



Financial Auditors' Perception on the Added Value of Internal Audit Services

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Abstract

In the current business environment, which has radically changed due to either socio-economic turmoil caused by economic or health crises (such as the COVID-19 pandemic) or due to technology and digitalization, internal audit has gained an important role within companies. Thus, in the last seventy years, internal audit has developed and evolved from being the function that controls accounting and financial data, to becoming the strategic function that improves governance processes for shareholders and management. The internal auditor helps an organization to meet its goals by providing a systematic and disciplined approach for assessing and improving the effectiveness of risk management and governance processes. Only an effective internal audit can achieve its tasks properly. Efficiency depends on the subordination level of the internal audit function (this needs to be adequate for the internal audit to be independent and objective). Efficiency also depends on the professional qualification and practical experience of internal audit staff, on the engagement's strategy, as well as on activities and added value for the company, and on its continuous improvement capacity. This research aims to analyse the perception of professional practitioners within Romanian professional bodies, both from the perspective of internal auditors who do this service based on audit engagements performed at company level, but also from the perspective of employees working in these companies' internal audit departments. The main goal is to create and shape a holistic framework to be used for assessing the added value of internal audit based on stakeholders' perceptions.

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The main results obtained highlight the fundamental role of the quality of human capital and of corporate governance at company level. Management will take responsibility for implementing the auditor's recommendations only based on an effective communication and reporting of audit observations. At the same time, the internal auditor's integrity, independence, objectivity, and competencies represent the foundation of an internal audit function that has all the prerequisites for gaining management's trust, support, and cooperation. Finally, the results of this research show the importance of the organizational context in which the audit function is organised. According to the worldwide well-established "three-line defence" model, the audit function is the last line of defence against fraud or non-compliance, thus ensuring the preservation of the company's resources.

Key words: internal audit; added value; efficiency of internal audit services; performance; COVID-19; digitalization; technological innovation;

JEL Classification: M21, M40, M41, M42

1. Introduction

The current sensitive socio-economic environment driven especially by the COVID-19 pandemic and digitalization is creating an uncertain context for both private and public organizations.

Being an independent and mandatory activity, and a value-adding strategic function, internal audit provides assurance on the verification level of operations carried out by that company, and makes recommendations for their improvement, thus contributing to the creation of added value.

This research aims to identify those circumstances where literature has not yet managed to set a clear connection between the activities of internal auditors and the company's performance. Thus, to assess the effectiveness of the internal audit function, our research shows the areas and segments that can add value, but also the factors allowing this.

To achieve our goals, we aimed to interview financial auditors and practitioners to assess their perception, not only from the perspective of the internal auditor performing this service based on audit engagements at company level, but also from the perspective of employees in the company's internal audit department. Our intention was to

be able to shape a holistic framework to be used for assessing the value added by the internal audit function based on stakeholders' perspectives.

Thus, considering the perception of internal auditors who are members of the Romanian Association of Internal Auditors (A.A.I.R.), and of financial auditors who are members of the Romanian Chamber of Financial Auditors (C.A.F.R.), our research aims at three objectives:

- OB1: to analyse the connection between the allocation of audit resources and the potential of the internal audit function to generate added value
- OB2: to analyse the impact of the qualities of the internal auditor on promoting the internal audit function, from the perspective of the internal audit function's potential to generate added value
- OB3: the impact of technological innovation on the allocation of audit resources.

The research is structured on five sections. Thus, the first section highlights the preliminary aspects of the undertaken scientific approach, respectively the context of the study case. The second section is an analysis of the specialised literature. The next two sections describe the research methodology, respectively the results obtained and a discussion around them. Finally, the fifth section draws the conclusions of the case study.

2. Literature review

In periods of socio-economic turmoil, such as the current one caused by the COVID-19 pandemic (Deliu, 2020; Farcane *et al.*, 2021), as well as due to disruptive changes in daily activities caused by digitalization and emerging technologies (Farcane & Deliu, 2020; Tiron-Tudor *et al.*, 2021; Tiron-Tudor & Deliu, 2021), more than ever, managers need quick access to information on which they can rely in their decision-making process. Thus, in a business environment that is changing faster than ever, and automation solutions are adopted rapidly in more and more areas, internal auditors play an increasingly important role (Deloitte, 2018c; Ernst & Young, 2020; KPMG, 2020b; Kahyaoglu & Aksoy, 2021; Mervelito *et al.*, 2021). In this respect, considering the major uncertainties caused by the assault of disruptive forces, the internal audit function needs to evolve for helping companies to understand and manage associated risks (Kahyaoglu & Aksoy, 2021), to achieve the expected results further to automation (Mervelito *et al.*, 2021), but also to continue to

innovate to get added value (KPMG, 2021). The traditional areas of continuous development of internal audit – i.e., GRC (governance-risk-compliance) and personal skills – become insufficient to adequately respond to these needs. On the other hand, aspects as automation, agility, entrepreneurship, or programming are areas where internal auditors should be able to perform for bringing added value to companies.

Over time, the role of internal audit was linked to the evolution of stakeholders' expectations, especially managers. Thus, internal auditors were asked to channel their efforts towards activities that generate added value (Savčuk, 2007; PWC, 2009; PWC, 2014a; PWC, 2014b; Deloitte, 2018b; Deloitte, 2018c; Erasmus & Coetzee, 2018; Jiang *et al.*, 2018). In addition to assessing compliance with legal regulations in terms of the company's processes, internal audit also needs to become a consulting function (Bou-Raad, 2000; Jayalakshmy *et al.*, 2005), respectively to communicate useful information on risk management and opportunities for process improvement and efficiency (Carcello *et al.*, 2018).

Therefore, internal audit is beginning to play an important role in the evolution of economic scenarios issued to ensure a sound corporate governance, proper risk management, fraud identification and prevention.

Internal audit is defined as “an independent objective assurance and consulting activity designed to add value and improve a company's functioning”, as it can help an organization to achieve its goals through a “systematic and disciplined approach” in terms of “assessing and improving the effectiveness of risk management, control and governance processes” (IIA, 1999).

In early 2008, IIA's Board of Directors approved a new strategic plan that focused on various activities to meet the requirement of continuous education for maintaining competency, and, by default, going beyond self-interest towards a “greater good” (IIA, 2008).

The concept of acting towards a “greater good” needed further nuances and development, and thus, a group was formed to explore and develop a clear and concise description of the proposed *added value of internal audit* or the so-called “greater good”, which could then be communicated to key stakeholders (IIARF, 2011).

On one hand, added value can be measured by monetary gains (Elliott *et al.*, 2007) or cost savings (Mihret & Woldeyohanni, 2008). On the other hand, added value is

often considered to be subjective, as it can be measured strictly qualitatively, by ensuring fulfilment of stakeholders' expectations (Roth, 2003; Arena & Azzone, 2009; PWC, 2014a; PWC, 2014b; Lenz & Hahn, 2015; PWC, 2016; Sarens *et al.*, 2016; Witzany & Harrington, 2016; Imbrescu & Peta, 2017; Lenz *et al.*, 2018).

