

IMPROVING THE QUALITY OF FINANCIAL-ACCOUNTING INFORMATION BY STRENGTHENING THE FINANCIAL AUTONOMY OF UNIVERSITIES

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Abstract

This paper aims to analyze the quality of financial accounting information of public higher education institutions with financial autonomy in the Republic of Moldova and its dependence on their financial autonomy. For this purpose, financial statements and other relevant information available on the websites of public universities with financial autonomy in the Republic of Moldova were analysed. The analysis focused on the following research questions: i) is the quality of the information ensured in terms of the regulatory framework and user requirements? ii) is the quality of the information ensured in terms of the requirements of the regulatory framework and user requirements? iii) Is the quality of information related to the financial autonomy of universities? iiiii) How can the enhancement of financial autonomy influence the quality of information? The results show that public higher education institutions with financial autonomy ignore the requirements of the regulatory framework on financial reporting and publication of financial statements, head's report and auditor's report on their websites. As a result, users do not have access to financial and accounting information and their conclusions and decisions may be distorted and unjustified. To rectify this, the financial management of the institution needs to be strengthened and all the opportunities afforded by its financial autonomy must be used. At the same time, this research depicts through bibliometric analysis scientific productivity, impact of scientific research, trending topics, and others. Thus, the methodological tools characteristic of the social sciences, quantitative and qualitative methods, were used to carry out the scientific approach.

Keywords

quality, financial information, financial autonomy, university.

JEL Classification

M41, I23.

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Introduction

The quality of financial accounting information reported by universities in the Republic of Moldova is influenced by a lot of factors, the most important of which are the accounting and financial reporting system, the regulatory framework, the willingness, ability and possibilities of the institution to organize its accounting information system, the digitization of accounting processes. All the mentioned factors certainly imply attitude on the part of the financial management bodies, and some of them also require additional allocations of financial and human resources. This is where the role of the financial autonomy of universities comes in, and the role of universities is largely to manage and use their financial resources and assets according to their own decisions. According to a report of the (Athena project, 2015), the financial autonomy system in the Republic of Moldova is in the "lower-middle" group of financial autonomy, with 49% financial autonomy, compared to Estonia with 90%, Austria with 59%, but better than Cyprus or Greece. Regarding the degree of financial autonomy of universities in Romania, it was recently included in a report (Privot, Estermann and Popkhadze, 2023) published by the Association of European Universities and is among the countries with medium-upper financial autonomy, with a score of 75%, on a par with Luxembourg and at the same overall level as Estonia (77%) and Belgium (Flanders - 74%). Latvia (90%) and England (89%) have the highest level of autonomy in this respect and we expect that a higher degree of financial autonomy provides better financial and accounting information.

The quality of financial accounting information and the role of financial autonomy become even more important in the context of European higher education, research and innovation policy priorities, including digital education and e-skills, research evaluation and the implementation of open science, joint curricula, sustainability and international collaboration, etc., which we aim to align with and hope to succeed. Yet financial pressures are the main factor in the transformation of universities, as ranked by 81% of national university associations in a report of the (Newlead project, 2023) published by the Association of European Universities.

Thus, *the aim of the research* is to assess the quality of financial accounting information of public universities with financial autonomy in the Republic of Moldova and what the management of the universities should do using financial autonomy to enhance the quality of information. By increasing the quality of information, including financial accounting information, we can contribute to the image, brand and competitiveness of universities in the Republic of Moldova. To achieve the proposed goal, two basic objectives were established: the first one was to carry out qualitative and quantitative research on key terms and the relationship between "quality of financial-accounting information" and "financial autonomy of higher education institutions", through a bibliographical study to present a broader picture of the extent of research in this segment at national and international level, and the second one aims at action research on the volume and quality of information published by universities with financial autonomy, assuming an active role as an agent of change by improving activities and processes related to the financial-accounting activity.

The importance of the research stems from the low enforceability of financial accounting disclosure and transparency requirements of universities with financial autonomy, and the low experience of applying financial autonomy principles, which ultimately affects the sustainability of universities. This research is primarily relevant for rectors and the management team of universities to strengthen the team, processes and reporting related to financial-accounting activity, thus demonstrating a lucrative financial autonomy.

The novelty and originality of the research lies in the assessment and emphasis of the importance of open access financial-accounting information of universities as a tool for assessing compliance with stakeholder requirements and the regulatory framework under conditions of financial autonomy.

