EARNINGS MANAGEMENT DETECTION: PRACTICAL APPLICATION OF BENFORD'S LAW IN BUSINESS PRACTICE

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ABSTRACT.
Background: Benford's Law referring to the frequency distribution of digits in many real-life sources of data states that there is a naturally occurring set of numbers, which can help alert enterprises to possible errors, potential fraud, manipulation practices, or other irregularities. **Aim:** The main aim of this paper was to apply Benford's law to the Slovak conditions, and verify its successful implementation in commercial practice. **Methods:** To identify the manipulation practices, this mathematical principle defining the frequency of occurrence of digits was applied. Benford's law is based on the assumption that the sequences of numbers follow certain formulas that can be predicted. **Sample:** The law is verified in the agricultural sector, which is often connected with financial fraud. *Results:* The outputs of the analysis confirm the relevance of this method usage in the process of the detection of earnings management practices in enterprises. **Conclusions:** Thus, it can be concluded, that researchers and accountants often compare the leading digits of financial transaction data to a Benford curve to spot anomalies that may indicate fraud and discover numerical anomalies. **Implications:** Analysts can use this law to detect certain fluctuations in data that may signal fraudulent reporting.

Keywords: earnings management, earnings manipulation, Bedford's law, financial reports

***JEL Classification**:* G30, M00

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Introduction

The hallmark of a modern company is the distinction between ownership and management, where we classify the owners and investors of the company in the category of ownership, and the area of management is represented by the company's managers. Investors and business owners need to be familiar with the efficiency and activities of a business entity. It is this information that is provided to them by the managers who oversee the company's decisions, and it is difficult to monitor and control all these decisions. Many times, managers make decisions that are largely influenced by their subjective motives.

In order for business owners as well as investors to ensure that these decisions are made by managers for the good of the business and within their requirements, they can review the information in the company's financial statements. Based on these reports, they should be able to assess the company's performance and get a clear picture of the facts. However, the reality shown in them does not always correspond to the actual state. For example, managers can significantly alter results by selecting appropriate accounting techniques, which then mislead investors and owners, and using the practices of earnings management. Earnings management is a new concept that the academic field has only been interested in for the last few decades. While abroad, a large number of academics and authors deal with this issue, in the territory of the Slovak Republic it has been a matter of research in recent years. Earnings management is a topic that should be of interest to many managers, especially potential investors. By knowing the methods and methods of detecting these practices and the ability to interpret them, investors can assess where and in what amount to deposit their free funds.

There are different methods, models, and techniques used to detect the earnings manipulation in enterprises. However, the aim of this paper is to apply a specific method. Benford's law, which has been recently observed in many scientific data sets, and detect earnings management practices.

The paper is divided as follows. The literature review section summarizes the most relevant studies published in the fields. The methodology section describes the methodological steps of the research and explains the system of the Benford's law in the process of the earnings management detection. The Results section is focused on the outputs of the Benford's law in corporate practice and discusses the results in the context of other relevant studies.

Theoretical background

Accounting is an integral part of a company's financial side. Under this term, the registration and information about the financial and property situation of the company, i.e. the management of the company, is understood. The accounts should be kept within the limits of the laws and principles to which they apply. In order to transform the company's financial results, its management seeks to window dress the accounting data. The company's financial results are an important tool for many internal and external entities. As they are often the only source of information that informs business partners and investors about the activities of managers, it is necessary to present these results using real numbers. However, companies prefer to achieve better results by applying the principles of creative accounting, which in other words creates space for accounting manipulation. Unwanted business results are thus transformed into acceptable ones (Blazek et al., 2020). Of course, such and other practices have not been overlooked for years and have been termed earnings management. Earnings management is a complex concept occurring in various forms. It presents an idea of the diversity and differences of attitudes of managers and entrepreneurs to revenue management. The scientific literature points to various discussions of experts on the topic of earnings management, but in none of them do we encounter a comprehensive and uniform definition of this term. According to Valaskova et al. (2020), earnings management can be considered as "a process in which the company's management intervenes in the financial statements in order to point out what is the desired state and not what is the real result".

The literature points to various discussions on the topic of earnings management. Some studies simply focus on the theoretical aspect of this issue, such as Healy and Wahlen (1999), Dechow and Skinner (2000), and Rath and Sun (2008), which focus on major advances in earnings management research. Dechow and Skinner (2000) emphasize that experts and regulators often perceive earnings management as ubiquitous, problematic, and requiring immediate corrective action. Mulford and Comiskey (2002) argue that earnings management is used to achieve revenue targets that can be set by internal or external parties. In this sense, it is an active manipulation of profit. Phillips et al. (2003) define earnings management as managerial decisions about accounting decisions and operating cash flows. Subsequently, Giroux (2004) describes the motivation of management to manipulate earnings under different conditions and defines earnings management as the planning and control of the accounting and reporting system in order to meet the personal requirements and goals of management. Ning (2005) introduces the concept of earnings manipulation. According to the study, this profit manipulation is a management activity, the result of which is the achievement of the required level of reported profits. It also defined five characteristics of such a manipulation. First, profits are manipulated by management rather than by accountants. Second, earnings are manipulated consciously and intentionally. Thus, the handling of earnings is different from unintentional errors, such as incorrect entry of numbers by accountants. Third, the steps taken to manipulate earnings include not only accounting decisions but also actual business decisions. For example, accelerating the timing of sales through increased price discounts or more lenient lending conditions may lead to an increase in reported current profit but a decrease in the expected value of the firm. Fourth, the ultimate purpose of manipulating actual profits is to influence reported profits. Fifth, the extent of profit manipulation (that is, how far profit manipulation would go) depends on the level of reported profits required by management. If the manipulation of profit is carried out through the exercise of discretion granted by accounting standards and laws in such a way that the expected value of the company is not adversely affected, it is earnings management; otherwise, it is accounting fraud. In profit manipulation, fraud is seen as a negative aspect, while earnings management is a positive aspect. He generally argues that earnings management is a strategic tool for a company to maximize its value and reduce risk. Different ways of managing profits also provoke further discussions. It may be an accrual manipulation with no direct effect on cash flows, referred to as an accrual manipulation. Other authors talk about actual revenue management, where managers try to influence reported profits through steps that significantly change the company's cash flows, thereby affecting reported profits, for example. This was addressed by Dechow et al. (1995), Bartov (1993), Gunny (2005), Roychowdhury (2006) and others.

Ronen and Yaari (2008) provide a general definition of earnings management that focuses on management's goal of influencing the interpretation of reported revenue, including intentional measures to affect reported revenue and its interpretation. They also distinguish between two main activities of profit manipulation in a real economic and accrual way. According to them, earnings management is the implementation of accounting decisions that affect the value of profits and their interpretation after the realization of actual profits.

Walker (2013), in his definition, speaks of earnings management as the use of managerial authority to select revenue returns and actual economic decisions to influence how underlying economic events reflect earnings rates. Darmawan et al. (2019) describe earnings management as a choice of accounting policies or specific measures that affect income in order to achieve certain profit objectives reported in the financial statements. According to Callao et al. (2014), one of the main problems in defining earnings management is its ambiguity and immeasurability. Nevertheless, they have provided a definition that reads as follows: earnings management is a targeted intervention in financial reporting designed to achieve target revenues through a variety of accounting policies. However, it is an act that takes place without necessarily violating accounting rules and that makes use of the choices in accounting policy. It can mislead stakeholders, leading them to make decisions based on financial reports that they would not otherwise make. Their definition of earnings management underlines the common elements found in many definitions. The purposeful action of managers, indicating the deliberate and conscious action of managers; dealing with external aspects of data, always with regard to corporate data reporting; manipulation of the company's financial data; achieving the goals and specific intentions of managers; the use of flexibility in the choice of accounting procedures; the subjectivity of managers by the choice of standards that help to achieve the planned results and the choice within the possibilities of standards; the misleading nature of the information, where the information presented may conceal or even falsify the facts. At the same time, they noted that different authors perceive some aspects of earnings management differently. Omar et al. (2014) report on the problem of earnings management, which shows that this management tool is always associated with profit manipulation and fraudulent financial reporting practices, resulting in arguments among researchers as to whether it is correct or incorrect. They argue that in today's dynamic and challenging business environment, it is almost impossible to find a company that does not practice earnings management, as far as it is allowed. They also focused their attention on two key types of earnings management, namely: accrual earnings management (AEM) and real earnings management (REM). Subramanyam (2014) also talks about the existence of two forms of earnings management. One form is a change in the real accounting method, while the other is the use of accounting and policy estimates, which change accounting calculations and are hidden forms of earnings management. Susanto (2017) pointed out that economic profit management is the manipulation performed by the company's management through operating activities that directly affect cash flow. Profit management is performed by assigning the cost of goods sold to the value of inventories so that the cost of goods sold is reduced.

We are talking about managing real profits, because the company's management manipulates the cost of goods sold. The team of authors, Omar et al. (2014), expressed the general assumption that profit management is not always a fraudulent activity that negatively affects the company and its operations. According to them, it is necessary to pay more attention to the motives that stand out using the given techniques. However, he sees another problem in how to distinguish the "right" from the "wrong".

The absence of rules prohibiting earnings management allows the company's management to choose and apply accounting policies and methods that open up the opportunity to practice earnings management. Management motivation to manage profits is an incentive bonus, debt motivation, political motivation, tax motivation, change of directors, and motivation to sell shares (Watts and Zimmerman, 1986).

Methodology

For the practical application of Benford's law, we used a company from the economic sector NACE A -Agriculture, Forestry and Fishing which is a sector often linked to earnings manipulation. In the practical part, we obtained data from the balance sheet and profit and loss statements in the range of accounting periods from 2019 to 2020, to cover both, the period before and during the pandemic.

The verification of the occurrence of earning management was carried out by the application of Benford's law. Benford found that people are more likely to look for numbers that start with low numbers rather than high numbers. He also claimed that there are more numbers that start with lower digits. He tested his hypothesis by analysing more than 20,000 numerical data points in 20 different data sets. In this way, Benford found that numbers fall into a pattern where low digits occur more often in the first position than larger digits. This mathematical principle defining the frequency of occurrence of digits is known as Benford's law (Durtschi et al., 2004). Benford's law is therefore based on the assumption that the sequences of numbers follow certain formulas that can be predicted. Analysts can use this law to detect certain fluctuations in data that may signal fraudulent reporting (Collins, 2017).

The next stage of Benford's research was to derive the expected frequencies of the numbers in the lists of numbers. The formulas for the frequency of the digits are shown in the following formulas, where D_1 represents the first digit, D_2 the second digit and $Prob$ indicates the probability of occurrence of the numbers in parentheses (Nigrini, 2012).

$$Prob(D_1 = d_1) = \log(1 + \frac{1}{d_1}); \qquad d_1 = \{1,2, \dots ,9\} \tag{1}$$

$$Prob(D_2 = d_2) = \sum_{d_1=1}^{9} \log(1 + \frac{1}{d_2}); \qquad d_1 = \{1,2, \dots ,9\} \tag{2}$$

Using these formulas, we can substitute information about the frequencies of occurrence of individual digits, which are shown in the following table (Table 1).

Table 1: Frequencies of occurrence of digits according to Benford's law

Digit	Frequency of the 1st digit	Frequency of the 2nd digit
0	-	11.97 %
1	30.10 %	11.39 %
2	17.61 %	10.88 %
3	12.49 %	10.43 %
4	9.69 %	10.03 %
5	7.92 %	9.67 %
6	6.69 %	9.34 %
7	5.80 %	9.04 %
8	5.12 %	8.76 %
9	4.58 %	8.50 %

Source: *own elaboration by Durtschi et al. (2004)*

Benford's law states that within the natural numbers 1-9, they will be the leading digits in the actual data set with some probability (Collins, 2017), Table 1.

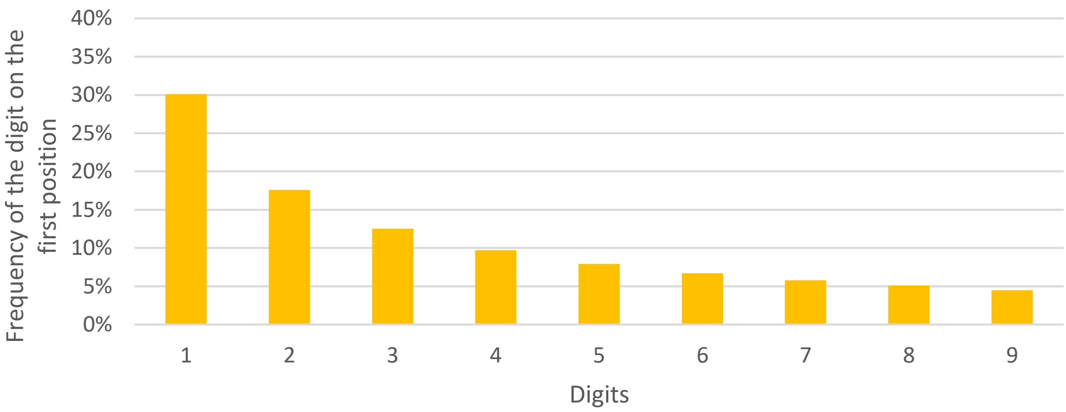

Figure 1. Benford's decomposition
Source: *own elaboration by Durtschi et al. (2004)*

Figure 1 monitors the probability of occurrence of individual digits. Each subsequent digit from 1 to 9 will be the leading digit with a decreasing probability of occurrence. This law is widely used in accounting to examine data for certain anomalies that may indicate fraud. We can compare the profit and loss account data with the Benford curve to verify its veracity. It can also be used to detect money laundering and tax evasion, to check invoices and accounts, and also to record fixed assets (Singleton, 2011; Aris et al., 2017). For example, if the audit aims to detect fraud in the reimbursement cycle, the auditor could use Benford's law to measure the actual occurrence of leading digits in the statements compared to the probability of occurrence of individual digits. Suffice it to say that this law does not say whether manipulations have taken place or not, but only points out certain abnormalities that could indicate possible data distortion (Singleton, 2011; Aris et al., 2017).

Then the application of the χ^2 test help verify the agreement or difference between the empirically obtained and theoretically expected probabilities of the occurrence of digits. When verifying, a null hypothesis must be formulated. The null hypothesis (H0) states that there is no statistically significant difference between empirical and expected probabilities, so they are equal. In contrast, the alternative hypothesis (H1) states that there is a statistically significant difference between empirical and expected probabilities. Based on the final value of the χ^2 test results, it is decided whether or not to reject the null hypothesis (H0). χ^2 test is calculated using the following formula:

$$\chi^2 = \sum_{i=1}^{n} \frac{(e-t)^2}{t} \tag{3}$$

Where n is the total number of categories (digits), e is the empirical probability and t is the theoretical probability. When calculating the value of χ^2 test, it is necessary to know whether it indicates the rejection or confirmation of the null hypothesis. For this purpose, we need to determine the degrees of freedom (df) and level of significance (α = 0.05). The degrees of freedom represent the number of categories minus one (in our case df 8). Subsequently, the corresponding table value of 15.51 was set, which is the limit value for rejection or confirmation of the null hypothesis.

