on the consultations and research, preliminary models for the marketing of RPD data by operators and broadcasters will be developed in the near future. At the same time, these will take into account advertisers' needs* – announces the National Broadcasting Council. Marcin Grabowski, head of the RPD project of the Telemetria Polska Programme, explained to "Wirtualne Media" that *the preliminary models for trading RPD data should take into account the value they bring to the media market (NASK konsultuje prace badawczo-rozwojowe w sprawie danych RPD w jednoźródłowym badaniu mediów, 2022)*. Despite the positive opinions of experts regarding the potential of technical data for media analysis, there is some negative feedback regarding the acquisition of such data. In an article by "Wirtualne Media" titled 'Surveillance of viewers by the KRRiT? Misunderstanding of the research project', the position of the National Chamber of Commerce for Electronics and Telecommunications (Krajowa Izba Gospodarcza Elektroniki i Telekomunikacji, KIGEiT), an organisation

that brings together, among others, UPC, Multimedia Polska, Play, T-Mobile, TVN, Polsat, TV Puls and TVP, was presented. It concerned a position regarding the Polish Council of Ministers' regulation project for 2023, which included research on television signal reception in Poland through the return path (RPD) conducted by the KRRiT. Teresa Brykczyńska, spokeswoman of the KRRiT, emphasises in an interview with "Wirtualne Media" that the KIGEiT's position is only an element of the consultations related to the work on the draft regulation. She also points out that the lack of understanding on the part of KIGEiT regarding the research project, which has been discussed in detail for many years, is surprising (Gąbka, 2022).

RPD data can be obtained from cable operators and various other sources, such as televisions connected to the internet through HbbTV technology, IPTV and satellite decoders, or mobile devices using apps and CDN technology. These data contain information about selected programmes and viewing times and are transmitted as records, usually anonymously, using network protocols such as HTTP (Zawiślińska, Chmielewska & Kondrat, 2023, p. 89).

RPD data aim to increase knowledge of viewers' preferences, their TV viewing behaviour, the time spent consuming content, their favourite programmes, their return to them, the impact of self-promotion on viewing and many other aspects of TV consumption. Notably, the vast amount of RPD data allows for the analysis of both viewer behaviour and the analysis of the appeal of TV programmes, making it possible to create detailed behavioural profiles of viewers.

3. Big Data in the TV market

For at least the last ten years, the concept of Big Data has been appearing in public discourse on technology at business and academic conferences (Cuesta, 2013). The development of technology, distribution and digital communication mean that data and information are now closely linked to user activity. Users do not remain passive recipients of information but actively co-create new data, naturally increasing the amount of information in the digital world.

The term 'Big Data' emerged in the 21st century and refers to the vast data sets generated by various internet technologies. Managing large data sets requires effective aggregation, analysis, and presentation systems. From a business and marketing perspective, Big Data is seen as a knowledge resource aimed at delivering value to customers. This allows companies to gain a competitive advantage and monitor the impact of their actions (Zhan, 2017, pp. 518–536).

Big Data are large, diverse, and dynamic data sets, mainly acquired through telecommunication devices, enabling the collection of technical data (Bosch, 2016, pp. 56–63). Working for the Meta Group, Doug Laney defines Big Data based on three dimensions: the amount of data, the speed of processing and the variety

of data (Lee, 2016, p. 25). Laney defines the concept of Big Data as a vast body of data that supports development through the analysis of new technologies and architectures (Mach-Król, 2016, pp. 75–82). Another definition describes Big Data as datasets that, due to their large volume and complexity, need to be managed through exploratory tools or software (Fan, 2012, pp. 1–5).

Analyses based on extensive data sets from various sources are widely used in marketing. This sector is one of the most dynamic users of Big Data technologies, with a significant impact on the performance of companies (Erevelles, 2015, pp. 897–904). They provide the opportunity to extract information about customer value, their preferences, and consumer actions. Selected characteristics of Big Data are summarised in Table 1.

Table 1. Selected characteristics of *Big Data*.

Characteristic	Description
Size	The size of the data exceeds the capacity of typical software designed to collect, store, and analyse databases.
Variety	The data comes from a wide variety of sources and is highly diverse in content and form, primarily unstructured.
Speed	Data arrives quickly, in near real-time, and is mainly instantaneous in its collection, processing and use.
Credibility	This data type is highly reliable, requiring verification of its sources, identification and removal of so-called dirty data and careful statistical analysis.
Value	Big data sets carry a more significant potential for value to their users than individual data, although the value may have yet to be known.
Variability	Big Data is characterised by a high degree of variability, i.e. it arrives irregularly, at different rates, sometimes with a lag, and takes on extreme values, which raises challenges for how it is analysed.
Viscosity	Big Data is considered to be sticky, i.e. resisting processing and analysis, due to, among other things, its variety and variability.
Virality	This type of data tends to spread rapidly between users.
Redundancy	Much of this type of data is considered to be of little or no use, so one of the purposes of analysing it is to separate valuable data from useless data and remove the excess.
Universality	Big Data can have the virtue of universality, i.e. it can be helpful to achieve different goals or have different uses, with the degree of universality depending, among other things, on its origin, quality, and relevance.