Most research in internal audit has focused on identifying and assessing trends and developments in terms of good practices by means of empirical studies (Savčuk, 2007; PWC, 2009; PWC, 2014a; PWC, 2014b; Su *et al.*, 2017; Deloitte, 2018b; Deloitte, 2018c; Erasmus & Coetzee, 2018; Jiang *et al.*, 2018). Part of the studies perform an empirical analysis of the relationship between internal audit quality, the interactive mechanism of management structure and the companies' corporate value (Su *et al.*, 2017; Erasmus & Coetzee, 2018).

On the other hand, a survey among Romanian internal auditors by KPMG (2019) shows that, in recent years, one of the biggest challenges of the internal audit function has been and remains to position internal audit as a strategic function that brings added value to a company. Thus, in the context of ongoing developments in IT industry, as well as changes in operational processes, the ability of the internal audit function to readapt audit plans and processes, as well as the human resources required to perform activities, are continuously tested (KPMG, 2019; KPMG, 2020a; KPMG, 2020b).

Therefore, we notice how *added value* represents the centre of internal audit, as the very ability of auditors to add value and provide support to stakeholders creates the prerequisites for internal audit activities (Sarens & De Beelde, 2006; Sarens *et al.*, 2009; Lenz & Hahn, 2015; IIA, 2017; Botha & Wilkinson, 2019).

3. Research methodology and organization

3.1. The analysed sample

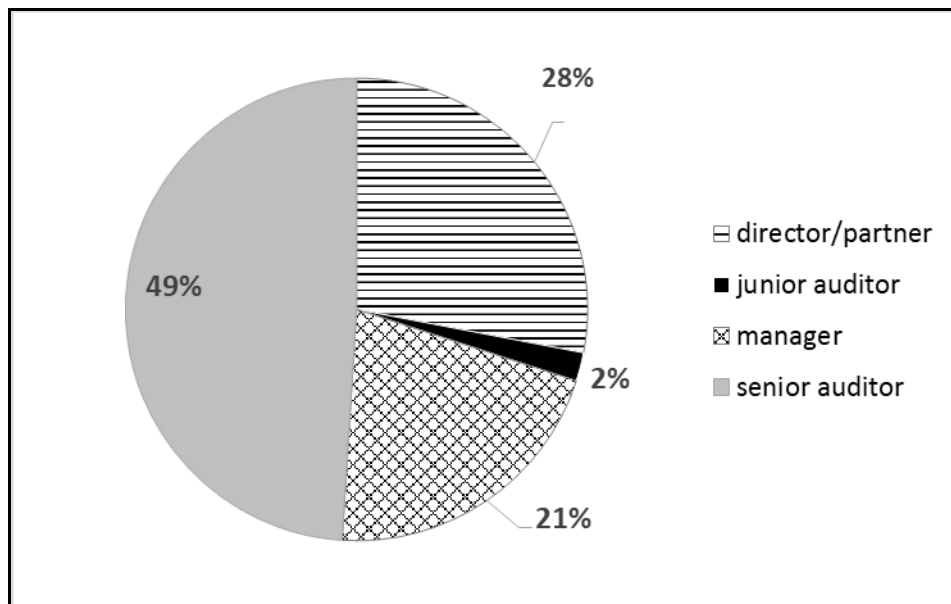
The study is part of a larger research, aiming to assess the impact of the internal audit function on companies' financial performances. We intend to identify the prerequisites of a well-defined audit function within the organizational matrix.

In this respect, we sent a questionnaire to the members of the Romanian Association of Internal Auditors (A.A.I.R.). Considering that the assessment of the reviewed

company's internal audit function is among the fundamental steps of the statutory financial audit activity, the questionnaire was also sent to the members of the Romanian Chamber of Financial Auditors (C.A.F.R.). The questionnaire contains a total of 116 questions, of which the section dedicated to auditors contains 32 specific questions, plus 5 questions that describe the general profile of each respondent.

In this study, the author was focused on analysing the answers to 20 of the 32 questions specific to auditors. The questions are offering a range of possible answers based on the Likert scale (1 – to a very small extent, 2 – to a small extent, 3 – medium/neutral, 4 – to a large extent, 5 – to a very large extent). These questions are useful for an analysis focused on key elements that condition the internal audit's potential to add value.

Figure no. 1. Sample structure as per respondents' status



Source: Authors' projection

Within approximately one month, 63 people, grouped by status, accepted the invitation to fill in the questionnaire. The structure of the sample represented in **Figure no. 1** shows that most of those who accepted our invitation are experienced auditors, as only 2% of the respondents are less experienced auditors.

At the same time, out of the 63 valid answers, 89% are answers from auditors who consider that the company's audit function is a legal obligation, compared to the rest of the respondents of only 11%, who claim that the internal audit function was created at the initiative of the company's management. This separation is essential because the organization of internal audit at the initiative of the company's management implies a higher degree of

management commitment in supporting internal audit engagements.

3.2. Analysis of the reliability of the used scale

The 32 questions included in the analysis are divided into four groups, focused on:

- *the impact of internal audit* at company level: added value, implementation of recommendations, savings
- *the quality of the internal auditor* and the interpersonal relationships: independence, understanding of the business model, continuous education, support, cooperation

- *the implications of technologies* and working tools on the activities of the internal auditor within the audit engagements: emerging technologies, Data Analytics, GRC (Governance-Risk-Control), support systems
- *efficiency and effectiveness of the internal audit function*: cost efficiency, time efficiency, communication efficiency, number of meetings,

planning, time budget limitation, testing.
 To validate the used scale, we assessed the internal consistency of each group of items mentioned above (**scale reliability analysis**), by performing the **Cronbach's Alpha Test**. **Table no. 1** shows the results of the analysis of the reliability of the scale used in the questionnaire.

Table no. 1. Results of the analysis of the reliability of the used scale

Item	Description	Cronbach's Alpha	Cronbach's Alpha if Item Deleted
Added value	Assess the extent to which the internal audit function creates added value		0.676
Implementation of recommendations	Assess the extent to which the recommendations in the internal audit report are implemented	0.803	0.751
Savings	Assess the extent to which the implementation of the recommendations in the internal audit report has led to savings and avoidance of additional costs		0.760
Independence	Assess the extent to which internal auditor's independence is respected from a management perspective		0.841
Understanding of the business	Assess the extent to which the internal audit function has a good understanding of the business model		0.858
Continuous education	Assess the extent of providing continuous training to the internal auditor	0.882	0.857
Support	Assess the extent to which the internal audit function is supported in performing the audit engagement		0.873
Cooperation	Assess the extent to which the internal audit function ensures a cooperation with the internal audit department		0.852
Emerging technologies	Assess the extent to which the internal audit function aligns with the technological innovations in audit		0.656
Data Analytics	Assess the extent to which you use Data Analytics for performing audit engagements and investigations		0.663
GRC	Do you use an integrated GRC (governance, risk, control) solution within the internal audit department?	0.772	0.844
Support systems	Assess the extent to which the internal audit function uses sufficient support tools/technologies (audit programmes, models, etc)		0.606
Cost efficiency	How do you assess the efficiency of the internal audit function in terms of costs?		0.902
Time efficiency	How do you assess the efficiency of the internal audit function in terms of time required for performing an internal audit engagement?		0.894
Communication efficiency	How do you assess the efficiency of the internal audit function in terms of communicating audit recommendations and monitoring their implementation?		0.876
Number of meetings	Assess the extent to which the number of meetings with companies' management is consistent with the specifics of the engagements	0.898	0.871