1. Review of the scientific literature

The literature is relatively limited on the interdependence between the quality of financial and accounting information and the financial autonomy of public higher education institutions with financial autonomy, with few national and international studies on this topic. There are fewer studies on the relationship between the quality of financial-accounting information and other factors, such as audit quality (Carp, Georgescu and Afrăsinei 2022), digitisation (Bouchetara 2022), etc. At the same time, there are specialist studies that deal separately with the quality of information or financial autonomy.

A 2021 study (Matiş and Pordea) presents an analysis of Web of Science (WoS) publications using the key terms "accounting Information quality", in which the authors selected information about publications published in the period 2012-2021 from the categories: business finance, economics, management, business, interdisciplinary social sciences, public administration. At the end of the research, the authors obtained a statistical sample of 4,904 scientific papers, the majority of which (95.39%) were written in English, written by 10,447 authors (Mateş, Pordea, 2021).

Another research by Kohtamäki and Lyytinen focuses on the study of financial autonomy in the context of higher education institutions and addresses the challenges that these institutions face in fulfilling their regional role (Kohtamäki, Lyytinen, 2004). The study is based on the analysis of the financial autonomy of higher education institutions and how this may affect their ability to respond to regional needs. The research defines financial autonomy as the ability of higher education institutions to manage their financial resources independently, without direct intervention by government or other entities. This includes the right of institutions to set their own fees, budgets and financial policies.

Another group of Ukrainian researchers Bazeliuk, Vitrenko, Zhylyae, Vorona, and Bazeliuk, explore the impact of digitisation on the financial autonomy of Ukrainian universities. The paper examines the problems and opportunities brought by the digitisation of higher education. The authors point out that the development of digital infrastructures is essential for efficient data processing and storage, distributed computing and automated analysis of universities' work (Bazeliuk, Vitrenko, Zhylyae, Vorona,

Bazeliuk, 2023). The authors Mitsopoulos and Pelagidis focused in their paper on the analysis and comparison of the level of administrative and financial autonomy of higher education institutions in 7 European Union member countries: Germany, France, Italy, Greece, Poland, the UK and the Netherlands. The research defines higher education autonomy as the ability of institutions to manage their financial resources and make administrative decisions without excessive intervention by governments or other controlling bodies (Mitsopoulos, Pelagidis, 2008).

Continuing with the topic of information quality, we analyzed the database of the Republic of Moldova - National Bibliographic Tool, using the key terms "information quality" and "financial autonomy". We identified 9 publications for information quality and no papers for financial autonomy. However, low presence does not mean a lack of scientific products and low topicality, but rather a non-inclusion of works in this open access library.

The research continued with the bibliometrics of scientific products included in Scopus. The search criteria used on Scopus included identifying the words "financial autonomy" and "higher education" or "university" or "universities" in the title, abstract or keywords of published research. These criteria were selected to identify research focusing on the relationship between financial autonomy and higher education institutions. The results of the search totalled 59 studies addressing various aspects of financial autonomy in this context (Table 1).

Table no. 1. General information about the Scopus dataset on financial autonomy of higher education institutions

Time interval	1974-2023
Sources (magazines, books, etc.)	51
Papers	59
Annual growth rate % of	2,27
Keywords	177
Authors	131

Source: developed by the author using the WOS

Table 1 shows the general information of the bibliometric dataset extracted from Scopus and analysed using the Bibliometrix platform. The time interval ranges from 1974 to 2023, indicating a steady interest over the years. The dataset contains a total of 59 papers, indicating a moderate dataset size, with an annual growth rate of around 2.27%, suggesting a slight growth in research over time. In terms of authors, the dataset contains a total of 131 authors, reflecting a diversity of contributors to the field. Of the papers included, 22 are single-authored, while the others are co-authored, with an average of 2.39 co-authors per paper. The authors also contributed 177 keywords to describe their research topics.