Results

It can be expected that most of the accounting data will correspond to the Benford distribution and will therefore be suitable candidates for this analysis. Typical accounts consist of transactions that result from combining numbers. For example, receivables represent the number of items purchased multiplied by the price per item. Account size, the number of records or transactions, is also important. In general, analysis results are more reliable if the entire account is analyzed rather than just a sample of it. (Durtschi, 2004). Currently, it is difficult to find an accurate mathematical test to determine whether the data conforms to Benford's law. Nevertheless, much experience has been gained in assessing compliance with Benford's law. For our purposes, the mean absolute deviation (MAD) test developed by M. Nigrini (2012) is sufficient. MAD is a measure of variability that indicates the average distance between observations and their average and it helps to get an idea of how the values in the file are distributed. The larger the values, the greater the distance from the average (Table 2).

Table 2: Frequencies of occurrence of digits according to Benford's law

MAD critical values	
$MAD \leq 0.006$	Absolute match
$0.006 < MAD \leq 0.012$	Acceptable match
$0.012 < MAD \leq 0.015$	Limit match
$0.015 < MAD$	No match

Source: *own elaboration by (Nigrini, 2012)*

The system of the Benford's law was verified on corporate accounts, which are part of its financial statements, for the accounting periods of 2019 and 2020. These two years were selected to examine the company's possible handling practices before and during the COVID-19 pandemic. The necessary accounts (treasury – account 211, payables to suppliers – account 321, value added tax – account 343, material consumption – account 501, sold goods – account 504, sales of goods – account 604 and revenues from own products – account 601) were obtained from the accounting software Money S3. These accounts were arranged in tables, where for each of the numbers from 1 to 9 their absolute numbers within a particular account were listed, together with the probability of occurrence of numbers in % (expected according to the Benford distribution and empirical, found from real data), the difference between these probabilities, the absolute value of the difference between the probabilities, and based on that, the compliance with Benford's law according to the critical MAD values was determined and finally the statistical χ^2 test was used.

Benford verified that individual digits are likely to occur in nature and in various areas of life. That is, their occurrence can be predicted by certain patterns. We have used this law to disclose earnings management, and thus manipulation of financial statements. Our analysis was based on the assumption that if there is a certain fluctuation or abnormality in the occurrence of empirically obtained figures, it can be an earnings management and thus a distortion of the company's financial results. The following table 3 summarizes the results of this analysis.

Table 3: Benford's law verification

Year	Account	Absolute frequency	MAD	χ^2
2019	601	149	0.048	35.774
	343	501	0.018	5.037
	321	372	0.013	3.559
	211	805	0012	2.407
	501	444	0.010	1.718
2020	601	150	0.016	3.831
	343	702	0.023	6.075
	321	728	0.023	9.161
	211	1078	0.018	3.943
	501	448	0.016	4.212
	604	267	0.059	50.698
	504	238	0.030	14.224

Source: *own elaboration*

In the table, the results of the analysis of Benford's law are clearly presented. The most appropriate conditions for verification will be provided by a data set containing approximately 500 or more figures, which has not always been the case for company accounts. We assessed whether compliance with Benford's law was performed or not through MAD critical values and the χ^2 test. The calculated MAD values are in the table distinguished by colours. Green and yellow colours are used in the case of compliance and red in the case of non-compliance with Benfords's law. Only in 2019, the compliance with Benford's law was achieved for accounts 501, 211, and 321. Based on the level of significance and the corresponding degree of freedom, we used the assigned value of 15.51 as a threshold for rejecting or not rejecting the null hypothesis. The null hypothesis (H0) states that there is no statistically significant difference between empirical and expected probabilities, i.e., they are equal, which means that we have no reason to suspect the company of practicing earnings management or accounting manipulation. We rejected this hypothesis in only two cases, namely the revenue accounts 601 in 2019 and 604 in 2020, which showed signs of the presence of earnings management practices. As far as these income accounts are concerned, the option was be accepted that these accounts were manipulated if enterprises needed to reduce their revenues in order to reduce taxes. To illustrate and compare the results more precisely, the graphical representation of the verification of Benford's law (blue colour) in the given years and individual accounts is presented (Figures 2-6).

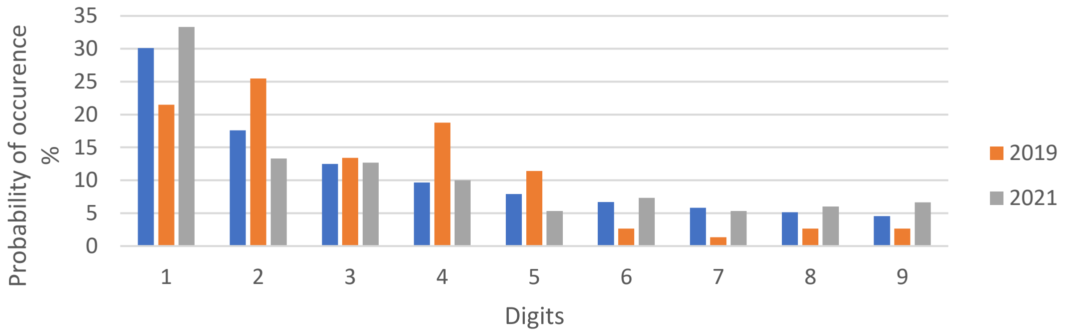

Figure 2. Verification of Benford's law (account 601)
Source: *own elaboration*

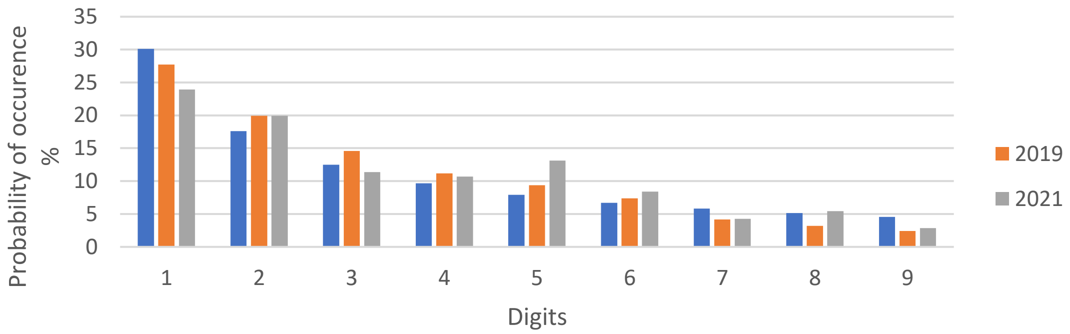

Figure 3. Verification of Benford's law (account 343)
Source: *own elaboration*

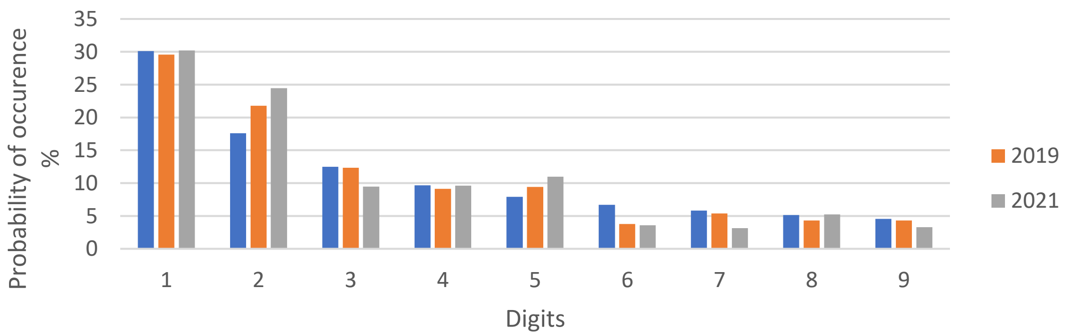

Figure 4. Verification of Benford's law (account 321)
Source: *own elaboration*

In account 343, we can see a great resemblance to Benford's distribution. We do not record significant changes in values here, with the exception of the number 5 in 2020. In general, we claim that this tax account was not manipulated in the company, which we also confirmed by an analysis of the account. From Figure 4 we can read that in the supplier account 321 there were worse results and more frequent fluctuations in 2020 than in 2019, which is also indicated by the results of MAD critical values. In 2019, there was a limit match with the Benford distribution, while in 2020 it was already a disagreement. However, the χ^2 test did not confirm accounting manipulation in a given year in any given year.

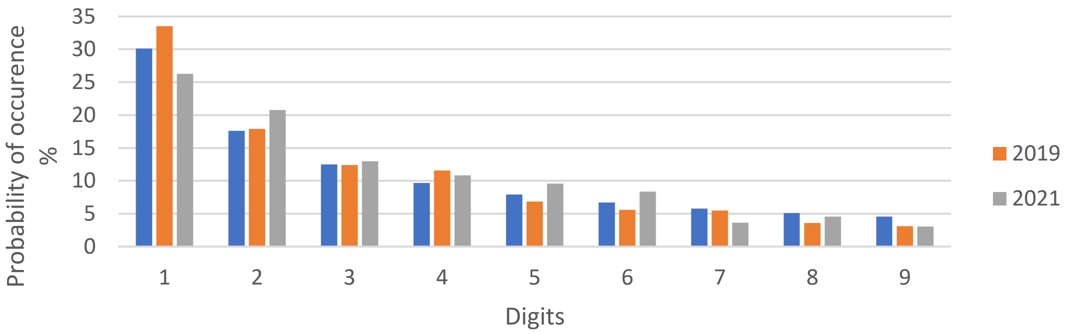

Figure 5. Verification of Benford's law (account 211)
Source: *own elaboration*

In the treasury account 211, the probability values reached a declining trend in both years. Only in 2019 did we record an agreement with the Benford distribution according to the MAD critical values. However, despite the fact that there was no agreement in 2020, χ^2 test did not confirm the accounting manipulation of this account in any of the years.

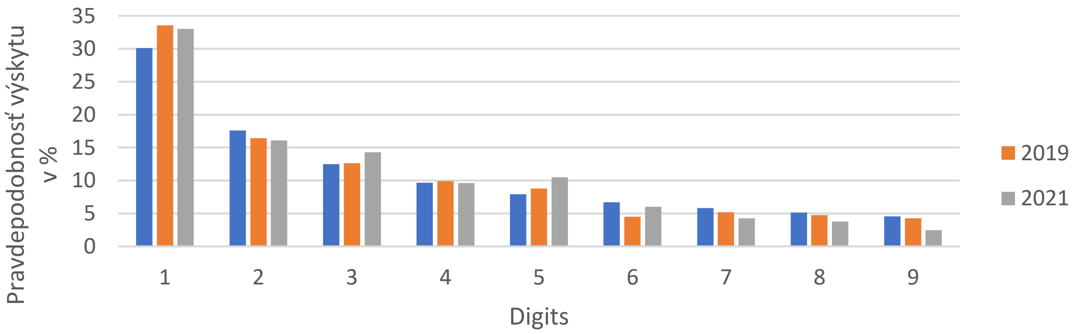

Figure 6. Verification of Benford's law (account 501)
Source: *own elaboration*

The last account, which was a subject of the calculation, was the cost account 501. We also did not record any rapidly changing values in this account. In 2019, we confirmed compliance with Benford's law, but in 2020, the MAD had already exceeded the limit of compliance. The χ^2 test confirmed that in none of the years has there been any distortion and manipulation of earnings.

When comparing the results of the verification of the Benford's law in 2019 and 2020, we can notice that in 2020 all MADs were critical values at a level indicating non-compliance with the law. This means the probability of the presence of earnings management and manipulation of financial statements. It should be noted that these two years represent a comparison of the situation before the COVID-19 pandemic and the situation during the greatest expansion of this recession. It is understood that these facts also affected the business activities, which were also reflected in this verification.

Discussion

The results of our study confirm that the application of Benford's law to detect earnings management practices may be very useful, which is also confirmed by other studies published in the international context (e.g. Minichilli et al., 2022; Nguyen et al., 2022; Walzenbach, 2021). Its practical application, identification of the argument for and against its usage in the accounting sector, and determination of this research method as an audit tool is presented in the review by Orth et al. (2020).

Grammatikos and Papanikolaou (2021) applied this law in the banking industry to detect accounting data manipulation, and they found out that banks adjust loan loss provisions to manipulate earnings and income upwards. The results of their study also proved that manipulation is magnified during the crisis and expands to encompass regulatory capital. The study by Lin et al. (2018) employed Benford's law to overcome the shortcomings of accrual models' insufficient explanatory power on the detection of earnings management. Qu et al. (2020) applied Benford's law to examine the accuracy of non-profit financial reports. They found out that deviations from Benford's law are smaller for organizations that are more professional, that report positive fundraising and administration expenses, and that face stronger funder oversight. The authors suggest the application of this method in corporate practice, which is in line with our outputs, as this law uses appropriate discriminating screening metrics and may simply reveal cosmetic earnings management (Hartlieb, 2020). The study by Mukherjee (2018) introduces Benford's Law and its applications within the corporate governance literature. The analysis devoted to the explanation of CEO pay shows that CEOs prefer to be paid in round figure values, especially 5. Finally, the negotiating tactics of CEOs were compared, and the impact of firm size on their compensation was also analysed. The same study, focusing on the relationship between the CEO and the quality of earnings, was realized by Nguyen et al. (2021). The relevance of Benford's Law in accounting practice is underlined by Theodoro et al. (2021), who declare that Benford's Law is useful as a tool in selecting audit samples, and it can also improve the work of supervisory bodies. Unfortunately, many entities knowingly manipulate revenues and expenses to manage earnings in a way that suits the entity management.

Conclusions

Detecting fraud in financial statements is the primary task of forensic accountants, and Isakovic-Kaplan et al. (2021) also advise Benford's law in the forensic analysis of corporate financial statements to detect earnings management practices. Jianu and Jianu (2021) focused on the reliability of financial data before and after the implementation of International Financial Reporting Standards using the first digit test of Benford's Law.

Thus, it can be concluded, that researchers and accountants often compare the leading digits of financial transaction data to a Benford curve to spot anomalies that may indicate fraud. It is then highly recommended for accountants and auditors to apply Benford's law to corporate data to discover number-pattern anomalies.

Despite the fact, the advantages of practical applications of Benford's Law in corporate practice are inalienable; their application to a limit number of accounts can be perceived as the limitation of the study. However, this may be a force for further research, to analyse all relevant accounts and compare the findings of potential earnings manipulation with other earnings management detection models, methods, and techniques.

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References

Aris, N. A., Othman, R., Bukhori, M. A. M., Arif, S. M., Malek, A. (2017). *Detecting accounting anomalies using Benford's law: evidence from the Malaysian public sector. Management & Accounting Review*, 16(2), 1-32.

Bartov, E., Gul, F. A., Tsui, J. S. L. (2000). Discretionary-accruals models and audit qualifications. *Journal of Accounting and Economics*, 30(3), 421-452.

Blazek, R., Durana, P., Valaskova, k. (2020). Creative accounting as an apparatus for reporting profits in agribusiness. *Journal of Risk And Financial Management* 13(11), 261.

Callao, S., Wroblewski, D., Jarne, J. (2014). The development of earnings management research a review of literature from three different perspectives. *Zeszyty Teoretyczne Rachunkowości*, 79(135), 135-177.