Item	Description	Cronbach's Alpha	Cronbach's Alpha if Item Deleted
Planning	Assess the extent of compliance with the audit plan (planned audit vs. actual audit)		0.877
Time limitation	Assess the extent to which time management is observed within audit engagements (plan vs. actual)		0.880
Testing	Assess the efficiency in using resources (tests done per day)		0.875

Source: Authors' calculations

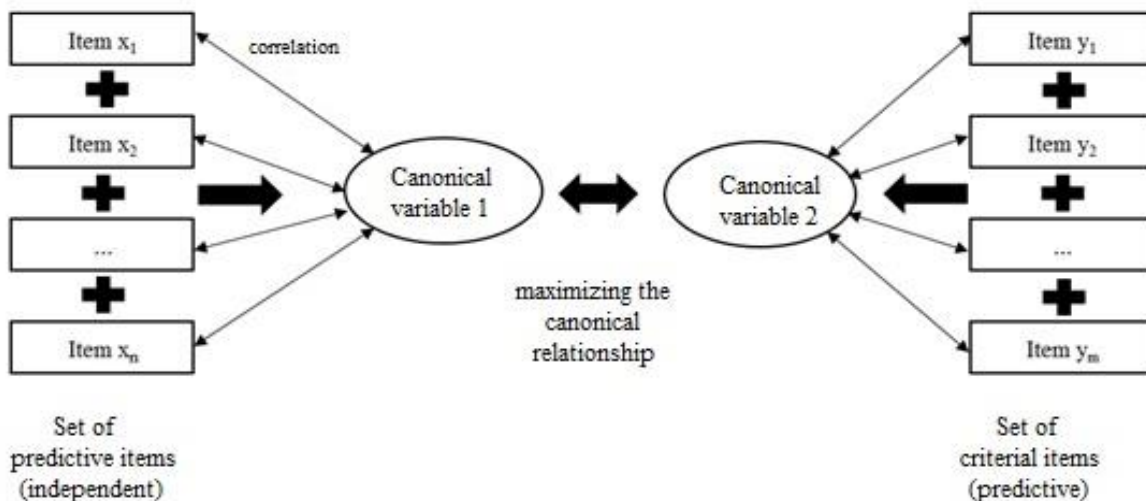
We notice that the questionnaire is balanced for the analysed sections, and the measuring scale is relevant, considering that the level of the Cronbach's Alpha coefficient exceeds 0,800. The section related to the impact of technological innovation is an exception – the Cronbach's Alpha coefficient is 0,772, which shows a scale of acceptable reliability (Hair *et al.*, 2019). Furthermore, if we analyse the measuring scale without grouping the items into conceptual groups, the Cronbach's Alpha coefficient is of 0,935, which shows an overall reliable scale.

3.3. Canonical analysis of items

To provide a clearer picture of the internal auditor's perception on the aspects highlighted in the questionnaire, we will perform a canonical correlation

analysis. This method provides more useful information as compared to the classical correlation analysis, specifically because it captures the combined effect of several analysed variables on several variable results (Tabachnick & Fidell, 2013). The analysis consists in outlining two canonical variables, which reflect the linear combination of a set of input variables for which we calculate the correlation coefficient. The canonical analysis estimates coefficients for each input variable, which maximizes the correlation between the two canonical variables, calculated as a linear combination of the input variables, as per *Figure no. 2*. Thus, this method allows us to analyse the linear association between a set of input variables and a set of dependent variables, and therefore it goes beyond the limits of analysing individual correlations.

Figure no. 2. Linear representation of canonical correlations



Source: Authors' projection

Formally, this method starts from two sets of variables, namely $X = (x_1, \dots, x_n)^T$ and $Y = (y_1, \dots, y_m)^T$. The correlation between variables X and Y is reduced to the analysis of the correlation between two canonical variables. These canonical variables are expressed as a linear combination of the components of the sets of input variables X and Y, where:

$$U = a' \cdot X = a_1 \cdot x_1 + a_2 \cdot x_2 + \dots + a_n \cdot x_n,$$

and

$$V = b' \cdot X = b_1 \cdot y_1 + b_2 \cdot y_2 + \dots + b_m \cdot y_m.$$

The correlation coefficient between the two canonical variables is:

$$cor(U, V) = \frac{a' \cdot \sum_{12} b}{\sqrt{a' \cdot \sum_{11} a} \cdot \sqrt{b' \cdot \sum_{22} b}}$$

– it is the one intended to be maximized through the canonical correlation analysis, where:

$$var(U) = a' \cdot var(X) \cdot a = a' \cdot \sum_{11} a,$$

$$var(V) = b' \cdot var(Y) \cdot b = b' \cdot \sum_{22} b, \text{ and}$$

$$cov(U, V) = a' \cdot cov(X, Y) \cdot b = a' \cdot \sum_{12} b,$$

with the restrictions $\begin{cases} var(U) = a' \cdot \sum_{11} a = 1 \\ var(V) = b' \cdot \sum_{22} b = 1 \end{cases}$

Once the two canonical variables are assessed, we calculate the correlations between the input variables and the two canonical variables. Canonical correlations

represent coefficients (weights) expressed by vectors a' and b' by estimating the canonical variables. They suggest the extent to which canonical variables are representative for each of these input variables. The canonical analysis also provides correlations between input variables and canonical variables which are not determined by them, called cross-structural correlations.

4. Results and discussions

4.1. Descriptive statistics

Table no. 2 summarises the main descriptive statistics of the analysed items. From an overall perspective, we notice that average values of most items show the predominance of a positive perception of internal auditors in terms of the potential of the internal audit function to create added value, provided that the auditor has a high level of professionalism (IIARF, 2011; IIA, 2017; Botha & Wilkinson, 2019) and to use innovative tools and technologies designed to manage large volumes of data, structured in various ways of presenting information (Farcane & Deliu, 2020; Tiron-Tudor *et al.*, 2021; Tiron-Tudor & Deliu, 2021).

The positive perception expressed by auditors is mainly shown for the item on *auditor's independence* (3.873), considering the value of the median (4) and the third percentile.

