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NEUROMARKETING OF FINANCIAL REPORTING: RUSSIAN VIEW OF METHODOLOGY FOR IMPROVING REPORTING

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Abstract

Neuromarketing of financial reporting is a topic of interest to all representatives of the professional accounting and auditing environment. This paper will present the main problems of modern financial accounting, and possible solutions to them using neuromarketing methods. Thus, in order for financial statements to allow companies to attract new investments, as well as to avoid penalties from the tax authorities, organizations need to regard reporting as a commodity whose main consumers are users of these financial statements. In order to make this product interesting for consumers, companies need to attract their attention using neuromarketing methods, which will allow investors, tax authorities and lending organizations to quickly and efficiently use of data on the company's business operations, as well as make the necessary economic decisions faster. Thus, an easy, understandable and accessible presentation of the results of an enterprise's economic activity at the reporting date may allow both firms and users of financial statements to interact more effectively.

Keywords: neuromarketing, financial reporting, accounting

1. INTRODUCTION

More than 500 years have passed since the Italian mathematician Luca Pacioli published a monumental book, one of the parts of which was called A Treatise on Accounts and Records. It gives the first description of a double entry in accounting. It was this Franciscan monk, whose name is still known to every accountant, who invented the well-known system of reflecting business transactions on debit and credit of various accounts, and also introduced and defined the concept of balance that is still relevant. The method of double entry, so beloved by the bookkeepers of the whole world for its brevity and simplicity, is still popular today and is studied in all economic institutions of higher education.

However, for more than half a millennium, accounting has not changed in essence. So, according to American scientists E.S. Hendriksen, M.F. Van Breda [1] textbook authors still explain how to show a debit balance on the left side, and a credit one - on the right side, teach students the technique of subtracting the smaller opposite, which was recognized arithmetically obsolete three centuries ago. This statement does not indicate that accounting is a subject of study that has long outlived its usefulness. Rather, it focuses attention on the fact that the theory and methodology of accounting, in large part and essentially, is a set of ready-made behavior algorithms, called principles and standards, which are designed to form a common culture, as well as ethical guidelines in the field of accounting and reporting. The very course of reasoning and reasoning, due to which the basic methodological provisions are logically reproducible and verifiable, is usually not explained or, at best, illustrated by "life examples", as is customary in the documents of instructional and legal nature. However, today many standards in the economy, as well as in other industries, have been revised.

In turn, accounting, which, as indicated earlier, has not actually changed since the 15th century, acts as a very obsolete tool for representing the financial position of a firm. Many authors engaged in research in the field of auditing and accounting, argue that for more than 30 years, financial reporting, in its classical sense, has been losing popularity among its main users, and especially among investors [2, 3]. The reason for this observation is the fact that the financial statements are in a form inaccessible to non-professional users, and often provide unreliable information about the financial position of an economic entity, the financial result of its activities and cash flow during the reporting period, which investors, tax services, and loan organizations can use when making economic decisions. Therefore, the specialists of the financial sector of the economy have been asked to make reporting more presentable to attract new investments [4]. So, the main purpose of writing this work is to recommend companies to improve their financial statements and turn it into a more attractive product for investors, as well as tax and loan organizations. In this paper, a number of possible mechanisms will be proposed that can improve financial reporting, thereby increasing the firm's demand among investors. These mechanisms will be offered taking into account the methods of neuromarketing, which is becoming increasingly popular among companies around the world. Neuromarketing is an applied section of neuroeconomics, which is a new methodological approach to marketing, which includes the study of consumer behavior using neuroscience tools. Neuromarketing studies consumer behavior (thinking, cognition, memory, emotional reactions, etc.), setting as its key task the forecast of consumer choice of individuals.

1.1. Methods

The question of what constitutes neuromarketing remains relevant to this day. Many authors claim that neuromarketing methods were first used in 2002 by the advertising company Brighthouse in the city of Atlanta, USA [6, 7]. Neuromarketing has been described in many papers as a field of research [8, 9], part of marketing [10], a subdistrict of neuroeconomics [11], and a separate discipline [12]. However, in this study, neuromarketing will be considered as a new area of economics, in which the science of the human brain and marketing meet. Thus, marketers are trying to improve the already studied methods of presenting data about goods and services, taking into account the desire and inclinations of people, formed by their brain [5].

