Internal Control - Theoretical and Organizational Perspectives in Business Group

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Abstract. Based on a logical idea, doing business means taking risks. Risks can be understood as any influencing factor which prevent the company from reaching its objectives. In general, risks can be addressed in three different ways: avoid, insure and reduce risks. Internal controls represent the third option and the focus is on reducing risks by reducing the probability of occurrence. Through internal control, the company's management appraise the progress in reaching the objectives, ascertains the deviations, analyzes the determining causes and led the necessary corrective measures.

Keywords: Internal control, management, internal control system, risk, bibliometric analysis

JEL Classification: D81, G30, M40

1. Introduction

The various incidents of malfunction and fraud in the administration were a major reason for the demand for improvement in the management of the company. As a result of these incidents, both the financial reporting mechanism and independent auditing considered two basic accountability mechanisms - have been criticized. With the request for better financial transparency and accountability, a third accountability mechanism has emerged on the corporate governance stage - internal control.

Internal control, once a private affair of specialists in the field of engineering insurance, has become a field of expertise in its own right and a way of organizing and processing uncertainty. It is now seen as an extension of risk management and is thus closely related to risk management in the context of strategy formulation and execution being indeed an impressive development.

In coordinating effective management, international practice suggests specifying an internal control system and an internal audit structure capable of managing the risks faced by companies. Simultaneously, it involves the implementation of internal audit within businesses, as well as a clear distinction between internal audit and internal control operations.

Based on the information provided by internal control, management can consolidate its managerial decisions regarding the business plan, the organization and coordination of the entity's hierarchies, and the precise assignment of responsibilities to structures and individuals involved in the entity's activities.

To produce the expected results, the construction and proper functioning of this long-term process requires collective and individual efforts, so that it can be best adapted to the specifics and size of the entity, but in compliance with legal provisions and general principles of internal management control (Manual for the implementation of the internal managerial control system, Project selected within the Administrative Capacity Operational Program co-financed by the European Union, from the European Social Fund, p. 9-10).

2. Research methodology

This paper contributes to the knowledge of the internal control concept, materialized using a software tool for constructing and visualizing bibliometric networks.

The research methods used for the elaboration of this paper are: the literature review, the method of structuring the research, the documentation, data collection, information processing, the chronological study, construction, observation, visualization and analysis the bibliometric networks. We used these methods by consulting specialized papers, various articles and publications, using international databases and software tool, as well as direct documentation that requires knowledge of the practical reality of a multinational company.

3. Literature review

The etymology of the word control comes from the expression "contra rolus", which means "checking a duplicate action according to the original". Control in the semantic sense is a "permanent or periodic analysis of an activity, a situation, in order to follow its progress and take measures to improve it". At the same time, control means a constant moral and material supervision, as well as the mastery of an activity, a situation (DEX, 1975).

The first recognition of the importance of control in accounting and auditing texts appeared in 1892 with the publication of the book Audit by the British accounting specialist Lawrence Dicksee (Arwige, 2013).

In 1992, the COSO (Committee of Treadway Commission Sponsoring Organisations, COSO, 2013) published its Global Internal Control Framework - Integrated Framework, which defines internal control as: "A process undertaken by a company's board of directors, management, and other personnel to provide reasonable assurance regarding the achievement of objectives in the following categories: effectiveness and efficiency of operations, reliability of financial statements, and compliance with applicable laws and regulations".

Since the concept of internal control was originally introduced in the accounting and auditing literature, there have been debates about its definition and content for a century, and the official definitions have often proved controversial (Heier et al. 2005).

For an in-depth analysis of the international literature we used the Web of Science (WoS) platform to determine the status of scientific research of internal control concept. The research manners on the Web of Science (WoS) platform was as follows:

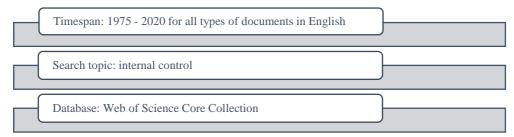


Figure 1. Search protocol – Web of Science

Source: Own processing based on Web of Science Group (clarivate.com)

Based on the search protocol mentioned above, the following results attained:

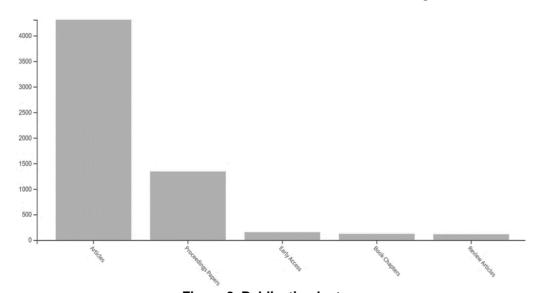


Figure 2. Publication by type Source: Own processing based on Web of Science Group (clarivate.com)

Analyzing the previous graph, we can see that our search configuration resulted in 5,751 papers, of which 4,308 reflect articles, overshadowed by 1,341 procedural papers, the rest being found in the following categories: Early Access, book chapters, review articles, etc. The following graph illustrates the evolution of the number of published papers and citations in the context of the concept of internal control from 1975 to 2021. As a result, there has been an increase in the interest of researchers since 1980, when the number of published papers more than doubled compared to previous years.