Item	Average	Median	Standard deviation	Percentile	
				1st	3rd
Added value	3.476	3	1.060	3	4
Implementation of recommendations	3.556	4	1.074	3	4
Savings	3.302	3	1.010	3	4
Independence	3.873	4	1.143	3	5
Understanding the business	3.667	4	1.032	3	4
Continuous education	3.238	3	1.292	3	4
Support	3.349	3	1.194	3	4
Cooperation	3.651	4	1.080	3	4
Emerging Technologies	3.333	3	1.078	3	4
Data Analytics	2.889	3	1.138	2	4
GRC	0.397	0	0.493	0	1
Support systems	3.206	3	1.080	3	4
Cost efficiency	3.032	3	0.822	3	3
Time efficiency	3.127	3	0.924	3	4
Communication efficiency	3.540	4	0.930	3	4
Number of meetings	3.317	3	0.981	3	4
Planning	3.841	4	0.902	3	4
Time limitation	3.540	4	1.045	3	4
Testing	3.476	3	0.931	3	4

Source: Authors' calculations

On the other hand, the lowest average corresponds to the item on *cost efficiency (3.032)*, which checks the internal auditors' opinion on the costs of the internal audit function.

This result shows that the internal audit function is not accessible to any company, because related costs are not at all negligible (PWC, 2014b; D'Onza *et al.*, 2015).

Table no. 3. Distribution of questionnaire answers

	1	2	3	4	5
<i>Added value</i>	3.17%	14.29%	33.33%	30.16%	19.05%
<i>Savings</i>	4.76%	17.46%	28.57%	41.27%	7.94%
<i>Implementation of recommendations</i>	6.35%	7.94%	26.98%	41.27%	17.46%
<i>Independence</i>	6.35%	4.76%	19.05%	34.92%	34.92%
<i>Understanding of the business</i>	4.76%	7.94%	22.22%	46.03%	19.05%
<i>Continuous education</i>	15.87%	7.94%	30.16%	28.57%	17.46%
<i>Cooperation</i>	4.76%	7.94%	28.57%	34.92%	23.81%
<i>Support</i>	7.94%	12.70%	38.10%	19.05%	22.22%
<i>Emerging technologies</i>	4.76%	17.46%	31.75%	31.75%	14.29%
<i>Support systems</i>	7.94%	14.29%	38.10%	28.57%	11.11%
<i>Data Analytics</i>	12.70%	22.20%	38.10%	17.50%	9.50%
<i>Cost efficiency</i>	4.76%	14.29%	57.14%	20.63%	3.17%
<i>Time efficiency</i>	3.17%	20.63%	42.86%	26.98%	6.35%
<i>Communication efficiency</i>	3.17%	6.35%	38.10%	38.10%	14.29%
<i>Number of meetings</i>	6.35%	7.94%	42.86%	33.33%	9.52%
<i>Planning</i>	1.59%	4.76%	25.40%	44.44%	23.81%
<i>Time limitation</i>	4.76%	9.52%	30.16%	38.10%	17.46%
<i>Testing</i>	1.59%	11.11%	39.68%	33.33%	14.29%

Source: authors' calculations

Table no. 3 presents the distribution of the frequency of internal auditors' assessments, based on the data collected through the questionnaire. These results show once again that *emerging technologies* have a key role in audit when it comes to generating added value (Farcane & Deliu, 2020; Tiron-Tudor *et al.*, 2021; Tiron-Tudor & Deliu, 2021). However, auditors' opinion is moderate related to the level of efficiency of the internal audit function in terms of costs (42.86%) and in terms of time allocated to audit engagements (57.14%). Nevertheless, auditors highlight the crucial importance of the effectiveness of how auditors communicate with the audited departments, and the efficiency of reporting audit

observations and recommendations (52.38% expressed a favourable opinion). Furthermore, they emphasize the fundamental role of planning audit activities, considering that approximately 68.25% of the respondents expressed a favourable position in this respect.

4.2. Determinants in shaping auditors' perception

Table no. 4 shows the aspects where interviewed auditors have expressed significantly different opinions, either in terms of the vision, influenced by their professional status, or in terms of the obligation to organise the internal audit function within a company.

Table no. 4. Distribution of the questionnaire answers

Factor	Item	Kruskal-Wallis H	df	Asymp. Sig.
Obligation to organize the internal audit function	<i>Auditor's independence</i>	2.906	1	0.088
	<i>Effectiveness of audit activity</i>	4.207	1	0.040
Professional status	<i>Implementation of recommendations</i>	6.545	3	0.088
	<i>Communication efficiency</i>	6.540	3	0.088
	<i>Savings generated by implementing recommendations</i>	8.067	3	0.045

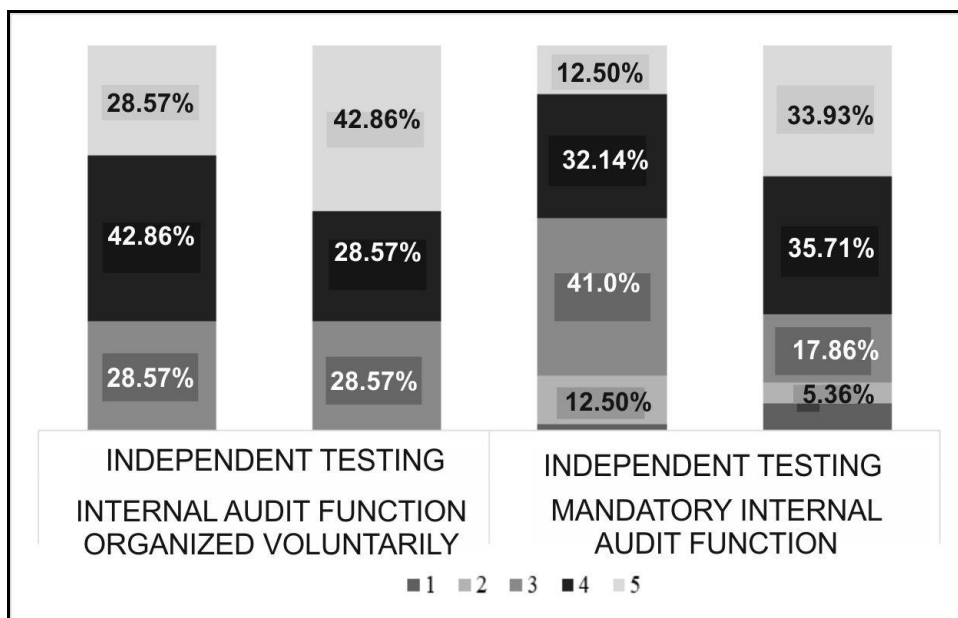
Source: authors' calculations

Overall, out of the 20 aspects analysed through the audit questionnaire, only in two cases we identified significant differences between the perception of auditors working in companies where the audit function was voluntarily organised and the perception of auditors working in companies where

the audit function was mandatory, because of corporate governance regulations.

These aspects refer to auditor's independence for a significance level of 10% (*Stat* = 2.906, *Sig.* < 0.1) and effectiveness of the audit activity per unit of time for a significance level of 5% (*Stat* = 4.207, *Sig.* < 0.05).

