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THE ATTITUDES OF SLOVAK DIGITAL NATIVE STUDENTS TOWARDS ONLINE VIDEO ADVERTISING

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ABSTRACT:
The proliferation of video ads has drawn the attention of both researchers and practitioners. Academic research is expected to provide a deeper understanding of factors driving the irritation of users from online video ads and factors possibly reducing their general reluctance towards subscribing to premium video services. This study responds to these calls by analysing the attitudes of Slovak digital natives towards online video advertising. Through quantitative research on a sample of 137 Slovak university students, it examines their knowledge of and preferences regarding various video advertising formats, the use of ad blockers, and the attitudes towards paid services enabling ad-free consumption of video content. The results have revealed that these users prefer skippable ads; however, they would rather be exposed to one longer non-skippable video ad than three shorter skippable ads. Most of them know that the income from ad sales is crucial for maintaining the revenue stream for social media platforms and content publishers. However, at the same time, most of them are using ad blockers and refuse to pay for ad-free content. The results of this study foster a deeper understanding of the attitudes of digital natives towards online video ads and associated matters. Based on the knowledge provided, media and advertisers can tailor their advertising strategies to reflect the preferences and behaviour of this prospective consumer group.

KEY WORDS:
adblockers, digital marketing, digital natives, digital video, online advertising, online video ads, pre-roll advertising, video advertising

1 Introduction

Spendings on video ad production and placement have skyrocketed over the past years. Most ads are produced so elaborately that a video ad can be considered a miniature movie with advanced creative art design.[1] Video ad spending experienced a steep increase and is expected to reach 37.418 million American dollars in 2021,[2] with a projected growth of 5.1% until 2025. In 2018, more than half (59%) of digital budgets were allocated to video.[3] Revenues from video ads represent a substantial part of the revenues of major social media companies – in 2018, they accounted for 29.8% of total revenues of *Facebook*, 55% of *Twitter* and 60% of *Snapchat*.[4] Although media buyers, planners and brands have reported that the coronavirus has impacted their ad spending, it is expected for online ad spending to resume growth after the pandemic.[5]

The proliferation of video ads in both Internet services and interactive TV services has drawn the attention of researchers and practitioners. Researchers are investigating how to optimise the delivery of video ads based on more efficient targeting,[6] how to include links to relevant products in the ads,[7] how to address the natural user behaviour of skipping video ads as soon as it becomes possible,[8] etc. Moral and brand safety questions related to serving video ads near content promoting extremist, terrorist or in any other way inappropriate and dangerous views have also arisen.

The success of and revenues from video advertising depend on whether the target audience will consume the video and whether the ads will have the power to influence their purchasing behaviour. Therefore, the research presented in this study aims to determine how target audiences perceive video ads and how they behave regarding their consumption. Specifically, it examines the attitudes of Slovak digital native university students towards video advertising. These young people have been in close touch with technologies since their young childhood. They already represent an interesting consumer target group for many brands, and their purchasing power will further increase over the following years. Therefore, understanding their perception of and behaviour regarding online video ads is of paramount importance for advertisers targeting these consumers.

The theoretical background of this study involves a review of the relevant literature. Furthermore, the research gap and research questions and methodological frameworks are defined, including the sample details, data collection and data processing methods. The results of the study are presented, followed by a discussion, implications of the study, limitations and future research, and conclusion. Three topics are relevant for this study: 1) online video in marketing; 2) attitudes towards online video advertising; 3) digital natives and their consumption patterns.

2 Online Video in Marketing

In 2020, media consumption has become even more fragmented. The shift from 'traditional' TV to CTV has continued, along with the move from print to digital.[9] The popularity of online video has increased over the past years.[10] Although there are numerous online video platforms, nearly 79% of marketers believe that *YouTube* is the most effective platform for video marketing.[11] In May 2019, 500 hours of video were uploaded

1 WANG, J. et al.: Linking Video Ads with Product or Service Information by Web Search. In *ICME: 2009 IEEE International Conference on Multimedia & Expo. Conference Proceedings*. New York : IEEE, 2009, p. 275.
2 *Video Advertising*. [online]. [2021-11-13]. Available at: <https://www.statista.com/outlook/218/100/video-advertising/worldwide>.
3 SRUOGINIS, K. et al.: *IAB 2018 Video Ad Spend Study*. Released in April 2018. [online]. [2021-10-09]. Available at: <https://www.iab.com/wp-content/uploads/2018/04/2018_IAB_NewFronts_Video_Ad_Spend_Report.pdf>.
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7 BUDINSKÝ, M., TÁBORECKÁ-PETROVIČOVÁ, J.: Perception of Product Placement Usage by Slovak Consumers. In *Marketing Science & Inspirations*, 2019, Vol. 14, No. 1, p. 30.
8 CAMPBELL, C. et al.: Understanding Why Consumers Don't Skip Pre-Roll Video Ads. In *Journal of Advertising*, 2017, Vol. 46, No. 3, p. 418.
9 *2021 and Beyond: A Series of Predictions from the U7*. [online]. [2021-11-15]. Available at: <https://go.unruly.co/u7_predictions_2021>.
10 KUCHTA, M., MIKLOŠÍK, A.: Evolution of Digital Video Consumption Patterns. In *Communication Today*, 2017, Vol. 8, No. 2, p. 59.
11 COOPER, P.: *43 Social Media Advertising Statistics that Matter to Marketers in 2020.* Released on 23rd April 2020. [online]. [2021-10-08]. Available at: <https://www.viidigital.com/43-social-media-advertising-statistics-that-matter-to-marketers-in-2020/>.