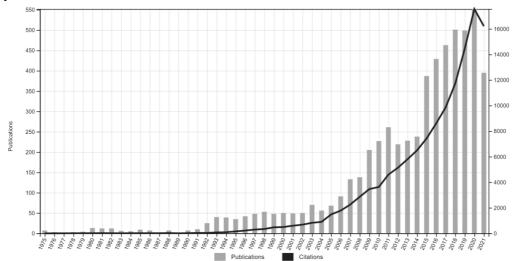


Figure 3. Chronological view of published papers and citations Source: Own processing based on Web of Science Group (clarivate.com)

The 1992 year was significant, with an increase in the number of publications, reaching 25 papers. Since 2007, the number of published works has exceeded 100 per year, with small decreases in the period 2012-2014 compared to 2011. Starting in 2015,

the number of published works has increased substantially, reaching a peak in 2020 with 552 published papers. This number fell by -157 publications in 2021, reaching 395 papers published by November 2021The trend of citations seems to followed the trend of publications. We consider that the trend of published papers has been heavily influenced by financial crises, such as the one that occurred in 2008, which impacted the credibility and quality of financial-accounting information and reporting. Most of these facts have enhanced researchers' desire in the internal control concept.

Internal control publications are available in 116 countries, with the chart below highlighting the top 20:

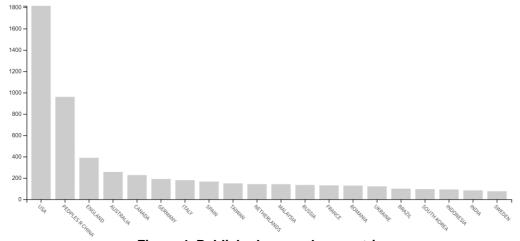


Figure 4. Published papers by countries
Source: Own processing based on Web of Science Group (clarivate.com)

Internal control publications are available in 116 countries, with the previous chart highlighting the top 20. The top is led by the USA with 1.813 published papers, followed by China with 960 publications. Romania is in 14th place with 128 publications, noticing that European countries are in the minority.

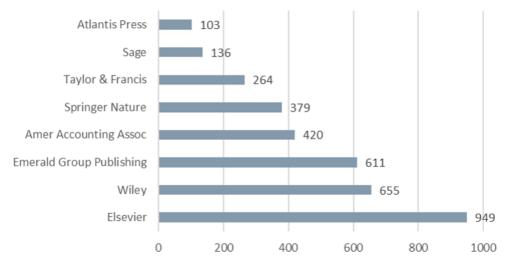


Figure 5. Main publishers with over 100 papers published
Source: Own processing based on Web of Science Group (clarivate.com)

The chart above, presents the main publishers with over 100 papers published according to the analysis of the WoS platform. Based on this graphic, we can state that the most papers have been published by Elsevier.

The papers published on "Internal control" topic are found in various fields, among which we mention Management, Business Finance, Economics, Business; noticing that the field of "Management" has the highest share, reaching a number of 2.291 published papers, being followed by Business finance field, with 2.145 published papers.

4. Bibliometric analysis

Through the VOSviewer software tool we performed a bibliometric analysis on the concept of internal control, using the keywords from the titles / abstracts of the articles published on the WoS platform. Based on the search manner used on the WoS platform, resulted 5.751 published papers from 1975 to 2021. Therefore, the VOSviewer software extracted 84.833 terms, from which only 1.596 terms reached the threshold of at least 20 frequencies.

For each of the 1.596 terms, a relevance score was calculated. Based on this score, the most relevant terms were selected. Therefore, the default choice was to select 60% most relevant terms, reaching a number of 958 relevant terms.

The complete network of key terms is presented in the following figure, where four different categories are highlighted in colours depending on their relevance, the minimum number that a cluster can be made of being settled to 10 terms.

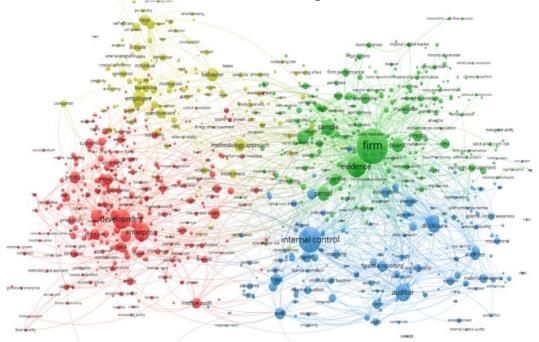


Figure 6. Complete network of key terms
Source: Own processing based on Vosviewer tool

The first cluster is the largest one, consisting of 356 key terms (red) centred around the concept of internal control, including terms such as financial control, financial management, accordance, accounting policy, adequacy, best practice, business process, competitive strategy, conceptual framework, cost management, development, external environment, internal control environment, internal risk, management

accounting, enterprise, principle, strategic control, etc. Internal control has always been directly linked to risk. Indeed, as early as 1892 and 1905, Dicksee advised accountants to look for the weakest points in the system where the risk of accounting errors was greatest. Subsequently, COSO included risk assessment as one of the five components of internal control. However, with the introduction of the Enterprise Risk Management - Integrated Framework (COSO, 2004), the link between risk management and internal control has become clearer (Arwige, 2013).