Figure no. 3. Representation of perception differences caused by the initiative of organising the internal function audit



Source: Authors' projection

Figure no. 3 is a representation of the distribution of auditors' perception conditioned by the voluntary character of organising the internal audit function within the company where the auditor is working.

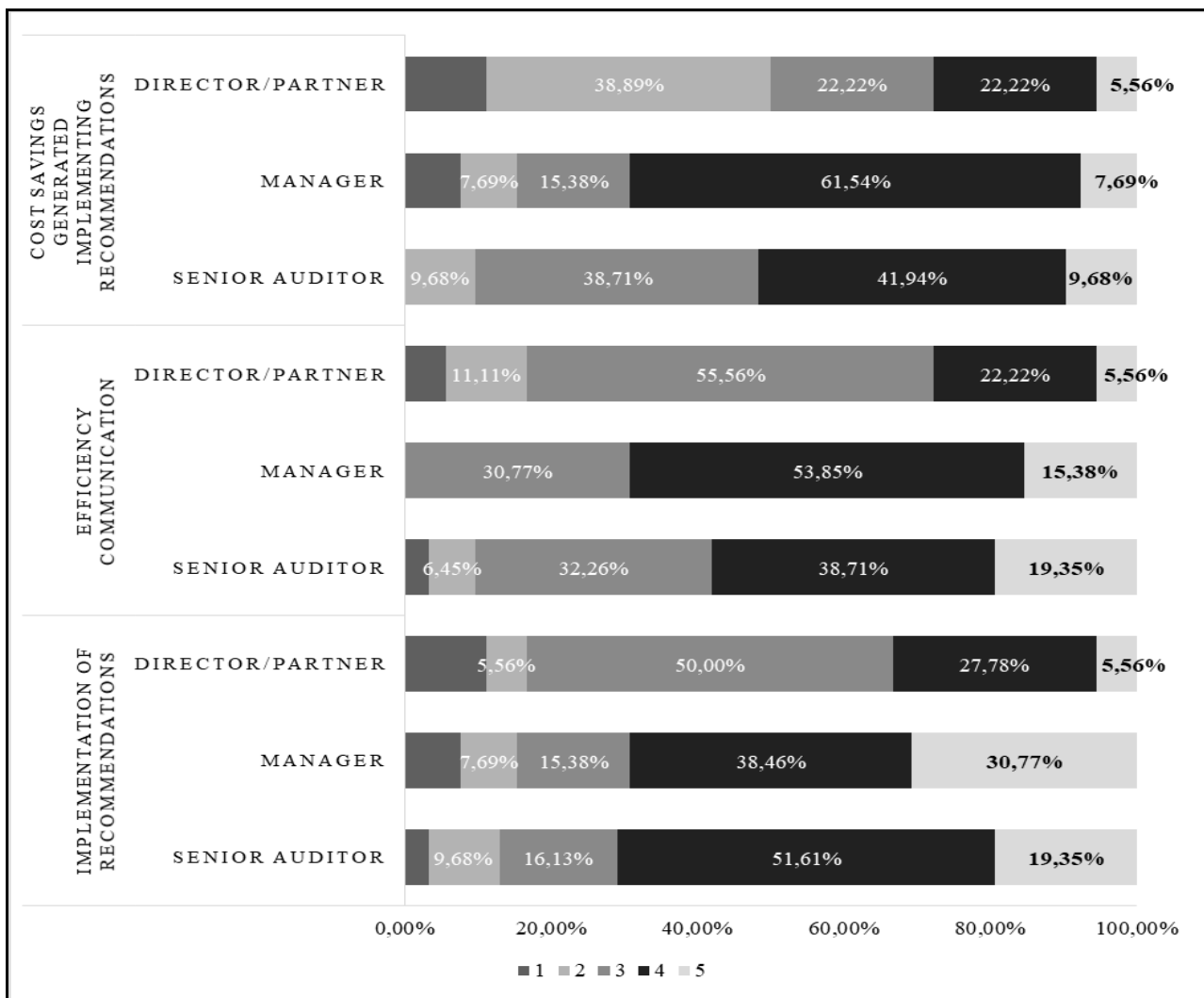
For the item on the effectiveness of the audit activity per time unit (testing), we notice that the auditors' perception is more favourable for companies voluntarily organising

the internal audit function (approximately 42.86% + 28.57% = 71.43% of respondents), as compared to the perception of auditors working in companies where the internal audit function is organised based on the requirements of the legal framework (approximately 32.14% + 12.5% = 44.64% of respondents). On the other hand, internal auditors' perception on the extent to which management affects auditor's independence significantly differs in case of the two types of companies. For companies that voluntarily organize the internal audit function, 42.86% assess this item at maximum level, as

compared to 33.93% of auditors working in companies where the internal audit function is organised based on the obligation imposed by the legal framework (Sarens *et al.*, 2016).

These results provide indications of the importance of the voluntary nature of the decision to organise the internal audit function (Sarens & De Beelde, 2006; Erasmus & Coetzee, 2018; Eulerich *et al.*, 2020), while management gains awareness of the benefits of such a decision (Carcello *et al.*, 2018; Deliu, 2020).

Figure no. 4. Representation of perception differences resulting from the auditor's professional status



Source: Authors' projection

Figure no. 4 represents the distribution of the answers of auditors participating in the study, as per the respondent's professional status of.

The results show significant differences in terms of auditors' perception on the extent to which the recommendations in the audit report are implemented by process managers. There are significant differences between the perception of the audit engagement manager and the audit director, considering that approximately 50% of the directors issue a neutral perception in terms of the implementation of the audit recommendations, as compared to audit engagement managers or senior auditors, who have a similar position in only 15.38%, and 16.13% respectively. These results can be justified by the different way in which each of them understands the idea of implementing an audit recommendation, because the vision differs as the auditor progresses on the hierarchical scale. For example, the audit director has a much clearer overview of the processes within the company through access to inside privileged information. Therefore, for a director, the degree of implementing a recommendation rather represents management actions for generating systemic changes at company level, and less the actual actions included in the audit report (Sarens *et al.*, 2016).

There are also significant differences in auditors' perception on the effectiveness of communication with the audited department and reporting of audit results. The differences appear between senior auditors and audit engagement managers. $38.71\% + 19.35\% = 58.06\%$ of the senior auditors have a positive perception, which is less than the weight of audit managers of $53.85\% + 15.38\% = 69.23\%$. These are the expected results if we look at the job description of the two auditor profiles, because the audit manager is mainly responsible for coordinating communication with the audited department and for reporting the audit results. On the other hand, we also notice a significant difference between the audit manager and the audit director, because 55.56% of the audit directors issue a neutral opinion on the efficiency of the communication and reporting process. These results provide information on the poor way of transmitting relevant information across the hierarchical chain, from the superior hierarchical level to the operational management level (Sarens *et*

al., 2016). Deficiencies can be reduced to late transmission of these information for ensuring an accelerated implementation of the audit recommendations or it can be represented by truncated transmission of information, in which case, lower-level management decisions may contravene to the course of action recommended through the audit report.