Neuromarketing involves a number of methods that seek to identify areas of the brain that are activated as a result of various marketing incentives, as well as various cognitive processes in these areas, and biological markers that allow a person to acquire a particular product or service. Consequently, neuromarketing has a great potential for identifying the causes of consumer reluctance to acquire the necessary product from the company at the time of selection. Other possible uses of neuromarketing include developing more effective social programs, such as encouraging the use of seat belts in cars, quitting smoking or creating discounts for regular customers [7]. All this is mostly the stimulation of consumer activity, which is necessary for organizations in the market for the successful sale of their products.

Today, information of any kind is submitted using computer technology. There are new opportunities for the presentation and advertising of goods and services, which allow literally riveting the attention of buyers to the products of a company. The time has come to process large amounts of data and present the results under the slogan "simplicity, accessibility, visibility and efficiency." Neuromarketing, being in essence a sufficiently young discipline that emerged in an age of active technological development in most countries of the world with a strong economy, allows companies to implement this slogan by combining the psychology of customers and the desire of firms to maximize their profits. Many people assume that this slogan does not apply to financial accounting, thereby showing its incompetence in this matter. Despite this fact, it is still possible to apply some neuromarketing methods, starting to consider reporting not as documents necessary for an organization, but as a product that can be advertised and sold to users.

1.1.1. Finansial statements, understandble for everyone

As mentioned earlier, there are a large number of problems in the perception of accounting and in particular financial reporting. It is worth saying that the problem of accounting lies not only in outdated methods and standards, but also in the unavailability of reporting to people who are not engaged in accounting professionally. Thus, it is important for representatives of the accounting professional community to be understood not only by their accounting colleagues, but also by ordinary people for whom accounting is highly scientific nonsense. Many people can argue with this statement, saying that the primary users of financial reporting data are people who have at least a basic understanding of what accounting for the business operations of an enterprise is. Among such people are, for example, potential investors, companies needed to raise new money and form assets.

The opposition of this point of view will be right in its arguments, but it should be understood that when it comes to people, you can forget about the theory of perfect rationality and objectivity, so beloved in the professional economic environment. All people, regardless of their social status, are subject to subjectivism, which basically refers to emotions and the subconscious. In addition, the banal laziness and unwillingness to understand the complex reporting structure can motivate a person, in our case a potential investor, to invest their money and funds in a company whose financial position is more transparent. Under the specified data transparency lies mainly their clear and concise representation. For example, the accounting of fixed assets of an enterprise associated with the receipt or transfer of fixed assets under a donation agreement is a mystery to many people who do not have in-depth knowledge of this area of accounting, not to mention the reflection of temporary and permanent differences between tax and accounting. The fact that for many people who are not familiar with accounting, deferred tax assets and liabilities are a mystery, as well as the conditions for their formation in the financial statements, makes us think that when providing investors with accounting results, it is worth thinking about a “friendly interface” with links to the necessary legal documents and regulations.

It is necessary to realize and accept the fact that the financial statements have long been a commodity for investors who decide on a profitable investment of their funds. At the same time, a concise and accessible to everyone presentation of these statements is a kind of advertisement for this product. Many accountants who have dedicated their lives to accounting refer to the proposal to visualize and modernize various forms of reporting as a temporary trend of fashion in the economy. However, if you look at the data of the Global Reporting Initiative, you can see that if in the early 2000s the number of corporate social reporting firms was only a few dozen, then at present the number of such firms is in the thousands. Such reporting in a clear, accessible and attractive form for a user is a way for accounting to retrain from an obsolete tool to an advanced object of economic use.

1.1.2. Flexibility and transparency of financial statements

Another problem of accounting is the variety of forms of accounting and the accuracy of data provided by the company. According to Article 13.1 of this Federal Law of the Russian Federation No. 402 “On Accounting”, the accounting (financial) statements should give a fair idea of the financial position of an economic entity at the reporting date, the financial result of its activities and cash flow for the reporting period required by the users of these statements for making economic decisions. However, any company tries to present its financial situation as beneficial as possible for investors, thereby misleading them about the real state of the company. This does not mean that firms thus violate the law. The fact is that different companies use different accounting models, which means that the same business events are considered unequally. This is partly due to the fact that Generally Accepted Accounting Principles (GAAP), established by the Financial Accounting Standards Board (FASB), allow for freedom in accounting [13]. An example of this freedom is the method of asset depreciation (uniform or accelerated) or the method of inventory accounting (at the average cost, at the cost of each unit, or at the cost of the first purchases).