Collins, J. C. (2017). Using excel and Benford's law to detect fraud. *Journal of Accountancy*, 223(4). 44-50.

Darmawan, I. P. E., Sutrisno, T., Mardiati, E. (2019). Accrual earnings management and real earnings management: increase or destroy firm value*? International Journal Of Multicultural And Multireligious Understanding,* 6(2), 8-19.

Dechow, P., Skinner, D. (2000). Earnings management: reconciling the views of accounting academics, practitioners, and regulators. *Accounting Horizons*, 14(2): 235-250.

Dechow, P. M., Sloan, R. G., Sweeney, A. P. (1995). Detecting earnings management. *The Accounting Review*, 70(2), 193-225.

Durtschi, C., Hillison, W., Pacini, C. (2004). The effective use of Benford's law to assist in detecting fraud in accounting data. *Journal of Forensic Accounting,* 5, 17-34.

Giroux, G. (2004). *Detecting earnings management*. New Jersey: Wiley.

Grammatikos, T., Papanikolaou, N.I. (2021). Applying Benford's law to detect accounting data manipulation in the banking industry. *Journal of Financial Services Research*, 59(1-2) 115-142.

Gunny, K. (2005). What are the consequences of real earnings management? Available at: https://www.semanticscholar.org/paper/what-are-the-consequences-of-real-earnings-gunny/3c3a4afc9d1edfef9714983775ae378f9825153c

Hartlieb, S. (2020). Cosmetic earnings management and auditor choice - an empirical analysis of German private firms. *Betriebswirtschaftliche Forschung Und Praxis*, 72(1).

Healy, P.M., Wahlen, J.M. (1999). I review of the earnings management literature and its implications for standard setting. *Accounting Horizons*, 13(4), 365-383.

Isakovic-Kaplan, S., Demirovic, L., Proho, M. (2021). Benford's law in forensic analysis of income statements of economic entities in Bosnia and Herzegovina. *Croatian Economic Survey*, 23(1), 31-61.

Jianu, I., Jianu, I. (2021). Reliability of financial information from the perspective of Benford's law. *Entropy*, 23(5), 557.

Lin, F.Y., Lin, L.J., Yeh, C.C., Wang, T.S. (2018). Does the board of directors as fat cats exert more earnings management? Evidence from Benford's law. *Quarterly Review of Economics And Finance,* 68, 158-170.

Minichilli, A., Prencipe, A., Radhakrishan, S., Siciliano, G. (2022). What's in a name? Eponymous private firms and financial reporting quality. *Management Science*, 68(3), 2330-2348.

Mukherjee, S. (2018). Can Benford's law explain CEO pay? *Corporate Governance-An International Review*, 26(2), 143-156.

Mulford, Ch. W., Comiskey, E. E. (2002). *The financial numbers game: detecting creative accounting practices*. New York: Wiley.

Nguyen, T.T., Duong, C.M., Narendran, S. (2021). CEO profile and earnings quality. *Review Of Quantitative Finance And Accounting*, 56(3), 987-1025.

Nguyen, T.T., Duong, C.M., Nguyen, N.T.M. (2022). Is conditional conservatism a source of deviations of financial statements from Benford's law? *Journal of Applied Accounting Research*, early access.

Nigrini, M. (2012). B*enford´s law*. New Jersey: Wiley.

Ning, Y. (2005). The theoretical framework of earnings management. Canadian Social Science, 1(3)*, 32-38.*

Omar, N., Abdul Rahman, R., Lawal Danbatta, B., Sulaiman, S. (2014). Management disclosure and earnings management practices in reducing the implication risk. *Procedia - Social and Behavioral Sciences*, 145, 88-96.

Orth, C.D., Mchaelsen, A.T., Lerner, A.F. (2020). Newcomb Benford law and accounting audit: a systematic literature review. *Gestao E Desenvolvimento*, 17(2), 111-135.

Phillips, J., Pincus, M., Rego, S.O. (2003). Earnings management: new evidence based on deferred tax expense. *The Accounting Review*, 78(2), 491-521.
Qu, H., Steinberg, R., Burger, R. (2020). Abiding by the law? Using Benford's law to examine the accuracy of non-profit financial reports. *Nonprofit and Voluntary Sector Quarterly*, 49(3), 548-570.
Rath, S., Sun, L. (2008). The development of earnings management research. *International Review of Business Research Papers*, 4(2), 265–277.
Ronen, J., Yaari, V. (2008). *Earnings management: emerging insights in theory, practice, and research*. New York: Springer.
Roychowdhury, S. (2006). Earnings management through real activities manipulation. *Journal of Accounting and Economics*, 42(3), 335-370.
Singleton, T. W. (2011). Understanding and applying Benford's law. *Isaca,* 3, 6-18.
Subramanyam, K. R. (2014). *Financial statement analysis*. New York: Mcgraw-Hill Education.
Susanto, Y. K. (2017). Accrual earnings management, real earnings management, firm value. *International Journal of Business, Economics and Law, 14(1),* 6.
Theodoro, R., Bonacim, C.A.G., Costa, D.R.D. (2021). Identifying discretionary actions taken by managers in credit unions: an application of Benford's law. *Contabilidade Gestao E Governanca*, 24(3), 331-348.
Valaskova, K., Gavurova, B., Durana, P., Kovacova, M. (2020). Alter ego only four times? The case study of business profits in the Visegrad group. *E&M Ekonomie a Management,* 23(3), 101-119.
Walker, M. (2013). How far can we trust earnings numbers? What research tells us about earnings management. *Accounting and Business Research*, 43(4), 445-481.
Walzenbach, S. (2021). Do falsifiers leave traces? Finding recognizable response patterns in interviewer falsifications. *Methods Data Analyses*, 15(2), 125-159.

HOW DID COVID-19 RESHAPE THE TRANSPORTATION PREFERENCES AMONG TOURISTS

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ABSTRACT.
Background. COVID-19 pandemic had and still has a significant impact on the tourism sector. It causes high income drops as well as changes in customers' preferences. These preferences play a crucial role in customers' purchasing behaviour and decision-making process. **Aims.** The main aim of the paper is to analyse the changes in tourists' preferences regarding the booking and/or purchasing of transportation services caused by the COVID-19 pandemic. **Methods and sample.** Data for our analysis were gathered via a questionnaire to detect the tourists' preferences before and during the pandemic. We managed to collect 350 data entries from the period before the pandemic and 350 from after the pandemic had started. **Results**. Data were analysed and the preference shifts were identified, while we highlighted the most important decision factors in both periods. We especially aimed to identify the hypothetical statistical influence of demographic and geographic factors on how people perceive the importance of technology availability. For that analysis, we used a Chi-square independence test and Fischer exact test. **Conclusions and implications**. We have successfully confirmed the significant shift in customer preferences in the transportation area. The key findings are generally more sophisticated and thorough decision making, higher perceived importance of technology availability and new factors presence – e.g., hygienic or security measures.

Keywords: tourism, preferences, purchasing behaviour, transportation, technology

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Introduction

Each industrial area serves its own customers, attracts them in a special way and treats them with a specific approach. Tourism is a very fast and unpredictable sector of the industry. Therefore, the businesses operating within the sector must be very cautious when inviting customers to the destination or luring them to purchase a product or service (Rather, 2019). The more important is then the overall ability of such businesses to correctly identify the needs, wishes and preferences of their customers (Cuculeski et al., 2016). All these factors, which need to be taken into account within a creation of a marketing strategy, define, shape and develop customer motivation and their purchasing behaviour (Hudson & Hudson, 2017). There are both positive and negative trends in the sector. One of the most significant negative trends shaping tourism, including transportation services, is a COVID-19 pandemic caused by the virus SARS-CoV-2 (WTTC & Wyman, 2020). A great number of hygienic and security measures to slow down the spreading of the coronavirus were implemented worldwide. In Slovakia, the most significant regulations were e.g., use of safety masks, social distancing, borders closure, regulation of people movement, mandatory quarantine after return from abroad or prohibition of mass events and crowding. (Public Health Authority of the Slovak Republic, 2021) For the transportation area, it had almost devastating impacts as drastic measures were accepted with the aim to stop the spread. International travel was extremely limited, several transportation companies were forced to shut business and those who survived, recorded all-time low financial results.

The main objective of the presented paper is to analyse the change and shift in tourists' preferences regarding the booking and/or purchasing of transportation services caused by the COVID-19 pandemic. We focused primarily on the potential of technology availability as WTTC defined technology as one of the possible solutions for recovering the tourism sector (WTTC & Wyman, 2020).

Theoretical background

Tourists' purchasing behaviour

Purchasing behaviour is generally defined as a group of reasons, why one or more persons (as a group) purchase products or services, which criteria they consider and how they finally make a purchase decision (Swarbrooke & Horner, 1999). When a new millennium was starting, tourists were divided into two categories based on their travel motivation – alocentric (venturers) and psychocentric (dependables). People who were inclined to be more alocentric (when a person is able to perceive the situation from the point of view of other people and is open to a new experience) prefer exotic destinations, contact with locals and spontaneous decisions. Psychocentric people (a person, who avoid new, unknown experience and is more self-oriented), on the other hand, prefer mass trips, organized tours and familiar destinations (Plog, 2002).

As we already suggested, customers differ from industry to industry. These differences are further reflected in their purchasing behaviour. In the tourism sector, customers are impacted and influenced mainly by these seven factors: motivation of purchase, demographic factors, social status, culture, life cycle, reference groups (reviews, recommendations, and experience) and lifestyle (Hudson & Hudson, 2017). This, however, implies mainly individual customers – private persons. The situation is slightly different when the customer is a business or other legal entity. In such a case, one person purchases the tourism product or service, but a different person uses them (Gucik, 2011). Today, when a tourist purchases a product or service, they expect much more than just the core product. They expect the purchase of the whole experience and the story behind it (Hollebeek & Macky, 2019). This mindset of so-called experience marketing is a principle of the intangible experience economy concept (Le et al., 2019; Song et al., 2015). The highest possible quality of the products and services is still crucial. However, an extraordinary experience will stay in customers' minds for a long period and thus influence their follow-up purchasing behaviour, even returning to the destination (Rather, 2019). This summarizes, how important for businesses operating in tourism is to stay aware of what their customers really wish for, and what are their desires and aspirations. If they know the wants of their own customers and they realize which decision factors are the most important for them, only then these organizations can grow, eventually expand internationally, improve the quality of customer service and experience, and strengthen their position in customers' minds (Liao & Chuang, 2019).

Travelling preferences

The purchasing behaviour of customers in tourism is a very complex and sophisticated process. Thus, it is very important to identify and thoroughly evaluate tourists' preferences and the main motivational factors which influence not only the destination choice but the whole process of the planning of travelling activities (Kladou & Mavragani, 2015). Motivation to purchase is often influenced by the individual characteristics of a tourist as well. However, these factors do not impact the behaviour directly, but through forming the travelling preferences (McGuiggan, 1999).

When planning a trip, tourists must take a major decision, which destination(s) to visit and which not to. The result of such a decision-making process is the creation of "the pattern of consumer behaviour" regarding tourism products and services, which is based right on their core preferences (Hsu, 2009). These preferences take a significant part in decision-making and can be based on internal (needs, wishes, demand) and external (surroundings, culture, etc.) motivation (Goodall, 1991).

Throughout the previous decades, many different factors have been influencing tourists' preferences. Since the beginning of the millennium, the internet and websites took a role. A few years later, the rise of social media, travel aggregators and HTORs (e.g. TripAdvisor) became the key element in shaping touristic preferences (Briggs et al., 2007). The importance of web reviews and recommendations was highlighted by many studies and researches (Yoo & Gretzel, 2009; Chung & Buhalis, 2008; O'Connor, 2008). However, at the end of 2019, the COVID-19 pandemic suddenly became a crucial industry-shaping factor.

Preference changes for transportation purchases caused by the COVID-19 pandemic

As the governmental authorities of Slovakia define it, the virus SARS-CoV-2, better known as coronavirus, causes a very infective and dangerous disease – COVID-19 (ÚVZSR, 2020). Based on WHO's decision to announce the emergency status, ÚVZSR accepted several measures to stop the spread of this virus. Over time, the amount and the type of measures have been changing, but regardless, they had had a huge impact on tourism and travelling (ÚVZSR, 2021).

The emergency status and the respective measures had caused a critical decrease in international and also domestic people and goods movement. UNWTO defined a decrease of 73 % in total tourism arrivals, while the expenditures of the tourists dropped by a billion USD (UNWTO, 2021). COVID-19 pandemic significantly influences purchasing patterns and preferences of tourists. Hand in hand with the tourism sector have been also changing the tourists' preferences. Mckinsey and Company studied the impacts of pandemics on tourists' consumer behaviour globally. The majority of 45 researched countries declared an enormous decline in tourists' expenditures, mainly in accommodation and transportation services. A significant change was identified also in travelling preferences regarding the choice of destination, transportation provider and leisure activities in the destination (Mckinsey and Company, 2020). Several studies proved that some brand-new decision-making criteria are taken into consideration when a tourist plans a trip. In addition to the usual criteria, such as price/quality ratio or reviews, tourists start to also consider health risk, security risk or travel restrictions in the destination and service providers in the destination (Pappas & Glyptou, 2021).

Kock points out the specific implications of these preferential changes. The rate of xenophobia and ethnocentrism raised and customers start to search for destinations, which are not tourist-crowded. They also confirmed that customers started to take safety measurements into account, while the influence of all the considered demographic factors was proclaimed negative (Kock, 2020). The study on Czech and Slovak customers supports these findings and adds, that these customers markedly started to prefer domestic travelling connected to sightseeing and staying in nature (Dusek & Sagapova, 2021).

Transportation services providers had to react. Several big businesses had to close (either temporarily or permanently) their business and others had to dramatically reduce the capacity in order to be able to provide their services. The total capacity of airline seats available for customers had been decreased by 37 % (domestic flights) and 76 % (international flights) year-to-date. This, together with other restrictions and people's motivation caused, the total number of flight tickets reservations between March 2020 and March 2021 dropped by an unbelievable 86 % (UNWTO, 2021)

Methodology

The main objective of the paper is to analyse the change in tourists' preferences regarding the booking and/or purchasing of the transportation services caused by the COVID-19 pandemic.

We have used a questionnaire containing Likert-scale questions, where the respondents shall identify, how important a given decision factor is when they book or purchase transportation. The rating has seven points, where 1 (one) means ‘very important’ and 7 (seven) means ‘not at all important’. The first phase of the research was conducted in Q1 of 2020, before the pandemic spreads in Europe and the second phase in Q1 of 2021, when the pandemic’s heavy impact was present tourism industry. The aim was to analyse and compare the preferences of Slovak tourists and tourists from the EU and other parts of the world. All the considered factors are shown in Tab. 1.

Table 1. Decision criteria for purchasing transportation services. Source: own research

Pre-pandemic criteria	Pandemic criteria
Transportation costs	Transportation costs
Way of transport	Way of transport
Reviews, recommendations, experience	Reviews, recommendations, experience
Brand of the service provider	Brand of the service provider
Technology availability	Technology availability
Travel agency preference	Travel agency preference
Ecological impact	Ecological impact
	Safety and hygienic measures*

*Note: New factor was added to the analysis in the second phase of the research to reflect the change in preferences.