In terms of perception on savings generated by the implementation of audit recommendations, we notice differences between all professional levels. While senior auditors have a favourable position in proportion of 51.61%, audit managers are satisfied in a higher weight of the effect of implementing the recommendations on the company's performances (69.23%). However, we notice a significant difference in the perception of audit directors, who rather issue a negative opinion in this respect in a percentage of 50%, claiming that implementation of recommendations does not lead at all, or only to some extent, to savings for the company. This result can be again attributed to the overview that the audit director has formed over time. Thus, the audit director is focused on obtaining substantial savings because of corrective actions taken by management, which should be aimed at systemic adjustments and continuous monitoring of the viability of the corrective solutions, without turning his attention to isolated registered cost savings, at the level of each production unit or at the level of an isolated process. On the other hand, lower hierarchy auditors rather turn their attention to the effect of isolated actions taken by management for addressing deficiencies identified in the audit engagement (Sarens *et al.*, 2016).

4.3. Implications of the human factor in promoting the internal audit function

Table no. 5 shows statistics obtained by the canonical analysis of items that refer to the quality of the internal auditor, including the ability to develop inter-personal cooperation relationships with members of the audited department, and to the result of the efforts of the internal audit department, by reference to the extent they perceive that the internal audit function generates added value and convinces audit clients of the beneficial effect of audit recommendations through the degree of implementation at the level of the audited department.

Table no. 5. Statistics related to the extracted canonical variables

Variant	Correlation	Eigen value	Wilks Statistic	F	No D.F	Denom D.F.	Sig.
1	0.868	3.070	0.221	6.741	16	169	0.000
2	0.252	0.068	0.899	0.680	9	136	0.726
3	0.193	0.039	0.960	0.592	4	114	0.669
4	0.057	0.003	0.997	0.186	1	58	0.668

Source: Authors' calculations

The obtained results show that the first variant of assessed canonical variables is the most relevant one for our analysis, with an eigenvalue of 3.07, clearly superior to the other variants, also having statistically significant

results ($F Sta = 6.741, Sig. < 0.05$). Furthermore, it should be noticed that this pair of canonical variables explains over 96.54% of the variance at the level of the analysed sample.

Table no. 6. Statistics related to the extracted canonical variables

Item	Canonical correlation analysis		Canonical structural analysis	
	Canonical variable 1	Canonical variable 2	Canonical variable 1	Canonical variable 2
			<i>Canonical loading</i>	<i>Cross loading</i>
<i>Auditor's independence</i>	0.023		-0.656	-0.675
<i>Understanding the business model</i>	-0.737		-0.974	-0.634
<i>Continuous education</i>	-0.062		-0.699	-0.857
<i>Cooperation</i>	-0.301		-0.845	-0.468
			<i>Cross loading</i>	<i>Canonical loading</i>
<i>Support</i>		-0.060	-0.570	-0.778
<i>Added value</i>		-0.191	-0.846	-0.730
<i>Implementation of recommendations</i>		-0.841	-0.607	-0.986
<i>Savings</i>		0.029	-0.734	-0.539

Source: Authors' calculations

Table no. 6 summarises the statistics of the canonical analysis between two sets of items, respectively set 1, specific to the first canonical variable that includes items like *independence*, *understanding of the business model*, *auditor's continuous education* and *cooperation with the audited department*, and respectively set 2, for the second canonical variable that includes items like *support*, *added value*, *implementation of recommendations* and *savings*.

These associations were analysed precisely to assess the extent to which the combined effect of the qualities of the internal auditor leads or not to the promotion of the internal audit function by ensuring a satisfactory degree of support from the company's management, by seeking to implement as much as possible of the audit recommendations, and by improving financial performance.

Table no. 7. Correlation matrix (Spearman)

	Support (1)	Added value (2)	Implementation of recommendations (3)	Understanding of the business (4)	Cooperation (5)	Continuous education (6)	Independence (7)	Savings (8)
(1)	1	.703**	.724**	.672**	.552**	.501**	.461**	.416**
(2)	.703**	1	.655**	.633**	.601**	.518**	.521**	.609**
(3)	.724**	.655**	1	.806**	.678**	.563**	.514**	.521**
(4)	.672**	.633**	.806**	1	.673**	.627**	.555**	.492**
(5)	.552**	.601**	.678**	.673**	1	.605**	.589**	.351**
(6)	.501**	.518**	.563**	.627**	.605**	1	.668**	.330**
(7)	.461**	.521**	.514**	.555**	.589**	.668**	1	.299*
(8)	.416**	.609**	.521**	.492**	.351**	.330**	.299*	1

Source: Authors' calculations

In the case of the first canonical variable (*independence*), the results show a preponderant influence generated by item *understanding of the business model* (-0.737), which is translated by reference to the international internal audit regulations and the internal auditor's competence (IIA, 2017). On the other hand, we noticed that the second canonical variable (*predictive*) is preponderantly influenced by the coefficient related to item *implementation of recommendations* (-0.841).

In terms of the correlational canonical analysis, we observe that the maximization of the correlation between the two canonical variables led to two construct variables. Their main components are the opinion on the internal auditor's perception and on the degree of implementation of the audit recommendations. In this respect, the results suggest that the extent to which audit recommendations are accepted by management and implemented, is conditioned by the auditor's expertise, who must have a very good understanding of the audited processes, to do a recommendation that generates added value and accurately reflects the situation identified during the audit engagement (Erasmus & Coetzee, 2018; Eulerich *et al.*, 2020). Otherwise, management will challenge the deficiencies identified by the auditor and will also damage the degree of confidence in the internal audit function for the future (Carcello *et al.*, 2018; Eulerich *et al.*, 2020).

Based on the analysis of the correlation between canonical variables (0.868) and the individual Spearman correlation between items *understanding of the business*

model and implementation of recommendations (0.806), we notice a difference of approximately 0.062, interpreted as a correlation surplus caused by the common effect of input variables (Table no. 7). However, this difference is not significant. But it can be largely explained by item *continuous education*, considering the correlation of 0.857 between this item and the second canonical variable, which is the highest among the other variables included in the set of variables that describe the profile of the internal auditor.

On the other hand, item *added value* has the highest correlation with the canonical variable (0.846) reflecting the human factor in our analysis. Thus, the more favourable the internal auditor perceives the value-added potential created by the internal audit function, the more improved is the dimension of the human capital development, by deepening specialised knowledge, but also those specific to the activity field and business model of the company where he carried out the activity (PWC, 2009; PWC, 2014a; PWC, 2014b; PWC, 2016; Deloitte, 2018a; Deloitte, 2018b; Deloitte, 2018c; KPMG, 2019; Ernst & Young, 2020; KPMG, 2020a; KPMG, 2020b; KPMG, 2021).

These results thus confirm the importance of advance preparation of audit engagements, not only by rigorous planning of audit activities, but also by including in the audit team those auditors who have the necessary skills, as also required by IIA through the conceptual framework promoted at international level (IIA, 1999; IIA, 2017).