just to *YouTube* every minute, compared to 72 hours in May 2012.[12] *YouTube* has more than 2 billion logged-in monthly users from more than 100 countries around the world who watch more than a billion videos every day.[13] It is expected that the trend of growing online video content consumption will continue. According to a McKinsey survey conducted in the U.S., 70% of people intend to permanently adopt much of their pandemic-friendly behaviour such as online shopping, home fitness and streaming video.[14]

Video is perceived as a powerful tool to communicate brand stories[15] and build relationships with consumers on social media.[16] Advertisers are increasingly investing in video content and video advertising. Although 2020 has been one of the most challenging years for the advertising sector since the Great Recession of 2008, the online video remained relatively stable.[17] There are also several risks for brands, which are associated with online video advertising. Undesirable ad contexts reduce the positive effects of ads and harm brand reputation.[18] Programmatic buying – computerised media scheduling – although great for saving time with the management of spots in programs or websites,[19] can also be dangerous and cause the right audience to see a brand's ad in an unfavourable context.[20]

The growing penetration of ad blockers, the technology used to block out online ads, represents another issue for advertisers and content publishers. Although the number of desktop ad block users has declined mildly, mobile ad blocking is now maturing and growing faster than desktop ad-blocking ever did.[21] At the end of 2019, 236 million users were blocking ads on desktop, while 527 million users were using mobile browsers that block ads by default.[22] Following *Netflix*, the innovator in the subscription models in the over-the-top (OTT) service market,[23] other video platforms started offering their users an option to consume video content without the ads. On *YouTube*, *YouTube Premium* is available for a monthly fee for users from selected countries.[24] The paid services provided by global video platforms also affect other platform companies that have recently entered the market, e.g., *Disney+*, *AT&T*, *Apple* or are already competitors, e.g., *Hulu*, *Amazon*.[25]

12 TANKOVSKA, H.: *Hours of Video Uploaded to YouTube Every Minute as of May 2019*. Released in 2021. [online]. [2021-11-15]. Available at: <https://www.statista.com/statistics/259477/hours-of-video-uploaded-to-youtube-every-minute/>.
13 *YouTube for Press.* [online]. [2021-11-01]. Available at: <https://blog.youtube/press/>.
14 CHARM, T. et al.: *Survey: US Consumer Sentiment during the Coronavirus Crisis.* Released on 14th December 2021. [online]. [2021-12-14]. Available at: <https://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/survey-us-consumer-sentiment-during-the-coronavirus-crisis>.
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16 CHADHA, R.: *US Social Users Head to YouTube, Facebook to Watch Videos.* Released on 2nd February 2018. [online]. [2021-10-08]. Available at: <https://www.emarketer.com/content/us-social-users-head-to-youtube-facebook-to-watch-videos>.
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19 FULGONI, G. M., LIPSMAN, A.: Measuring Television in the Programmatic Age. In *Journal of Advertising Research*, 2017, Vol. 57, No. 1, p. 11.
20 See: BELLMAN, S. et al.: Brand Safety: The Effects of Controversial Video Content on Pre-Roll Advertising. In *Heliyon*, 2018, Vol. 4, No. 12, p. 1-23.
21 BLANCHFIELD, S. et al.: *Growth of the Blocked Web: 2020 PageFair Adblock Report.* [online]. [2021-10-08]. Available at: <https://f.hubspotusercontent10.net/hubfs/4682915/Adblock%20Reports/Blockthrough%20Report%202020.pdf>.
22 BLANCHFIELD, S. et al.: *Growth of the Blocked Web: 2020 PageFair Adblock Report.* [online]. [2021-10-08]. Available at: <https://f.hubspotusercontent10.net/hubfs/4682915/Adblock%20Reports/Blockthrough%20Report%202020.pdf>.
23 SHON, M. et al.: Free Contents vs. Inconvenience Costs: Two Faces of Online Video Advertising. In *Telematics and Informatics*, 2021, Vol. 56, p. 4.
24 *YouTube Premium*. [online]. [2021-11-01]. Available at: <https://www.youtube.com/premium>.
25 SHON, M. et al.: Free Contents vs. Inconvenience Costs: Two Faces of Online Video Advertising. In *Telematics and Informatics*, 2021, Vol. 56, p. 5.