Source: Woźniczka, J. (2018). Big Data i ich wykorzystanie w analityce marketingowej. Wybrane problemy badawcze. *Marketing i rynek*, 3, p. 4.

There is a growing demand in the TV market for more sophisticated consumer knowledge extraction, and this area can benefit significantly from the potential of Big Data. RPD data from cable, IPTV, satellite or HbbTV devices in the Digital

Terrestrial Television space is a valuable source of information. This position is shared by experts, including representatives of Gemius and NASK, who highlighted the importance of Big Data at the 2019 PIKE cable operators' conference (Bochyńska, 2022).

The power of consumer knowledge lies in the ability to integrate data from different sources. Extending the current knowledge of RPD data available in the operator market includes data from IPTV, cable, and satellite decoders. It is also worth noting that information on content consumed on Digital Terrestrial Television can be extracted using HbbTV technology. The combination of this data, combined with data from Mediapanel¹ and Nielsen, can significantly enrich our knowledge of the TV market and consumer behaviour in different media environments.

This data is of great value for TV companies as it provides a deeper understanding of their audience, including their preferences and behaviours towards content. As a result, companies can plan their programs more effectively and make more accurate content distribution decisions. RPD data is a crucial tool to support developing and aligning TV offerings with audience expectations.

The technological potential of feedback data is presented in Figure 3.

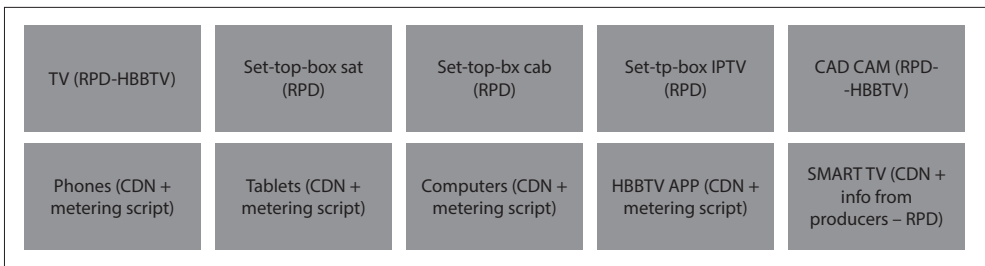


Figure 3: Technological potential for obtaining data from multiple devices and content distribution methods.

Source: Developed by the author.

¹ Mediapanel – Poland's first cross-media survey covering media such as television, radio, and the internet, based on a single-source research sample. It is conducted using innovative measurement technology embedded in the user-respondent's everyday device (proprietary smartphone software). This source of information provides detailed data on the socio-demographic profile of viewers, listeners, and media users, as well as on how they use and co-use with these media – both at home and away. Mediapanel is a unique source that integrates existing research and measurements with information obtained from feedback paths, such as website, app, and audio and video audience research, provided by Gemius and Polskie Badania Internetu, which has been the standard for internet measurement on the Polish market for more than 15 years. In addition, the information in Mediapanel is supplemented by Radio Track research, which provides important information in the form of a reference study on the structure of radio listeners in Poland. Source: Gemius SA.

Comparing the sources of reception of TV content distribution, one can see the popularity of satellite TV, which, however, is decreasing yearly. Reception of TV via cable operators is indicated as the second most popular source, followed by IPTV (Figure 4).