The questionnaire was created in Google Forms and distributed via social media. The target group were the active travellers and tourists, so we were aiming for the groups and pages dedicated for such users. The structure of the sample is the result of the chosen distribution channels – social media. That is one of the limits of the research, as the majority of the respondents were aged 18 – 34, while other age groups are represented on a significantly smaller scale. Compared to the base population, we have to state that the sample does not reflect this population. Therefore, the research results should not be generalized to the whole population. However, due to its size and international character, it can provide an insight into the preferences of tourists worldwide. We managed to collect 350 responses in both phases consisting of respondents from Slovakia, other EU countries, the Americas, APAC, and Africa. In the first phase, we collected answers from 188 Slovak respondents, 136 respondents from other EU countries and 26 respondents from other world regions. In the second phase, 200 respondents were from Slovakia, 96 from other EU countries and 54 from the rest of the world. To identify the preferences, we have used simple descriptive statistics using MS Excel Pivot Tables to calculate means, medians, modus, and counts. To identify, whether selected demographical and geographical factors have a significant influence on tourists‘ preferences, we have used Pearson Chi-Square, if data counts allow or Fischer Exact testing otherwise. We worked within an IBM SPSS Statistics software interface.

Table 2. Sample profile. Source: own research

Pre-pandemic sample	Pandemic sample
350 respondents (188 from Slovakia, 162 foreign respondents) 88% were aged 18-34 74% female & 26% male respondents	350 respondents (200 from Slovakia, 150 foreign respondents) 74% were aged 18-34 59% female & 41% male respondents

Based on the mentioned studies and our previous research we have developed three research questions:

Q1: How has the perception of the importance of the chosen decision factors when purchasing transportation changed due to the COVID-19 pandemic?

Q2: Is the importance of the availability of modern technology perceived differently by men and women?

Q3: Do people from different world regions and from different generations perceive the importance of smart technology in the transportation selection process differently?

Results

Transportation services – preferences before the pandemic

When travelling to the destination, tourists have a broad range to choose the way of transport – they can use their means of transport, they can get an advantage of community solutions such as car rental or carsharing when more people share one ride to the destination. For shorter distances, there is usually a possibility to use public transport or to walk, if it is one's option. For longer distances, tourists can use specialised transportation services providers operating within road, air, rail or sea transport. And that is the area of our study, as we have been researching, what criteria are most important when choosing a transport provider.

Pre-pandemic preferences

We have identified 7 decision criteria for choosing a transport provider based on previous research and data availability (see Table 1). Respondent should have assigned a value from 1-7 based on the criteria importance, while 1 stood for 'very important' and 7 for 'not at all important'. Results, sorted by average, median and modus are shown in Table 2.

Table 3. Scores of decision criteria for choosing a provider of transportation services (pre-pandemic). Source: own research

Criteria	Average	Median	Modus	Count of Extreme values "1"	Count of Extreme values "7"
Transportation costs	1.95	1	1	192	20
Way of transport	2.90	2	2	73	11
Reviews, recommendations, experience	2.97	3	3	37	1
Brand of the service provider	4.52	4	4	6	39
Technology availability	5.14	6	7	23	99
Travel agency preference	5.25	5	6	16	109
Ecological impact	5.27	6	7	3	71

Before the pandemic spread out in Europe, the most important decision criteria were price or transportation costs, a preference for a specific way of transport and reviews, recommendations and own experience. Other criteria were considered much less important. Transportation costs were 'very important' criteria for almost 55 % of respondents. Medians and Moduses follow the rank of means/averages.

Comparison of respondents' preferences from Slovakia and worldwide

Transportation costs were the most important decision criterium regardless the country of the respondent. However, the least important criteria differed significantly. While for Slovak respondents, the lowest score was recorded by 'Ecological impact' option, for non-Slovak respondents the least important criterium before the pandemic was 'Travel agency preference'. After running several Chi Square tests we managed to statistically confirm the significant influence of the place of life to the criteria importance in all criteria but the one already mentioned – 'Travel agency preference' – which was not really important criterium for Slovaks nor for international respondents.

Despite the criteria preference for choosing a transportation provider, we also studied what are the preferences when tourists purchase flights or other travel tickets. More than 46 % of the respondents prefer to purchase flight tickets directly via the website of the airline, 17,43 % prefer the aggregator websites. Mobile apps are not generally popular, as 13 % prefer the app of the airline and only 1,71 % the app of the aggregator. The analogical situation is by purchasing other travel tickets, when half of the respondents (175) prefer the purchase via the provider's website. However, more than 27 % of respondents prefer the mobile app of the provider, and 16 % stated that they prefer to buy travel tickets directly and personally, either on a kiosk or by a driver. Most respondents (68,57 %) prefer to pay for the tickets by card, while only 5,43 % prefer mobile solutions such as Apple Pay, Google Pay or PayPal.

Post-pandemic preferences

COVID-19 pandemic has had a huge impact on all the businesses operating in the tourism sector, including the transportation companies. The perfect reflection of this statement is the situation in Poland, where the total amount of people transported dropped by more than 61 % (Sas, 2021). We can confirm this statement by our own research as well, because 76 % of respondents confirmed, that they noticed and felt the consequences of the reduction of transport lines either domestically or internationally. However, people transportation, although at a lower rate, was still ongoing so we studied whether the COVID-19 factor has an influence on people's touristic preferences when choosing a transport. The same approach was applied to rank the preferences as in a 'pre-pandemic era' with one difference – we had added one extra criterium – safety and hygienic measures. The results are shown in Table 3.

Table 4. Scores of decision criteria for choosing a provider of transportation services (post-pandemic). Source: own research

Criteria	**Average**	**Median**	**Modus**	**Count of Extreme values "1"**	**Count of Extreme values "7"**
Transportation costs	1.98	2	1	158	2
Safety and hygienic measures	2.27	2	2	110	5
Technology availability	2.44	2	1	121	12
Way of transport	2.63	2	2	86	11
Ecological impact	2.78	2	1	122	10
Brand of the service provider	3.10	3	2	71	29
Reviews, recommendations, experience	3.27	2	2	74	62
Travel agency preference	4.15	4	7	48	104

The most important decision factor before the pandemic was transportation costs. The same result was identified in the post-pandemic research, but the second most important criterion is the newly added factor – safety and hygienic measures. However, respondents assigned similar importance to 6 of the 8 factors, as the ones between 2nd and 7th place are just within a 1-point range. Generally speaking, the importance of all criteria has risen. Especially the perceived importance of technology availability and ecological impact. For full structure, see Figure 2.

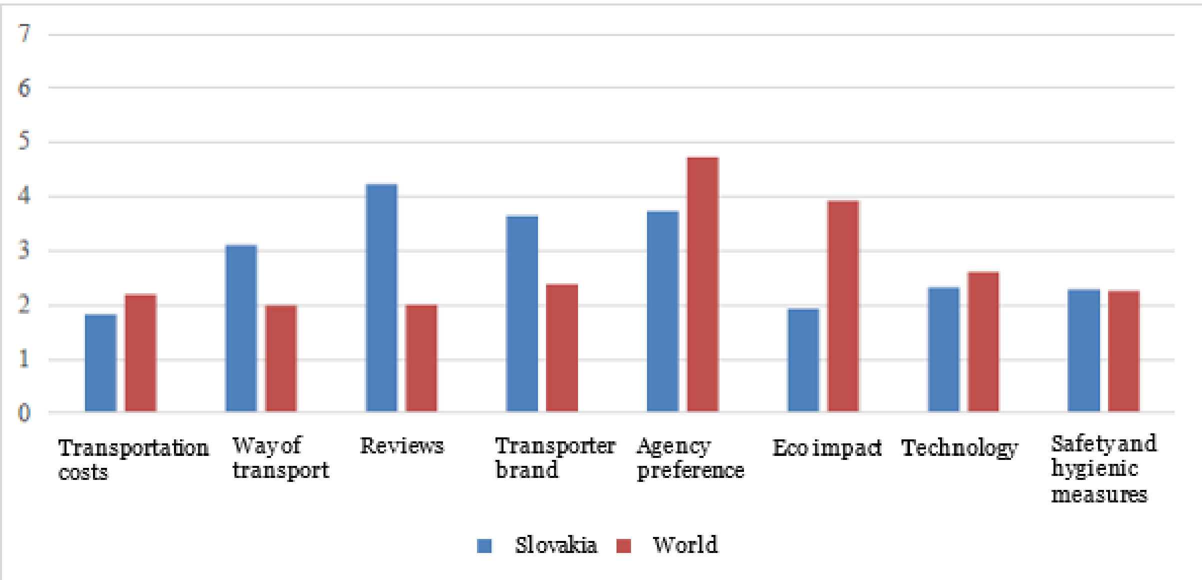

Figure 1. Comparison of Slovak and non-Slovak preferences of decision criteria, scale 1 (most important) – 7 (least important). Source: own research

Comparison of respondents' preferences from Slovakia and worldwide

Several interesting outcomes were identified when comparing Slovak and non-Slovak data entries. Although both groups of respondents identified Transportation costs as the most crucial decision criteria in both parts of the research, the interesting fact is the shift of preferences of Slovaks. More than 3,5 points (at a 7-point scale) growth was identified by the criteria Ecological impact, which may suggest the realisation of the environmental state of the world during the pandemic and afterwards. Surprisingly, the least important decision factor was reviews, recommendations and own experience, which was considered as very important criteria before the pandemic in both study groups. Non-Slovak respondents considered the Way of transport as the most important factor. The significance of the differences can be seen in Fig. 1.

In addition, we have identified that travel aggregators remained the top source of booking travel tickets with a 48 % preference lead. However, after the pandemic ends, people should use websites and mobile apps for purchasing tickets much less, as in our study this source's preference dropped by 26 %. Respondents also confirmed that after the pandemic, they plan to use the standard car rentals less (43,14 % of respondents, compared to 56,5 % before the pandemic), while the rental through the sharing economy tools, such as carsharing, will be more popular (48,57 %, compared to 29,43 % before the pandemic). We can state that during the pandemic, the interest of the people in sharing economy rose regardless of the nationality of the tourists.

Preferences regarding technology

Technology plays an important role in transportation. The options of their application are quite numerous – either for reservation systems, different forms of the tickets or of their payments. Often transportation providers use technology tools to improve the comfort of the customers or to bring them all the necessary updates in real time. Vehicles are often equipped with entertaining portals, online movies or books libraries, music-listening software or WiFi, which is already a standard.

However, our research showed that before the pandemic technology availability was not an important decision criterion for choosing transportation. With several Chí Square tests, we proved that the difference in this importance perception is significant by place of life, income and household size. An interesting fact is that not a single respondent from the APAC region assigned any importance to technology availability, while 6,2 % of Slovaks and 19 % of Europeans did. Technology was perceived as important by people with higher income (1 401 € and more) and by households not too small nor too big (3-4 persons). The most important is the technology for people living in the household alone – 27,3 % of them. The influence of age was not significant.

Table 5. Chi Square test – influence of demographic factors on technology importance perception; p-values of Chi Square (or Fischer Exact test). Before the pandemic. Source: own research

Chi Square test	p-values (compared to 0,05)				
Technology importance – before pandemic	Age	Gender	Region	Income	Household
Transportation	0.833 (0.859)	0.055	0.000 (0.000)	0.001	0.001

We have already proved the significance of pandemic influence on the perception of decision criteria when purchasing transportation. The influence was obvious by criterium "technology availability" as well. So how has this perception changed because of pandemics?

Again, we ran several Chi Square tests (or Fischer tests, if Chi Square is not applicable; results in brackets) to identify the influence of selected demographical factors on this perception. However, in this case, we proved that no studied factor had a significant influence. Therefore, we can say that pandemic eliminated any influence of these factors on the perception of how important the technology is.

Table 6. Chi Square test – influence of demographic factors on technology importance perception; p-values of Chi Square (or Fischer Exact test). During the pandemic. Source: own research

Chi Square test	p-values (compared to 0,05)			
Technology importance – during pandemic	Age	Gender	Region	Household
Transportation	0.985	0.447	0.806 (0.765)	0.166

However, our research showed that before the pandemic technology availability was not an important decision criterion for choosing transportation. With several Chí Square tests, we proved that the difference in this importance perception is significant by place of life, income and household size. An interesting fact is that not a single respondent from the APAC region assigned any importance to technology availability, while 6,2 % of Slovaks and 19 % of Europeans did. Technology was perceived as important by people with higher income (1 401 € and more) and by households not too small nor too big (3-4 persons). The most important are the technology for people living in the household alone – 27,3 % of them. The influence of age was not significant.

Conclusion

Our findings consist of several interesting parts. The first one is, that the COVID-19 pandemic really impacted the tourists' preferences when booking or purchasing transportation services. Although the price as the factor was still perceived as very important, also new factors popped up and became important decision criteria. The next interesting finding is the fact, that modern or smart technology was perceived very poorly as a decision factor before the pandemic. Although their importance has risen, they still don't belong among the most important factor. However, we identified that several factors influenced the perception of the importance of technology in the transportation choice process. To answer our research questions, we must look at the results of the study.

<u>How has the perception of the importance of the chosen decision factors when purchasing transportation changed due to the COVID-19 pandemic?</u>
We can clearly state that this change was quite significant. As can be seen on the factors rank in Tables 2 and 3, the new criteria related to the COVID pandemic have become the crucial decision factors, compared to the factors COVID non-related.

<u>Is the importance of the availability of modern technology perceived differently by men and women?</u>
The gender role and the influence on technology's importance were not statistically proven. Although in the first phase, before the pandemic, the Chi Square independence test was quite strong (0,055), on 95 % confidence interval we had to accept a negative result. During the pandemic, the difference of the perception of modern technology's availability importance between women and men was statistically disproved.

<u>Do people from different world regions and from different generations perceive the importance of smart technology in transportation selection process differently?</u>
Against the non-statistical assumptions, we have not proved the influence of age on the technology importance perception neither before the pandemic nor during it. However, the region was proved a significant factor before the pandemic, but with the pandemic present, the influence was not recorded. An interesting fact is, that before the pandemic, APAC inhabitants had the highest score and Slovaks did not perceive technology importance much. However, during the pandemics, the perceived importance was much higher in the case of Slovak respondents, which makes the differences statistically insignificant.

Discussion

This paper can act as a base, which could be later, after the pandemic ends, compared with another study to research the change in tourists' long-term preferences caused by the pandemic. It also brings an actual insight into the literature available on the topic. The main theoretical contribution is represented by the current data from pre- and post-pandemic state of the tourism industry joined by the bibliographical inclusion of tourists' preferences and purchasing behaviour. This paper and research could be a base of a broader study, which, in case they'd be interested, could be conceived by the Ministry of Transport and Construction of the Slovak Republic to help Slovak tourism rebound after a very long COVID period.