3 Attitudes towards Online Video Advertising

Studies show that consumers are avoiding online ads as they often regard them as annoying and disruptive.[26] They are also less likely to trust online advertising messages than other users' opinions about brands on social media.[27] Despite these facts, more people are seeing ads because of the rise of video and Story format ads, which generally perform well with attracting impressions and engagement.[28] This is backed by the research by Global Web Index showing that using social video as a marketing strategy appears less intrusive than ads and creates more opportunities for brands to communicate their message and build engagement.[29]

Studying consumer attitudes towards online video advertising is emerging in current research.[30] The rising adoption of ad blockers by users is proving challenging for media and advertisers.[31] Users are increasingly focusing on online privacy and security.[32] Intrusive video advertisements negatively affect both the brand and the website, while informative, humorous plus longer advertisements are perceived as less intrusive.[33] Awe and affection emotions in video ads can influence their positive perception and trigger virality in social media.[34] The type of video ad also influences users' attitudes toward the ad and how it is consumed.[35]

The general classification of video ads distinguishes between 1) pre-roll ads, with promotional videos appearing before the video content that users want to play; 2) mid-roll ads, appearing during the video; and 3) post-roll ads, played after the video content.[36] Some video platforms, for example, *YouTube*,[37] also offer skippable and non-skippable video ad formats. Emerging research focuses on various video ad formats, their perceptions by users, and response to them.[38] The opportunity of skipping contributes to the lower intrusiveness of pre-roll video ads.[39] However, attention-getting tactics including loudness or celebrity

26 See: REDONDO, I., AZNAR, G.: To Use or Not to Use Ad Blockers? The Roles of Knowledge of Ad Blockers and Attitude toward Online Advertising. In *Telematics and Informatics*, 2018, Vol. 35, No. 6, p. 1610; KIM, N. Y.: The Effect of Ad Customization and Ad Variation on Internet Users' Perceptions of Forced Multiple Advertising Exposures and Attitudes. In *Journal of Interactive Advertising*, 2018, Vol. 18, No. 1, p. 20; LI, H. R., EDWARDS, S. M., LEE, J. H.: Measuring the Intrusiveness of Advertisements: Scale Development and Validation. In *Journal of Advertising*, 2002, Vol. 31, No. 2, p. 41; KRATKY-KATZ, M.: *PageFair 2017 Report: The State of the Blocked Web*. Released on 1st February 2017. [online]. [2021-10-11]. Available at: <https://pagefair.com/blog/2017/adblockreport/>.

27 KRATKY-KATZ, M.: *PageFair 2017 Report: The State of the Blocked Web*. Released on 1st February 2017. [online]. [2021-10-11]. Available at: <https://pagefair.com/blog/2017/adblockreport/>.

28 *Social Media Advertising Cost-Per-Mille (CPM) Worldwide from 2nd Quarter 2018 to 2nd Quarter 2020.* Released in 2020. [online]. [2021-11-13]. Available at: <https://www.statista.com/statistics/873631/social-media-advertising-cpm/>.

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30 YANG, K. C. et al.: Consumer Attitudes toward Online Video Advertising: An Empirical Study on YouTube as Platform. In *2014 IEEE International Conference on Industrial Engineering and Engineering Management. Conference Proceedings*. Selagor : IEEE, 2014, p. 1133.

31 MIKLOŠÍK, A., KUCHTA, M., ŽÁK, Š.: Monetising Content through Delivery of Advertisements: The Case of Ad Blockers. In *Ad Alta – Journal of Interdisciplinary Research*, 2018, Vol. 8, No. 1, p. 177.

32 STRZELECKI, A., RIZUN, M.: Consumers' Security and Trust for Online Shopping after GDPR: Examples from Poland and Ukraine. In *Digital Policy Regulation and Governance*, 2020, Vol. 22, No. 4, p. 301.

33 GOODRICH, K., SCHILLER, S. Z., GALLETTA, D.: Consumer Reactions to Intrusiveness of Online-Video Advertisements. In *Journal of Advertising Research*, 2015, Vol. 55, No. 1, p. 44.

34 NIKOLINAKOU, A., KING, K. W.: Viral Video Ads: Emotional Triggers and Social Media Virality. In *Psychology & Marketing*, 2018, Vol. 35, No. 10, p. 720.

35 KIM, S., HUH, J.: Psychological Reactance to Online Video Ads and Potential Mitigating Effects of the Ad Skip Option. In *American Academy of Advertising. Conference Proceedings*. Athens : University of Georgia, 2017, p. 122.

36 ISMAIL, K.: *What Are Pre-Roll Ads? (And How Can You Leverage Them?).* Released on 4th February 2019. [online]. [2021-10-09]. Available at: <https://www.cmswire.com/content-marketing/what-are-pre-roll-ads-and-how-can-you-leverage-them/>.

37 *About Video Ad Formats.* [online]. [2021-10-08]. Available at: <https://support.google.com/youtube/answer/2375464?hl=en>.