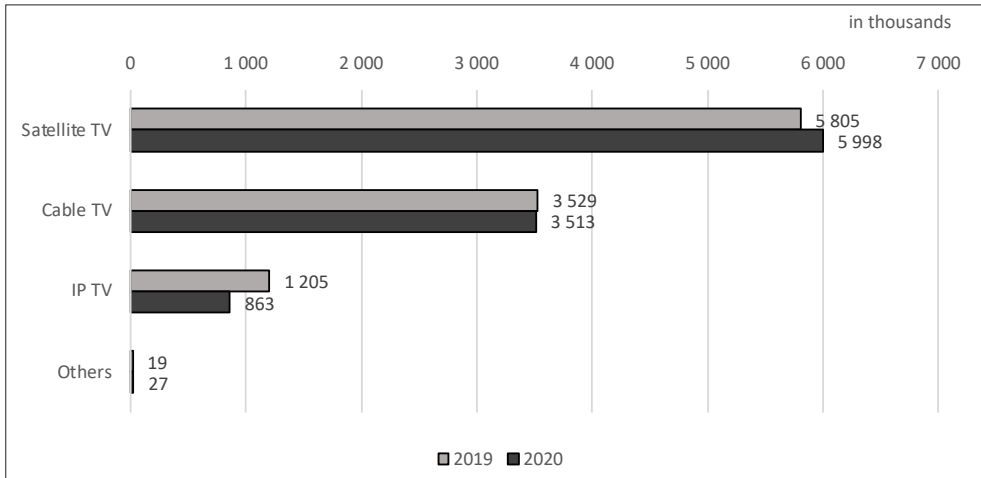


Figure 4. Recipients of pay-TV services.

Source: GUS (2021). Telekomunikacja w 2020 roku. Available at: https://stat.gov.pl/download/gfx/portalinformacyjny/pl/defaultaktualnosci/5512/2/5/1/telekomunikacja_w_2020_r.pdf [19.12.2023].

Analysing the potential of knowledge about cable TV subscribers in Poland, according to the Central Statistical Office (GUS), the number of subscribers is 3,920.0 thousand. A detailed analysis at the province level is presented in Table 2.

Tabela 2. Cable TV subscribers in 2020.

Provinces	In all	Of the total number, services account for		
		telephone	internet access	digital TV
in thousands				
Poland	3920,0	976,0	3139,2	3258,7
Dolnośląskie	250,6	51,4	183,3	208,1
Kujawsko-pomorskie	226,7	45,4	159,4	211,6
Lubelskie	150,2	36,9	97,0	104,6
Lubuskie	93,0	22,3	68,4	81,1
Łódzkie	283,3	26,9	196,3	245,7
Małopolskie	226,2	84,5	222,1	164,5
Mazowieckie	730,9	245,9	680,6	586,6
Opolskie	56,9	17,2	42,4	48,5

Podkarpackie	96,3	16,3	55,0	75,3
Podlaskie	113,4	8,5	59,4	89,6
Pomorskie	368,7	116,9	308,1	319,2
Śląskie	537,0	145,2	371,3	419,8
Świętokrzyskie	75,1	14,0	52,1	64,4
Warmińsko-mazurskie	141,6	21,2	104,1	127,3
Wielkopolskie	350,2	80,6	387,1	335,5
Zachodnio-pomorskie	219,8	42,7	152,7	176,7

Source: GUS (2021). Telekomunikacja w 2020 roku, p. 9.

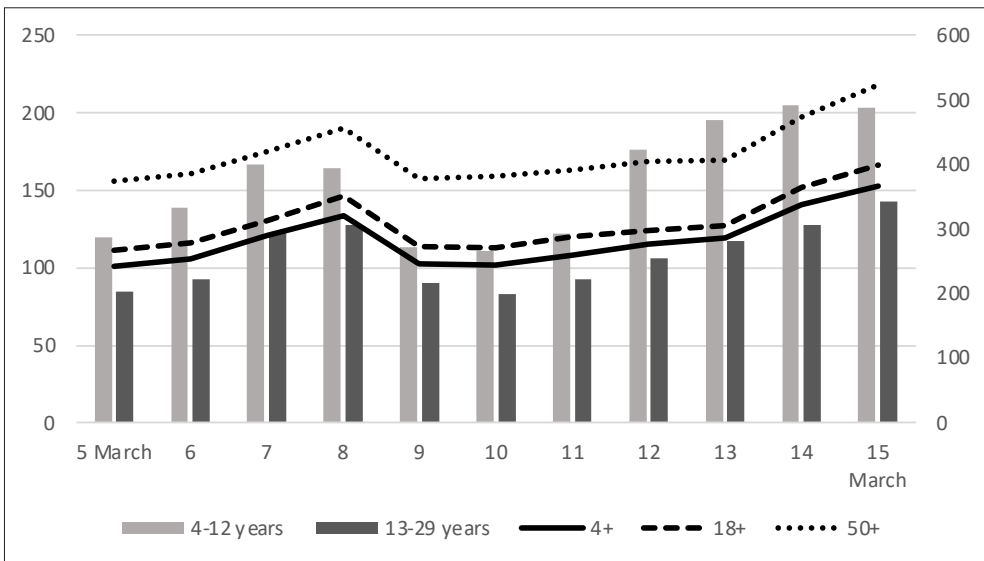


Figure 5. TV audience time during the coronavirus outbreak (COVID-19) in Poland by age, 5–15 March 2020.