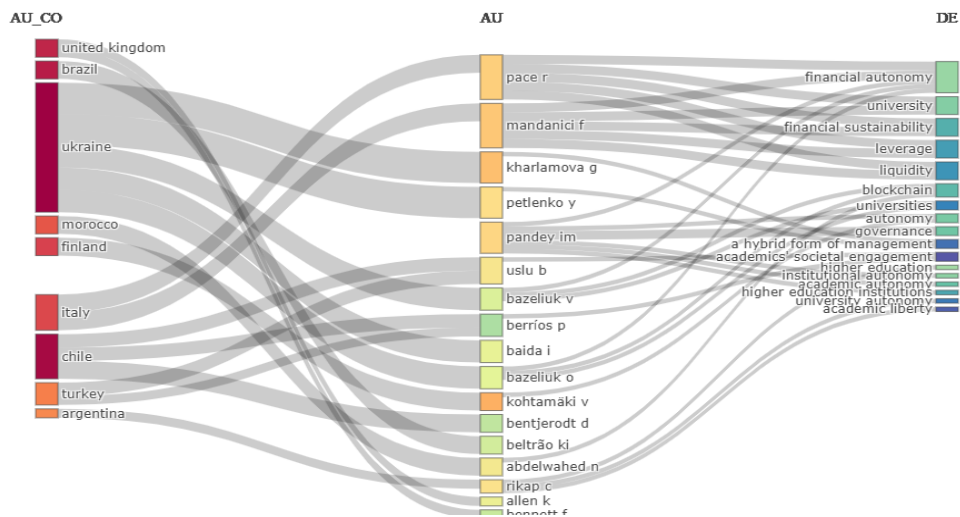


Figure no. 1. Three-field diagram according to the Scopus database on financial autonomy of higher education institutions

Source: developed by the author using the Bibliometrix R toolkit

Figure 1 shows a three-field diagram based on Sankey's model describing the relationship between countries, authors and keywords. The height of the rectangular nodes is proportional to the frequency of presence of a given country, author or keyword in the collaborative network. The width of the lines between nodes is proportional to the number of connections. The results show that Ukraine is the dominant country with 5 researchers out of 17 in total, followed by Chile with 3 authors and Italy with 2 authors. Italian researchers Pace Roberta and Mandanici Francesca are among the most active researchers, using keywords such as financial autonomy, university, financial sustainability, leverage and liquidity in their studies. Ukrainian researchers in his studies, were more concerned with blockchain, universities and hybrid form of management directions.

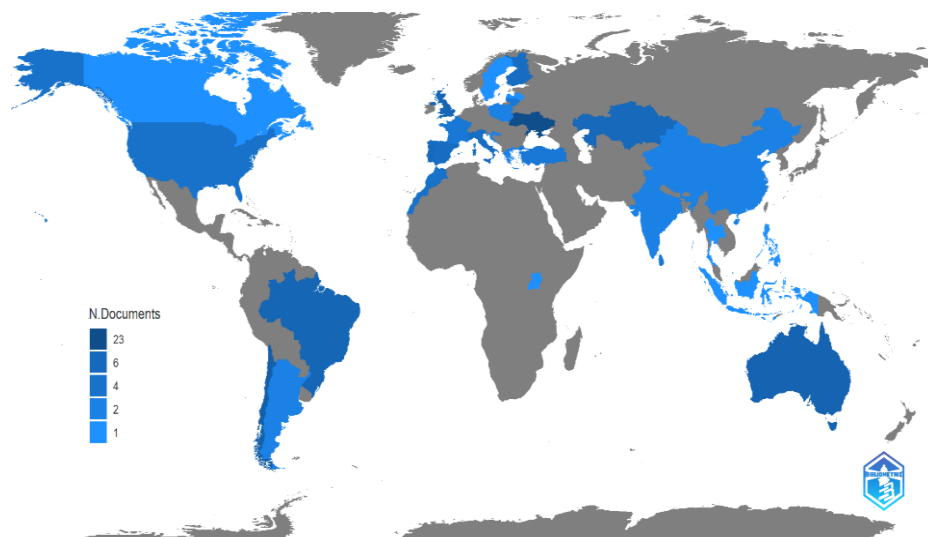


Figure no. 2. Scientific output of countries according to the Scopus database on financial autonomy of higher education institutions

Source: developed by the author using the Bibliometrix R toolkit

Data from the Scopus database shows that Ukraine leads in terms of the number of publications in the field of research on the financial autonomy of higher education institutions, with 23 papers. This may suggest that researchers and academic institutions in Ukraine pay particular attention to the development and implementation of financial autonomy policy in the context of higher education. In second place is Chile with 10 publications. Countries such as Australia, Brazil, the United Kingdom (UK), Kazakhstan, Portugal, Finland, Italy and Spain are also represented in this representation of country productivity, which shows that discussions about the financial autonomy of higher education institutions are global and cross-cutting. This diversity of countries involved in research could contribute to the exchange of best practices and the development of more effective education policies at the global level.