38 See: BELANCHE, D., FLAVIAN, C., PEREZ-RUEDA, A.: Stimulating Users in Online Pre-Roll Ads: How to Use Arousal for Different Advertising Audiences. In BIGNE, E., ROSENGREN, S. (eds.): *Advances in Advertising Research X*. Wiesbaden : Springer Gabler, 2019, p. 119; CAMPBELL, C. et al.: Understanding Why Consumers Don't Skip Pre-Roll Video Ads. In *Journal of Advertising*, 2017, Vol. 46, No. 3, p. 411; HEGNER, S., KUSSE, D., PRUYN, A.: Watch It! The Influence of Forced Pre-Roll Video Ads on Consumer Perceptions. In VERLEGH, P., VOORVELD, H., EISEND, M. (eds.): *Advances in Advertising Research*. Wiesbaden : Springer, 2016, p. 63; KIM, S., HUH, J.: Psychological Reactance to Online Video Ads and Potential Mitigating Effects of the Ad Skip Option. In *American Academy of Advertising. Conference Proceedings*. Athens : University of Georgia, 2017, p. 122; LI, H., LO, H. Y.: Do You Recognize Its Brand? The Effectiveness of Online In-Stream Video Advertisements. In *Journal of Advertising*, 2015, Vol. 44, No. 3, p. 208; NAM, Y., LEE, H. S., JUN, J. W.: The Influence of Pre-Roll Advertising VOD via IPTV and Mobile TV on Consumers in Korea. In *International Journal of Advertising*, 2019, Vol. 38, No. 6, p. 867; RAWAT, S. et al.: Mid Roll Advertisement Placement Using Multi Modal Emotion Analysis. In TETKO, I. V. (ed.): *Artificial Neural Networks and Machine Learning – ICANN 2019: Text and Time Series*. Munich : Springer, 2019, p. 159.

39 HEGNER, S., KUSSE, D., PRUYN, A.: Watch It! The Influence of Forced Pre-Roll Video Ads on Consumer Perceptions. In VERLEGH, P., VOORVELD, H., EISEND, M. (eds.): *Advances in Advertising Research*. Wiesbaden : Springer, 2016, p. 69.

presence trigger ad-skipping behaviour as they help users recognise an ad.[40] Little is known about effective strategies to take and maintain consumers' attention in respect to pre-roll video ads.[41] Pre-roll video ads can influence purchasing behaviour, with IPTV video ads being more effective than mobile video ads.[42] Brands in longer in-stream video ads have a significantly higher chance of recognition than those in shorter ads.[43] Full-length advertising is watched more than skippable advertising, but the difference in ad viewership is small.[44]

4 Digital Natives

The term "digital natives" was introduced by Prensky in 2001 to describe the generation of people who grew up in the era of technology. He describes them as *"native speakers of the digital language of computers, video games, and the Internet"*.[45] This generation understands technology and adopts it naturally,[46] although it cannot be automatically assumed that familiarity with one kind of technology means mastery over many.[47] These young people will be drivers of the technological change of the fourth industrial revolution.[48] They will be in charge of the implementation of technological innovations such as the Internet of Things, Big Data, cloud computing operations, virtual reality or 3D printing in (not only) Slovakian companies.[49] Because of the increasing purchasing power of digital natives, special strategies have been developed to reach them. These included making social media the primary marketing platform, gamifying the promotions, appealing to aspirational desires or digging into the ad data for insights.[50] The millennial categorisation is an alternative to digital natives. Whether the term "digital natives" or "millennials" is used, many of the characteristics and techniques remain the same.[51]

In the digital age, a person can exert significant influence on not only their identity but also their behaviour as consumers.[52] Significant effort has been made to understand the behaviour of digital natives to tailor the products and their marketing to their needs. Their journeys in the buying process before purchasing a product can be diverse, long and complicated.[53] Although they can be influenced by sources beyond the control of any retailers, technology and social media are an important part of the shopping journey.[54] Therefore, understanding how these consumers perceive and consume video advertising can enable researchers and practitioners to communicate with them more efficiently.

40 CAMPBELL, C. et al.: Understanding Why Consumers Don't Skip Pre-Roll Video Ads. In *Journal of Advertising*, 2017, Vol. 46, No. 3, p. 419.

41 BELANCHE, D., FLAVIAN, C., PEREZ-RUEDA, A.: Stimulating Users in Online Pre-Roll Ads: How to Use Arousal for Different Advertising Audiences. In BIGNE, E., ROSENGREN, S. (eds.): *Advances in Advertising Research X*. Wiesbaden : Springer Gabler, 2019, p. 125.

42 NAM, Y., LEE, H. S., JUN, J. W.: The Influence of Pre-Roll Advertising VOD via IPTV and Mobile TV on Consumers in Korea. In *International Journal of Advertising*, 2019, Vol. 38, No. 6, p. 881.

43 LI, H., LO, H. Y.: Do You Recognize Its Brand? The Effectiveness of Online In-Stream Video Advertisements. In *Journal of Advertising*, 2015, Vol. 44, No. 3, p. 214.

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46 RIZUN, M., STRZELECKI, A.: Students' Acceptance of the COVID-19 Impact on Shifting Higher Education to Distance Learning in Poland. In *International Journal of Environmental Research and Public Health*, 2020, Vol. 17, No. 18, p. 8.