Source: Developed based on: Chmielewska, A. (2022). Rynek telewizyjny. Lojalność w dobie zmian technologicznych. Warszawa: Elipsa, p. 229. Based on Statista. (2020). TV audience time during coronavirus (COVID-19) outbreak in Poland 2020, by age. Available at: <https://www.statista.com/statistics/1105663/poland-tv-audience-time-during-the-coronavirus-epidemic/> [19.12.2023].

The RPD data provided by cable operators can be enriched with TERYT information so that it is possible to analyse whether the location of households is important in the choice of programme offers. Ultimately, this data can be used to serve dedicated advertising to viewers – DAI (*Dynamic Ad Insertion*) (Zawiślińska et al., 2023).

4. The use of RPD data in building knowledge about viewers' behaviours in the post-COVID period

The first cases of the COVID-19 virus were announced in Poland on March 4, 2020. On 12 March 2020, the first restrictions to movement and the suspension of classes at schools and universities were implemented. Following these decisions, more people stayed home (Chmielewska, 2022, p. 229).

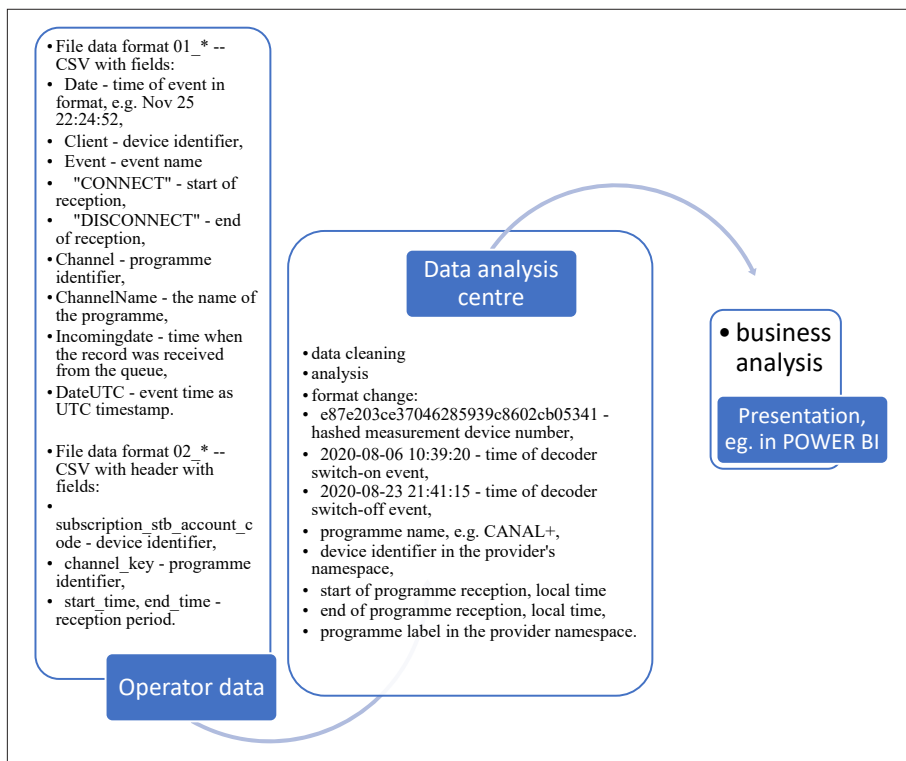


Figure 6. RPD data analysis model.

Source: Developed by Authour based on Gemius data.

With the onset of lockdown, the use of video content increased. According to Nielsen data, most Poles stayed in their households, increasing viewing figures. Viewers mainly chose news stations. The increase was 76 per cent (Kurdupski, 2020). On Sunday, 15 March 2020, people aged 50 and over watched an average of 500 minutes per person. During the same period, viewing children's programmes increased by 25 per cent compared to the previous weekend (Statista, 2020).

Using technical data from 130,000 decoders, it is possible to analyse data to gather information on viewer behaviour of the cable TV market.

To analyse this, building an environment with a specific architecture is necessary. An example of the architecture is shown in Figure 7.