However, this research has several limitations. The most significant one is its sample, which consists only of 350 respondents, while the structure of the sample is not equal (more females, more younger respondents etc.). This could lower the validity of the general interpretation of the results as the population is defined as quite broad and thus is very numerous. Another limitation can be the pandemic itself because in some countries the virus was already spreading when we were collecting 1st phase data. We lacked deeper and broader data from the Slovak market – theoretical and practical. Even after contacting the Ministry of Transport and Construction of the Slovak Republic we were not successful in gathering any data, as the Ministry confirmed that all tourism-related activities and their measurement were stopped with the pandemic. This research is though meant to be further elaborated.

We aimed to better understand tourists' purchasing behaviour and their preferences, especially when booking or purchasing transportation services. Purchasing behaviour and preferences differ from customer to customer, from country to country and from industry to industry. In this paper, we have proved, that customers in the tourism industry are a great example. We have identified the main differences in tourists' preferences before and during the pandemic. As a result, the price was a very important factor in both periods, however, all the factors were perceived much more positively after the pandemic regardless of any demographical factors. There also appeared new factors which consider the current pandemic situation and their importance was perceived very strongly regardless of these factors, too. The pandemic also deleted the differences between people's preferences regarding the importance of modern technology – as before the pandemic, some factors' (region, income and household size) influence on preferences was proven significant, after the pandemic, the influence was significant in no demographical nor geographical factors. This opens an opportunity for the technology to help recover the industry after this unfortunate period. And businesses which will understand the customers better and which can identify their preferences can survive this situation and if successful, even profit from it.

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References

Briggs, S., Sutherlanda J. & Drummond, S. (2007). Are hotels serving quality? An exploratory study of service quality in the Scottish hotel sector. Tourism Management, 28, 1006–1019

Chung, J. Y. & Buhalis, D. (2008). Web 2.0: A study of online travel community. Information and Communication Technologies in Tourism, Berlin: Springer, 70–81.

Cuculeski, N. et al. (2016). Sustainable marketing and consumers' preferences in tourism. European Journal of Tourism, Hospitality and Recreation, 7(2), 84-90. doi: 10.1515/ejthr-2016-0010

Dusek, R. & Sagapova, N. (2021). Effect of the COVID-19 global pandemic on tourists' preferences and marketing mix of accommodation facilities – case study from Czech Republic, SHS Web of Conferences (92).

Goodall, B. (1991). Understanding holiday choice. Progress in tourism, recreation and hospitality management, 3, 58-77.

Gucik, M. et al. (2011). Marketing cestovného ruchu. Banska Bystrica: DALI-BB, s.r.o.

Hollebeek, L. D., & Macky, K. (2019). Digital content marketing's role in fostering consumer engagement, trust, and value: Framework, fundamental propositions, and implications. Journal of Interactive Marketing, 45, 27–41

Hsu, T. K. et al. (2009). The preference analysis for tourist choice of destination: A case study of Taiwan. Tourism Management, 30, 288-297

Hudson, S. & Hudson, L. (2017). Marketing for tourism, hospitality & events: A global & digital approach. London: SAGE Publications.

Kladou, S., & Mavragani, E. (2015). Assessing destination image: An online marketing approach and the case of TripAdvisor. Journal of Destination Marketing & Management, 4(3), 187–193.

Kock, F. et al. (2020). Understanding the COVID-19 tourist psyche: The Evolutionary Tourism Paradigm. Annals of Tourism Research, (85).

Le, D., Scott, N., & Lohmann, G. (2019). Applying experiential marketing in selling tourism dreams. Journal of Travel & Tourism Marketing, 16(1), 220–235. doi: 10.1080/10548408.2018.1526158

Liao, C. S. & Chuang, H. K. (2019). Tourist preferences for package tour attributes in tourism destination design and development. Journal of Vacation Marketing, 17(1). doi: 10.1177/1356766719880250

McGuiggan, R. L. (1999). The Myers-Briggs type indicator and leisure attribute preference. Consumer psychology of tourism, hospitality and leisure, 3, 245-267

Mckinsey and Company. (2020). Global Surveys of Consumer Sentiment During the Coronavirus Crisis. Surveys Per Country. Retrieved from: <https://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/a-global-view-of-how-consumer-behavior-is-changing-amid-covid-19>

O'Connor, P. (2008). User-Generated Content and Travel: A Case Study on Tripadvisor.com. Information and Communication Technologies in Tourism, Berlin: Springer, 47–58

Pappas, N. & Glyptou, K. (2021). Accommodation decision-making during the COVID-19 pandemic: Complexity insights from Greece. International Journal of Hospitality Management, (93)

Plog, S. C. (2002). The Power of Psychographics and the Concept of Venturesomeness. Journal of Travel Research, 40(3), 244-251.

Public Health Authority of the Slovak Republic (2020). Čo je to COVID-19. Retrieved from: <https://www.uvzsr.sk/docs/uvod/rozcestnik_co%20je_COVID.pdf>

Public Health Authority of the Slovak Republic (2021). Platné opatrenia. Retrieved from: <https://www.uvzsr.sk/index.php?option=com_content&view=article&id=4512:platneopatrenia&catid=256:uvod>

Rather, R. A. (2019). Customer experience and engagement in tourism destinations: the experiential marketing perspective. Journal Of Travel & Tourism Marketing, 37(1), 15–32. doi: 10.1080/10548408.2019.16

Sas, A. (2021). Transport of passengers during the coronavirus (COVID-19) epidemic in Poland in 2020, by type of transport. Retrieved from: <https://www.statista.com/statistics/1112658/poland-transport-of-passengers-during-covid-19-by-transporttype/>

Song, H. J., Ahn, Y. J., & Lee, C. K. (2015). Structural relationships among strategic experiential modules, emotion and satisfaction at the expo 2012 Yeosu Korea. International Journal of Tourism Research, 17(3), 239–248.

Swarbrooke, J. & Horner, S. (1999). Consumer Behaviour in Tourism. Butterworth-Heinemann

Yoo, K. H. & Gretzel, U. (2009). Comparison of Deceptive and Truthful Travel Reviews.

Information and Communication Technologies in Tourism, Berlin: Springer, 37–47.
WTTC & Wyman, O. (2020). To Recovery & Beyond: The Future Of Travel & Tourism In The Wake Of Covid-19. Retrieved from: <https://bit.ly/39l1M9z>
UNWTO. (2021). Tourism Recovery Tracker. Retrieved from: <https://www.unwto.org/unwto-tourism-recovery-*tracker*>

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COACHING IN THE FIELD OF BUSINESS MANAGEMENT

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ABSTRACT

Background: The article presents the research and its results concerning the perception of coaching as one of the effective tools for business managers. **Aim:** The aim of the paper is to highlight coaching as a powerful tool in the development of managerial skills and innovation potential. The aim of the research was to find out to what extent coaching is widespread among business managers, and whether it is accepted as one of the skills of managers, and if there exist relationships between the age and the individual elements of coaching in terms of work of a business manager. **Methods and sample:** The research was performed in 2019 via a questionnaire method (the KKMP questionnaire), combining quantitative Likert scaling with closed statements. 169 business managers from Slovakia voluntarily participated in it. **Results:** The results of the research confirmed the existence of statistically significant links among the individual elements of coaching in the business manager's work, and between the individual elements of coaching and the age of business managers in terms of their work. The results confirmed that managers, in general, should not undervalue the potential contribution of coaching to company and individual attributes in any age range.

Keywords: human resources, coaching, business managers, management, development of coaching

JEL Classification: M0, M2, M30

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INTRODUCTION

Companies are aware of the connections between performance, competitiveness, and human work potential and are increasingly concerned with monitoring, analysis, formation, and appropriate use. Innovative work potential is characterized by a high level of utilization of talent, innovation, creativity, entrepreneurial thinking and flexibility, skills, knowledge, motivation, experience, and independence. Utilizing the potential and developing the human resources of individuals are strategically necessary and can guarantee the success of the company now and in the future. Individuals and their innovative potential are one of the most valuable assets of organizations. Activities aimed at developing the working potential are reflected in the strategic goals of the organization, and therefore, the management of the company itself is the bearer of the philosophy of using and developing the potential of workers.

Coaching, as a way of supporting abilities development and skills of managers and employees, individuals and groups, is a targeted strengthening of potential development of an individual - it rightly receives attention not only among experts. According to Karpinská and Kmecová (2017), in coaching, we assume that individuals can choose the path their life will take. Jenčová (2018) states that since the goal of coaching is to fully utilize the potential of the coachee, regardless of the type of management, there is space for its use in the public sphere as well. Coaching focuses on where the coachee is currently and what he is willing to do to get to where he wants to be in the future.

THEORETICAL BACKGROUND

Coaching is effective only under suitable conditions and in a favorable workplace climate. Luecke and Ibarra (2009), in the book *Coaching and Mentoring: How to Develop Top Talent and Achieve Stronger Performance*, state that the coachee has a desire to learn and improve with the help of coaching, but only in the case of three conditions, namely the so-called *mutual trust*; *accountability for results* and *motivation to learn* and improve. The first condition can be described as building trust and support, believing in the abilities of the coachee. The second condition is documenting the change and measuring results (either in your own tables, graphs, or corporate key performance indicators), which will show what and how the coaching helped the individual. The third point is motivation. The coachee must have a goal that the coach can help him achieve. Whitmore (2014) claims that an individual is willing to use his potential and work if he has enough support only and the organization does not introduce any restrictive measures or practices.

In the management literature, coaching is defined as a process in which managers impart advice and information and set standards to help other individuals. Organizations use coaching to develop talent to meet goals (Filler-Travis & Lane, 2006; Witherspoon, 2000); enhance employees' knowledge; strengthened the performance of the organization (Sherman & Freas, 2004); and reconciled needs with consumer requirements (Belás et al., 2016). The knowledge and skills requirements of individuals are variable, so they must be constantly educated. The formation of skills is becoming a lifelong process in today's society. According to Bělohlávek (2000), the following development activities can be used: education and self-education (a form of knowledge-based learning or practical training aimed at developing skills; motivation (use of motivational tools to increase performance and the development of the worker); coaching (individual learning of the worker by another person, who will mainly affect his abilities and attitudes) (Birkner & Birknerová, 2014).

Whitmore (2014) states that the coaching process enhances the individual's potential and allows him to maximize his performance. The core is to achieve a better perception of reality and expansion in responsibility. Perception of reality and responsibility are two factors that influence performance and mindset. However, if a manager or coach does not believe that people's potential is greater than what is shown in their daily actions, they cannot help them use it. People must therefore be considered not only based on their performance but ~~on~~ potential. Education represents a valuable investment in one's capital to acquire better performance and make the best use of natural abilities.

Therefore, the contribution focuses on coaching from the point of view of management. The idea of effectively managing yourself, but also others, does not lose its relevance.

Business managers with an emphasis on coaching ensure the development of employees and the company. In this way, it is possible to create opportunities to maximize efficiency (Doust & Ghadiri, 2016). A manager as a coach helps employees believe that they can acquire more effective and innovative skills (Baker, 2010; Ladyshewsky, 2010). Managerial coaching is defined as a human resource development strategy and is a dynamic process that improves job performance (Joo, Sushko & McLean, 2012). That's why advanced organizations pay a lot of attention to coaching and allocate considerable costs to this process. For example, most of the world's leading organizations and many large American organizations use different coaching styles to manage their employees (Vajargah et al., 2014).

The prevalence of coaching in today's organizations may be due to rapid changes in the organizational environment, such as globalization, technological advancements, and the nature of work. Although coaching has become commonplace in organizations over the past two decades, there is little empirical evidence of its outcomes (Sangari & Purvali, 2014). For managers interested in the motivation and advancement of employees in organizations, coaching can be an effective process. There are at least six coaching principles that seem to be universally accepted. Individuals who have strong beliefs, relationships, self-esteem, relation to development, and contacts insist on applying those principles that lead to profitability, motivation, job satisfaction, and engagement (Hajizadeh et al., 2022).

The reasons for the growing need to use the coaching approach and philosophy in today's organizations can be described as follows:

- Increasing the complexity of the environment and thereby increasing work problems and challenges.
- Failure of the usual abilities of individuals to respond to a dynamic and diverse environment.
- Expanding the service sector in enterprises and creating diverse working conditions related to the characteristics of the given area and constant attention to the quality of services.
- The immediate benefit from the on-the-job experience is to achieve optimal performance.
- Increasing the importance of knowledge management and the implicit knowledge transfer to employees during processes.
- The increasing willingness of employees to improve skills in their preferred career.
- The need for different methods to improve their knowledge and competencies (Ahrami, 2013).

Companies increasingly practice managers coaching employees, with research confirming positive correlations between coaching and organizational goals, employee satisfaction, and individual performance (Ellinger et al., 2011; Wheeler, 2011). Leadership contributions suggest that coaching is associated with effective managerial behavior and offers managers ways to implement leadership theories (Anderson et al., 2009; Hagen, 2010; Kinicki et al., 2011; Longenecker & Neubert 2005). Research has identified specific coaching behaviors as desirable in leaders, such as:

- the ability to listen and create communication to involve others,
- establishing clear performance expectations,
- self-awareness (Sparks & Gentry, 2008),
- regular conversations with managers or coaches to discuss organizational goals (individual too),
- managers provide constructive feedback (both positive and negative),
- managers reflect on their leadership practices (Larsson & Vinberg, 2010).

Development of Coaching in the Slovak republic

Coaching in Slovakia has been expanding in the last decade. Two associations of coaches in Slovakia: The Slovak Association of Coaches (SAKO, founded in 2006) and the Civic Association of the ICF (the Slovak branch representing the ICF Slovak Chartered Chapter (founded in 2007), have achieved a high level of awareness in the business and public spheres. Both organizations together with coaching and its benefits to individuals, teams, and organizations, organized several small and large conferences, or events, using various opportunities to bring coaching to the public (coaching zones, workshops, etc.).

Several industrial and commercial companies from Europe and other continents invested in Slovakia and contributed to the acceleration of the application of coaching in Slovakia. With the arrival of accredited foreign coaching schools, also established in Slovakia, the number of coaches offering their services is growing. Membership in two professional associations in Slovakia was at the end of 2017: SAKO 89 people and ICF 78 people. Current hot topics in Slovakia in the field of coaching are a significant part of coaching activities taking place in the business and corporate world; the increasing focus of activities on supervision and mentoring in the ongoing education and growth of certified coaches; launching pro-bono coaching activities related to the area of social responsibility (Stubbs, Passmore & Brown et al., 2018).

Facts from the research

In 2014 and 2016, the international association uniting professional coaches from around the world (IFC - International Coach Federation) conducted two global studies that focused on the needs and experiences of clients (ICF Global Consumer Awareness Study) and the experiences and opinions of the coaches themselves (ICF Global Coaching Study). The following lines bring some of the most important findings from both studies - who are coaches and why clients enter the coaching process (Urban, 2017).

1) *Gender*: on a global average, women make up 67% of the total number of professional coaches, in Eastern Europe, this number is higher (70%), and the highest is in North America (73%). The lowest is in Asia (52%).

2) *Age*: the strongest age group consists of professional coaches between the ages of 40 and 59 (66%). The situation is slightly different in companies where the managers themselves use coaching, for example, 28% of managers using coaching in the company are under 39 years old.

3) *Intention*: the reasons for the coach's visit vary, and the fact that it is not only about work topics must be highlighted. 42.4% of clients visit a coach to optimize work performance (individual or team), but already 30.9% of clients go to a coach to improve self-perception and increase self-confidence. A total of 27.1% of clients look for a coach to improve their work-life balance, prevent burnout, etc.