47 BENNETT, S., MATON, K. A., KERVIN, L.: The "Digital Natives" Debate: A Critical Review of the Evidence. In *British Journal of Educational Technology*, 2008, Vol. 39, No. 5, p. 780.

48 LIŽBETINOVÁ, L. et al.: Motivational Preferences within Job Positions Are Different: Empirical Study from the Czech Transport and Logistics Enterprises. In *Economic Research – Ekonomska Instrazivanja*, 2021, Vol. 34, No. 1, p. 2397.

49 GRENČÍKOVÁ, A., KORDOŠ, M., BERKOVIČ, V.: The Impact of Industry 4.0 on Jobs Creation within the Small and Medium-Sized Enterprises and Family Businesses in Slovakia. In *Administrative Sciences*, 2020, Vol. 10, No. 3, p. 12.

50 HALTON, C.: *Digital Native.* Updated on 26th August 2021. [online]. [2021-10-08]. Available at: <https://www.investopedia.com/terms/d/digital-native.asp#:~:text=Digital native is a term,including computers and the internet>.

51 HALTON, C.: *Digital Native.* Updated on 26th August 2021. [online]. [2021-10-08]. Available at: <https://www.investopedia.com/terms/d/digital-native.asp#:~:text=Digital native is a term,including computers and the internet>.

52 See: SOLOMON, M. R.: *Consumer Behaviour: Buying, Having and Being*. 8th Edition. Melbourne : Pearson Education, 2009.

53 HALL, A., TOWERS, N., SHAW, D. R.: Understanding How Millennial Shoppers Decide What to Buy: Digitally Connected Unseen Journeys. In *International Journal of Retail & Distribution Management*, 2017, Vol. 45, No. 5, p. 507.

54 See: BOLTON, R. et al.: Understanding Generation Y and Their Use of Social Media: A Review and Research Agenda. In *Journal of Service Management*, 2013, Vol. 24, No. 3, p. 245; HALL, A., TOWERS, N., SHAW, D. R.: Understanding How Millennial Shoppers Decide What to Buy: Digitally Connected Unseen Journeys. In *International Journal of Retail & Distribution Management*, 2017, Vol. 45, No. 5, p. 498.

5 Objectives and Methods

The focus of this study is to offer insights into user preferences regarding online video ads. Specifically, the present research aims to understand the attitudes of Slovak digital natives towards online video ads. The following research questions have been defined to support the achievement of the main research objective:

RQ1: What are the preferences of Slovak digital natives in regards of types and formats of video ads?
RQ2: What is the attitude of these users towards ad blockers and which ad formats have triggered their use?
RQ3: What is the opinion of Slovak digital natives regarding paying for premium ad-free content?
RQ4: Does gender influence the attitudes of Slovak digital natives towards online video ads?

A quantitative research study has been selected to explore the behaviour of a target group in relation to a studied phenomenon.[55] Details on the sampling method, sample size and structure, questionnaire, and data collection are presented in the following parts of this section. Non-probability sampling which involves personal judgement somewhere in the selection process[56] has been used for the purpose of the research. While some statisticians are reserved about non-probability sampling designs, they are often used legitimately and effectively.[57] The non-probability sampling method used in this study was judgemental and convenience sampling. In judgemental sampling, population elements are intentionally selected, choosing those who can offer some perspective on the research.[58] This results in certain individuals having a lower degree of probability of being selected into a sample than others. To obtain information quickly and inexpensively, convenience sampling was used.

The research focused on students of the two largest universities in Slovakia: The University of Economics in Bratislava and Comenius University in Bratislava, who were enrolled in the management and marketing study programmes. The students were approached by their lecturers with information about the context of the study. Their participation in the research was voluntary and anonymous. They were not promised any bonus points for participation in the research and were assured that non-participation would not influence their academic statuses or grades. In total, 137 university students participated in the study. The sample size is sufficient for a pilot study, with the possibility of working on a follow-up study with a larger research sample in the future. Table 1 shows their detailed demographic information.

Table 1: Demographics of participants

Demographics	Frequency	Percentage (%)
Gender		
Male	95	69.3
Female	42	30.7
Age		
20 and less	4	0.03
21 – 22	41	0.30
23 – 24	68	0.50
25 – 26	12	0.09
27 – 30	4	0.03
31 and more	8	0.06
	N = 137	

Source: Own processing

55 See: AAKER, D. A., KUMAR, V., DAY, G. S.: *Marketing Research*. Danvers : Wiley, 2014.
56 See also: IACOBUCCI, D., CHURCHILL, G. A.: *Marketing Research: Methodological Foundations*. Nashville : CreateSpace Independent Publishing Platform, 2018.
57 Compare to: AAKER, D. A., KUMAR, V., DAY, G. S.: *Marketing Research*. Danvers : Wiley, 2014.
58 See: IACOBUCCI, D., CHURCHILL, G. A.: *Marketing Research: Methodological Foundations*. Nashville : CreateSpace Independent Publishing Platform, 2018.