Figure 3 shows the evolution of the frequency of keywords associated with financial and institutional autonomy in higher education over an extended period of time. There is a growing interest in financial autonomy in higher education, reflected in the steady increase in the frequency of keywords associated with these concepts in recent years.

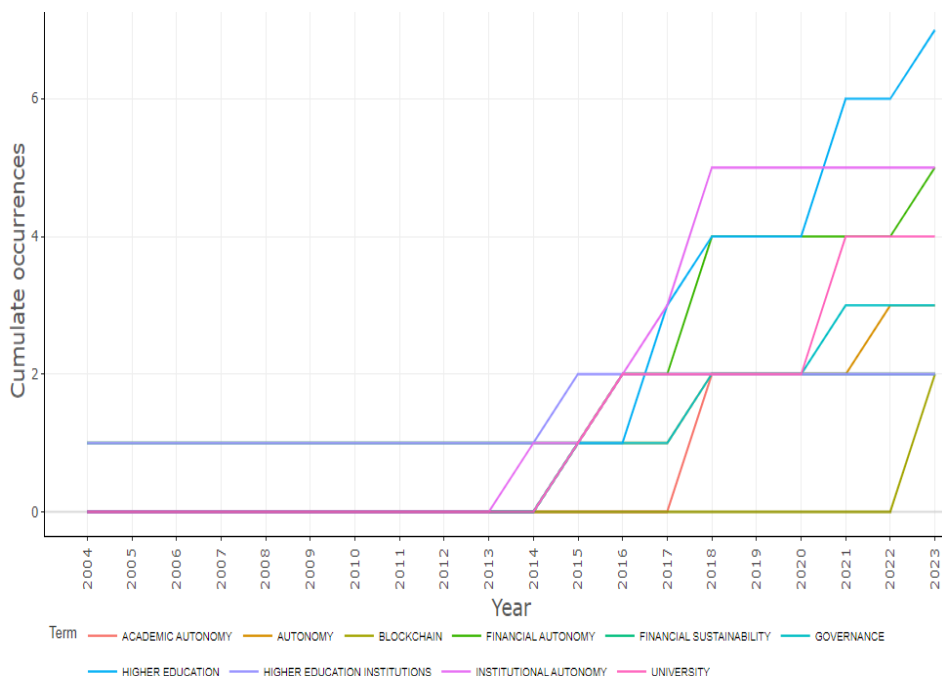


Figure no. 3. Frequency of keywords over time according to the Scopus database on financial autonomy of higher education institutions

Source: developed by the authors using the Bibliometrix R toolkit

Keywords such as 'higher education', 'financial autonomy' and 'institutional autonomy' are among the most frequently mentioned, indicating the increased emphasis on autonomy issues in research in this field.

In recent years, keywords such as "blockchain" and "financial sustainability" have begun to emerge, suggesting a broadening of concerns and interests in research related to the financial autonomy of higher education institutions. The period 2016-2018 appears to be a turning point, marked by a significant increase in the frequency of keywords, which may reflect an increased focus on autonomy during this period.

2. Research methodology

With this paper, we have primarily aimed to identify the connections between the financial autonomy of universities and the quality of financial-accounting information, to conclude on ways to improve the quality of financial-accounting information with the support of university financial autonomy processes and procedures.

The research undertaken aimed at: the quantitative dimension of the research related to the quality of financial-accounting information and the interrelation with financial autonomy achieved through bibliometrics of scientific products; the quality of

information provided to users; the areas of activities tangential to the process of quality of information covered by financial autonomy and last but not least the suggestions for improvement of the situation.

The research in question is an exploratory one, through which we studied and analyzed the financial statements and other information made public by public universities with financial autonomy in the Republic of Moldova on their websites, to identify whether the information presented by public universities with financial autonomy is qualitative in terms of the requirements of the accounting regulatory framework and the needs of information users. Through this research, the authors wanted to answer the following research questions:

- i) Is the quality of the information ensured in terms of the requirements of the regulatory framework and users' needs?
- ii) Does the quality of information have a bearing on the financial autonomy of universities?
- iii) How can the enhancement of financial autonomy influence the quality of information?

For this purpose, the information available on the websites of 13 public universities with financial autonomy (Table 2), namely the financial statements for the years 2021-2022, including the explanatory notes to the financial statements and other relevant information from the point of view of assessing the quality of the financial-accounting information, was analysed quantitatively and qualitatively. In public higher education institutions with financial autonomy, 47 982 students out of a total of 56 758 students are studying in the 2022-2023 academic year, which is more than 84.5% of all students.