4) *Satisfaction*: a total of 85.1% of clients were satisfied with this experience after visiting a professional coach. When clients were asked how likely they were to recommend coaching to their friends or colleagues, the average answer was 71.4%. And when respondents were asked which statement best describes the essence of coaching, most people answered that coaching is based on progressive thinking and internal motivation (50.2%).

5) *Mission*: a total of 84% (85% in Eastern Europe) of coaches think that the application of coaching in practice can transform society for the better. We fundamentally agree with this statement, because in our opinion, coaching does not belong only to companies. The basic framework of coaching, partnership in achieving goals (in contrast to the authority-subordinate relationship), is a good prerequisite, for example, for education without unnecessary stress and frustration or company management without coercion.

6) *Education*: a total of 82.7% of clients care that their coach has a formal education in coaching. A positive fact is that a total of 81% of coaches received such an education. It turns out that 42% of professional coaches have education (training) in the range of more than 200 hours (which, according to the ICF, is a basic prerequisite for obtaining the highest level of accreditation).

Korauš et al. (2016) add that it is currently a phenomenon of globalization and diversification that is becoming dominant. Interest in various forms of coaching across all sectors of society worldwide is not a common reality.

The role of Coaching in the Management

The profession of coaching originated in the business world at the end of the 1980s and is one of the management methods for ensuring the long-term development of human resources. The first coaches worked exclusively with top management in medium-sized and large corporations. Even then, top workers were able to appreciate the possibility of interacting with an independent person at regular intervals. Also, based on this, several organizations, training programs, and schools were created, the goal of which was and always is to prepare high-quality coaches. One of the most famous is Coach University (The Coach U), which was founded by Thomas Leonard in 1988, one of the world's first experts in the field of coaching (Naščáková, Malega & Mihok, 2006).

Among the requirements for managers, the requirement for coaching skills appears more often.

Can a manager be a coach? How is the coaching relationship consistent or inconsistent with the hierarchical principles on which most companies still operate and with managerial work according to the classic definition that a manager organizes and manages resources, assigns and controls work tasks, and monitors efficiency and productivity?

According to Herian (2022), the manager can use a coaching approach, in contrast to external coaching, the manager does not transfer responsibility for results to a subordinate, but he even bears part of the responsibility himself. But yes, he can conduct a series of coaching conversations with individuals, but what seems most valuable is when a manager integrates a coaching style into a leadership style. It can have several benefits: strengthening trust in relationships; setting expectations and formulating goals; leading individuals to be mindful of reality; performance evaluation by subordinates, pointing out the potential of employees, etc. According to Dimensions Consulting Services (2022), every conscious manager should be able to adapt and appropriately use a coaching approach in practice, but this is not always the case. For some, such an approach is unnatural, and they cannot accept it. In theory, they understand it and recognize its benefits, but their personality setting prevents them from developing and using it. Anyone who has tasted the magic of coaching and believes in its power can improve in it and really help themselves and others to bring to the surface previously hidden resources.

The Slovak Association of Coaches (2022) states that the coaching approach is used by managers when:

- individual (personnel) interviews,
- selection procedure,
- adaptation plan,
- conducting meetings,
- setting short-term as well as long-term goals,
- increasing the personal commitment of the employee,
- the strategic setting of corporate culture,
- building attitudes and interpersonal relationships,
- solving various situations of daily operations,
- increasing the productivity of work teams.

Considering the mentioned points, we think the coaching approach is the right choice for working with employees. In this case, a manager who works in a coaching manner asks questions instead of immediately giving orders. Asks for solutions if a problem arises and looks for options and necessary resources with the employee. The manager finds himself in the position of a supporter who listens and highlights the potential of the person he works with. In such an environment, the employee feels that he is interested in being a part of the existing whole and acquires a sense of work and space for self-realization. And this is what not only today's generation is looking for.

A coach manager motivates and guides employees to achieve new levels of performance. It's not about being the smartest person in the room but about fostering a collaborative environment where everyone has a voice, and their ideas are welcome (Barret Halcom, 2018). Coaching brings higher productivity, greater engagement, and improved customer service. For employees, it increases performance, tendencies to overcome challenges, achieve goals and build self-confidence. A manager underestimates coaching benefits. Managers often consider the effort spent as a little reward (Chakraborty, 2019).

A case study of the management development program used in-depth interviews, surveys, and observations to collect data from respondents as well as supervisors and subordinates. One of the main findings was that coaching is a useful training process that offers different tools for the manager and the development of his managerial behavior. In addition, respondents highlighted the following tools as the most important: emotional intelligence, empowerment, self-management, strengths, and positive emotions (Berg & Karlsen, 2012).

METHODOLOGY

Because we have been working with people and publishing about people, it was extremely important to respect research ethics – a certain standard of behavior that guided us during this work. Subjects' participation in the research was voluntary and individuals were not forced to participate in it. No form of overt or covert coercion was used to obtain consent to participate in the research. The individuals had the right to withdraw from the research without suffering any consequences. The research was conducted in the form of a questionnaire in 2019 via the KKPM questionnaire: Coaching in the everyday practice of a manager (Birknerová, 2016). The questionnaire contains statements (KK1, KK6, etc.) related to the following areas:

- What is coaching?
- Coaching as a managerial competence.
- Personal benefits of coaching.
- Specific elements of coaching used in managerial practice:
    - about interpersonal relations at the workplace,
    - about achieving goals,
    - strengthening the culture of delegation,
    - increasing work efficiency,
    - about strengthening team cooperation.

The aim of the research was to discover to what extent coaching is widespread among managers, whether it is accepted as one of the skills of managers, and how many individual elements of coaching interfere with the work of a business manager. Other goals are:

1) To find if there is a connection among the individual elements of coaching in the manager's work.
2) To find if there are connections between the age and the elements of coaching in the manager's work.

Based on established research goals and theoretical knowledge, the following hypotheses were established:

H1: We assume that there are statistically significant relationships among the individual elements of coaching in the work of a business manager.

H2: We assume that there are statistically significant relationships between the age of respondents and the elements of coaching in the work of a business manager.

Business managers (respondents) from Slovakia stated the agreement level within individual statements (KK1, KK6, etc.) on the Likert scale from 1 (definitely no) to 5 (definitely yes). The data were processed in MS Excel and the SPSS Statistics 26 using Pearson's correlation coefficient which represents a measure of the intensity of linear correlation between two random variables.

The sample of respondents consisted of 169 business managers, of which 88 were women (52.07%), and 81 were men (47.93%). On the scale of managerial positions, there were 72 (42.61%) top managers, 55 (32.54%) middle-level managers, and 42 (24.85%) first-level managers. Interested was also that 76 respondents directly completed courses related to coaching, 54 managers completed other managerial courses focused on soft skills, and 39 managers did not complete courses during their managerial career.

RESEARCH RESULTS

We assumed that there are positive and significant relations among the individual elements of coaching in the work of the business manager, and between the *age of the business manager* and the individual elements of coaching in the work. The links and the data were verified and processed using the Pearson correlation coefficient in the statistical program SPSS 22 (Table 1 and Table 2). The acquired results of the analysis confirmed the existence of statistically significant links among the individual elements of coaching in terms of business manager's work and between the individual elements of coaching in terms of the age in business manager's work. There was displayed strong ($p<0.01$) and moderate ($p<0.05$) evidence of relationships.

Verification of H1 hypothesis: We assumed that there exist connections among the individual elements of coaching in the business manager's work. To evaluate the H1 hypothesis, we used correlation analysis, (Pearson's correlation coefficient) and examined the degree of correlation between the individual items of the KKPM questionnaire.

Table 1. Relationships between elements of coaching in managerial work

KK1	KK2 ,459**	KK6 ,348**	KK14 ,364**	KK18 ,286*						
KK4	KK12 ,663**	KK16 ,576**	KK21 ,466**	KK31 ,443**	KK49 ,569**	KK49 ,567**				
KK6	KK15 ,578**	KK16 ,661**	KK21 ,496**	KK31 ,458**	KK39 ,299**	KK49 ,562**				
KK21	KK31 ,544**	KK32 ,489**	KK40 ,472**	KK49 ,579**						
KK23	KK30 ,389**	KK34 ,466**	KK44 ,378**	KK47 ,484**						
KK25	KK26 ,585**	KK27 ,549**	KK35 -,286**	KK36 ,447**	KK37 -,399**	KK38 ,497**	KK44 ,585**	KK53 ,486**		
KK30	KK35 -,262*	KK37 -,281*	KK38 ,445**	KK40 ,458**	KK47 ,486**	KK51 ,693**	KK52 ,635**	KK53 ,459**	KK54 ,479**	
KK35	KK1 -,293*	KK16 -,369**	KK22 -,288**	KK23 -,276*	KK25 -,287**	KK29 -,269*	KK30 -,252*	KK36 -,391**	KK40 -,265*	KK44 -,274*
KK36	KK27 -,258**	KK37 -,369**	KK14 -,437**	KK54 -,379**	KK54 -,349**					
KK50	KK46 ,547**	KK48 ,475**	KK49 ,562**	KK51 ,839**	KK52 ,769**					
KK51	KK47 ,599**	KK53 ,565**								
KK52	KK30 ,634**	KK32 ,658**								

Note: *p<0,05, **p<0,01
KK1 I have clear and concrete ideas about what coaching is.
KK4 Knowledge in the field of coaching allows me to understand people's behavior.
KK6 Coaching increases the efficiency of managerial work.
KK21 Coaching strengthens cooperation in the workplace between colleagues.
KK23 Actively listening to a superior increases motivation to perform.
KK25 I trust a subordinate.
KK30 Everyone in the team cares about achieving the goal.
KK35 My employees only do what I tell them, as much as they must.
KK36 Subordinates come up with ideas on how to solve problems.
KK50 The team is having a discussion and looking for solutions.
KK51 There is mutual trust in the team.
KK52 In the team, they are aware of mutual dependence on the fulfillment of the overall goal.

The one who has clear and factual ideas about coaching perceives it as an expanding element of managerial competencies and even includes it among them. Based on his knowledge of coaching, he gets to know people better and delegates tasks to a lesser extent, the fulfillment of which is unpleasant for him (KK1). Those respondents whose knowledge of coaching enables them to understand people also get to know people better and expect that information from the field of coaching will enable them to work with them better (KK4). Those respondents, according to whom coaching increases the efficiency of managerial work, approach education in the field of coaching as increasing the efficiency of managing interpersonal relations (KK6). Those respondents for whom coaching has the significance of strengthening cooperation at the workplace report an increase in motivation to achieve goals (KK21). Respondents who are regularly interested in the opinion of subordinates know that if an employee identifies with the company's goal, he performs better. They are aware that the meaningfulness of work also decisively affects people's performance (KK23). For those respondents who trust the subordinate, their trust is returned. Their employees claim that the boss is also interested in me as a person, not just as a workforce. If you work in such an atmosphere, everyone in the team can feel that their opinion is respected (KK25). Team members don't just do what their supervisor tells them to do and don't wait for the boss to decide. When delegating, responsibility, authority and competencies are transferred to employees (KK30). Respondents are interested in what was the most difficult for their team during the task performance. Team members are aware of their mutual dependence on the achievement of the overall goal. Mutual trust reigns in such a team (KK35). If employees only do what the boss tells them, i.e., only as much as is required, their boss does not have clear and specific ideas of coaching, he shows a very low level of active listening, does not trust his subordinates, does not set goals in conversation with a subordinate, that is, his subordinates are not motivated to fulfill them, they even mostly do not care about the fulfillment of the goal. Such subordinates do not come to the boss with ideas on how to solve problems and are not familiar with the assigned powers. Their opinion is often not shown interest (KK36). Subordinates come up with ideas on how to solve problems, they do not wait for the boss to decide, and they have not delegated tasks, the fulfillment of which is unpleasant for the boss. Each of them can declare that boss is also interested in him as a person, not just as a workforce (KK50). If a discussion takes place in the team and solutions are sought, responsibility for better performance is strengthened, and the manager reevaluates the suggestions of subordinates and reveals hidden reserves (KK51). When team members are aware of mutual dependence on the fulfillment of the overall goal, each of them cares about its fulfillment, and they are willing to take an active role in the coaching process and implement short-term plans (KK52).

H1 hypothesis was confirmed because there are statistically significant relationships among the individual elements of coaching in the work of a business manager.

Verification of H2 hypothesis: We assume that there are connections between the age of respondents and elements of coaching in the business manager’s work.

The hypothesis H2 was verified through correlation analysis, the Pearson correlation coefficient, which represents a measure of the intensity of the linear correlation between two random variables, where one random variable is age, and the other is individual coaching approaches in the business manager’s work. The results of this analysis are displayed in Table 2.

Table 2. Relationships between the age and coaching approaches in managerial work

	KK1	KK2	KK13	KK14	KK18	KK20	KK33	KK43	KK49	KK52	KK54
Age	,295**	,245*	,297**	,272*	,286*	,298**	,243*	,233*	,268*	,245*	,286**

Note: *p<0,05, **p<0,01

KK1 I have clear and concrete ideas about what coaching is.
KK4 Knowledge in the field of coaching allows me to understand people's behavior.
KK6 Coaching increases the efficiency of managerial work.
KK21 Coaching strengthens cooperation in the workplace between colleagues.
KK23 Actively listening to a superior increases motivation to perform.
KK25 I trust a subordinate.
KK30 Everyone in the team cares about achieving the goal.
KK35 My employees only do what I tell them, as much as they must.
KK36 Subordinates come up with ideas on how to solve problems.
KK50 The team is having a discussion and looking for solutions.
KK51 There is mutual trust in the team.
KK52 In the team, they are aware of mutual dependence on the fulfillment of the overall goal.

As stated in Table 2, *with the increasing age, the manager has more specific ideas about coaching* and acquires relationship and trust in coaching that supports managerial competencies, expands them, and gradually includes them among essential managerial competencies. With increasing age, the belief that coaching can be performed only by specially prepared people grows also. As the manager gets older, he believes more and more that information about coaching will help him in working with people, that with its help, internal and external obstacles to achieving goals can be removed, and responsibility for better performance will be strengthened. It is clear to him that subordinates usually know the solutions better than himself. With increasing age, the manager leads his team in a way where subordinates are aware of mutual dependence on the fulfillment of the overall goal.

Hypothesis 2 was confirmed because there are statistically significant relationships between the age of the respondents and the elements of coaching in the work of the business manager.

Discussion

The examined relationships between the individual statements of the questionnaire reported strong (p<0.01) and moderate (p<0.05) degrees of relationships. Due to their quantity, only the most significant ones, whether positive or negative, were selected.

For those, the relationship with people is the most important, had other statements to a high degree of statistical significance regarding interpersonal relationships and the application of coaching elements to the social sphere. Those for whom trust is important to transfer it to every area of their work. It manifests in a high degree in connection with the right delegation, the perception of the subordinate and the approach to him, in the atmosphere prevailing in their team, as well as, in feedback in the form of activated employees. Those who are focused on results and achieving goals or teamwork could also be described that way. A common element of these approaches is the absence of an autocratic way of commanding. However, there is a tendency towards the preferences of individual groups of managers.