An electronic survey, mapping the experience with and attitudes towards online video advertising, was developed using Google Forms. The questionnaire contained 19 questions in four parts: 1) encounters with and attitudes towards video ads; 2) ad blockers; 3) paying for ad-free content; 4) demographic data. Certain questions were conditional, e.g., respondents were only shown a question about the reasons of using ad blockers in case they answered 'yes' to the previous question about whether they were using them.

Data was collected between 25th April and 31st May 2019. Descriptive statistics were used to achieve greater insight into the data, and to compare and interpret it effectively. The Pearson chi-square test was utilised to determine whether there were statistically significant differences between demographic characteristics and the answers to certain questions. The selection of Pearson chi-square was deemed appropriate due to the character of variables (categorical). Testing was done at the alpha level $\alpha = 0.05$. Null and alternate hypotheses were formulated as follows:

H_0: *There is no statistically significant relationship between gender and answers to individual questions.*
H_1: *A statistically significant relationship exists between gender and answers to individual questions.*

6 Results

All 137 respondents confirmed that they have been exposed to online video ads. Most of the research participants encounter them on social media (81.8%), followed by videos embedded on websites (14.6%) and online video banners (3.6%). In general, there were more respondents who felt bothered by video ads than those who did not mind them. Their attitude towards video ads is comparable to that towards traditional banner ads.

Types and Formats of Video Ads

Post-roll video ads are considered the least intrusive by the majority of the respondents (62%), followed by pre-roll (35.8%) and mid-roll (2.2%). A visualisation can be seen in Figure 1.

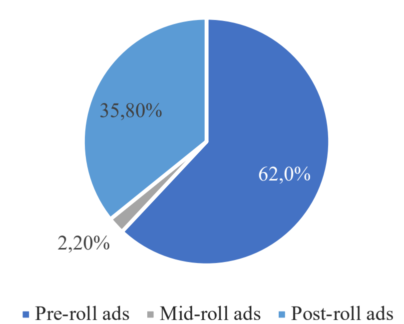

Figure 1: User preferences regarding video ad types
Source: Own processing

In regard to pre-roll video ads, 92.7% of respondents said that they would rather be exposed to a 30-second video ad that can be skipped after 5 seconds than a 10 second, a non-skippable video ad (Figure 2). 62.7% of respondents would rather watch one longer, non-skippable ad than three video ads, skippable after 5 seconds.

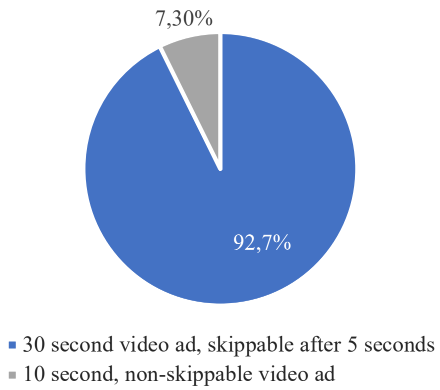

Figure 2: User preferences regarding pre-roll video ads
Source: Own processing

Using Ad Blockers

Respondents confirmed that they understand (63.5% strongly agree and 32.1% agree) that video ads represent one of the key sources of websites' revenues (Figure 3).

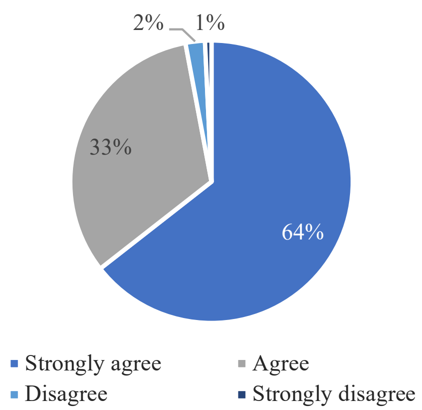

Figure 3: Ad sales as an important revenue stream for websites
Source: Own processing

Most of them (56.9%) would accept one or two ads in their social media videos, less than half would rather not see any ad (41.6%) and two of them said that they would be willing to accept three or four video ads (1.5%). More than half of respondents confirmed that they are using an ad blocker (60.6%). The existence of aggressive banner ads that cover the content triggered the use of the ad blockers for most of the respondents (61.4%), followed by video ads (28.9%) – see Figure 4 for details.

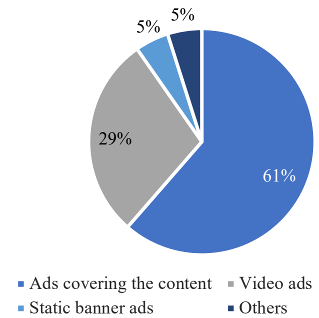

Figure 4: Reasons for using ad blockers
Source: Own processing

Paying for Ad-Free Content

Respondents have identified that they are mostly only willing to pay less than three euros for ad-free content (88.2%), with 11% willing to pay up to six euros. Details are shown in Figure 5.

