

## **Assessment of consumer preferences in the electronic book market based on the content-analysis method**

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**Abstract** User-generated content on social networks (social media) is the source for finding ideas and relevant information for the marketer. One of the effective marketing research tools for this information is the content-analysis method. The article discusses the author's approach to the content analysis of user reactions in social networks, aimed at identifying consumer preferences in the choice of digital or printed format of book products.

**Keywords.** User-generated content, electronic books, content-analysis

### **Introduction and Objectives**

In the conditions of active use of social Internet platforms by modern consumers, it becomes available to marketers to conduct special research: research of user-generated content as a source of information about the special needs of customers, their relationship to the product and firm, to competitive brands, etc. Social networks in this aspect are among the most interesting platforms. There you can find whole groups devoted to a particular brand, posts on problematic topics, and a lot of comments containing information relevant to the marketer. However, for an effective analysis of this array of information, it is necessary to use specific methods. (Skorobogatykh & Efimova, 2019). One of such methods is the content analysis, which is a quantitative analysis of texts and text arrays with the purpose of further substantial interpretation of the revealed numerical regularities (Vershlovsky & Matyushkina, 2006). In this case, many decisions that determine the final efficiency of the method remain at the discretion of the researcher. (Pashinyan, 2012) Thus, before the start of the study it is necessary to determine not only the semantic units and units of the account of the content analysis, but also the array itself, on the basis of which this analysis will be conducted as it is recommended by Zubanova (2011)

The research presented here is a trial of a content analysis approach aimed at examining the opinions of users left in comments to posts on social networks. Topics of user-generated content: attitudes toward different book formats, preferred formats, traditional (printed) or digital (electronic and audio books). The authors find this direction interesting in connection with the formation of a new segment of "digital consumers", which converts many aspects of their activities into digital format, including the receipt and consumption of information

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(Skorobogatykh & Musatova, 2018). Interesting is the ratio of the number of consumers who prefer the transition to new formats of book production to the number of consumers with more conservative views, who prefer printed publications.

The Russian market for books in electronic format is experiencing rapid growth, and in the current environment of format diversity, readers have a choice. And this right of choice is realized in different ways. Some readers prefer only the audio format, others find e-books more convenient, there is a part of the readership that insists on printed books, and a noticeable part combines formats depending on the situation or content. Obviously, each format has its own target audience, which gets different benefits.

The format of audio books is gaining popularity due to its convenience, the possibility to listen to the book in personal and public transport, during sports and other situations, and does not give a load to the eyes. In particular, according to the polls, the situation of listening to audiobooks is typical for driving in a car (50% of respondents), on the street during a walk or on the way to work (30% of respondents) (Audio-books. Russian Market, 2020).

At the same time, the printed book market is not shrinking, although the growth rate of this segment of the market cannot be compared with electronic and audio books. According to experts' estimates, the printed books market is growing by about 1% per year (but this is only due to price increases against a background of declining quantitative indicators). Thus, there is a situation when printed books remain interesting to the reader, while electronic and audio books expand the market and increase the intensity of reading or listening to content. Demand for e-books (readers) is also growing noticeably. Experts believe that in 2019 the figures would be of 33% growth in the category of electronic books and the total market volume will reach 6.4 billion rubles. (Kruglov, 2020).

The growth trend of the e-book market in Russia began to show in 2016. Noticeable growth took place in 2017, when the market of audio books in Russia grew by 25-30% and reached 500 million rubles (Makarova, 2018). Experts expect another 40% growth in 2018, with a further high growth rate in subsequent years.

In 2018, the book market in Russia grew by 7%, printed books accounted for 92.1%, electronic books - 6.7%, and audio books - only 1.2%. Experts from leading publishing houses predicted that in the next few years, the main drivers will be sales of electronic and audio books - they will grow by 30% and 40% per year, respectively. At the same time, sales of printed books will show an increase of only 5%. (Retail.ru).

In 2019, sales of electronic and audio books in Russia grew by 35% (6.5 billion rubles), reaching 10% of the total Russian book market excluding textbooks. (Kruglov, 2020).

Of 6.5 billion rubles, audio books account for 1.5 billion rubles. (about 2.5% of the market), the share of electronic books - 5 billion rubles. Thus, over two years, from 2017 to 2019, the market for audio-books has grown by a factor of 3 (Commerzant, 2020).