The second cluster contains 252 key terms (green) closely related to business group, corporate governance, corporate performance, firm performance, internal control information disclosure, investment decision, evidence, sample, board, rating, etc.

The third set of key terms comprises 192 of these highlighted in blue related to internal control, financial reporting, disclosure, audit, fraud, board monitoring, detection, credibility, financial information, internal control effectiveness and weakness, relevant information, operational efficiency, control activity, internal control system, control risk, etc. Establishing and implementing risk prevention measures, detecting and correcting deviations that occur in the company and may affect the achievement of the company's objectives, and verifying the existence of adequate planning processes and mechanisms for the company's design and organizational development are also important objectives of internal control.

The fourth group consists of 158 key words coloured in yellow, comprising the following terms: behaviour, employee, empowerment, ethical behaviour, job performance, methodology, moderating role, orientation, predictor, self-control.

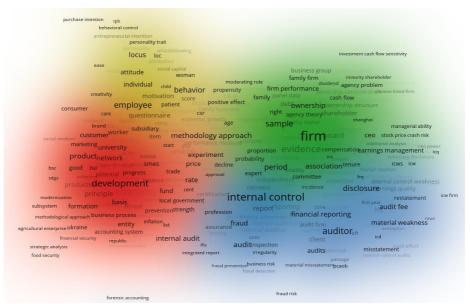


Figure 7. The intensity of the groups
Source: Processing based on Vosviewer tool

The intensity of the groups is also highlighted in the previous figure, thus observing that the group with the lowest intensity being the yellow one.

Analyzing the following figure, we can observe that the terms: firm, internal control, development, sample and employee, have a much higher intensity than the other terms, being in close connection.

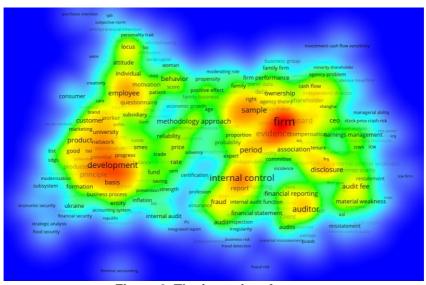


Figure 8. The intensity of terms
Source: Processing based on Vosviewer tool

We will concentrate our study to explain the relationship between the **internal control**, **development**, **and the firm**. Through the bibliometric analysis performed with VOSviewer software we noticed that the most intense relationship of internal control is with the company and in the context of our research this relationship represents a significant impact.

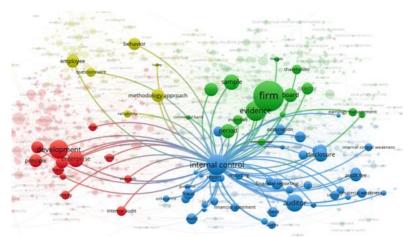


Figure 9. Relationship between the internal control – development - firm Source: Processing based on Vosviewer tool

According to process management literature, internal control could be defined as a collection of control activities designed to deliver valuable results. Taken together, these two characteristics imply that internal control is a holistic approach that combines the majority of the company's business activities.

Through internal control, the company's management appraise the progress in reaching the objectives, ascertains the deviations, analyses the determining causes and lead the necessary corrective measures. Internal control, on the other hand, can be characterized by the ability to create value by significantly improving performance.

5. Conclusions

Internal control focus is on reducing risks by reducing the probability of occurrence. Through internal control, the company's management appraise the progress in reaching the objectives, ascertains the deviations, analyses the determining causes and lead the necessary corrective measures.

Internal control clearly shows to be a fundamental strategy. Internal control approaches have greatly extended their scope, further than financial statements and the accountant's debt. Other internal control objectives related to compliance, efficiency, and effectiveness have been added to the financial statement quality goals. Internal controls could be divided and assimilated into the majority of the supply chain.

Beside this, internal control has evolved into an extension of risk management, becoming more closely linked to the strategy formulation and execution process. Internal control is recognized as a form of risk treatment where the inherent risk can be mitigated or significantly lowered through the design and implementation of controls, which are currently enforced.

Internal control has become considered as a major corporate governance mechanism, and corporate governance rating systems and lending institutions are increasingly taking internal control and risk management practices into account. It is a complex concept, and while all research methods are valid, archival studies or experiments are doubtful to reveal internal control measures. Finally, feasible, normative, and academic texts suggest that certain factor influences internal control frameworks. Company objectives, strategy, governance aspects, tolerance for risk, managerial perceptions, and business size seem to be elements of these variables.

Internal control is viewed as a crucial corporate governance mechanism because adequate and effective internal controls can provide reasonable assurance that objectives could be achieved.

Based on a synthesis of the results of the bibliometric analysis of the literature, we can conclude that internal control emphasizes terms such as risk assessment, reasonable assurance, financial reporting and asset protection, as well as embracing a governance perspective. In this sense, internal control is a fundamental process that provides the quality of information and the protection of company resources.

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