According to Grant (2013), the efficacy of coaching lies in understanding the nature of coaching itself. Although the widespread use of the term suggests that it is a monolithic activity, in fact, coaching methodologies are heterogeneous and highly diverse approaches to facilitating and creating purposeful positive organizational and individual changes. Duijts et al. (2008) examined the effectiveness of coaching as a means of reducing sickness absence due to psychosocial health complaints and on well-being outcomes. It was found that coaching led to noteworthy improvements in life satisfaction, burnout, and psychological well-being, nevertheless no improvement in self-reported sickness absence, concluding that coaching can enhance the general well-being of employees. This is one of the randomized controlled studies of the effectiveness of executive coaching, with participants receiving 360-degree feedback followed by four sessions of executive coaching. For certain observers, the unimportant number of randomized controlled outcome studies may be considered to be the main shortcoming in the coaching efficacy literature.

It may be practical to mention that lifespan psychology suggests that managers in their 30s, 40s, or 50s reflect different maturation levels and professional experience. It was also confirmed by H2: w*ith the increasing age, the manager has more specific mindsets about coaching*. To date, research has not adequately explored the relationship between the age of managers and the coaching process or coaching outcomes. Tamir & Finer (2016) hypothesized that executives from 30s to 50s would respond differently to the executive-coaching engagement. They analyzed seventy-two executive-coaching engagements to evaluate the relationship of age towards variables: Responsiveness, Self-reflection, Degree of Change, Non-Defensiveness. Results indicated that the age group of 30 to 39 was significantly lower in Degree of Change and Self-reflection, compared to executives in the 40 to 49 and 50 to 59. According to Bowen-Nielsen (2017), the age influences how people receive and react to the process of coaching. Particularly, *those of a younger age range* may feel that being chosen to participate in coaching reinforces their perception of being talented in their role hence they *perceive such an initiative as a bonus* rather than some development opportunity. That is why older managers are prone to the concept of development and new opportunity to learn or be challenged.

Coaching within organizations is often cited as a highly valuable tool for developing individuals and organizations. Over 70% of individuals who receive coaching, benefit from value-added work performance, relationships, and more effective communication skills. A huge 86% of companies feel that they earned the investment made into coaching plus more on top (Institute of Coaching, 2022).

Conclusion

The coaching process is closely related to the career since it involves the targeted release and strengthening of the individual's development potential, which takes place directly in practice during the work of the coached person with the participation of an expert - the coach. From the point of view of the development of modern management and individuals in the organization, the target is to strengthen their development potential, to develop the potential of the worker and of the company. In the corporate environment, more and more managers are looking for ways to lead and motivate people. Older business managers were noticeably more curious about the reasons for their behavior and wanted to explore this area more through coaching processes. It may be caused by maturation features, such as rule-driven behavior to achieve professional status or focused ideals, and ~~of~~ organizational indicators that are placed in high-potential, elite groups. Conscious managers know that a directive approach, orders, and regulations may no longer be practical, and that people expect more room for self-realization. Employees are looking for a company culture that they can identify with internally to keep them motivated to perform at their best. And one of the key factors is the approach of their superior - the manager.

This research may contribute to the development of traits and abilities to help managers manage their position. In conclusion, we note that today there exist numerous offers of educational courses for managers operating at different levels of the company, which develop managerial skills related to coaching. It is only necessary to choose very well from them.

Implications

Since the research is based on a random sample, it has shortcomings compared to probability sampling. However, it is widely recognized that such samples can be achieved more easily and quickly, at lower costs, than probability-based samples. On the other hand, it is understandable that a conclusion reached on the basis of evidence (inferences) to a broader population of interest is limited. We suggest not to undervalue potential inputs to company and individual attributes from coaching.

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References

Ahrami, H. (2013). Coaching in workplace. Tehran: Industrial Management Organization Publications.

Anderson, V., Rayner, C., & B., Schyns (2009). Coaching at the Sharp End:the role of line managers in coaching at work, CIPD, London.

Baker, S.J. (2010). Rounding for outcomes: an evidence-based tool to improve nurse retention, patient safety, and quality of care. J Emerg Nurs; 36(2): 162–164.

Barrett Halcom, J. (2018). Coach vs. Manager - What Do Employees Want? ProSky [online]. Retrieved from: https://www.td.org/insights/why-should-a-manager-become-a-coach

Belás, J., et al. (2016). Customer Satisfaction and Electronic Banking Security in Commercial Banks. In Journal of Security and Sustainability Issues, 5(3).

Bělohlávek, F. (2000). Jak řídit a vést lidi. Praha: Computer Press. ISBN 80-7226-308-0.

Berg, M.E., & J.T., Karlsen (2012). Anevaluation of management training and coaching. Journal of Workplace Learning, 24(3), 177-199.

Birkner, M., & Z., Birknerová (2014). Koučovanie v prostredí školy, pedagóg v roly kouča. Nekonferenčný vedecký zborník recenzovaných štúdií. Prešov: Bookman, s.r.o. Retrieved from: https://www.unipo.sk/public/media/34292/Kou%C4%8Dovanie%20ako%20met%C3%B3da%20vzdel%C3%A1vania%20v%20mana%C5%BEmente.pdf

Birknerová, Z. (2016). Posudzovanie prvkov koučingu v manažérskej práci. Exclusive journal: Economy and Society and Environment, 4(3), 159-167.

Bowen-Nielsen, J. (2017). Age does matter in coaching! Quiver management. [online]. Retrieved from: https://www.quivermanagement.com/2017/11/22/age-does-matter-in-coaching/

Dimensions Consulting Services. (2022). Koučovacie princípy v manažérskej praxi. Retrieved from: https://www.dimensions.sk/koucovacie-principy-v-manazerskej-praxi/

Doust, V., & R. Ghadiri. (2016). Designing and explaining the conceptual model of organizational management coaching and trust in the context of organizational culture. Natl Conf Organ Culture, 190, 93–98

Duijts, S.F.A.P., et al. (2008) Effectiveness of apreventive coaching intervention for employees at risk for sickness absence due to psychosocialhealth complaints: Results of a randomized controlled trial. Journal of Occupational andEnvironmental Medicine, 50(7), 765–76.

Ellinger, A.D., et al. (2011). Organizational investments in social capital, managerial coaching, and employee work-related performance. Management Learning, 42(1), 67-85.

Fillery-Travis, A., & D., Lane. (2006). Does Coaching Work or Are We Ask the Wrong Question? The British Psychological Society, 1(1), 23-36.

Grant, A. H. (2013). The Efficacy of Coaching. The Wiley-Blackwell Handbook of the Psychology of Coaching and Mentoring, 1st Edition. Edited by Jonathan Passmore, David B. Peterson, and Teresa Freire.© John Wiley & Sons, Ltd.

Hajizadeh, H., et al. (2022). The effective coaching factors in operational managers of Persian gulf petrochemical company in motivation of human resources. International Journal of Engineering Business Management, 14.

Herian, K. (2022). Koučovacie princípy v manažérskej praxi. Karol Herian o úspechu. Retrieved from: https://www.dimensions.sk/koucovacie-principy-v-manazerskej-praxi/

Institute of Coaching. (2022). Benefits of Coaching. The Personal Benefits of Coaching. [online]. Retrieved from: https://instituteofcoaching.org/coaching-overview/coaching-benefits

Jenčová, V. (2018). Koučing v manažmente. In Teória a prax verejnej správy. Košice: Univerzita Pavla Jozefa Šafárika. ISBN 978-80-8152-605-3.

Joo, B.K., Sushko, J.S., & G.N., McLean. (2012). Multiple faces of coaching: manager-as-coach, executive coaching, and formal mentoring. Organ Dev, 30(1), 19.

Karpinská, Z., & D., Kmecová. (2017). Koučovanie podľa pyramídy. Bratislava: Business Coaching College, s.r.o. ISBN 978-80-972617-0-2.

Kinicki, A.J., Jacobson, K.J.L., Galvin, B.M., & G.E., Prussia. (2011). A Multilevel Systems Model of Leadership. Journal of Leadership & Organizational Studies. 18(2), 133-149.

Korauš, A., et al. (2016). Coaching as an Effective tool for Reproduction of Human Capital, Prague: International Scientific Conference RELIK.

Luecke, R., & Ibarra, H. (2006). What Coaching Is All About. Its Place In Management Boston: Harvard Business School. Retrieved from: http://managingprogrammers.com/papers/RoleOfCoaching.pdf

Hagen, M. (2010). The wisdom of the coach: a review of managerial coaching in the Six Sigma context. Total Quality Management & Business Excellence, 2(8), 791-798.

Chakraborty, P. (2019). Why Should a Manager Become a Coach? Association for Talent Development [online]. Retrieved from: https://www.td.org/insights/why-should-a-manager-become-a-coach

Ladyshewsky, R.K. (2010). The manager as coach as a driver of organizational development. Leader Organ Dev; 31: 292–306.

Longenecker, C.O., & M.J. Neubert. (2005). The practices of effective managerial coaches. Business Horizons, 48(6), 493-500.

Larsson, J., & S., Vinberg (2010). Leadership behaviour in successful organisations: Universal or situation-dependent? Total Quality Management & Business Excellence, 21(3), 317 - 334.

Naščáková, J., Malega, P., & J., Mihok. (2006). The Role of Coaching in the Present Management. Nitra: Faculty of Economic and Management SAU, International Scientific Days 2006 in Nitra, Competitivness in the EU – Challenge for the V4 countries.

Sangari, N., & B., Purvali. (2014). The effect of managerial coaching behavior on results of staff's performance. J Manage Dev Process, 27(3), 141–171.

Sherman, S., & A., Freas. (2004). The Wild West of Executive Coaching. Harvard Business Review. 1-8.

Slovenská asociácia koučov. (2022). Manažér ako kouč. Retrieved from: https://sako.sk/manazer-ako-kouc/

Sparks, T.E., & W.A., Gentry (2008). Leadership Competencies: an exploratory study of what is important now and what has changed since the terrorist attacks of 9/11. Journal of Leadership Studies, 2(2), 22-35.

Stubbs, Z., Passmore, J., & H., Brown et al.. (2018). Coaching in Slovakia. [online]. Retrieved from: https://www.icf.sk/images/Clanky/koucing-na-slovensku-final-zms.pdf

Tamir, L. M., & Finfer, L. A. (2016). Executive coaching: The age factor. Consulting Psychology Journal: Practice and Research, 68(4), 313–325.

Urban., M. (2017). Kto sú kouči a čo chcú ich klienti? Štatistiky z výskumov ICF. Retrieved from: https://differentcoaching.info/kto-su-kouci-co-chcu-klienti-statistiky-vyskumov-icf-international-coach-federation/#more-1577

Vajargah, F., et al. (2014). A study on the areas and conditions of applying coaching in training and development of human resource activities. J Manage Plann Educ Syst, 8(15), 27–48.

Wheeler, L. (2011). How does the adoption of coaching behaviours by line managers contribute to the achievement of organisational goals? International Journal of Evidence Based Coaching and Mentoring, 9(1), 1-15.

Whitmore, J. (2014). Koučování: Rozvoj osobnosti a zvyšování výkonnosti. Metoda transpersonálního koučování (3. vyd.). Prague: Management Press.

Witherspoon, R. (2000). Starting Smart: Clarifying Coaching Goals and Roles. In M. Goldsmith, L., Lyons, & Freas, A. (Eds.). Coaching for Leadership: How the World's Greatest Coaches Help Leaders Learn, 165–185. San Francisco: JosseyBass.

SELECTED PROBLEMS RELATED TO THE IMPLEMENTATION OF TALENT MANAGEMENT PRACTICES

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ABSTRACT.
Aims: The paper deals with the concept of talent management as the last stage of human resource management development. **Background:** It emphasizes, that for the successful implementation of talent management it is necessary to apply a number of practices, that are based on principles. Practices, unlike principles, are more context-specific. **Methods, Sample and Results**,**:** Only procedures that go beyond normal human resource management procedures are presented in the paper. Based on research conducted in 124 Slovak companies, the paper presents partial findings and facts that emerged from the research, namely 14 defined problem areas, which provide a relatively comprehensive picture of the state of talent management and the result of hypothesis testing, which was focused on whether, the size of the company affects the application of talent management practices.

Keywords: talent, talent management, component of talent management

JEL Classification*:* M12, O12

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Introduction

The concept of talent has a relatively long history. The word “talent” is derived from the Latin word talentum, which means the weight unit of silver, and from the Greek word talenton, which means the scale. This term was already used in ancient times and became more widespread thanks to the Bible. Historically, the term was used for the first time by the Assyrians to describe a monetary unit to denote the weight of silver. In the fifteenth century, the word talent was used to express wealth, value, or mental abilities. In the seventeenth century, the term talent was used to express innate abilities of various kinds. In the nineteenth century, the term talent began to be used as something inherent in capable (talented) individuals (Sojka, 2013). Today, talent means unique innate creative abilities and skills. Talent is also an individual who is endowed with such talents. The term "talent management" started to appear in the early 90s of the last century. Cappeli (2008) attributes its origin to the changes in the economy that took place at that time. The aim of this paper is to clarify why talent management has recently become the subject of interest of business entities, what consequences the lack of talent has on the businesses, and to present the state of talent management in business entities of the Slovak Republic.

Theoretical background

In the 1960s and 1970s, talent management represented a marginal activity of human resources departments. However, nowadays it is considered an important issue in all departments (Sparrow & Makram, 2015). Therefore, most business entities strive to study and research talent, to predict possible future job positions and build a bridge between current and future talents. People in the top positions of business entities are aware of the fact that the talent and skills of staff are key factors in achieving success and help maintain the high potential of the staff. Currently, talent management is generally considered to be the last stage of human resource management (Guy & Doris, 2009).

However, times change relatively quickly nowadays, especially with the advent of globalization and the knowledge economy. In industrialized countries today, 50 % of gross domestic product is based on knowledge, intellectual assets, and intangible knowledge and skills of employees (Dess & Picken, 1999). This leads business entities to develop highly integrated talent management systems as these serve as a prerequisite for ensuring productivity and profitability. In order to develop a successful talent management scheme, business entities must clearly define what talent and talent management means for them, what are the main practices and principles of talent management, what the talent culture means, what are the main determinants that influence talent management, etc.

An analysis of the scientific literature shows that talent management (TM) is considered an important part of human resource management (HRM). Gallardo-Gallardo et al. (2013) argue that HRM has passed three essential stages of development since its inception, namely: personnel management, human resource management / strategic human resource management, and talent management. These three stages show the development of HRM and how this development resulted in TM. In Western countries, the development has reached such a stage that the acquisition of new talent is the main effort of all organizations. Cocuľová (2019) writes the situation in Slovakia is not different, even though the current situation has not yet been thoroughly mapped and the partial results of the research show that not all aspects of talent management have been properly identified and used so far.

TM has become a difference between successful and less successful companies. As Silzer & Dowell (2010) point out, in the 1980s there was a shift from traditional human resource management to strategic talent management, followed by the most recent shift to talent management. According to Tansley et al. (2006), high-quality talent management practices are considered a strategy that helps achieve the goals set out by both a business strategy and a human resource management strategy.