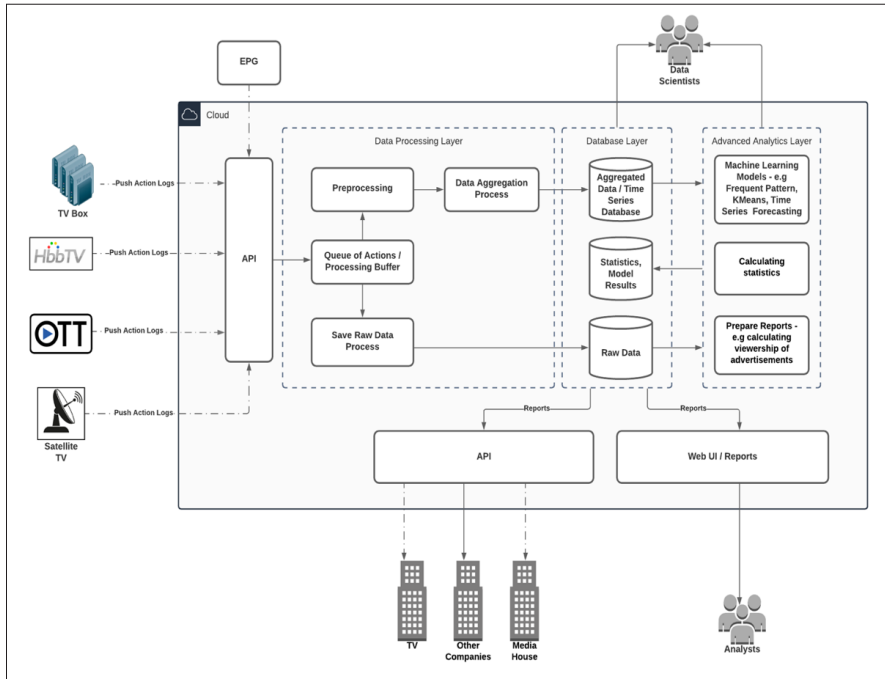


Figure 7. Example architecture for Big Data analysis of RPD data.

Source: Chmielewska, A. (2022). Rynek telewizyjny. Lojalność w dobie zmian technologicznych. Warszawa: Elipsa, appendix 2.

RPD data are an important addition to the knowledge of consumer behaviour of video content. Analyses based on this data allow the presentation of results in different areas (Figure 7). Figure 8 shows the activity of the measuring devices, for example, the Red Carpet antenna on 5 October 2022. One can see explicit viewer activity after 3 p.m. At this time, most users switched from the Polsat Cafe and DOMO+ channels, while those who left often chose Events24 and Polsat Cafe. Analysing the behaviour of viewers, their sources, and destination, it can be assumed that the main viewers of Red Carpet are women, who most often watch this channel from 3 p.m. to midnight.

From 2nd to 5th October 2022, Red Carpet competed for viewer attention with programmes such as Polsat Cafe, DOMO+, Wydarzenia24 and TVN24. During the analysed period, the Red Carpet station gained viewers from these programmes.

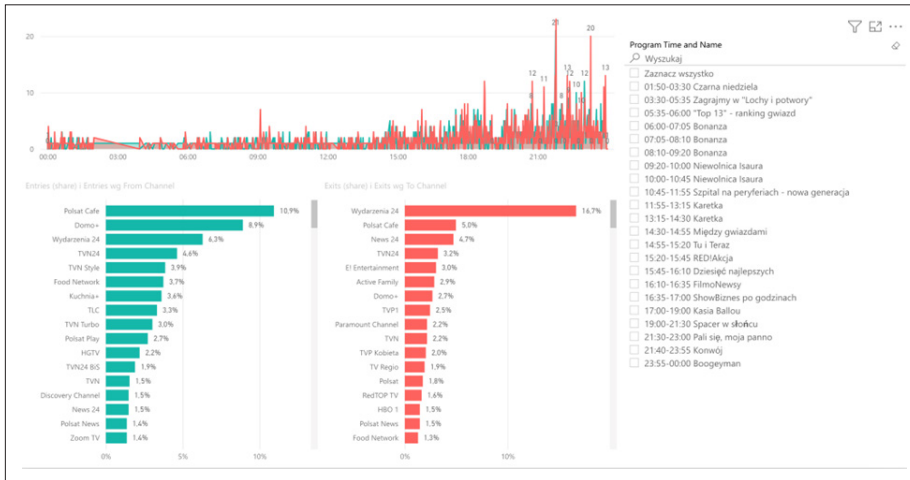


Figure 8. Analysis of user behaviour – from which channel they came and which channel they switched to while watching.

Source: Return Path Data measurement by Gemius S.A.



Rysunek 9. Analysis of the retrieval of decoder viewers over a specific time.

Source: Return Path Data measurement by Gemius S.A.

Compared to programmes such as Antenna or Fokus TV, Red Carpet achieved results based on an analysis of 10,349 active decoders, representing a 0.05% share and 16% reach. The total number of households subscribing to this station is around 200 per month (Figure 10).