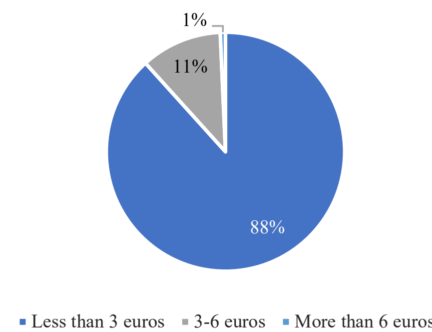

Figure 5: Monthly price cap for ad-free content
Source: Own processing

More than half of them were not aware that *YouTube* offers a premium service where no ads are being served. 41.2% of respondents did know *YouTube Premium* but were not thinking of using it. 3.7% of respondents were considering using it in the future. Out of the various reasons that motivate or could motivate users to pay for *YouTube Premium*, watching videos without ads was the most frequently chosen reason (62.4%). All responses are captured in Table 2 (multiple choices were allowed).

Table 2: Reasons for considering YouTube Premium

Choice	Frequency	Percentage (%)
Watching videos without ads	83	62.4
Downloading videos (offline mode)	63	47.7
Listening to audio in the background	51	38.3
Exclusive content for subscribers	49	36.8
Others	5	3.8

Source: Own processing

Influence of Gender on Online Video Ad Perceptions

Statistical analysis has revealed statistically significant differences between how men and women perceive online video ads and related matters.

Question: What type of ads was the main reason for using an adblocker?
Interpretation: It is mostly ads that cover the content by women and video ads by men. Results of the chi-square test are displayed in Table 3.

Table 3: Gender and the main reason for using ad blockers

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	14,078[a]	5	,015
Likelihood Ratio	14,516	5	,013
Linear-by-Linear Association	10,788	1	,001
N of Valid Cases	83		

a. 8 cells (66,7%) have expected count less than 5. The minimum expected count is ,31.

Source: Own processing

Question: Are you aware of the service *YouTube Premium*, enabling you to watch videos ad free?
Interpretation: Most women do not know about the service. Men are aware of it; however, they do not intend to use it. Results of the chi-square test are displayed in Table 4.

Table 4: Gender and the awareness of YouTube Premium

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	10,512[a]	2	,005
Likelihood Ratio	11,753	2	,003
Linear-by-Linear Association	7,967	1	,005
N of Valid Cases	136		

a. 2 cells (33,3%) have expected count less than 5. The minimum expected count is 1,51.

Source: Own processing

Question: What motivates or could motivate you to pay for *YouTube Premium*?
Interpretation: With men, premium content was the most frequently stated motivator, whereas women are mostly attracted to the feature of watching videos ad-free. Results of the chi-square test are displayed in Table 5.

Table 5: Reasons behind the willingness to pay for YouTube Premium

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	14,851[a]	5	,011
Likelihood Ratio	15,115	5	,010
Linear-by-Linear Association	4,773	1	,029
N of Valid Cases	133		

a. 6 cells (50,0%) have expected count less than 5. The minimum expected count is ,92.

Source: Own processing

7 Discussion: Implications of the Study, Limitations and Future Research

In terms of the types of video ads, users prefer post-roll video ads. In cases when they must be exposed to pre-roll ads, there is a clear preference for skippable video ads. 92.7% of users answered that they would rather be exposed to a 30-second video ad that can be skipped after 5 seconds than a 10 second, non-skippable video ad. However, when it comes to the number of video ads, the situation changes. More users would rather bear with one longer (non-skippable) pre-roll video ad than three shorter (skippable) video ads. This is in line with Joa et al. who found out that non-skippable video ads are watched more than skippable ads.[59] There is a clear order in user preferences when it comes to video ad length and features. The number of ads comes first, with users preferring to see just one. Users are also experienced in ad-skipping and as their second preference, they stated having the ability to skip the ad, even if it means that the ad is longer (RQ1).

Although most of the users understand that media and publishers need revenues from selling online ads, it does not prevent them from using ad blockers. Because of this, websites are losing money from the online ads they could have shown if there were no adblocks installed and used. As publishers depend on the income from online advertising, they are looking for ways to respond to the increased usage of ad blockers.[60] Their goals and actions contrast with those of users who protect their browsing experience privacy. When asked about the forms of online ads that triggered the use of an ad blocker, most of the users selected the aggressive banners that prevent them from consuming content. More than a quarter of respondents (28.9%) chose online video ads as the main reason for using ad blockers (RQ2).

The results indicate that most of the digital native consumers are not inclined towards paying for ad-free content. They are happy to use ad blockers instead to save money. If they were to pay for ad-free content, most of them would prefer to pay less than 3 euros per month. This is illustrated by their attitude towards *YouTube Premium*. More than half of respondents do not know about the service and most of the rest do not consider starting to use it. Their attitudes correspond with the pricing of *YouTube Premium* which is significantly more expensive than they are willing to pay. This situation can change with their increasing purchasing power, however, their habits, attitudes towards paying for ad-free content, along with their technological literacy, are likely to represent a challenge for media and content providers also in the future (RQ3).