The advent of the knowledge economy, globalization, and the entry of a new generation of the workforce into the market mean that the traditional human resource management is not sufficient and its efficiency will continue to decline as its activities are oriented toward a large, independent, homogeneous and employer-dependent workforce (Cocuľová, 2019). The new workforce is smaller, more globalized, highly virtual, and very diverse. Its autonomy and independence require the introduction of a new generation of human resource management - talent management.

Due to intensifying international competition, talents are recruited from other organizations. Therefore, organizations must specify key talents that they cannot afford to lose, as such a situation would result in large economic losses. Many times, organizations believe that their employees are "trapped" in their organizations, especially when they are properly financially rewarded, as financial rewards are an important factor in keeping employees in the organization.

The knowledge and skills of employees represent intangible assets of the organization, which together with the tangible assets represent the total assets of the organization. For this reason, the competitiveness of any organization is dependent on the talent of its employees. Organizations must be prepared for the fact that their talented employees can also be the subject of talent acquisition, especially by competing organizations. This means that talent management must have in place mechanisms for the continuous replenishment of new talent (Matos et al., 2012). In the context of advancing globalization, intensifying competition, weakening the commitment of the younger generation to their employers, and the advancement of the knowledge economy, talent management is becoming a critical factor in determining the success of the organization Sparrow & Makram (2015) and Collings & Mellahi (2009). Talents and high-performing employees have become a scarce commodity worldwide. Lack of talent has become a limiting factor in a number of countries.

In order to develop a successful talent management strategy, organizations must clearly define what talent means to them, what they expect from talent management, what are the main practices and principles of talent management, what is talent culture, what are the main determinants which influence talent management.

The right definition of talent valid for a given organization and the processes of attracting, identifying, engaging, developing, and retaining talent are fundamental parts of talent management (Collings et al., 2011). Although salaries and benefits work to attract potential candidates, top organizations focus mainly on retaining and developing talent.

Based on the above analysis of definitions and procedures implemented in talent management as well as on interviews with organizations that have implemented talent management, it can be said that in connection with talent management, it is necessary to distinguish two sets of constructs, namely:

1. principles
2. practices

The basic principles of talent management include:

1. Talent-oriented approach
2. Consistency of all talent management activities with business strategy
3. Talent management rooted in corporate culture
4. Selective approach to individuals referred to as talents
5. Internal consistency of principles and resulting practices
6. Involvement of managers at all levels of management in talent management
7. Identification of job positions where employees identified as talented individuals are necessary.

For a successful implementation of talent management, it is necessary to apply a number of practices that are based on the previously mentioned principles. Practices, unlike principles, are more context-specific. Only practices that go beyond normal human resource management practices are reported. These include, in particular, the following practices:

1. Adoption of the talent management policy by the top management of the organization
2. Implementation of talent management policy into tangible and intangible aspects of the corporate culture
3. Selection of job positions
4. Recruitment and selection of employees
5. Performance evaluation system, performance standards for talented individuals
6. A system of material and moral involvement linked to performance evaluation
7. Development and implementation of methods for retaining talent
8. Identification of needs and design of methods for training employees with an emphasis on talented individuals
9. Methods of acting in relation to talented individuals
10. Methods of allocating resources from the aspect of talented individuals
11. Development and implementation of methods of involvement of individuals
12. Implementation of methods for evaluating the effectiveness of talent management

Methodology

Given that no relevant studies on the state of implementation of talent management and on the problems associated with its implementation have yet been carried out in the Slovak business environment, we decided to fill the void. The aim of the presented research was to find out how the concept of talent management (or its components) is implemented in a selected sample of Slovak business entities. We were also interested in finding out which practices and principles represent the main problems in the implementation of talent management. The research builds on the above-described practices and principles of talent management. Based on the stated principles and practices, a questionnaire was drawn up containing 15 items that cover the issue of talent and talent management. The research has a qualitative character because from the point of view of its aim it allows us better to describe the state and problems business entities face when implementing talent management.

The research was conducted in person and online. A structured questionnaire was distributed to each respondent who was willing to participate in the research and undergo a personal interview. The data was also obtained via the questionnaire sent to the participants over the Internet. The heads of the human resources management departments were contacted. In the event that an organization did not have such a department, the director of the organization or an employee authorized by him was approached.

A total of 220 companies were contacted. 124 respondents expressed their willingness to participate in the research, which is a relatively high participation rate. This high turnout was due to the fact that up to 92 respondents were contacted in person. As regards the size of the organizations in terms of the number of employees, the composition of companies is as follows:

- 28 respondents employ from 15 to 49 employees;
- 76 respondents employ from 50 to 250 employees;
- 20 respondents employ more than 250 employees.

As far as industries are concerned, all organizations were active in the field of manufacturing - engineering, woodworking, clothing, and construction industries.

Results

In this section, we present important findings that emerged from the research. The figures represent the numbers of respondents, in parentheses, we outline the percentage of respondents who agreed with the statement made in the relevant item. The first number in the result means the absolute number of respondents who agreed with the statement, the second number means the percentage. Percentages are rounded.

Item no. 1. Approach to and implementation of the talent management system

- 18 (14 %) respondents have a formally processed and implemented TM system;
- 74 (60 %) respondents partially implement talent management activities without a formalized document;
- 32 (26 %) respondents do not address the issue at all.

Item no. 2. Practices and principles of talent management which are formally or intuitively implemented in organizations (multiple-choice)

- 30 (24 %) Leadership support;
- 24 (19%) Talent identification;
- 38 (31%) Talent pool and succession plans;
- 18 (15 %) Predictors and criteria for talent identification and selection (implemented and used);
- 43 (35 %) Career plans for talent development;
- 27 (21 %) Talent engagement;
- 23 (18 %) Systemic measures to retain talent.

Item no. 3. What "talent" means for the organization in question (multiple-choice)

- 41 (34%) Innate predispositions;
- 32 (26 %) Excellent performance;
- 49 (40 %) Excellent skills;
- 55 (44 %) Education and skills;
- 31 (25%) High potential.

Item no. 4. Applied/ preferred approach to talent management (only for organizations that have established TM or make use of TM practices).

- 35 (28 %) Exclusive;

- 41 (33 %) Inclusive;
- 48 (39 %) Inclusive and exclusive.

Item no. 5. Coherence between business strategy and talent management strategy and practices.
- 22 (17 %) There is coherence - formally declared in company documents;
- 71 (57%) There is coherence - implicitly present in the business practices;
- 31 (25 %) There is no clear answer.

Item no. 6. Presence of a specified set of job positions where talented and high-performing employees are expected.
- 24 (19 %) Specified in the written document;
- 61 (50 %) Implicitly assumed;
- 39 (31 %) Not specified, the organization does not pay attention to it.

Item no. 7. Attention paid to professional growth and career growth of talents
- 19 (15 %) Career plans were drawn up;
- 79 (64%) Professional development is provided without formal documents;
- 26 (21 %) It is left to the individual concerned.

Item no. 8. Use of predictors and performance criteria for talent identification and talent recruitment
- 24 (19 %) Drawn up and used;
- 49 (40 %) These were not drawn up formally but are used as needed;
- 51 (41 %) Not drawn up or not used.

Item no. 9. Specific methods used in talent management (multiple-choice)
- 25 (20 %) Creation and regular review of the talent pool;
- 49 (40 %) Performance evaluation;
- 28 (23 %) Methods of employee engagement;
- 28 (23 %) Preference for talents in career development plans;
- 17 (14 %) Above-standard benefits;
- 23 (18 %) Benefit packages for talents.

Item no. 10. Resources used to fill job positions
- 65 (52 %) Internal;
- 15 (13 %) External;
- 44 (35%) Both types of resources.

Item no. 11. Existence of problems in filling more qualified jobs positions
- 65 (52%) In principle, the organization has no problem in this regard;
- 33 (27 %) The organization has some problems in this regard but it manages;
- 26 (21%) The organization has serious problems and some jobs remain vacant.

Item no. 12. Reasons why the organization has not yet implemented the concept of talent management (valid only for organizations that did not implement the concept)
- The organization does not have manuals for drawing up and implementing TM;
- 49 (39,5 %) Do not consider TM important;
- 37 (29,5 %) Small organization, TM probably would not pay off;
- 38 (31 %) Time and money.

Item no. 13. Interest from other organizations in talents working in their organization
- 25 (20 %) Yes, significant;
- 61 (49 %) Casual interest;
- 38 (31 %) No interest.

Item no. 14. The main reasons why talents are leaving the organization
- 41 (34 %) Career-advancement possibilities;
- 45 (36 %) Salary;
- 16 (13 %) Work-life balance;
- 22 (17 %) Interpersonal relations and managerial style of superiors.

Item no. 15. Suggestions for improving talent management.
The need to develop manuals for the implementation of TM, presentation of benefits posed by the implementation of TM, the introduction of TM training.

As can be seen from the presented research results, only 14% of respondents have a formally developed and implemented talent management system. 76% have implemented some elements that can be included in the issue of talent management, but as it turned out from a personal interview, these are largely activities that are part of the human resources management system. 32% of respondents who do not deal with the issue of talent management at all are mostly small companies with up to 50 employees. Thanks to these organizations the need for a talent management handbook was exposed. Regarding the definition of the term talent, the respondents to some extent provided the definition also given in the theoretical part of the paper.

The research revealed that 24% of organizations need talented and high-performing employees. The same percentage of organizations (24%) also need to implement a set of predictors and criteria for the identification of talents. The value of 24% is low, especially given that these indicators are also needed in regular human resource management.

The organizations reported a relatively good level of professional growth, although the level of formalization should be higher. We are also satisfied with the fact that organizations use internal sources of talent to a large extent, thus manifesting that they do not rely on external sources as the situation outside the company may be uncertain. Nevertheless, 21% of organizations already have serious problems filling job positions, especially those that require talented and high-performing employees. This fact indirectly confirms the need to introduce talent management and the implementation of activities that would refine the "home-grown" talents.

Table 1. Average values of talent management practices

The degree of significance of practices in talent management* company size	Value
Adoption of the talent management policy by the top management of the organization	3.072
Implementation of talent management policy into tangible and intangible aspects of corporate culture	2.717
Selection of job positions	2.283
Recruitment and selection of employees	2.469
Performance evaluation system, performance standards for talented individuals	2.506
A system of material and moral involvement linked to performance evaluation	3.667
Development and implementation of methods for retaining talent	3.071
Identification of needs and design of methods for training employees with an emphasis on talented individuals	1.964
Methods of acting in relation to talented individuals	2.428
Methods of allocating resources from the aspect of talented individuals	1.548
Development and implementation of methods of involvement of individuals	3.093
Implementation of methods for evaluating the effectiveness of talent management	1.950

Source: own *processing*

If Slovak business entities want to maintain their competitiveness in the future, they must focus on talented and high-performing employees, as only such employees can provide the necessary innovations and acquire and disseminate knowledge within the organization. The research has shown, albeit on a very limited sample, that the state of development and implementation of TM is not at a satisfactory level. First of all, it is necessary to train employees of human resources management departments to further disseminate this knowledge throughout the organization. The model presented in this research could be a suitable basis for doing so. It is also necessary to elaborate methods of proving the effectiveness of talent management implemented, as well as the methods of its presentation.
Within the academic community, it is necessary to address the issues of standardization of definitions and framework of the talent management concept, in particular.

To verify the interrelationship was used a parametric test of statistical significance - Eta coefficient (η) in the PSPP program. As part of our research, we set the following research hypothesis.

At the significance level α = 0.01, the following relationship was found when examining the relationship between these variables (Table 1, Table 2).

H1: We assume that there is a statistically significant difference between established talent management practices and company size.

The calculation of the correlation ratios between talent management practices and the size of the company is shown in Table 2:

Table 2. Correlation between talent management practices and company size

	η	***P***
Practices TM * Company size	**0.505**	**<0.001**

Source: *own processing*

η is the correlation between numeric and categorical variables, where 0 = no correlation to 1 = perfect correlation.

Since P <0.01 and η > 0.1 (0.5 already represents a large correlation), hypothesis H1 can be accepted, which means that the differences measured in the sample exist. We can say that there are differences between talent management practices and the size of the company.

Conclusion

Based on the knowledge gained from the study and analysis of the literature, the first part of the work describes the individual dimensions that, in our view, should become part of talent management. At the same time, a definition of talent management was proposed, which, together with the above, became the framework for the introduction of this paper. The aim of the research was to find out to what extent talent management practices are used in selected organizations. Research has shown that only 14% of organizations work with a formalized concept of talent management and that, depending on the size of the company, talent management practices are also implemented.

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References

Cappeli, P. (2008). *Talent management for the Twenty first century*. Cambridge: Harvard Business Review. https://hbr.org/2008/03/talent-management-for-the-twenty-first-century

Coculová, J. (2019). Analytical view on the use of talent management in companies operating in the Slovak Republic. *Exclusive journal : economy and society and environment*, 7(1), 4-9. ISSN 1339-0260.

Collings, D. G., & Mellahi, K. (2009). Strategic talent management: A review and research agenda. *Human Resource Management Review*, *19*(4), 304-313. https://doi.org/https://doi.org/10.1016/j.hrmr.2009.04.001

Collings, D. G., Scullion, H., & Vaiman, V. (2011). European perspectives on talent management. *European Journal Of International Management*, *5*(5). https://doi.org/10.1504/EJIM.2011.042173

Dess, G. G., & Picken, J. C. (1999). *Beyond productivity: How leading companies achieve superior performance by leveraging their human capital*. New York: American Management Ass.

Gallardo-Gallardo, E., Dries, N., & González-Cruz, T. , F. (2013). What is the meaning of'talent'in the world of work? *Human Resource Management Review*, *23*(1), 290-300.

Matos, F., Lopes, A., & Matos, N. (2012). Talent Attraction and Reputation. In *Proceedings of the 4th European Conference on Intellectual Capital* (s. 286-293). Helsinki: Academic Publishing International Limited.

Guy, M., & Doris, S. (2009). *Future talent development: Talent management and succession planning practical guide to Husbandry* (1st ed.) (N, Jazani, Trans.).Tehran: Saramad Publication.

Saddozai, S.K., Hui, P., Akram, U., Khan, M.S. *and* Memon, S. *(2017)*. Investigation of talent, talent management, its policies and its impact on working environment, *Chinese Management Studies*, *11*(3), 538-554. https://doi.org/10.1108/CMS-10-2016-0206

Silzer, R., & Dowell, B. E. (2010). *Strategy-Driven Talent Management: A Leadership Imperative*. HB Printing.

Sojka, L. (2013). Analytický pohľad na problematiku manažmentu talentov a návrh integrovaného modelu manažmentu talentov. *Trendy V Podnikání – Vědecký Časopis Fakulty Ekonomické Zču V Plzni*, *3*(2), 3-11.

Sparrow, P. R., & Makram, H. (2015). What ist evalue of talent management? Building value-driven processes within a talent management architectur. *Human Resource Management Review*, *25*(3), 249-263.

Tansley, C., Harris, L., Stewart, J., Turner, P., Foster, C. and Williams, H. (2006). Talent management: understanding the dimensions change agenda. London: CIPD