However, some firms, giving their reports to users, still cross the line of the law. Such a phenomenon in professional accounting environment is called falsification of financial statements [14, 15]. This phenomenon should be considered, taking into account legal, accounting and tax aspects. For example, the legal concept of falsification of financial statements is defined as a kind of motivation. Fraud is the theft of another’s property or the acquisition of the right to another’s property by fraud or breach of trust. Fraud, in the sense in which it is defined by criminal law, occurs when the principle of the economic separation of the property of a company from the property of its owner is violated. In this case, a situation arises in which some assets of the company are transferred or taken by the owner for personal use. Thus, the balance sheet data in the financial statements may not coincide with reality. Such a case may have disastrous consequences for the formation of the company's "good name". So, in the article “Detecting falsified financial statements: a comparative study using multicriteria analysis and multivariate statistical techniques”, Spathis, Doumpos and Zopounidis using the example of 76 Greek companies state that in most cases, falsifying reporting companies underestimate profitability to avoid a large number of tax contributions [16]. For example, in 2002 while honest companies indicate that their sales are 9.195 million Greek drachmas, counterfeiters indicate that their sales are about 70% lower (Table 1).

Table 1 Financial indicators and properties reported by honest companies and falsifiers (the amounts are reported in million GRD)

Characteristics	Falsificators	Non-falsificators	5% significance
Total assets	7,315	10,551	0.291
Inventories	1,036	1,859	0.160
Working capital	369	2,281	0.016
Equity	2,674	6,203	0.096
Sales	3,966	9,195	0.043
Net profit	-368	895	0.013

In Russia, the topic of falsification of financial statements is particularly relevant at the moment. According to PricewaterhouseCoopers, over the past 2 years, 48% of Russian enterprises are faced with the problem of falsification of financial statements. We can give an example of the aviation industry, where quite recently “VIM-Avia” was forced to suspend the carriage of passengers due to a lack of working capital. The company concealed high levels of payables, and a positive profit was achieved due to the proceeds from the sale of tickets for flights that have not yet been made. Another example is the larger airline "Transaero", which also ceased operations due to accumulated debt. The company supported the positive capital by evaluating its brand at 59.1 billion rubles, which is an incorrect assessment of intangible assets. As a result, such falsification of statements led to the bankruptcy of these companies.

Thus, in order to assess the real state of affairs of the company of interest, investors have to resort to the services of financial analysts. In turn, the financial analyst has to search for facts in footnotes and accompanying documents to financial reports in order to describe to the investor the real position of the company in comparison with other firms in the industry [16]. Those investors who take for granted the final reporting data, such as the amount of earnings per share, are surprised by the subsequent development of the company, unlike those who try to look behind the scenes of accounting. However, this "curiosity" is costly for people who are ready to invest their money in the development of a company.

The solution to this problem is very simple. It is enough for companies to provide investors with the opportunity to set up reports themselves as they wish, using various accounting models. Thus, investors will be able to simulate the company's indicators of interest in various ways, while avoiding unnecessary costs for the services of financial analysts. In addition, it will increase the level of confidence in companies providing similar services, and as a result will contribute to attracting new funds. You should not forget about the traditions and principles of accounting. The basic financial statements provided by the company must be framed taking into account the principle of conservatism (prudence).

1.1.3. Personal reporting for each user

One of the reasons for the success of marketing in the modern world is the principle of personification of goods. According to this principle, each user is offered a certain product based on his preferences and status. Such discrimination of consumers leads to the maximization of the profits of the company. The personification strategy is well applicable to financial statements.

As mentioned earlier, the accounting (financial) statements are a kind of product. In addition, it is necessary to understand that when assessing the financial condition of a user's reporting company, a specific article of business activity is of interest. At the same time, reporting users are understood not only as investors, but also as credit and tax institutions who are interested in the firm's ability to pay its debts and obligations.