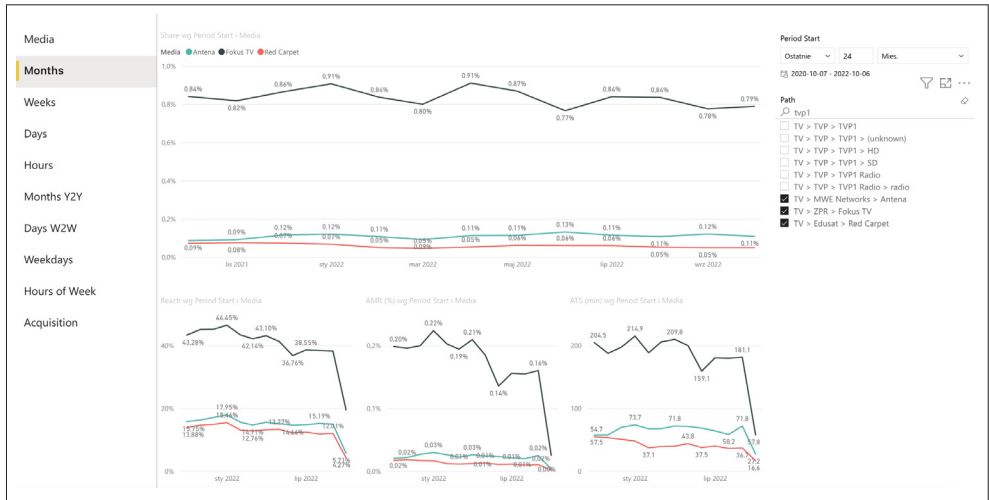


Figure 10. Analysis of audience growth based on cable decoder activity.

Source: Return Path Data measurement by Gemius S.A.

Red Carpet is not as popular as the other analysed stations, but it is noteworthy that it maintains a stable, returning audience over the period studied. Favourite programmes are shown in Figure 11.

From	To	Program	AMR (%)	Share	Reach	ATS (%)	Time Spent (h)	Views	Devices
01:50	03:30	Czarna niedziela	0.00%	0.09%	0.01%	15,88%	3,7	20	14
03:30	05:35	Zagrajmy w "Lochy i potwory"	0.00%	0.08%	0.03%	9,79%	6,9	49	34
05:35	06:00	"Top 13" - ranking gwiazd	0.00%	0.05%	0.01%	31,64%	1,6	13	12
06:00	07:05	Bonanza	0.01%	0.13%	0.04%	23,65%	11,8	54	46
07:05	08:10	Bonanza	0.01%	0.09%	0.05%	16,50%	10,2	65	57
08:10	09:20	Bonanza	0.01%	0.08%	0.05%	16,39%	11,1	67	58
09:20	10:00	Niewolnica Isaura	0.00%	0.05%	0.03%	13,70%	3,6	41	39
10:00	10:45	Niewolnica Isaura	0.01%	0.06%	0.02%	28,83%	5,4	28	28
10:45	11:55	Szpital na peryferiach - nowa generacja	0.01%	0.08%	0.04%	18,15%	11,0	56	52
11:55	13:15	Karetka	0.01%	0.05%	0.09%	6,27%	8,7	114	104
13:15	14:30	Karetka	0.01%	0.06%	0.11%	7,34%	11,7	144	127
14:30	14:55	Między gwiazdami	0.01%	0.04%	0.03%	19,13%	3,1	39	39
14:55	15:20	Tu i Teraz	0.01%	0.05%	0.05%	19,07%	4,3	57	54
15:20	15:45	RED! Akcja	0.02%	0.09%	0.07%	24,30%	8,3	93	82
15:45	16:10	Dziesięć najlepszych	0.02%	0.13%	0.08%	28,7%	11,7	109	98
16:10	16:35	FilmoNewsy	0.03%	0.15%	0.10%	31,06%	14,9	131	115
16:35	17:00	ShowBiznes po godzinach	0.02%	0.10%	0.07%	29,08%	10,5	93	87
17:00	19:00	Kasia Ballou	0.01%	0.06%	0.27%	5,35%	34,4	380	322
19:00	21:30	Spacer w słońcu	0.02%	0.11%	0.44%	4,08%	52,7	643	517
21:30	23:00	Pali się, moja panno	0.02%	0.34%	0.15%	13,19%	34,2	252	173
23:00	00:00	Lody na patyku 2	0.01%	0.24%	0.04%	19,22%	8,3	48	43

Figure 11. Analysis of viewing figures for specific television programs (based on EPG data or broadcast logs).

Source: Return Path Data measurement by Gemius S.A.