Table no. 2. General information about higher education institutions with financial autonomy in the Republic of Moldova

Nr. d/o	Public higher education institutions with financial autonomy
1.	Academy of Economic Studies of the Republic of Moldova (ASEM)
2.	State University of Moldova (USM)
3.	Technical University of the Republic of Moldova (UTM)
4.	State University of Medicine and Pharmacy "Nicolae Testemitanu" of the Republic of Moldova (USMF)
5.	Ion Creanga State Pedagogical University of Chisinau
6.	Academy of Music, Theatre and Fine Arts
7.	"Stefan cel Mare" Academy of the Ministry of Internal Affairs
8.	Military Academy "Alexandru cel Bun"
9.	University of Physical Education and Sport
10.	"Alecu Russo" University of Balti
11.	"B. P. Hasdeu" State University of Cahul
12.	State University of Comrat

13.	Grigore Țamblac" State University of Taraclia
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Source: developed by authors

The analysis was carried out between August and September 2023. Where the explanatory notes to the financial statements were absent or did not provide sufficient description, information from the activity reports was analysed, where these were made available by the universities on their websites. Thus, a further limitation of this study is that only data that could be collected directly from each institution's website were considered in this analysis. As financial statements were found for each university analysed, the authors consider that the results generated by this study are relevant to the present research.

At the same time, a review of the regulatory framework and literature was conducted, where data analysis, inference, induction, description and interpretation were used as research methods.

3. Results and discussions

There are 21 higher education institutions operating in the Republic of Moldova, of which - 13 are public institutions with financial autonomy. Although, they are public institutions, partly financed by the state budget, these institutions organise their accounting by applying national accounting standards for the corporate sector. So, they have nothing in common with public accounting. At the same time, public higher education institutions with financial autonomy are subject to audit of their financial statements and are obliged to make this report public on the institution's official website.

From the results of the analysis, it was found that all 13 public higher education institutions with financial autonomy have official pages (website), but of these, only 7 public institutions with financial autonomy publish their financial statements on their website. The structural analysis of the official pages (websites) of the institutions shows that the other 6 institutions do not have any space for financial statements. Thus, the discussions and research results are based on the information of the financial statements of the institutions that have published their financial statements as well as other non-financial information.

It is well known that information users have access to financial and accounting information through financial statements, which should give a true and fair view of the financial position, financial performance and other information relating to the entity's business. A true and fair view means that the information should be complete, neutral and free from error. A complete description includes all information necessary for a user to understand the phenomenon described, including all necessary descriptions and explanations. Thus, all descriptions should be presented in the explanatory note. However, the analysis of the content of the financial statements on the official pages of the 6 public universities with financial autonomy in the Republic of Moldova identified incomplete information, i.e. the content of the financial statements does not include the explanatory note. Therefore, the financial statements are just figures, behind which there

is a lot of mystery. What use is it to users, for example, what sales revenue is shown in a university's financial statements? The user needs a full description of this indicator, at least a description of the amount of each significant category of revenue recognised in the reporting period, including revenue from the provision of educational services for a fee, and/or funding from the state budget, revenue from undergraduate, masters, doctoral studies, research, etc.

However, the quality of the financial-accounting information can be assessed primarily by comparing its content with the qualitative characteristics of the information in the financial statements. It is the qualitative characteristics that make the information presented in the financial statements useful (Georgescu 2007).

Fundamental qualitative characteristics include relevance and accurate representation. Accurate representation and relevance of information are attested if the information is complete, unbiased and error-free and helps users to assess past, present or future events, to confirm or correct previous assessments of them. Accurate representation does not mean accuracy in all respects. Error-free means that there are no errors or omissions in the description of phenomena, and the process used to generate the reported information has been selected and applied error-free in the process.

The research results show that users, for the most part, have little access to financial-accounting information that would present an accurate picture of the institution. Also, the financial-accounting information, which users have access to, cannot be categorised as relevant to them as it is incomplete. As a result, the user might make hasty conclusions about the quality of the financial and accounting information. But even the research in question cannot give a verdict on whether the quality of the information is ensured in terms of the requirements of the regulatory framework and the requirements of the users? What is certain is that public higher education institutions with financial autonomy ignore the process of communication and transparency of financial and accounting information.