As it is shown in table 1. the involvement of the audience in the use of formats is growing: if in 2018 45% of users listened to audio books at least once a week, in 2019 - already 58% (Makarova, 2018).

*Table 1. - Volume of the Russian e-book market and its separate segments in 2016-2019*

	2016	2017	2018	2019
The e-book market, in total, billion rubles:	0,87	3,7	5,4	6,5
Including but not limited to:				
Market of electronic text books, billion rubles	0,75	3,2	4,6	5
Market share of electronic text books on the e-book market, %	75	86	85	77
Audio-books market, billion rubles	0,22	0,5	0,8*	1,5
Market share of audio-books on the e-book market %	25	14	15	23

Source: Composed by Authors on the data from open sources

Summing up the analysis of the Russian market of printed and electronic books, it should be noted that all its segments are growing in money terms, but electronic and audio formats are growing much faster. Thus, the segment of audio books grows the fastest, but its potential is limited due to the fact that some book lovers deny the audio format and will not listen to audio books.

The analysis also shows that the share of audio-books in the category of all e-books is relatively stable (from 14 to 25% in different years), but in this case the time series is not sufficient for reliable conclusions. Audio book as a mass format appeared on the Russian market recently, about 5 years ago.

One of the **objectives of this study** is to assess the consumer attitude and preferences to different formats of book products among active users of social networks, as they are often the opinion leaders and are able to lead a wider consumer audience.

**Research questions**

In order to meet objectives of the study the following research questions were formatted:

- Q1. Find out the most preferred internet of social media platforms to assess the consumer preferences to e-books.
- Q2. Analysis s of social media content by selected semantic units corresponding to the discussion of book content (electronic and traditional).

**Conceptual Framework / Literature Review /Research Model**

The method of content-analysis was chosen to evaluate consumer preferences in the sector of book products, namely the preferred book format (print edition, e-book, or audiobook). The analysis was based on user-generated content generated by social media participants. (see figure 1.)

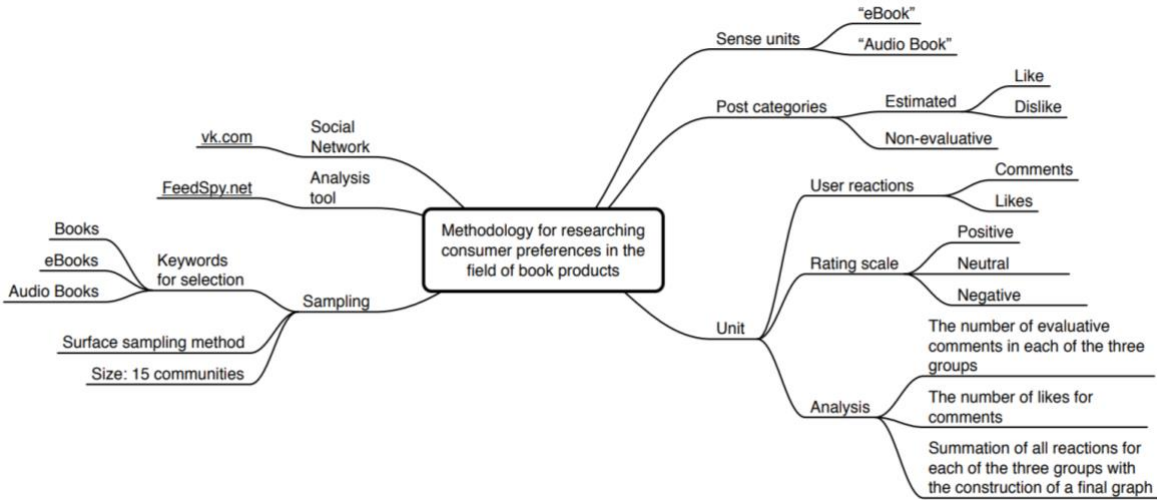


Figure 1. Research model to assess consumer preferences to e-books  
(Source: composed by authors)

As it is proposed by Vershlovsky and Matushkina (2006), when conducting a content analysis, researchers are faced with several tasks. The modern methods of marketing research

are recommended to develop the design of the content-analysis in the logic manner as the stages, which are coming one after another and give researcher opportunity to collect data on all stages. (Skorobogatykh, Efimova, et al, 2019). After the working hypothesis is constructed, it is necessary to determine the set of materials on which the analysis will be based. To select this set, it is necessary to select working criteria, as it is recommended by Pashnyan (2012). This set of specified criteria will have to be met by each of the documents under analysis. Usually such criteria include: type of the document to be analyzed, its length (other dimensions), time, place, frequency of appearance, etc. The main requirement is to maintain the uniformity of the array. Its volume also matters. The sample should be sufficient to be able to extend the findings to the entire general population.