Indicators used:

- AMR (AVERAGE MINUTE RATING),
- SHR per cent (AUDIENCE SHARE),
- ATV (AVERAGE TIME VIEWING) – daily television viewing time per statistical Pole,
- ATS (AVERAGE TIME SPENT) – time a viewer spends watching a particular programme per day,
- RCH per cent (REACH) – daily reach, the percentage of people who watched a programme for at least one minute; a person who watched a programme for longer is only counted once.

Analyses conclude that RPD data also has the potential to carry out many other studies, such as assessing viewer loyalty, trend analysis and comparisons with other stations. Studying the effectiveness of advertising activities and analysing the results of self-promotional activities is also possible.

With such data, the household can be characterised by activities on the decoder considering:

- Time – when the decoder is usually on;
- On which programmes the decoder is switched on (TVP 1, C+, WP, Red Carpet);
- On which broadcast the decoder is switched on (thematic broadcasting, e.g. sport, lifestyle, cooking, news, cartoons);
- To which other programmes and broadcasts and at what point the decoder switches;
- How often the decoder is switched on;
- How long has the decoder been on;
- On what days and at what times the decoder is on;
- Decoder territory (additional data from the operator).

By analysing the above, audience profiles can be created based on household behaviour and similar criteria. For example, if the decoder is most often used to watch news and sports programmes, it can be assumed that a male lives in the household. If a cartoon appears to be included on that decoder occasionally, this may suggest the presence of a child. Such data can be used to personalise advertising.

Addressable TV enables delivering content tailored to a specific viewer or household during the broadcast of classic TV commercials. When an advertising block occurs, SCTE tags² indicate that an ad tailored to the viewer can be delivered.

² TV programme signalling is compliant with the SCTE 35 standard, ad server calls are made via HTTPS requests and responses are compliant with the VAST standard. The SCTE message contains signalling data, which may consist of one or more different descriptors, inserted by the sender into the transmitted stream. The SCTE message component 35 enables the signalling of segments of the TV stream. Descriptors of segmentation_descriptor type usually

Such ads are more tailored to the needs and profile of the viewer. A diagram of the personalised ad serving system, known as DAI, is shown in Figure 12.

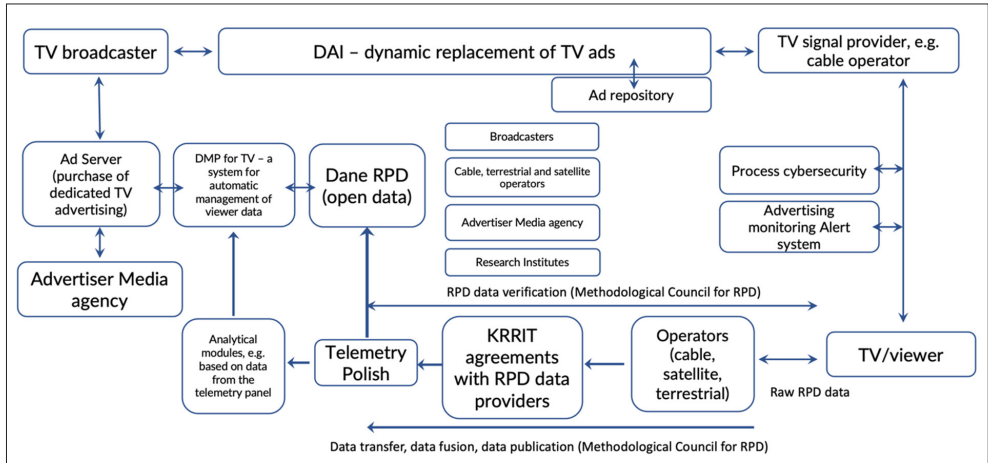


Figure 12. DAI ecosystem on the TV market in Poland.

Source: Grabowski, M. (2020). *Dane RPD – pomiar prowadzony przez KRRIT i zespół Telemetrii Polskiej*. Available at: https://kike.pl/wp-content/uploads/2021/03/KIKEnews1_2020.pdf, p. 11 [19.12.2023].

The diagram above presents a formal arrangement of data flows and interdependencies in the context of the DAI ecosystem. As this diagram indicates, a TV broadcaster can be any TV signal owner.

As part of the business case, free-form interviews were conducted to address questions related to the willingness to use RPD data, its impact on the current business model and the planned implementation of DAI advertising in the near future. A summary of these interviews can be found in Table 3.

This analysis clearly shows the rationale for creating profiles based on RPD data. This is a natural direction for research in the area of TV audience knowledge. RPD data, due to its passive nature, allows for a much more accurate provision of information than data from studies based on smaller groups or surveys. This information, obtained through long-term observation and analysis, will enable the creation of precise TV viewer profiles, which will become a valuable source of knowledge for broadcasters to better build a programme offer, but also for personalised advertising.

occur in pairs (start/end of segment). Other descriptors may simply signal a special moment in TV programmes. Source: MOC TV.