Regarding the second research question - whether the quality of information has an influence on the financial autonomy of universities, we argue that financial autonomy offers universities much more opportunities, but the ability to change depends largely on university management (Cotelnic 2015). However, public higher education institutions in the Republic of Moldova achieved financial autonomy about a decade ago (2013). Also then, their accounting systems were transferred from budgetary accounting to corporate sector accounting. Unlike budgetary accounting, which at that time was specific to the Soviet system of governance, accounting for the corporate sector involves different accounting principles and requirements, requiring much more professional judgment and reasoning in selecting, developing and applying the most appropriate accounting policies for the institution. At the same time, accounting regulations for the corporate sector, which are mandatory for public higher education institutions, require disclosures in the notes to the financial statements, the management report, the auditor's report. The volume, structure and form of presentation of these reports shall be determined by the institution itself, depending on its category, size, legal form of organisation, field/profile of activity, its own information needs and the

requirements of this Act. At the same time, as already mentioned, public higher education institutions in the Republic of Moldova, being large and medium-sized entities, are obliged to publish on their websites the financial statements, including the explanatory note, the management report and the auditor's report. However, according to the analyses carried out, none of the public higher education institutions has published the explanatory notes, the management report or the auditor's report, which indicates a problem in the financial management of the institution. Given that financial autonomy is largely concerned with the financial management of the institution, the responsibilities and decisions relating to the quality and communication of financial and accounting information are the responsibility of the management team - rector, pro-rector, chief accountant, etc. They should attach importance to the quality and process of communicating financial and accounting information to users since this aspect also influences both the image of the institution and the search for alternative sources of funding. The internationalisation of university education and the globalisation of markets are creating a highly competitive climate, which in practice requires the institution to present itself through a well-crafted image to strengthen its brand. Financial communication is designed to raise the institution's profile and credibility to attract potential donors/funders. Under the conditions of financial autonomy, there are no authorities to remind the responsibilities and obligations related to the quality of financial reporting and communication, which are assumed by the financial management team. Thus, we argue that the quality of financial and accounting information is directly linked to the financial autonomy of educational institutions and can be improved by strengthening it. In this regard, the team responsible for financial management under financial autonomy in educational institutions should make sufficient effort to ensure that the requirements of laws, regulations, policies and standards guiding the preparation, presentation and publication of good quality financial and accounting information are met. At the same time, accountants and those responsible for financial management must be highly qualified and competent to generate high-quality financial and accounting information, free from bias, omissions, overstatements and/or understatements, errors, etc. This requires investment in continuous professional development of the team to raise awareness among financial staff of the need for good quality, reliable and timely information. This would help users to make informed and unbiased judgements.

Conclusions

The study aimed to establish the interdependence between the quality of financial-accounting information and the financial autonomy of public higher education institutions with financial autonomy in the Republic of Moldova, as well as the level of quality of this information, focusing on the analysis of financial statements published on their websites. So, the perception of the quality level of financial-accounting information is possible based on the qualitative analysis of the content of the financial statements, including the explanatory note, the manager's report and other information available to stakeholders. If this information is inaccessible to stakeholders, the quality of the information is distorted. However, the quality of financial and accounting information is the result of meeting its inherent qualitative characteristics: relevance,

accurate representation, comparability, reliability, timeliness and understandability. In this context, we conclude that the 13 public higher education institutions with financial autonomy in the Republic of Moldova have largely ignored the process of disclosure and open access communication of financial-accounting information to stakeholders. We note that whatever criticisms of the accounting regulations currently applied by the universities, they have added value in terms of the quality of information, despite the inadequacies that have arisen. Another is that universities have not reoriented their vision and system in terms of the role and relevance of financial accounting information and the process of financial communication with information users. However, the current accounting regulatory framework gives importance to the usefulness of financial and accounting information and communication with users. We therefore insist that the responsible subdivisions accept and support the needs of information users (students, donors, funders, partners) by providing open access to financial and accounting information on their websites. The attitude of financially autonomous educational institutions towards financial communication is very low, concluding that the accounting system has changed faster than the mentality of those in charge, completely ignoring the quality requirements of financial and accounting information. A better understanding and a higher awareness on the part of decision-makers (those directly responsible for financial autonomy) of the opportunities and benefits resulting from the usefulness and transparency of financial and accounting information is recommended. In this context, it is proposed that the management of the institutions review their attitude towards financial communication so that the communication strategy is geared towards transparency, completeness and integrity of the information disseminated. The main limitation of this study was because not all universities publish their financial statements and other information that would cover financial-accounting information online.

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