The next step of the research design is to decide on the choice of research units, or semantic units. This is the same information that researchers are looking for across the entire data set. In some cases, a research unit may be a certain attribute, but more often than not it is an element, such as a keyword. (Zubanova, 2011). Once the units of meaning have been identified, it is necessary to decide on the units of account. Researchers are usually interested in the frequency of occurrence of a unit of research, the ratio of frequency of occurrence to the length of the analyzed material, the frequency of occurrence of units that carry a certain semantic load, etc. (Trotsuk, 2015). Decisions made at these stages form a single model of content-analysis, working within which the researcher can solve the following tasks.

According to the data of the Mediascope research agency (Kurnosova, 2019), 72% of Russian users of social networks (38.1 million people) would prefer social network "VKontakte". Instagram is in second place with 56% (29.6 million people), and Odnoklassniki with 45% (23.8 million). Social network Vkontakte exists since 2006 and today has 97 million users per month and 10 billion messages per day<sup>2</sup>.

To search for communities where the topic under research can be discussed, three key queries were selected: "books", "e-books", "audio books" and selected by the Top-5 communities (sorting "by relevance" to the key query, region - Russia). Groups containing the keyword but thematically related to another category (e.g., "record book"), were not included in the list. Thus, 15 communities were selected for further analysis by surface sampling (Annex 1).

The FeedSpy.net, a social media content analytics platform was used as a support tool for content analysis. The functionality of this platform allows to conduct content analysis in social networks (available analysis of media resources VKontakte, Odnoklassniki, Facebook, Instagram, YouTube, Twitter, Telegram and Primest). Using this tool, you can upload posts from the selected social network for any period of time, sort them by time, likes, comments and repost, filter posts by photo, video, hyperlinks, etc., set your own parameters, search for posts by key phrase<sup>3</sup>.

The next step of the study was based on the platform, where all the posts in the communities under analysis (total posts for 2019) were selected from those that contained the selected semantic units. The authors included the concepts of "e-book" and "audiobook" to the semantic units. Further, the posts containing the desired semantic units were divided into two categories conditionally designated as "evaluation", i.e. those that, due to their content, encourage users to discuss the electronic and audio book format in the context of "like" - "dislike; and "non-valuable" - not encouraging users to express their attitude towards the book

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<sup>2</sup> ВКонтатке. [Social network VKontakte] [electronic resource]: URL:<https://vk.com/about>

<sup>3</sup> Platform Feedspy. Analytics of the content in social networks [electronic resource]: URL:<https://feedspy.net/>

format (for example, such a post can include a message about the release of a new book by the author and information that the book is available electronically at a certain address). Posts of "evaluative" nature were suggested for further analysis.

Users' reactions (comments and "likes") were selected as a content analysis account unit. Thus, the third step of the study was counting the number of evaluative reactions in the selected posts with their tonality on a three-level scale: "positive rating" - users like digital formats of books, they use them; "neutral attitude" - users do not give preference to any of the book formats; and "negative rating" - users respond negatively to digital formats of books. When analyzing the post, first the number of "rating" comments in each of the three groups was counted (positive - neutral - negative), then the number of "likes" of these comments. Then the indicators were summed up. For example, "likes" of a positive comment were also equated to a positive reaction and were counted in the first group. An example of calculation is given in Table 2.

Table 2. – Calculation of the number of user reactions of an evaluative nature

Post address	<a href="https://vk.com/wall-30437004_176438">https://vk.com/wall-30437004_176438</a>			
Total # of comments	Of these, the evaluators	With mark «Positive»	With mark «Neutral»	With mark «Negative»
13	10	4	2	4
Total # of "likes"		9	0	1
Sum of the reactions		13	2	5

Source: composed by authors

The final step was to summarize all reactions in each of the three groups with a final graph.