Conclusions

In our opinion, for obtaining added value further to an audit engagement, a few steps need to be followed, such as: planning, which plays an important role in any activity performed, documentation and interpretation of potential risks by the audit team members, then the analysis and monitoring for covering the identified risks, comparing the proposed goals with the achieved ones, and, in the end, the stage of improvement and action taking. Thus, it is necessary to monitor the involved resources, the taken actions and the results, as well as communication with all stakeholders by using a wide range of communication means.

This study emphasises the importance of the voluntary nature of the decision to organise the internal audit function, while management becomes aware of the benefits of such a decision.

The scientific approach was three-dimensional. On one hand, it aims to analyse the correlation between the allocation of audit resources and the potential of the audit function to generate added value. On the other hand, we analysed the implications of the internal auditor's quality on promoting the internal audit function, from the perspective of the potential of the internal audit function to generate added value. Finally, there is the analysis of the impact of technological innovation on the allocation of audit resources.

The obtained results revolve around the positive perception of internal auditors on the potential of the internal audit function to create added value, considering the auditor's increased level of professionalism (IIARF, 2011; IIA, 2017; Botha & Wilkinson, 2019) and the use of innovative tools and technologies designed to manage large volumes of data, structured in various information presentation forms (Ernst & Young, 2020; Farcane & Deliu, 2020; KPMG, 2021; Tiron-Tudor *et al.*, 2021; Tiron-Tudor & Deliu, 2021). However, the internal audit function is not accessible or opportune to all companies,

specifically due to the relatively high costs of organising this function (PWC, 2014b; D'Onza *et al.*, 2015; Deloitte, 2018c).

Auditors' vision differs depending on their professional status, specifically due to the contextual image that each one has about the audited departments and about the company overall. This vision difference is mainly present in terms of perception on savings generated by the implementation of the audit recommendations and on communication and reporting efficiency (Sarens *et al.*, 2016; Eulerich *et al.*, 2020).

The added value of internal audit needs to also be analysed pragmatically, in terms of costs and efficiency. Practically, at first sight, for small companies, the effort to organise the internal audit function seems "too expensive". But this can be considered a turning point in the development of a company, because once they have reached the point where they become aware and they also have the necessary resources for accessing the internal audit function, they also become "eligible" for recognising the internal audit's added value. A practical solution would be to share internal audit costs between similar companies, and in the domestic business environment it is important for entrepreneurs to realise first the role of internal controls and then their monitoring through the internal audit function. Only this is how we can reach a sustainable economic development.

However, this study is limited from the perspective of the analysed answers sample. In this context, we appreciate that future research will be able to perform a more complex analysis based on more argued tests executed on complex items that measure more than auditors' opinion on the implications of the internal audit function on the company's performances. Thus, we expect that it will be possible to correlate auditors' perceptions with numerical information derived from the financial statements of the companies included in the analysis.

BIBLIOGRAPHY

1. Albawwat, I.E.; Al-Hajaia, M.E.; Al Frijat, Y.S. (2021). The Relationship Between Internal Auditors' Personality Traits, Internal Audit Effectiveness, and Financial Reporting Quality: Empirical Evidence from Jordan. *Journal of Asian Finance, Economics and Business*, 8(4), 0797-0808.
2. Arena, M.; Azzone, G. (2009). Identifying organizational drivers of internal audit effectiveness. *International Journal of Auditing*, 13(1), 43-60.
3. Barac, K.; Plant, K.; Motubatse, K. N. (2009). Perceptions on the value added by South African internal audit functions. *African Journal of Business Management*, 3(13), 980-988.

4. Botha, L.M.; Wilkinson, N. (2019). A framework for the evaluation of the perceived value added by internal auditing. *Meditari Accountancy Research*, 28(3), 413-434.
5. Bou-Raad, G. (2000). Internal auditors and a value-added approach: the new business regime. *Managerial Auditing Journal*, 15(4), 182-187.
6. Carcello, J.V.; Eulerich, M.; Masli, A.; Wood, D.A. (2018). The Value to Management of Using the Internal Audit Function as a Management Training Ground. *Accounting Horizons*, 32(2), 121-140.
7. Deliu, D. (2020). The Intertwining between Corporate Governance and Knowledge Management in the Time of Covid-19 – A Framework. *Journal of Emerging Trends in Marketing and Management*, 1(1), 93-110.
8. Deloitte (2018a). Becoming agile A guide to elevating internal audit's performance and value. Part 1: Understanding agile internal audit. Available at: <https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/finance/deloitte-uk-understanding-agile-ia.pdf> [Accessed 01 June 2021].
9. Deloitte (2018b). Becoming agile A guide to elevating internal audit's performance and value. Part 2: Putting Agile IA into action. Available at: <https://www2.deloitte.com/content/dam/Deloitte/us/Documents/finance/us-advisory-agile-internal-audit-part2-putting-agile-ia-into-action.pdf> [Accessed 01 June 2021].
10. Deloitte (2018c). Internal Audit 3.0. The future of Internal Audit is now. Available at: <https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/audit/deloitte-uk-future-of-internal-audit-is-now.pdf> [Accessed 01 June 2021].
11. D'Onza, G.; Selim, G.M.; Melville, R.; Allegrini, M. (2015). A Study on Internal Auditor Perceptions of the Function Ability to Add Value. *International Journal of Auditing*, 19(3), 182-194.
12. Elliott, M.; Dawson, R.; Edwards, J. (2007). An improved process model for internal auditing. *Managerial Auditing Journal*, 22(6), 552-565.
13. Erasmus, L.; Coetzee, P. (2018). Drivers of stakeholders' view of internal audit effectiveness: Management versus audit committee. *Managerial Auditing Journal*, 33(1), 90-114.
14. Ernst & Young (2020). Has your internal audit transformation journey begun? Progressive actions that internal audit functions should consider in its transformation agenda. Available at: https://assets.ey.com/content/dam/ey-sites/ey-com/en_cn/topics/consulting/ey-the-future-of-internal-audit-internal-audit-transformation-agenda-issue1-july-2020.pdf?download [Accessed 01 June 2021].
15. Eulerich, A.K.; Eulerich, M. (2020). What Is the Value of Internal Auditing? – A Literature Review on Qualitative and Quantitative Perspectives. *Maandblad Voor Accountancy en Bedrijfseconomie*, 94 (3/4), 83-92.
16. Eulerich, M.; Kremin, J.; Wood, D.A. (2019). Factors that influence the perceived use of the internal audit function's work by executive management and audit committee. *Advances in Accounting*, 45, 100410.
17. Farcane, N.; Bunget, O.-C.; Blidișel, R.; Dumitrescu, A.-C.; Deliu, D.; Bogdan, O.; Burcă, V. (2021). Teleworking in the Field of Financial Audit in the Context Generated by the COVID-19 Pandemic. *Financial Audit*, 19(3/163), 501-515.
18. Farcane, N.; Deliu, D. (2020). Stakes and Challenges Regarding the Financial Auditor's Activity in the Blockchain Era. *Financial Audit*, 18(1/157), 154-181.
19. Hair, J.F.Jr., Black, W.C., Babin, B.J., Anderson, R.E. (2019). *Multivariate data analysis*, 8th edition, Cengage;
20. Imbrescu, C.M.; Peta, C. (2017). Internal Audit: "A Necessary Evil" or A Creator of Added Value? *"Ovidius" University Annals, Economic Sciences Series*, 17(2), 571-575.
21. Institute of Internal Auditors (IIA). (1999). Definition of internal auditing. The Institute of Internal Auditors Homepage. Available at: <https://na.theiia.org/standards-guidance/mandatory-guidance/Pages/Definition-%20of-Internal-Auditing.aspx> [Accessed 01 June 2021].
22. Institute of Internal Auditors (IIA). (2017). International Professional Practices Framework (IPPF). Altamonte Springs, Florida, USA, IIA.
23. Institute of Internal Auditors Research Foundation (IIARF). (2011). *Insight: Delivering Value to Stakeholders*, 1-79.