To get rid of regular tax audits, as well as constant credit reminders, a company can provide customizable reporting capability. Thus, the user from the entire data set will be able to select the necessary financial indicators for him. Such a step will help the company set up the most efficient remote interaction with tax organizations, as well as speed up the process of obtaining a loan from loan organizations and funds from investors. The positive side of this change is that investors, as well as tax and credit institutions will have fewer questions and misunderstandings about the company's financial position, which will bring new investments in the long run. The negative aspect is that this change will entail significant costs in the short period, as the structuring and personalization will incur either new costs for hiring a person to do this, or new costs for creating your own website with customizable reporting.

1.1.4. Availability of financial statements

Another success factor for any marketing strategy is the availability of goods for the consumer. On the one hand, it was difficult to imagine how this factor could be applied to accounting, for example, during the time of Pacioli in the 15th century or during the industrial revolution and the development of capitalism in the 19th century, where bookkeeping contributed to the development of entrepreneurship and, consequently, the revolution itself. However, on the other hand, today in the 21st century, where everything is bought and sold using global network technologies, it is easy to apply this factor to financial statements.

One of the features of accounting is a large document flow. It includes various forms of invoices, vacation, accounting and other documents accompanying each operation. Moreover, these documents are often not available to potential users of financial statements. This problem of unavailability of the majority of accompanying documents and the reporting itself is relevant to this day. However, such inconvenience can be eliminated.

The company can upload all accompanying documents, as well as its financial statements on its own server, where any user can register and specify the purpose of using the data. First, it will help reduce the time to obtain permission to use the data. Secondly, it will help the company to monitor and track the number of users of their documentation. Thirdly, it will help get rid of a large amount of paper workflow and facilitate the work of accounting. The positive aspect is that this change does not require physical contact with investors so that they can familiarize themselves with the accounts, since all documents are available online. The negative aspect is that it will take more time for accountants to constantly update information on the company's financial position on the company's website. In addition, these are long-term costs associated with an increase in the salary of accountants for additional hours of work.

2. RESULTS

Contrary to the popular belief in the modern world that accounting is outdated and needs to be replaced by another method of accounting for a firm's financial position, neuromarketing provides an opportunity for financial accounting to move into the innovation age and increase its effectiveness. Due to the fact that reporting is aimed at attracting new users, as in the case of any other product or service provided by the company, the result of the accounting can be considered as a specific benefit necessary for investors, as well as credit and tax organizations.

Taking into account the biological tendency of people to consume the benefit that is easiest to get, firms need to digitize and simplify the accounting results so that users do not have inconveniences associated with understanding these results and determining the economic condition of the company. So, reporting submitted by different registers will be replaced by various databases, access to which will be open to all potential users of reporting. In addition, improved financial statements can provide investors, tax and credit organizations with visual, understandable and customizable information to help users speed up and simplify accounting work, as well as provide the company with the benefit and advantage in obtaining investments and loans necessary for development.

However, in order for neuromarketing to improve financial reporting, firms should not be afraid to use technology and consider reporting not as necessary for each enterprise documents, but as a commodity aimed at familiarizing users with the financial position of the enterprise. This product must be issued in accordance with applicable law, with respect to accounting, as well as in accordance with the rules and principles of accounting. In addition, honesty and transparency in the provision of financial information, contrary to popular belief, will not lead to huge losses, but will help honest firms to attract additional funds and clear the market of unscrupulous players who are deceiving and misleading reporting users.

3. DISCUSSION

In this work, neuromarketing methods were developed, which make financial reporting more visual and attractive to its potential users. The main problem of modern companies is the lack of innovation and a strong attachment to the classical accounting methodology, which complicates the process of digitalization of accounting. In addition, a large number of authors find it difficult to give a precise definition of neuromarketing, as well as to relate it to a certain area of life, since this discipline is relatively young and not yet well studied. Therefore, this neuromarketing still does not have great confidence from researchers, as well as from firms.

In order for the methods specified in this work to be empirically tested, it is worth resorting to collecting data on companies that already use neuromarketing methods in their business activities. However, it should be understood that the collected sample will be very unbalanced due to the small number of companies reporting in the public domain compared to the number of firms that do not provide this service to users of reporting. This empirical verification methodology is the subject of further research in the field of neuromarketing of financial statements.

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