## 4 Findings

Based on the results of the analysis of all posts in 15 thematic communities of the social network VKontakte in 2019, it was found that the main part is devoted to publications aimed at consideration of any literary works. The topic of interest to researchers (user preferences in the format of the publication) was touched upon very rarely. Of the 41869 posts in all communities, only 7 of them were classified as containing keywords and as "evaluation" posts (Table 3).

Table 3. - Number of evaluation posts among total number

№	Community address	Total # of posts	By request of "e-books" posts	Of these, the evaluators	At the request of "audiobooks" posts	Of these, the evaluators
1.	<a href="https://vk.com/bookvoed">https://vk.com/bookvoed</a>	2092	2	0	0	0
2.	<a href="https://vk.com/mylitres">https://vk.com/mylitres</a>	2927	4	0	12	0
3.	<a href="https://vk.com/izdatelstvoast">https://vk.com/izdatelstvoast</a>	2179	0	0	2	2
4.	<a href="https://vk.com/eksmo">https://vk.com/eksmo</a>	2152	1	0	8	2
5.	<a href="https://vk.com/best_psalterium">https://vk.com/best_psalterium</a>	6787	1	0	14	1
6.	<a href="https://vk.com/bookary">https://vk.com/bookary</a>	2912	0	0	6	0
7.	<a href="https://vk.com/basebooks">https://vk.com/basebooks</a>	1263	2	0	11	0
8.	<a href="https://vk.com/books2011">https://vk.com/books2011</a>	141	0	0	0	0
9.	<a href="https://vk.com/booksgid">https://vk.com/booksgid</a>	0	0	0	0	0

10.	<a href="https://vk.com/club93942141">https://vk.com/club93942141</a>	168	1	0	28	0
11.	<a href="https://vk.com/free_audio_books">https://vk.com/free_audio_books</a>	7661	5	0	11	0
12.	<a href="https://vk.com/bestbooks">https://vk.com/bestbooks</a>	388	0	0	0	0
13.	<a href="https://vk.com/read_ears">https://vk.com/read_ears</a>	11181	5	0	69	0
14.	<a href="https://vk.com/books_in_audio">https://vk.com/books_in_audio</a>	1609	125	0	795	0
15.	<a href="https://vk.com/listen_to_audiobooks">https://vk.com/listen_to_audiobooks</a>	409	1	0	4	2

Source: composed by authors

Of these seven posts, only one, together with the discussion of audio books, indirectly touched on eBooks, while the other posts were devoted exclusively to the format of audio.

The study led to conclusions about user preferences in using the audio format. No data were found to assess the e-book format. After summing up the data the total number of reactions identified was 941, of which positive ("for audio format" of the book edition) - 390; neutral (using both audio and print formats, preferring audio publications only in a certain voice, etc.) - 330; negative (not liking and not listening to audio books) – 221.

## 5 Discussion

Thus, 23% of book consumers from active users of social networks do not listen to audiobooks and do not purchase the product in this format, 41%, on the contrary, prefer audio and are not inclined to buy printed versions of books, and the remaining 36% are consumers of both formats of book products. It should be noted that the results obtained are not necessarily final and can serve as a basis for building a hypothesis for further research, for example, the reasons for preference or rejection of the audio format, the connection of these reasons with the features of consumption of these products, etc.

### Conclusion

The proposed approach to the analysis of user-generated content is effective for assessing the quantitative ratio of consumers who have a particular viewpoint and prefer a particular type or format of product.

### The limitations of this study

Working in only one social network (which leads to a narrowing of the studied consumer segment, both quantitatively and behaviorally), a small number of communities for analysis, which is suitable only for testing the approach. Certain limitations are imposed by working with FeedSpy platform, which allows to automate the processes of collecting and processing units of content analysis, but does not have the capacity for more automation (respectively, processing of more significant arrays of data) in the analysis of thematic focus of user content and calculation of reactions. In addition, this approach does not allow for individual user activity to be considered and the number of reactions in different communities and positions to be monitored.

### Further research

To get more accurate results of the analysis, an additional evaluation parameter should be entered - the ID of the user who left a comment or "liked".

### Managerial Applications

Using this approach can help researchers and managers of the electronic readers and publishing houses to assess the general trends in consumer preferences. This methodology also can be use by researchers on the markets of other consumer goods and services, which are sold

on the electronic marketplaces, especially in the situation of self-isolation during spread of the coronavirus Covid-19.