59 JOA, C. Y., KIM, K., HA, L.: What Makes People Watch Online In-Stream Video Advertisements? In *Journal of Interactive Advertising*, 2018, Vol. 18, No. 1, p. 11.
60 MIKLOŠÍK, A., KUCHTA, M., ŽÁK, S.: Privacy Protection Versus Advertising Revenues: The Case of Content Publishers. In *Istanbul Universitesi Iletisim Fakultesi Dergisi*, 2018, Vol. 54, No. 1, p. 135.

Men and women adopt ad blockers for different reasons. For women, the ads that cover the content they wanted to consume are the main reason for using ad blockers. Men using ad blockers want mainly to stop seeing video ads. The importance of video ads for men is also underlined by their knowledge of *YouTube Premium* service where the awareness level is significantly higher by men than women. On the other hand, women would be considering paying for *YouTube Premium* (if they knew about it) mostly to block (video) ads, whereas men are more interested in gaining access to premium content (RQ4).

This study has several implications. At the theoretical level, it provides a deeper understanding of the attitudes of digital natives towards online video ads and associated matters. It adds knowledge to domains of consumer research, marketing (specifically advertising) and information systems. For researchers, it creates the opportunity to further study the motivation of these young consumers in relation to technology, content consumption, and digital advertising. It represents a response to calls for academic research to provide a deeper understanding of factors driving perceptions of irritation in an online context and factors reducing subsequent avoidance.

From the practical perspective, the results of this research enable media, content publishers, social media platforms, and other website owners to understand how young Slovak consumers perceive digital advertising and, specifically, online video ads. They can gain a deeper knowledge of the motivation behind the avoidance of video ads, the usage of ad blockers, and the reluctance to pay for ad-free and premium content. This can help them reshape their marketing strategies, revisit their pricing and membership options, and tailor communications to effectively connect with their target audience of digital natives. By reflecting on the preferences of these consumers in relation to the number of acceptable video ads, their type, and features, they can significantly increase the reach of the ads, while optimising the usability of their platforms.

This study has some limitations. Firstly, the sample size and structure prohibit the broader generalisation of the results. They do not represent the majority of Slovak university students' opinions on and attitudes towards online video ads. This also represents an opportunity for future research, as other researchers can adopt the methodology used in this study to gather data from a larger sample of students and young consumers in different countries.

Secondly, although quantitative research is great for understanding the behaviour of a target group on a larger sample of participants, some of the reasons behind actions and user motivational factors can remain hidden. This creates the opportunity for future research to use qualitative research to gain more understanding of specific motivational and behavioural aspects of young consumers in relation to video ads.

8 Conclusion

Slovak digital native university students are highly technologically literate which is also reflected in their attitudes towards online video advertisements. The research presented in this study confirmed that students understand the business model of online video providers and perceive the limited possibilities for monetisation of video content. Despite the knowledge that serving ads is required for the providers to sustain their business, students still use ad blockers which enable them to consume content without the need to be exposed to ads. By using ad-blockers users create a barrier, limiting the income of online video providers. Where the provider offers free video views, it is not possible to monetise such video content because of the absence of a paywall. In such cases, ad-blockers completely prevent such online video platform providers from receiving any income as they are not able to serve ads.

If users need to be exposed to ads, they prefer spots at the end of videos, after the primary video content has been consumed. In the case of video ads before a video, the users prefer longer skippable ads rather than shorter ads that cannot be skipped. Thus, to find the balance between the user comfort and monetisation of video content, it can be recommended for providers to enforce skippable pre-roll spots and post-roll spots. Users are mostly not willing to pay for ad-free content unless it is unavoidable and the price is low. The implementation of hard paywall systems might serve as a solution for video providers, however, the benefits that users receive need to compensate the cost sufficiently. This is especially true when the target group consist of students, who are often financially dependent on their parents. These students are very careful and thoughtful when using their limited financial resources.

There is a discrepancy between the pricing strategies of social media platforms and content publishers on one side and the preferences of their users on the other. Users historically expect online content to be free. However, young generations are aware of the costs of media providers and understand their need for income. It can be expected that soon, this generation of young consumers will be even more attractive for content providers and businesses in terms of their purchasing power. The willingness to pay for online content and the knowledge of the online content provider economy are crucial triggers for users investing in access to online content. Thus, understanding the knowledge and attitude of these users towards online video ads can prove highly beneficial for media and advertisers in the near future. In the case that video content providers will aim to lure new subscribers or will experiment with video advertisement formats, their primary target group should be men. Our research confirmed that men are more aware of paid video options and are more prone to paying for special added-value features.

Video formats are very popular nowadays. Such formats are efficient for businesses that can easily deliver their marketing messages, use them to tell stories or create emotions. Also, they are popular with users who can consume this content in a more effortless way compared to reading text or listening to audio. Media providers are uncovering the rising demand for video content and are trying to respond by offering more content in the form of video. However, video is more costly than other formats and thus, there is a need for efficient monetisation. The current atmosphere is in favour of video formats; however, it is necessary to carefully consider the business model of offering such content.

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