Tabel 3. Assessing the use of RPD data and the willingness of media entities to offer DAI advertising.

Media group name	Used data from the RPD	Uses data from the RPD	Plans to use data from the RPD	Offers DAI advertising	Plans to offer DAI advertising
TVP SA	YES	YES	YES	NO	YES
Canal+ Polska	YES	YES	YES	NO	YES
Red Carpet	YES	NO	NO DATA	NO	NO DATA
WP	YES	NO	NO	YES	YES
TVN-Warner Bros. Discovery	YES	NO DATA	NO DATA	YES	YES
TV Puls	YES	NO	YES	NO	YES

Source: Author's compilation based on interviews conducted 19.09–30.09.2022 with media market experts.

5. Summary

In today's world, knowledge of consumers, their needs, and their behaviour is a key asset in the market. The media industry, especially the television market, strives to obtain as much information as possible about its audiences to better and more effectively adapt its programme offers.

The COVID-19 pandemic period confirmed the validity of television as a significant source of information and as a medium that nurtures the youngest audiences. However, the lockdown and constraints of the pandemic made it challenging to conduct some traditional market research. As a result, the media began to look for new technological solutions to capture information on audience needs.

RPD (Return Path Data), which comes from devices such as cable, satellite and IPTV decoders, as well as CDN (Content Delivery Network) and HbbTV (Hybrid Broadcast Broadband TV) technologies and technical information from TV sets, are rich sources of data. They allow the analysis of vast amounts of information and a thorough understanding of the choices of TV viewers.

As data measurement technologies evolve, commercialisation models in the TV industry are also changing. TV broadcasters are beginning to appreciate this data's potential in building audience profiles. The value of RPD data is that it can be used to personalise advertising offers. This is just one example of using RPD data to create DAI (Dynamic Ad Insertion) ads delivered to the decoders of cable operators and other content distribution platforms.

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Źródła informacji o zachowaniach widzów telewizyjnych z wykorzystaniem pomiaru RPD

Abstrakt

Cel/Teza: Artykuł ma na celu ukazanie jak technologia dystrybucji treści telewizyjnych sprzyja pozyskaniu informacji dla rynku medialnego na temat zachowań widzów. Odpowiada na pytanie, które dane pozwalają na budowanie profili behawioralnych i dostosowanie oferty programowej stacji TV.

Koncepcja/Metody badań: Podstawą do napisania niniejszego artykułu były wyniki badań pilotażowych przeprowadzonych w wybranych przedsiębiorstwach telewizyjnych na temat możliwości wykorzystania danych RPD do budowania świadomości o potrzebach widzów i o wykorzystaniu reklamy personalizowanej w przyszłości. Badania przeprowadzone na danych RPD uzyskanych od firmy Gemius pozwoliły na przeprowadzenie analiz w okresie wrzesień – październik 2022 roku na stacji Red Carpet. Determinantą poszukiwania nowych źródeł do badań był okres COVID-19, który to wpłynął na ograniczenia przeprowadzania badań z respondentami.

Wyniki i wnioski: Przeprowadzone badania potwierdzają możliwości technologiczne wykorzystania danych RPD do budowania profili behawioralnych widzów telewizyjnych. Wywiady przeprowadzone w tym samym czasie potwierdzają chęć wykorzystania przez rynek danych w nowych obszarach biznesowych.

Oryginalność/Wartość poznawcza: Autorka zaprezentowała różnorodność danych pomiarowych uzyskiwanych z wielu form dystrybucji treści telewizyjnych. Dane te mogą być uzupełnieniem obecnych badań lub też być wykorzystane samodzielnie do pozyskiwania wiedzy o aktywności gospodarstw domowych przed odbiorcami. Przyszłość wykorzystania danych RPD upatruje się w reklamie personalizowanej zwanej w skrócie DAI. Analiza potencjału zaprezentowana została na danych RPD od operatorów kablowych i IPTV. Potencjał budowania wiedzy o widzach oraz wykorzystanie danych RPD dla nowych modeli reklamowych jest jednym z nowych kierunków rozwoju dla nadawców telewizyjnych.

Ograniczenia badań: Badania były przeprowadzone na jednym źródle danych RPD – pozyskiwanych od operatorów kablowych i IPTV. Natomiast zasadne jest poszerzenie badań o kolejne obszary dystrybucji, treści takie jak Nziemna Telewizja Cyfrowa oraz nadawanie satelitarne i OTT.

Słowa kluczowe

Reklama. Konsument mediów. Rynek telewizyjny. Telewizja. RPD. Big Data. COVID-19.

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