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*field of media education // Знак: проблемное поле медиаобразования, (in Russian) №. 1 (7), 2011, С. 69-72.*

*Annex 1 - Relevant groups for analysis in VKontakte social network*

Kew word for query: «Books»

*Top-5 relevant results, communities (Groups)*

1. <https://vk.com/bookvoed> Bukvoed [Буквоед] – Official group of the book retail chain from Saint-Petersburg
2. <https://vk.com/mylitres> Official group of the electronic books' shop # 1 in Russia [www.litres.ru](http://www.litres.ru).
3. <https://vk.com/izdatelstvoast> Publishing House “AST”
4. <https://vk.com/eksmo> Publishing House “Eksmo”
5. [https://vk.com/best\\_psalterium](https://vk.com/best_psalterium) Group “Publishing your questions!”

Key word for query: «Electronic books»

*Top-5 relevant results, communities (Groups):*

1. <https://vk.com/bookary> Audio-books and books – electronic library
2. <https://vk.com/basebooks> Electronic books. Download
3. <https://vk.com/books2011> Electronic library|Read|Download|Books
4. <https://vk.com/booksgid> BooksGid.com – Electronic books online
5. <https://vk.com/club93942141> Club of book lovers, audiobooks, electronic books

Key word for query: «Audio-books»

*Top-5 relevant results, communities (Groups):*

1. [https://vk.com/free\\_audiobooks](https://vk.com/free_audiobooks) Books | Audio-books
2. <https://vk.com/bestbooks> Books & Audiobooks
3. [https://vk.com/read\\_ears](https://vk.com/read_ears) Knigomania. Audio-books
4. [https://vk.com/books\\_in\\_audio](https://vk.com/books_in_audio) Audio-books | Scxreenings
5. [https://vk.com/listen\\_to\\_audiobooks](https://vk.com/listen_to_audiobooks) Best Audio-books

*Annex 2 - The total number of user reactions that are evaluated in the posts analyzed*

Post address	<a href="https://vk.com/wall-31513532_760248">https://vk.com/wall-31513532_760248</a>			
Total # of comments	Of these, evaluator	With mark «Positive»	With mark «Neutral»	With mark «Negative»
5	3	0	1	2
Total # of likes		0	3	14
Sum of the reactions		0	4	16
Post address	<a href="https://vk.com/wall-150290556_14193">https://vk.com/wall-150290556_14193</a>			
Total # of comments	Of these evaluator	With mark «Positive»	With mark «Neutral»	With mark «Negative»
68	33	17	9	7
Total # of likes		172	148	18
Sum of the reactions		189	157	25



Post address	<a href="https://vk.com/wall-150290556_7494">https://vk.com/wall-150290556_7494</a>			
Total # of comments	Of these evaluator	With mark «Positive»	With mark «Neutral»	With mark «Negative»
29	19	8	11	0
Total # of likes		41	84	0
Sum of the reaction		49	95	0
Post address	<a href="https://vk.com/wall-30437004_195553">https://vk.com/wall-30437004_195553</a>			
Total # of comments	Of these evaluator	With mark «Positive»	With mark «Neutral»	With mark «Negative»
13	11	1	5	5
Total # of likes		1	2	45
Sum of the reaction		2	7	50
Post address	<a href="https://vk.com/wall-23065467_201585">https://vk.com/wall-23065467_201585</a>			
Total # of comments	Of these evaluator	With mark «Positive»	With mark «Neutral»	With mark «Negative»
25	24	8	1	15
Total # of likes		14	0	29
Sum of the reaction		22	1	44
Post address	<a href="https://vk.com/wall-30437004_176438">https://vk.com/wall-30437004_176438</a>			
Total # of comments	Of these evaluator	With mark «Positive»	With mark «Neutral»	With mark «Negative»
13	10	4	2	4
Total # of likes		9	0	1
Sum of the reaction		13	2	5
Post address	<a href="https://vk.com/wall-23065467_167136">https://vk.com/wall-23065467_167136</a>			
Total # of comments	Of these evaluator	With mark «Positive»	With mark «Neutral»	With mark «Negative»
77	60	12	19	29
Total # of likes		103	45	52
Sum of the reaction		115	64	81
Final Sum of the reaction		<b>390</b>	<b>330</b>	<b>221</b>