24. Jayalakshmy, R.; Seetharaman, A.; Khong, T.W. (2005). The changing role of the auditors. *Managerial Auditing Journal*, 20(3), 249-271.
25. Jiang, L.; André, P.; Richard, C. (2018). An international study of internal audit function quality, *Accounting and Business Research*, 48(3), 264-298.
26. Kahyaoglu S.B.; Aksoy T. (2021). Artificial Intelligence in Internal Audit and Risk Assessment. In: Hacıoglu U., Aksoy T. (eds) *Financial Ecosystem and Strategy in the Digital Era. Contributions to Finance and Accounting*. Springer, Cham.
27. KPMG. (2019). Internal Audit in the Era of Continuous Transformation. Survey of Internal Auditors in Romania. 31p. Available at: https://assets.kpmg/content/dam/kpmg/ro/pdf/2019/Sondaj-auditori-interni_Romania_aprilie_2019.pdf [Accessed 01 June 2021]
28. KPMG. (2020a). 20 key risks to consider by Internal Audit before 2020. 28p. Available at: <https://assets.kpmg/content/dam/kpmg/ch/pdf/key-risks-internal-audit-2018.pdf> [Accessed 01 June 2021]
29. KPMG. (2020b). Internal Audit: Key Risk Areas 2021. 6p. Available at: <https://assets.kpmg/content/dam/kpmg/nl/pdf/2020/services/internal-audit-key-risk-areas-2021.pdf> [Accessed 01 June 2021]
30. KPMG. (2021). Tapping into internal audit's holistic view of risks. 2p. Available at: <https://boardleadership.kpmg.us/content/dam/boardleadership/en/pdf/2021/tapping-into-internal-audit-holistic-view-risks.pdf> [Accessed 01 June 2021]
31. Lenz, R.; Hahn, U. (2015). A synthesis of empirical internal audit effectiveness literature pointing to new research opportunities. *Managerial Auditing Journal*, 30(1), 5-33.
32. Lenz, R.; Sarens, G.; Jeppesen, K.K. (2018). In Search of a Measure of Effectiveness for Internal Audit Functions: An Institutional Perspective. *EDPACS*, 58(2), 1-36.
33. Mervelito, M.A.; Lintang, B.A.; Adri, A. (2021). Internal Auditing Paradigm Shift: From Traditional Audits to Audits in the 4.0 Industry Era. *International Journal of Innovative Science and Research Technology*, 6(3), 56-63.
34. Mihret, D.G.; Woldeyohannis, G.Z. (2008). Value-added role of internal audit: an Ethiopian case study. *Managerial Auditing Journal*, 23(6), 567-595.
35. PricewaterhouseCoopers (PWC). (2009). Business upheaval: internal audit weighs its role amid the recession and evolving enterprise risk. PwC 2009 State of the Internal Audit Profession Study. Available at: https://www.pwc.com/us/en/internal-audit/assets/state_internal_audit_profession_study_09.pdf [Accessed 01 June 2021].
36. PricewaterhouseCoopers (PWC). (2014a). Higher performance by design: a blueprint for change. PwC 2014 state of the internal audit profession study. Available at: <https://www.pwc.com/us/en/risk-assurance-services/publications/assets/pwc-health-industries-sotp-2014.pdf> [Accessed 01 June 2021].
37. PricewaterhouseCoopers (PWC). (2014b). 2014 State of internal audit profession study- Higher performance by design: A blueprint for change. Available at: <https://www.pwc.com/m1/en/publications/documents/pwc-state-of-the-internal-audit-profession-2014.pdf> [Accessed 01 June 2021].
38. PricewaterhouseCoopers (PWC). (2016). The eight attributes: Delivering internal audit excellence as stakeholders expect more. Available at: <https://www.pwc.com/us/en/risk-assurance/publications/effective-internal-audit-functions.pdf> [Accessed 01 June 2021].
39. Rotariu T., Badescu G., Culic I., Mezei E., Muresan C. (2006). Statistical methods applied in social sciences, *Polirom*.
40. Roth, J. (2003). How do internal auditors add value? *Internal Auditor*, 60(2), 33-37.
41. Sarens, G.; De Beelde, I. (2006). The relationship between internal audit and senior management: A qualitative analysis of expectations and perceptions. *International Journal of Auditing*, 10(3), 219-241.
42. Sarens, G.; De Beelde, I.; Everaert, P. (2009). Internal audit: A comfort provider to the audit committee. *The British Accounting Review*, 41(2), 90-106.
43. Sarens, G.; Lenz, R.; Decaux, L. (2016). Insights into Self-Images of Internal Auditors. *EDPACS*, 54(4), 1-18.
44. Savčuk, O. (2007). Internal audit efficiency evaluation principles, *Journal of Business Economics and Management*, 8(4), 275-284.

45. Su, H.S.; Zheng, K.; and Li, S. (2017). Research on the Relationship among Internal Audit Quality, Interactive Mechanism of Management Structure and Corporate Value. *Proceedings of the 2017 3rd International Conference on Economics, Social Science, Arts, Education and Management Engineering (ESSAEME 2017)*, 180-182.
46. Tiron-Tudor, A; Deliu, D. (2021). Big Data's Disruptive Effect on Job Profiles: Management Accountants' Case Study. *Journal of Risk and Financial Management*, 14(8), 376, 1-26.
47. Tiron-Tudor, A.; Deliu, D.; Farcane, N.; Dontu, A. (2021). Managing change with and through blockchain in accountancy organizations: A systematic literature review. *Journal of Organizational Change Management*, 34(2), 477–506.
48. Witzany, A.; Harrington, L. (2016). Voice of the Customer: Stakeholders' Messages for Internal Audit. A CBOK stakeholder report. CBOK Stakeholder Reports, Available at: <https://institutes.theiia.org/sites/oman/Pages/PageNotFoundFoundError.aspx?requestUrl=https://institutes.theiia.org/sites/oman/resources/Documents/2016-%20July-CBOK-Voice-of-the-Customer.pdf> [Accessed 01 June 2021].